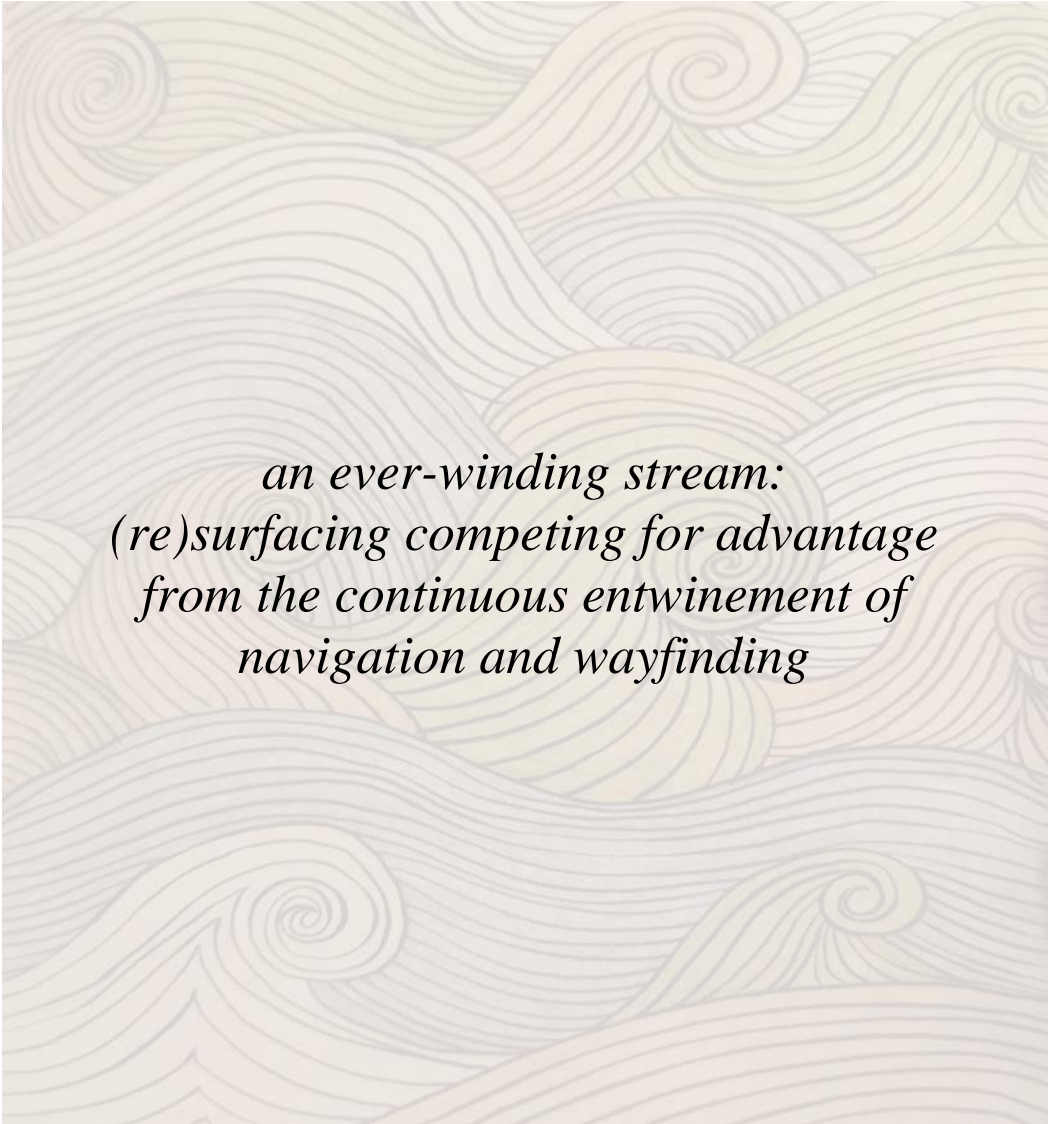


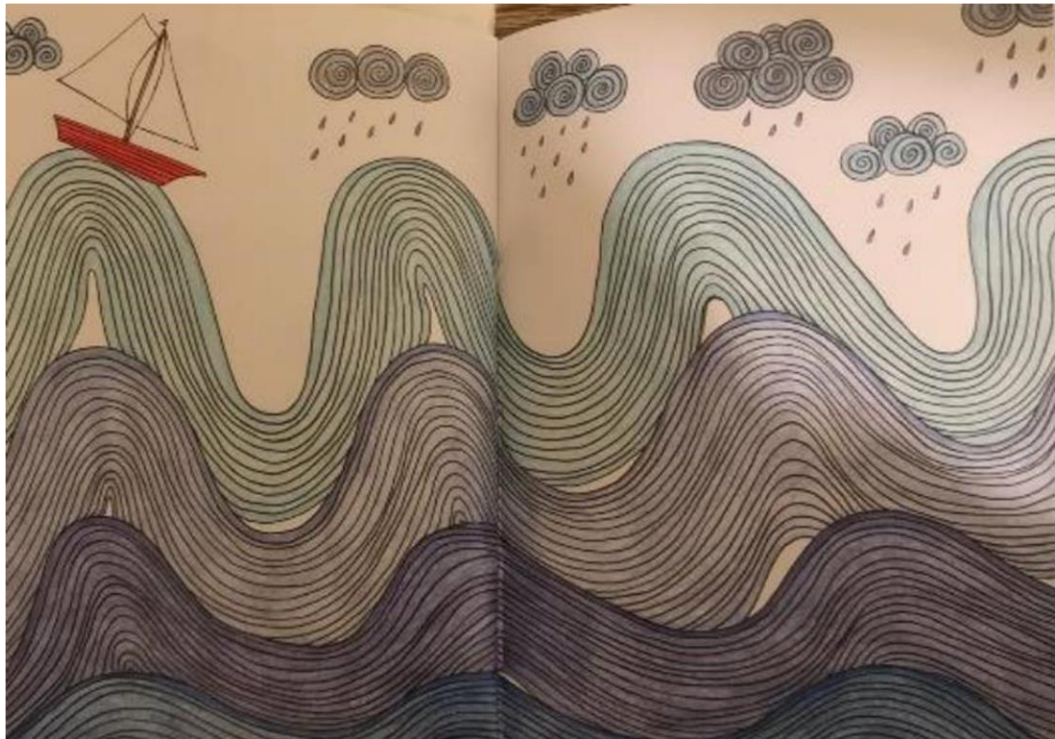
University of Strathclyde
Strathclyde Business School
Department of Management Science



*an ever-winding stream:
(re)surfacing competing for advantage
from the continuous entwinement of
navigation and wayfinding*

Thesis submitted in fulfilment of the requirements
for the degree of Doctor of Philosophy

Julia Elena Corvalán Ferrario
2022



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A handwritten signature in black ink, appearing to read 'J. A. J.', is placed on a light green rectangular background.

Signed:

Date: 17 November 2022

Dedication

To the *everyday giants*
on whose shoulders
I *graciously & humbly* stand,

Robert Chia, Harry Sminia & Barbara Simpson.

You have been here before me,
and your vital and intellectual journeying
—*your wayfinding*—
has *both* inspired *and* sustained me.

I am thus,
forever,
in your debt.

Edinburgh, 2022

Abstract

This research is a strategy *coup de grâce*. It has helped mend deeply-rooted, intuitive, *in situ sponte sua* beliefs about the nature of strategy's *river-flow*—echoed from a minuscule, scarcely-inhabited *river-cave* of the strategy field-*flow*—with its actual unfolding in real, earth-bound organisational settings. In a nutshell, the research charted the *until-now-uncharted becoming* of competing for advantage.

For what Sheryl Crow sings in her immensely popular 'Everyday is a winding road' is simply the sentiment Bob Dylan so effectively describes 'Like a rolling stone' in a way that completely resonates with what the Beatles had sung even before in their 'Long and winding road'. Namely, that strategy is *wayfaring, meandering, and forever oblique*. And hence, strategy is not *either linear or curve*, but *both linear and curve*. Deliberate *and* emergent. Content *and* process. Planning *and* wayfinding, in a *universal, uninterrupted coping*, which echoes 'the best-laid plans of mice *and* men' (Burns, 1785, added emphasis) so beautifully captured in the evocative poetics of Scotland's national bard.

Over a 9-month immersion during most of 2018, in an automotive manufacturing site in the outskirts of Glasgow's *Green-Glen*, the research amassed a comprehensive volume of *data anchorings* following a 'near documentary' style of inquiry (Chia and Holt, 2009). A *wayfinding methodology-of-sorts* emerged, which included extensive field *note-makings*, *reflecting-in-action*, photographic animations, and annotated information supported by news articles, company records, semi-formal interviews, *live off-the-cuff* conversations, *shadowing-in-observation*, and attendance of *both* formal, *fixed* meetings, *and* informal, *impromptu coming-together* gatherings. Analysis followed to reconstruct the *river-flow* of the *case-streams*. Namely, the metamorphosis of Rosti Automotive Larkhall (RAL), from being a general plastic injection moulder, to becoming a tier 1 automotive supplier, in the period covering 2016-2018.

Overarchingly, the research *crystalizes* a triple-win of exciting possibilities for the field of strategic management and the social sciences more broadly. Namely, (i) a *tried-and-tested* wayfinding-process *philosophical-methodology* focused on explicating the *dynamics* of processes-*in-motion*; (ii) a fresh reconceptualization of a central construct—the central construct, perhaps—of the strategy field, competitive advantage, towards a *forever-becoming-idea*—the primordial *hunch* of strategy—*competing* for advantage; and (iii) this new conceptualisation is born out of the two

most basic motions—*currents*—of the competing *river-flow*: *competere* and *concurrere*, from which *concurrere* emerges as the vital *traversing* of strategy, its *wayfinding* and zero-degree of organisation (Chia and Holt, 2009; Cooper 1986: 321).

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List of Abbreviations

ABS	Acrylonitrile Butadiene Styrene
BBC	British Broadcasting Corporation
BMW	Bayerische Motoren Werke GmbH (Bavarian Engine Works Company)
Brexit	British Exit (withdrawal of Britain from the European Union)
CapEx	Capital Expenditure
CCE	Ceracon Centre of Excellence
CEO	Chief Executive Officer
cfa	competing for advantage analytical scaffolding
CFA	Competing for Advantage Framework
CFO	Chief Financial Officer
Cobot	Collaborative Robot
Covid-19	Coronavirus disease 2019 caused by the syndrome SARS-CoV-2
HR	Human Resources
HSE	Health, Safety and Environment
HVM	High Value Manufacturing
IBM	International Business Machines Corporation
ICI	Imperial Chemical Industries
JLR	Jaguar Land Rover
KBV	Knowledge Based-View
KPI	Key Performance Indicator
LH	Left-hand
MoU	Moment of Understanding
MRB	Material Review Board
NCR	National Cash Register Corporation
NPI	New Product Introduction
OEM	Original Equipment Manufacturer
PC	Polycarbonate
PC/ABS	Polycarbonate/Acrylonitrile Butadiene Styrene
PM	Prime Minister
PP	Polypropylene

PS	Paint Shop
QA	Quality Assurance
RA	Rosti Automotive Ltd. (a UK automotive group)
RAL	Rosti Automotive Larkhall (Larkhall site part of the RA Group)
RBV	Resource Based-View
RH	Right-hand
s-as-p	Strategy-as-Practice
s-in-p	Strategy-in-Practice
SOP	Standard Operating Procedure
TMT	Top Management Team
UBS	Union Bank of Switzerland
UK	United Kingdom
VUCA	Volatility, Uncertainty, Complexity, and Ambiguity
WIP	Work in Progress

Epigraph

*Caminante, son tus huellas
el camino, y nada más;
caminante, no hay camino,
se hace camino al andar.
Al andar se hace camino,
y al volver la vista atrás
se ve la senda que nunca
se ha de volver a pisar.
Caminante, no hay camino,
sino estelas, en la mar.*

*Wayfinder, it is your traces,
the way, and nothing more;
wayfinder, there is no way,
you find your way as you wayfind.
As you wayfind, you find your way,
and when you look back
you see the trail
you will never trail again.
Wayfinder, there is no way,
but wake-trails (oscillating) at sea.*

(drawn from Machado, 1949: 140-141;
original translation from the Spanish
by the author and researcher;
added emphases in *both* original *and* translation)

Preface

*Todo pasa y todo
queda
pero lo nuestro es
pasar
pasar haciendo
caminos
caminos sobre la mar
(drawn from
'Cantares' by Serrat
and Machado, 1969,
added emphasis)*

*Everything fades and
everything stays
but our nature is to
fade
to fade while
wayfinding
wayfinding on the sea
(original translation by
the researcher and
author, drawn from
Serrat, 1969, added
emphasis)*

Roughly six months into my doctoral research programme at Strathclyde Business School, I came across, by serendipity, '*Strategy Without Design*' (Chia and Holt, 2009). Frankly, I had never heard of the book, nor its authors. This, in a way, was pretty hard to believe, since by then I had completed a *strategy-focused* Master of Business Administration (MBA) at the top of my class in a *first-rate* Business School— Strathclyde—in Scotland's industrial *Green-Glen*, Glasgow. Plus, I was *coming* from over ten years of experience in managerial roles, the last five of which had been *within* senior management teams, at a *social-enterprise* of *Paraguayan*-headquarters but international reach, extremely successful, and recipient of countless recognitions and awards in its lauded *journey-flow*. In the bowels of this *most uncommon yet most special* of organisations, known *out there* as the 'Fundación

Paraguaya de Cooperación y Desarrollo’ (*Paraguayan* Foundation of Cooperation and Development), I had been swerving, curling, and twisting my way through myriad roles with strategy development remits across Paraguay, the Americas, East Africa, and the UK, often *within* some of the most *unpredictable, impenetrable, challenging, and extremely vulnerable* environments on this *Big Blue Dot*.

I came across the book after volunteering for a *niche* doctoral credit-bearing offering. An intimately small—five students *and* one very generous professor—class on *process* philosophy. You see, I had signed up to do a *processual* doctoral research project, for which I had been given a fully-funded, generous Ph.D. scholarship, which, for the country I was coming from, Paraguay—a nation in the *beating heart* of South America, underdeveloped and richly-plagued with its own set of intractable and highly-persistent problems along the course of its complicated and mostly forgotten history—was very unlikely, completely far-fetched, and whimsical, really. Perhaps *fugaciously* possible in the neighbouring literary oeuvre of Borges’ *magical realism*. But in the actual geography of Paraguay? *Not possible*. Such a comprehensively-funded study package was pretty unheard of in this special land—“they pay your fees *and* your living expenses?!”, incredulous friends *and* family would repeatedly ask.

To be honest, I knew nothing about *process* research, but my supervisor seemed *quietly passionate* about it, while I was slightly more vociferously passionate about strategy, or so I thought, in a way that was typical of recently-graduated MBAs, which I was.

So off I went to my *process* philosophy niche *river-class*, and everything set off from there. You see, in order to get credit for the class, I had to review a book from a short selection of *process*-inclined volumes by authors I had never heard of. Upon quickly *inspecting* the list over the glare of a computer screen, I picked the Chia and Holt (2009) tome *intuitively* because of its **paradoxical**—*improbable*, I thought—title, ‘*Strategy Without Design. The Silent Efficacy of Indirect Action*’. I picked it *instinctively* too, since it was the *only* strategy option *within* a daunting set of

alternatives that somehow looked more *desert-dry-and-arid* to my *strategy-thirsty* eyes.

The class was long, demanding, and laborious, yet completely life-affirming in the oddest of *academic* ways. So much so that when the time finally came to read the Chia and Holt (2009) book, I did so over three days where I did little else than lie on the couch, in my flat in Edinburgh, for hours on end, pencil-in-hand, thinking-hat firmly, persistently, pleadingly *on*. At around 200 pages, the book is *not* long. But because its sources of reference are so vast, disparate, encyclopaedic, and eclectic, *all-together, at-the-same-time*, I had to muster **a lot** of concentrated attention and all-consuming intellectual toil to *barely skim through-it, head-over-pillow, post-it-note-making, meanderingly*. Geography. Cartography. Ecology. Architecture. Literature. Poetry. Art. Music. Education. Sports. Physiology. Psychology. Biology. Sociology. History. Anthropology. Medicine. Spontaneous Order. Economic Agency. Ecological Awareness. Methodological Individualism. Weak individualism. Bourdieu. Habitus. Practice. Absorptive stance. Near-documentary. Process Turn. Practice Turn. Methodological Collectivism. Self-interest. Episteme. Techne. Phronesis. Aristotle. *Heraclitus*. Friedrich Hayek. Adam Smith. Karl Marx. Lao Tzu. The Scottish Enlightenment. Carl Menger. Carl Sagan. John Ruskin. John Berger. William Empson. Ambiguity. J.J. Gibson. Eleanor Gibson. Optic Invariant. Affordances. Ecology of Visual Perception. Michel de Certeau. Humberto Maturana. Francisco Varela. Autopoiesis. Synergy. Bastiat. Modern. Post-modern. Jorge Luis Borges. Renaissance. Gothic sensibility. Nurtured sensibility. Attuned awareness. Dreyfus. Marshall Sahlins. Homo-economicus. Thermodynamic Achievement. *Tim Ingold*. Correspondence. *Navigation*. *Wayfinding*. Scotland. Edinburgh. Athens of the North. *Hume*. *Glasgow*. Adam Smith, again. Karl Marx, again. Tolstoy. Graeme Obree. The Phillips Machine. Francois Jullien. T.E. Lawrence. Henry David Thoreau. Liddell-Hart. Constable. Keats. Matsushita. Kaizen. Italo Calvino. Durer. Durkheim. Goethe. Mohammed Yunus. Microfinance. World Bank. World Trade Center. Zen. Plato. Prices. Problem-solving. Marcel Proust. Schatzki. Schumpeter. Creative Destruction. Self-cultivation. Herbert Simon. George Soros. Taleb Nassim Nicholas. Taoism. Tax Avoidance. Avoidance. Taxonomic Complexity. Descartes.

Bacon. Fear. Feedback Systems. Hobbes. Homer. Honda. Toyota. Corporation. Certainty. *Uncertainty*. *One more time, *uncertainty**. William Turner. Vincent Van Gogh. Karl Weick. Ludwig Wittgenstein. Samuel Huntington. **Imperfections**. Individualism. Indonesia. Tsunamis. Inertia. Intuition. Invisibility. Iraq. Abu Ghraib. Moniac Simulation. Isaac Newton. Friedrich Nietzsche. Nishida Kitaro. Nonaka. Objectivity. Subjectivity. Edmund Husserl. Papua New Guinea. Paris. Karl Popper. *Edith Penrose*. Knowing *before* we go. Knowing *as-we-go*. Knowing. Direct. Indirect. Carl Jung. Paradox. Arab *Spring*. Occupy. *Intervention*. Straight. Oblique. Downsides. Upsides. Metis. Faber. Blandness. Capability. Negative Capability. Purposefulness. Purposiveness. Bergson. Duration. *Whitehead*. The Fallacy of Misplaced Concreteness. Derrida. Deleuze. James. Bateson. *Robert Cooper (Robert Chia)*. (*Robin Holt*). Heidegger. Building. Dwelling. Lacan. Open Source. Complexity theory. Chaos theory. Quantum physics. Emergence. Self-organisation. Political Economy. East. West. North. South. Either. Or. Both. And. Is. Is not. Yin. Yang. And *a lot* of philosophy, an *endless* lot of it. And sure, a few pages of fleeting, non-mainstream, unconventional strategy references and corporate examples on the likes of Google and UBS—yet these you could count with the fingers of *one* hand. ‘Where is the strategy in the book, let alone the strategy without design?’, I thought. I was ever more intrigued.

By the time I finished going through the mighty opus, in all honesty, I was *academically*-angry, brain-drained, and physically-exhausted. I had encountered the *wayfinding* idea, of course, which, by the way, was not flagged, earmarked, nor illuminated, but rather subtly commented on in a washed-out-kind-of-way probably mid-way into the book. And yet, the recipe, the map, the *way* to *wayfinding* was **nowhere** to be found. I was left feeling *both* starstruck *and* boiling with anger, all-together, at-the-same-time. Short-changed. Cheated. Tricked. ‘Where is the methodology?’, I asked myself. ‘Where is the *way* to *wayfinding*?’, I asked my peers during my zero-slides oral review of the book, where *all* I had to show for were open-ended, circuitous questions and rambling, scribbled marginalia over countless bright post-it-notes in my borrowed, heavily earmarked-by-me copy of the book. My palms were sweating. My heart was racing. My breath was faltering. The discussion of my

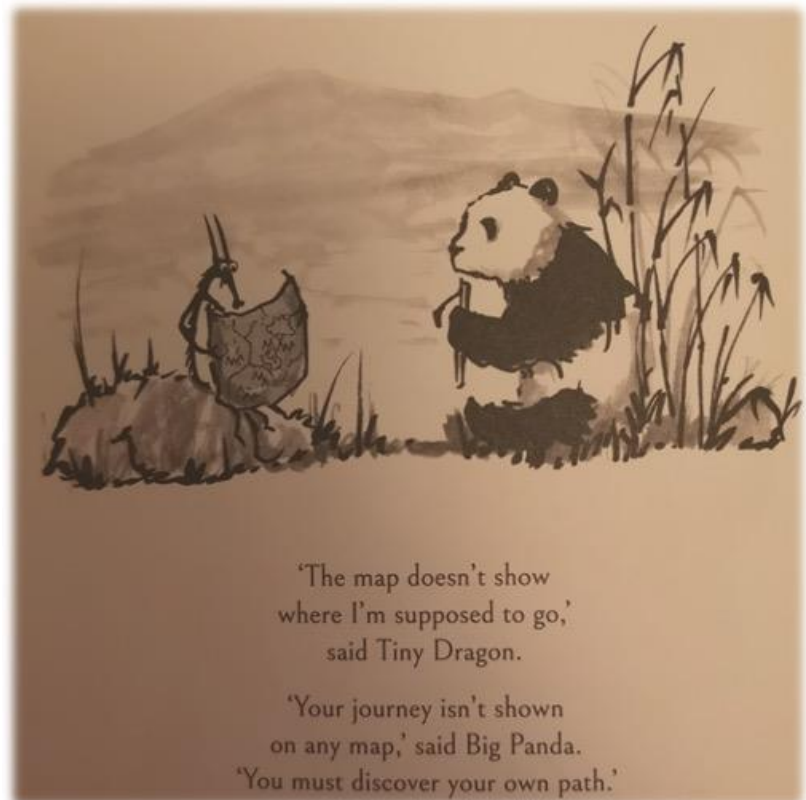
book review eventually came to an end. But by the time I had to put my book review *essai* together, I found it so challenging that I had to ask for an extension to the submission date—the first one ever in my by then two-decades-long educational traversing. I just did not know what to make of it. Finally, I concluded—purely out of submission-driven adrenaline and pent-up cortisol—that perhaps the authors left it to the next generation of researchers to develop wayfinding empirically. ‘Surely that’s not me. That’d probably be someone else’, my impostor mind kept sassily remarking. Yet the idea did not go away, shinning ever so dimly, like a shy candle fragiley blowing in the wind. My feeling behind it was ephemeral and permanent. Excited and terrified. Desperate and calm. A classic, impossible paradox, and I was right in the middle of it, spot-on, between a rock and a hard place. After I submitted my *essai* of an essay, two weeks passed. Then one month. Then two. Three. Five. Seven. You get the idea. Nine whole months went by until I finally—and extremely cautiously—conceded to myself first, and very timidly to my supervisor second, that I was ‘halfway’ thinking—half musing, half reverie—about making wayfinding empirical. I felt petrified. But in the ‘dusty recesses of my mind’ (Lawrence, 1922), an ancient beckoning was growing ever-nanoscopically clearer.

And the rest, as they say, is history. Over the ensuing five-and-a-half years, wayfinding became Julia, and Julia became wayfinding. In more ways than one. Through every feral-and-pet fibre of my being. Through every open-and-closed pore of my soul. And this wayfinding—*my wayfinding*—has emerged to become the *defining journey* of my *life-flow*.

j.e.c.f.

Edinburgh, 2022

I Introductory Remarks



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1.1 An ode to *Wayfinding* by way of an introduction

‘Words belong to each other,’ Virginia Woolf’s scratchy voice unspools from the only surviving recording of her aural presence. Indeed, words are our creation, but our Pygmalian love for them must not deceive us – they do not belong to us, for they *are not static figures of thought to be owned and traded as artefacts. They are living organisms, elastic and porous, feral with meaning, ever-evolving.* They possess us more than we possess them. They feed on us more than we feed on them. Words belong to each other, and we to them. *And yet the commonest words in our lexicon – those tasked with containing and conveying the most elemental human truths and experiences – are slowly being shorn of meaning: assaulted by misuse, abraded by overuse, overthought and underconsidered, trampled of dimension and discoloured of nuance.* (Popova, 2019, in Whyte, D. 2019 *Consolations*. Canongate Books: Edinburgh. Kindle Edition; my emphasis)

In my country’s aboriginal tongue, *Guaraní*—a sweet, nasal, quasi-*onomatopoeic*, beautiful tongue still spoken today—the equivalent *disposition of wayfinding*, the *idea-flow* at the heart-*and*-soul of this investigation, is ‘*tapepo’i*’. Note ‘*tapepo’i*’ is *not* an *approximate* translation, but a *truly corresponding, equivalent* one, evocative of paths *without* direction, of *instinctively following* the fading ancient footprints left by our ancestors—past, present, *and* future. You see, in *Guaraní*, one goes down a ‘*tapepo’i*’ as one tries to find *the* way. Yet equally, in *Guaraní*, one goes down a ‘*tapepo’i*’ as one tries to find *a* way. And indeed, in *Guaraní*, one goes down a ‘*tapepo’i*’ as one tries to find *any-way*. Even still, in *Guaraní*, one goes down a ‘*tapepo’i*’ as one tries to *wayfind*.

Curiously, *Guaraní* today is a *language* spoken *only* in my *home-country*, Paraguay, which is *both* a geography *and* an ancient *Guaraní*-sound meaning *river* (‘y’) of the Paraguayans (‘payaguas’, the ancient tribe of the *Guaraníes*). Hence, it is only natural that *Guaraní* is *still-spoken* today with *much-the-same air-traveling* nasal *sounds* that were once widely echoed in South America *before* the *arrival* of the ‘*conquistadores*’—*the Spanish-speaking conquistadors*. To this day, *Guaraní* is the *only* geography on Planet Earth—a *land-locked* geography—where this tongue has

been, and still *is*, *continuously* spoken, daily, *viscerally*, through the highs-and-lows of its *river-tides*.

Yet in my *mother-tongue*, Spanish, my country's *other* official tongue, there is *no equivalent* translation for *wayfinding*. *The word does not exist*. And though I am happy to *both* invent *and* coin the term '*senderellando*' to fix the conundrum—a portmanteau *equal-parts* '*sendero*' (Spanish for 'way, path') and '*hallando*' (Spanish *gerund* for 'finding), ergo, *wayfinding*—I find it *infinitely curious* that a *word* naturally translates in a *non-dominant, forgotten* tongue, *spoken* by a *few-million* people, in a *mostly-flat non-sea-bound river-land* with a forgotten *history* in the *beating heart* of South America. An indigenous, *aboriginal river-sound*, which *stretches* back in history to *long before* the *arrival* of the colonizers, who arrived to this *river-land* **just** over 200 years ago, with their *modern* ideas of *economy* and *organisation*. Yet in the coloniser's-language itself, Spanish, *wayfinding* does *not* translate, at least **not until** this research.

Enter *wayfinding*, or its aboriginal voice, *tapepo'i* strategizing, *both* the essential disposition-cum-movement of strategy *and* a nascent *river-branch* of *native* strategizing. What this thesis will prove-and-demonstrate is that *wayfinding* is *both* an original *and* a rich philosophical perspective, *and* therefore, a great *tool* to think in-general, *and* strategically in-particular. The dual-and-double **helix** of *wayfinding* emanates from its capacity to *both* prove *and* demonstrate **how** changes *actually* happen *all-the-time*, in a singular *and* continuous, *uninterrupted and indivisible dynamic-motion*. *Wayfinding* **proves** with *earth-bound static* data-points you can see *with-your-eyes*. Effectively, with *pieces-of-evidence* that represent what occurred at *specific, singularly-reduced, non-plural* points-in-time realised *in-the-past*. Yet even more importantly, *wayfinding* **demonstrates** with *flow-based, dynamic and pluralistic* data-streams—temporarily-arrested *and* reconstructed in a way that *illustrates, carries-over, and transfers-through* the *richly-detailed contrast-of-metaphor*—how *events* spanning *periods-of-time* actually *unfolded*. Crucially, *language-based air-traveling metaphors* **turnkey** the *documentary-nature* of *wayfinding* in a way that exemplifies *and* epitomizes, *gives shape and embodies, encapsulates and manifests through symbolism and the rich* contrast of data-streams. Namely, the *direct* testimony expressed '*live*' *at-the-time* and *during-the-period-of-*

time by the human-*beings* undergoing such *transformations-in-action*. You see, when we speak, we do *not* pause. On this page, the separation was *artificially* created by the writer *and* researcher, following her singular *voice*, adding *through* the use of commas, semicolons, points, italics, asterisks, dashes *and* em-dashes, *among* other *things*, something that is credited to the *writer* Julio Cortázar, an *aboriginal* South American *voice*—*namely*, that such *devices* are ways to *perforate* the *ever-revolving door* of our *continued, never-ending process* of thinking, which is *just* another way of speaking to ourselves. As human *beings*, we *actually* speak-*and*-think in *uninterrupted, sustained wavelengths traveling through* our body *and through* the air. Even in our *subconscious*, in our *dreams*, we are communicating *with our* thinking. To the reader, I plead—do not take *my word* for it, just try it. Speak *or* write a sentence-*thought*, and you will **feel it** *with* your senses. If you *speak* it, you will *hear* it. If you *write* it, you will *see* it. If you *think* it, you will know *and* feel it. Because in trying to naturally *convey* our thinking, to ourselves *and* to others, we *organically, symbolically, and symbiotic-ally* revert to *metaphoring*, in a desperate attempt to assign *and* attach meaning, -which *comes from* the *average-mean* of *many-*, to our thinking.

To *be* sure, *and* getting back *on* point, if we follow *wayfinding*, or *tapepo'i* strategizing, I propose that we can add a *whole new dimension*, a remarkably horse-powered *intellectual depth* to our strategic thinking. We can see the forest *and* the trees. The sun, the moon, *and* the stars. The *entire* universe. The yin *and* the yang. The alpha *and* the omega. *Everything* at the *same* time. Because, taking the *words* of the *poet* David Whyte—perhaps a *long-time* wandering but *not-lost son* of Whitehead, the father of *processing*, portmanteau *equal parts process* and thinking—“what is true to the pattern does not need to *be* explained”. Such is the *actively* energetic, *vigorously* enterprising *propulsion* of the *naturally metaphorical disposition wayfinding* has to *illustrate and* exemplify *through* the *plentiful abundance* of *deeply-nuanced* contrast.

What this specifically means for *both* strategy scholars *and* practitioners is that by embracing *wayfinding*—or its Paraguayan twin voice, *tapepo'i* strategizing—we can attune ourselves to *both* the deliberate *and* the emergent *river-flows* naturally unfolding in *any-and-all, all-and-any* strategies-*in-practice*. We *no-longer* have-*to-tie* ourselves to models that ask us to *choose* between *either* content *or* process camps of strategic knowledge. *Either* linear *or* oblique lines of strategic thinking. *Either*

calculated *or* spontaneous metaphors of strategic planning. *Either* measured *or* impromptu strategizing. *Either* the yin *or* the yang.

Instead, this thesis asks us embrace *both* the deliberate *and* the emergent, the content *and* the process, the planned *and* the unplanned, the expected *and* the unexpected, in a way that affirms and *empowers* how *strategy practice actually unfolds* in real, personal, organisational, and societal *life-flows*. *In any life-flow*. *In all life-flows*. From the individual to the collective, from the vocational to the professional. The work *and* the play, the simple *and* the complex.

This thesis, at its *core*, is about competition. Or rather more precisely, it is about the continuous activity of competition, the *gerund* competing. By way of lexical semantics, this research will show how we lost the original meaning of the verb to compete, once based on the now-ancient *movement* and strikingly simple *motion* of competing by our hunter-and-gatherer ancestors, who are our universal ancestors, and my *Guaraní*-speaking predecessors. We lost the original meaning of competing to embrace the market-economics sense of the word instead, still widely *and* almost compulsively *in use* today. This lexicon-*in-use* refers to the capitalistic, goal-driven, rational, Cartesian, linear, and static sense of competing, born in the 1800s, at the *dawn* of the industrial revolution, in and around 19th century Glasgow, the Green-river-Glen, which—coincidentally—is not very far away *at all* from where the *empirical flow* of this investigation emanated. At once a period of spectacular transformation and efflorescing *renaissance*, competitively strategizing on a never-before scale. A scale which originated the liberal market economics model reigning today. An economic model which, incidentally, has underlying assumptions of rationality, linearity, end-states, and most crucially, **perfect competition**. A type of competition we all know *does not exist* in actual fact, but which was artificially, scientifically—*as-if-in-a-lab*—invented to simplify theorisation, to try to order, parse, polarise, and suppress the *naturally-processual, chaos-driven, forever-changing* nature of our world. *The complex, convoluted, and sinuous meandering of the universal life-flow of competing*.

By the end of this thesis, our foray into lexical and etymological semantics will reveal the lost-*and*-hidden treasures of the vitally human *aboriginal* lexicon of competing, attesting of the viscerally-human, life-sustaining, raw experience of competing. This *indigenous* lexicon, emanating from its wayfinding and *tapepo'i*

strategizing aboriginal ancestors resides in the seemingly hidden depths of the ocean of human knowledge.

Yet crucially, by the end of this thesis, we will understand what could happen if we *recover* and *restore* the colourful nuance anciently immersed in *competing*. If we embrace the primal human disposition *to compete* like our hunter-and-gatherer ancestors did, like my *Guaraníes* moved, in a universally collective motion, a primitive *in-one-anotherness* which is *concurring*—indicative of a dynamic of *running along or together with*. We will comprehend—it is the researcher’s hope—what this *revitalised* understanding of *competing* offers. Namely, the *reflourishing* of a collective human *renaissance* to mend our relationships *both* with ourselves *and* with our natural world, and engage in a much more authentic *competing*, a *wayfinding* *tapepo’ing* type of *competing*, in an ecologically-informed *order-of-sorts*, where we can be *one-and-the-same* in a *relationally-systemic* social, economic, *and* environmental *togetherness*, a *universal with-ness*.

We all compete in one way or another, whether we realise or not. In our families, in our schools, in our workplaces. In our sports clubs. In our musical performances. In our places of adoration. In our battlefields. In our societies, villages, communities, nation-states, regions, continents, tectonic plates. We compete locally. Internationally. Globally. But what if we could learn to compete better? What if we were able to compete not to be *against* each other or *over* one another, but *with-one-another*, akin to the proverbial adage ‘*one for all, all for one*’, neither in cooperation *nor* opposition, but simply *running along with*, *concurring*, *wayfinding* along the *tapepo’is* of our Pygmalion existence. What learnings about *competing*, about competitiveness, about competition could await us then? Veritably, the *adjacent possibles* that would *suddenly become* available to us are *staggering*. It would be an old-new world, and it would be not only *refreshing*, but even more importantly, it would be **exciting**. This present is our future and our past. For the possibilities of *rescuing* and *restoring* the *aboriginal competing* disposition of our *Gaia* are *infinite*, *limitless*, *forever becoming*. This thesis will explain *how-to* do that, and crucially, ****why it matters****.

1.2 A guide to this thesis and its significance

The ode to wayfinding in the opening section of this thesis above represents a non-conventional way into a scholarly manuscript. However, wayfinding, as will be discussed in this text, currently stands as a non-conventional approach to strategic management, both theoretically and empirically. To be sure, the quasi lyrical and profoundly personal opening of this thesis aims to put wayfinding at the front and centre of this piece of work, but also to highlight its potential for the understanding and real-world practice of strategic management.

As an idea, wayfinding evokes an immanent motion, a meandering process, an intrinsic way of travel, a perpetual twisting and swerving, a constant ebb and flow. This thesis will attempt to recreate this motion through rhetoric and, to whatever extent possible, through mental imagery. Hence its designation as ‘an ever-winding stream’, proposed to critically examine the wayfaring nature of the process of competing.

The pages that follow will take the reader through seven ‘moments of understanding’ (MoU), which will seek to bring gradual and growing clarity to the question of how firms compete for advantage. The moments of understanding follow the seven central messages that will be communicated over the course of this manuscript. Let us now briefly examine why these messages matter for our scholarly and practical understanding of how firms compete.

The first moment of understanding (MoU1) comes at the end of the second chapter of the thesis, which explores the strategic management literature for *both* content *and* process knowledge insights around the issue of competition. The chapter carefully examines extant strategy literature around two constructs: competitive advantage, as proposed by strategy’s content research stream, and competing for advantage, as thought of from the strategy process research stream. What chapter two effloresces is that to this day there is substantial research evidence pointing towards a view of competition that is performance-based, outcomes-driven, results-focused, and end states-oriented. Notably, this view is closely linked to strategy’s intellectual forebearers, the field of economics, which has been propositioning specific notions of competition and competitiveness since the 18th century. Hence, from the dawn of the

industrial revolution, in the midst of the Scottish Enlightenment, a conceptual thread can be traced from Adam Smith's (1776) theory of absolute advantage, to Ricardo's (1817) notion of comparative advantage, via Porter's (1980, 1985) concept of competitive advantage, all the way to the more recent construct of transient advantage by Gunter McGrath (2013). Within the strategy field specifically, a host of constructs followed Porter's (1980, 1985) proposition of competitive advantage. These included some much debated and researched notions such as sustainable competitive advantage (cf. Wernerfelt, 1984; Barney, 1991, within the resource-based view of strategy; Grant, 1996, 1997, within the knowledge-based view of strategy), and temporary competitive advantage, inspired by the dynamic capabilities' notion (cf. Teece et al, 1997; Eisenhardt and Martin, 2000). In this way, chapter two reveals a preference towards a deliberate view of competition as something that firms can attain against others in the midst of a market struggle. This deliberate and comparative orientation influenced the language around competition, and crucially, the development of the field of strategy, where notions around competition mostly centred around an interest in 'competitive advantage' and other related key notions, all underpinned by a being ontology where static end-states and fixed entities are preferred over moving processes. Hence, historically, and semantically, the question of how firms compete has been slanted theoretically and empirically towards the rational, Cartesian, deliberate notion of competitive advantage, where competitiveness is something that can be attained, rather than towards the process of competing for advantage, where competition is an activity firms are continuously immersed in.

The second moment of understanding (MoU2) comes in the third chapter, which unearths a deterministic quest for deliberate and intentional notions of competition by encapsulating the underlying assumptions of the main constructs reviewed in the preceding chapter. The analysis at the forefront of chapter three thus uncovers that while there have been some attempts to 'processualize' the construct of competition by researchers and scholars in both strands of the field, these attempts have been limited in that they share a subscription towards entitative, being ontologies where competitiveness is a state a firm can attain or a possession a firm can have. An alternative, process-based view is suggested towards the end of chapter three, which shines a light on 'wayfinding' as a becoming perspective with the potential to

illuminate the process by which firms compete. This wayfinding process-philosophical perspective is then sketched out methodologically in chapter four based on an Ingoldian analytical distinction between (deliberate) navigation and (emergent) wayfinding (Ingold, 2000). Henceforth, MoU2 distils the beginnings of a processual perspective focused on the process of competition, rather than on its outcomes, with the potential to counter the enduring deterministic notions of competition at the centre of the field.

The third moment of understanding (MoU3) is arrived at towards the end of chapter six, which discusses the findings of the study and highlights wayfinding as the inherent process of competing. Based on fine-grained data coming out of four in-depth case studies presented in the chapter, wayfinding is exposed as the intrinsic process of competition that firms are continuously involved in, and which develops competitiveness and serves to extract advantage over time. In other words, MoU3 reveals wayfinding as the essential process by which firms compete for advantage, proposing it as strategy's vital *traversing*.

The fourth moment of understanding (MoU4) comes in chapter seven, which communicates the theoretical and methodological contributions of the research. By linking the findings of the study with extensive lexical and etymological analysis concerning how meaning around competition language developed, MoU4 resurfaces the lost and hidden dual etymology of competition. Namely, the Latin terms 'competere' and 'concurrere', where the former has links to competitive advantage, a navigation epistemology, and a being ontology, while the latter is underpinned by a wayfinding becoming processual view of competition expressed as competing, or the continued process of competition. Thus, MoU4 establishes 'competere' and 'concurrere' as the two basic motions by which firms compete for advantage.

The fifth moment of understanding (MoU5) is also arrived at in chapter seven by inspecting the resulting implications of understanding competition as 'competere' and 'concurrere' and formulating them in terms of theoretical and methodological contributions. Critically, MoU5 underscores that a competere-based understanding of competition took hold over much of the research around competitive advantage, thus leaving the concurrere-based, processual understanding of how firms compete largely uninspected. As a result, MoU5 argues for a reconceptualization of the construct of

competition towards the duality comprising ‘*competere*’ and ‘*concurrere*’. Hence, firms compete for advantage by both *competing* and *concurring*.

The sixth moment of understanding (MoU6) ponders what the resurfacing of the dual meaning of competition, based on *competing* and *concurring*, might mean for the practice of strategy. Here the conversation takes on a more comprehensive view to consider the practicalities of going beyond dualistic thinking in strategy. MoU6 thus argues for an all-encompassing perspective that looks at strategy not as deliberate or emergent, but as deliberate and emergent, one-and-the-same, and re-imagines the potentialities of doing away with the content/process divide in the field.

The seventh and final moment of understanding (MoU7) opens the portal towards a view of strategy that circumvents the limits of either/or thinking in strategic management to consider the limitless potential of a both/and perspective. Here, the conversation focuses on the exciting and diverse number of adjacent possibles (Johnson, 2011) that would become available as both potentialities and knowledge insights in strategy and beyond. A dual set of future research trajectories is then crystallised, sketching the possibilities to further a ‘wayfinding’ body of work, as well as a ‘competing as concurring’ research stream. To be sure, MoU7 contemplates the implications of adopting a both/and perspective in strategy, and how these might impact how we practice, research, and think about strategy in general, and competing for advantage in particular.

Above all, this manuscript will seek to advance a trifold of exciting possibilities for the field of strategic management. First, an empirical template for a wayfinding process-philosophical methodology, mobilised through a near-documentary stance of research, which takes a specific interest in understanding the dynamics of processes in-motion. Second, a fresh reconceptualization of one of the central constructs of the field, competitive advantage, towards the primordial wayfinding of strategy. And third, this revitalised conceptualisation is born out of the two most basic motions of the continuous flow of competition: *competere* and *concurrere*, from which *concurrere* emerges as the vital unfurling of strategy, its *wayfinding* and zero-degree of organisation (Chia and Holt, 2009; Cooper 1986: 321).

1.3 Research Background and Motivation

The chief interest of this study is to advance a ‘processual’ perspective on the process of competing for advantage, referred to here as ‘the becoming of competitive advantage’. The research is situated in 21st century UK manufacturing activity, where involved industry players report strained competition couched in the evolving context of high value manufacturing and Industry 4.0. For research on competitive advantage, this constitutes fertile land for theoretical and empirical work into the construct given firms’ and practitioners’ current struggle with how to compete.

Both Scotland and the UK have had a historically important and proud role in industry, being the site of the industrial revolution in the 18th century and major developments through the ages such as the steam engine, innovations in iron, steel and coal, and a strong tradition in shipbuilding, among others (Maier, 2016). However, the current landscape is dominated by a sense of required strategic change brought on by struggling conditions for international competition.

More specifically in manufacturing, starting around 2010, practitioners and policymakers have been increasingly discussing the need to go into ‘High Value Manufacturing’ (HVM) as perhaps the chief challenge of ‘keeping up with the times’ (UK Innovate, 2012; Maier, 2016). HVM is an emerging phenomenon that has been proposed in response to the increasing global competition, particularly from manufacturing firms located in low-cost economies. By and large, growing competition from low-cost manufacturers has meant a need for firms in high-cost economies, such as those located in the UK and Europe, to reassess their competitiveness and move away from cost-based competition. As a result, the future of manufacturing has been suggested as high value activity (Sminia et al., 2022; Paton et al., 2021; Sminia et al., 2019; Hauser, 2014).

The ongoing debate around HVM has been developed and formalized in a number of industry and policy documents across the UK. In Scotland, for instance, the debated has extended to Scottish Enterprise’s Manufacturing Action Plan and the Scottish Government’s (2016) ‘A manufacturing future for Scotland’ report. In the UK, the issue has been addressed by reports commissioned by Innovate UK, the

Technology Strategy Board, in combination with various research institutes and the Department for Business Innovation and Skills (Innovate UK, 2012). HVM is now part of the Scottish and UK national strategies.

In the rest of the world, the debate around HVM is similarly addressed by mainstream media outlets and through global discussions under umbrella terms such as the fourth industrial revolution, the Internet of things, and industry 4.0 (World Economic Forum 2012, 2013). Related country-specific initiatives on HVM include Germany's 'Industrie 4.0', France's 'Industry of the Future', Italy's 'Smart Factories' cluster, USA's 'America Makes', China's 'Made in China 2025', Japan's 'IV Industrial Value Chain Initiative', and India's 'Make in India' (Maier, 2016; Magone and Mazali, 2016).

While different industry and policy debates may stress certain elements of HVM across different locations, what they all have in common is a preoccupation with competitiveness and performance. Such a difference can be seen when comparing the American and European models of Industry 4.0, where the former emphasizes 'Internet of Things' technology, while the latter underscores the role of the 'smart factory' (Magone and Mazali, 2016). However, both models equally articulate the development of competitiveness as an instrumental aim. In this regard, the call to reassess how firms compete for advantage is uniform in current manufacturing practice, particularly in HVM talk.

The rather active and prolific debate among policymakers and practitioners on how to compete in manufacturing has not extended to the academic literature at the same pace or with the same resolution. Scholarly work on HVM to date is limited, with only initial studies specifically addressing the issue published to date (Paton et al., 2021; Sminia et al., 2019; MacBryde et al., 2013). However, if we consult the literature for wider research interests involving change and competitiveness, we can establish that these are areas of sustained interest in management scholarship in general, and of specific interest to the field of strategic management in particular.

According to strategic management literature, at the heart of firm performance lies the notion of competitive advantage, as it is believed that firm performance will

be explained by the firm's ability to compete in the market. Subsequently, the survival of the firm will be based on its ability to sustain competitiveness (Sminia & de Rond, 2012). Firm performance is thus inextricably linked to the notion of competitive advantage.

In this research, the notion of competitive advantage is investigated as the process of competition and the continuous activity of *competing*. Hence, the overarching theme of the project is 'the becoming of competing for advantage' in the context of manufacturing firms. The process of competing for advantage constitutes the driving processual underpinning of the research, which is argued and developed throughout the study. It is precisely this processual underpinning that makes this research both distinct and pertinent, enabling it to derive theoretical, methodological, and practical contributions to knowledge and practice.

1.4 Thesis Outline

An inquiry into how firms compete for advantage unfolds. To aid the consideration of the subject, this manuscript is organized in chapter segments. A brief overview is presented below.

Following this introductory segment, Chapter 2 performs a review of relevant strands of the strategy literature to situate and understand the existing body of work on competitive advantage. To do this, the review is organized following two broad research streams in strategic management: strategy as content/strategy content, and strategy as process/strategy process. The strategy content stream is discussed first given its prominence as the mainstream line of inquiry in the field. The scholarship offered here has been successful in producing and discussing 'what' type of knowledge related to competitive advantage. However, it has been less effective in generating the crucial 'how' type of knowledge that is of interest to this study. Yet, while the strategy process stream is better placed to produce this type of insights, the question concerning how firms compete for advantage has not been exhausted. At the end of the chapter, the review identifies persistent theoretical strains that remain unresolved in the

literature, which are considered for their bearing on process research on competing for advantage.

Chapter 3 reframes the discussion on competing for advantage by setting out an alternative, ‘processual’ perspective on the matter. A meta-physical survey of sorts is undertaken, which considers the philosophical perspectives used in strategic management as a critical first step in formulating the ‘processual’ perspective adopted in this study. Such a perspective is inspired by the work of Robert Chia and his collaborators, who have proposed ‘wayfinding’ as a processual perspective that incorporates change as a fundamental feature. Towards the end of the chapter, the ontology of wayfinding is used to revisit the conceptual tensions identified in the previous chapter, solving them by furthering wayfinding as a processual perspective on the becoming of competing for advantage.

Building on the discussion in Chapter 3, Chapter 4 inspects the wayfinding process-philosophical perspective for methodological clues that can aid the empirical inquiry into how firms compete for advantage. In particular, the near-documentary is elaborated as an absorptive stance of research well suited to capturing processes of competing in motion. Importantly, two analytical frames are developed following Ingold’s (2000) distinction between navigation and wayfinding, which are brought to the strategy realm in connection with the wayfinding process-philosophical perspective proposed by Chia and Holt (2009). The chapter is developed in close connection with the two subsequent segments of the manuscript, where the near-documentary performed in this research is rendered in further detail.

Chapter 5 provides the empirical setting of the study. In its pages, Rosti Automotive (RA), the manufacturing organisation featured in this research, is introduced, and the key aspects of its transition into the automotive sector in the years 2016-2018 is recounted. Particular attention is paid to the specific site where the empirics of the near-documentary were gathered, Rosti Automotive Larkhall (RAL), a factory located in Larkhall, Scotland, which was the oldest continuously operating RA plant at the time of the study.

Chapter 6 introduces the analytical framework pursued in this study, which is then mobilised to examine the empirics of the near-documentary on how firms compete for advantage. Importantly, four deep-dive case studies are presented

containing fine-grained data on process complexes of competing for advantage witnessed at Rosti Automotive Larkhall. The case studies feature navigation and wayfinding process events, also referred to as navigation and wayfinding journeys, and show how deliberate and emergent competing efforts entwine in Rosti's daily manufacturing grind. Towards the end of the chapter, the findings of the study are consolidated and discussed.

Chapter 7 probes further on the research findings argued in the preceding chapter and develops a set of knowledge insights on how firms compete for advantage emerging from this study. The discussion bridges into the theoretical and methodological contributions of this thesis, followed by a consideration of the limitations of the study. By way of extensive lexical and etymological analysis, the two main motions of the process of competition are arrived at and identified: competing, based on the Latin 'competere', and concurring, based on the Latin 'concurrere'. The wayfinding state of the art is offered.

Chapter 8 brings the discussion on how firms compete for advantage to a close by offering concluding remarks. The implications for practice of this study are considered, and two distinct future research trajectories are sketched out. One in connection with the wayfinding process-philosophical perspective, and another one in connection with the 'competing as concurring' view developed in Chapter 7. A final section is then offered, which reviews the seven central messages communicated in this thesis as they relate to the issue of how firms compete for advantage.

This manuscript starts and ends with a tribute-of-sorts to the nascent wayfinding perspective in strategic management. In its opening lines, section 1.1 deviates momentarily from strict academese to offer an ode to the wayfinding approach, teasing it out for its potential to support the vital organisational and deeply human activity of strategizing. In the manuscript's closing segment, the epilogue recounts how wayfinding proceeded at Rosti Automotive Larkhall long after the near-documentary of this study was formally brought to a close. Wayfinding, we suggest, is always in the midst of its becoming.

II ‘Competing’ literatures

*“The tree which moves to tears of joy is in the eyes
of others only a green thing which stands in the
way... As a man is, so he sees”
-William Blake*

2.1 Introduction

How do firms compete for advantage? The research question at the heart of this study is linked to the quintessential inquiry of strategic management, a field perennially preoccupied with firm performance and competitive advantage (Porter, 1980; Lippman and Rumelt, 1982; Ghemawat, 1986; Hansen and Wernerfelt, 1989; Barney, 1991; Peteraf, 1993). The aim of this chapter is to consider and review existing literature on competition of relevance to the research question. In order to do this, two common perspectives used in the strategic management literature will be explored: ‘strategy as content’ and ‘strategy as process’ (Furrer et al, 2008; Mellahi and Sminia, 2009). Before considering the contributions made by these perspectives to our understanding of how firms compete, I begin by discussing what constitutes the difference between these two standpoints.

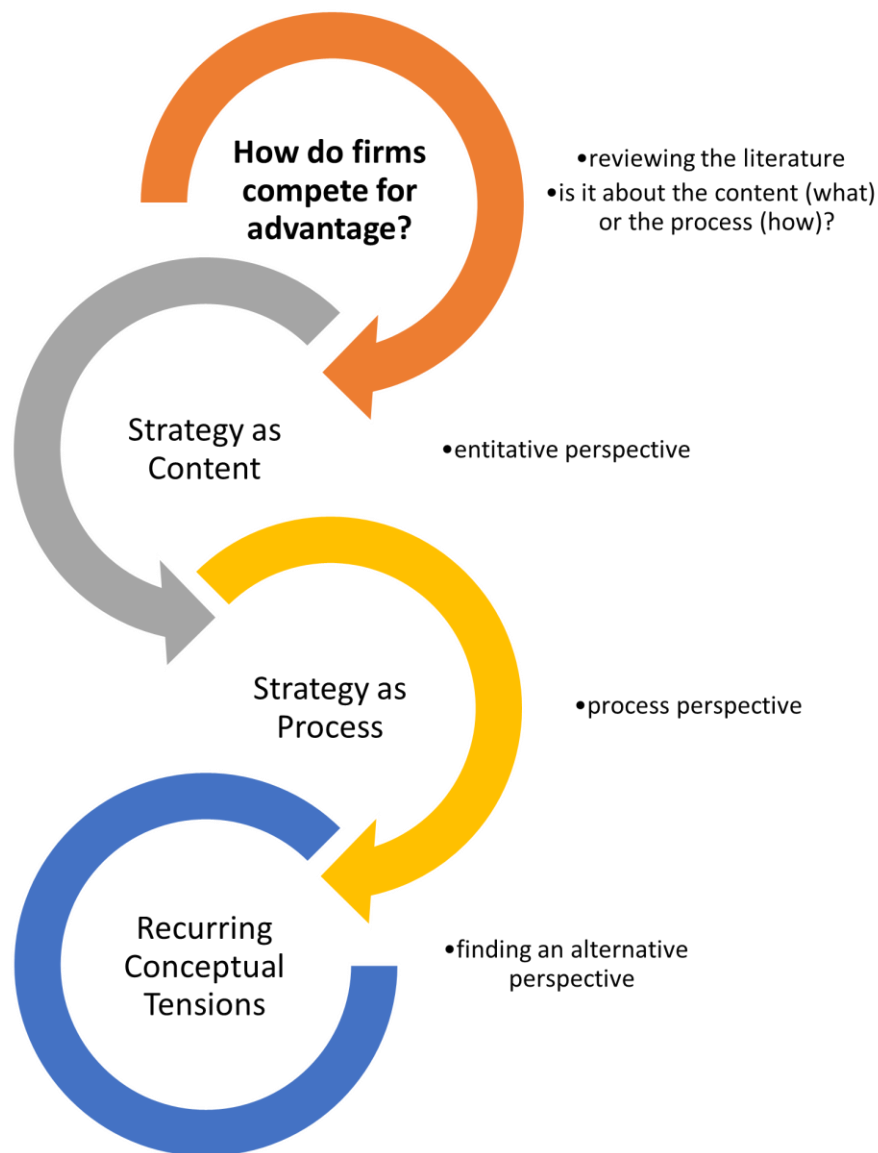
The review is subsequently organized in two parts. The first part considers the ‘strategy as content’ perspective. As indicated by its name, this particular strand of the literature adopts a conceptual angle interested in the content of strategy. Namely, what strategies should firms formulate and implement, and what is competitive advantage. Following the initial scholarly debates that marked the establishment of the field of strategic management, ‘strategy content’ grew into the mainstream strand of the literature. Reviewing it not only reveals the preponderance of this theoretical approach, but also the historical influences of its development and its consequent theoretical and practical limitations and challenges.

The second part explores the ‘strategy as process’ strand of the literature. Adopting a markedly different perspective from the content-focused mainstream, the process strand looks at strategy from a process angle. Thus, it is concerned with how strategy and/or competitive advantage develop over time. Although this perspective is more attuned with change and movement/action, the review indicates that extant literature has not adequately accounted for the dynamic and emergent aspects of the process of competing.

Towards the end of the chapter, the review considers the theoretical strains that remain unresolved in connection with the research question. These strains, identified as conceptual tensions, are considered for their practical implications on the study of the process of competition. The chapter highlights the need to engage more thoroughly

with these recurring tensions in the strategy literature in order to advance our understanding of how firms compete. To do so, an alternative perspective is briefly presented in its concluding lines. Figure 2.1 below provides an overview of how the literature review is organised in this chapter.

Figure 2.1: Overview of the Literature Review



Source: Author

2.2 Competitive Advantage: is it about content or process?

In strategic management, the notion of competitive advantage has been formulated in a myriad of ways, going from the fairly simple to the more complex, and taking different connotations. Some scholars have associated competitive advantage with a position in a given market (e.g., Porter 1980, 1985) while others have formulated it in terms of the idiosyncratic set of resources possessed by a firm (e.g., Barney, 1991). Some choose to focus on the knowledge an organization is able to create, manage and evolve (e.g., Grant, 1996, 1997), and still others propose it as the way in which firms are able to reconfigure resources and capabilities in competitive environments marked by change and uncertainty (e.g., Teece et al., 1997). Through these and other views, the strategy literature has established a relationship between competitive advantage and firm performance. On the one hand, competitive advantage is seen as the cause or driver of firm performance. On the other hand, firm performance is understood as an indicator of competitive advantage. Further still, a more nuanced view relates competitive advantage to an organization that is able to develop “an advantageous set of idiosyncratic predispositions that enable it to flexibly adapt to the complex challenges of an uncertain and ever-changing business environment” (Chia: 2016: 596-597). These formulations constitute competing accounts of the same notion, referring to the same concept but taking different angles or focusing on certain aspects of it. Thus, while some views propose competitive advantage as a certain position in the market or define it according to a resources or knowledge driven angle, others still focus on a dynamic reconfiguration of capabilities amidst change. Yet in the end, they all refer to ways in which organizations need advantage to successfully compete.

A more fundamental distinction that is useful in understanding competitive advantage, and one that is commonly referred to in the strategy literature, has to do with the vantage point with which it is approached: as a thing or entity to be studied, or as a process to be tracked over time. The former, due to its emphasis on what the content of competitive advantage is, is known in the literature as ‘content’ research. The latter, given its interest in the process by which competitive advantage develops, is referred to as ‘process’ research.

In a way, the development of competitive advantage theory has followed closely the evolution of the thinking in strategic management. The content and process divide in the field can be traced back to debates that shaped its very inception in the 1960s. Around this time, some scholars were formulating strategic management around the planning activity of the firm, equating strategies with plans and proposing strategy as deliberate and rational. A dissenting view emerged, which viewed strategy not only as a plan, but also in less definite terms, such as a ploy or a panacea, depending on the context in which it was couched. The alternative perspective, in a seminal distinction made by Mintzberg and Waters in the year 1985, pinpointed the deliberate aspects of strategy that were initially proposed, but also included its emergent and non-deliberate aspects by discussing how oftentimes planned strategies can differ from the realized ones due to contextual factors surrounding the strategy development process. Going beyond planning, the process perspective of strategy considered myriad slants, including the political, cultural, and cognitive. Thus, the scope of the strategy field was in a way augmented to include the content and the process, the deliberate and the emergent.

When thinking of competitive advantage, distinctions on whether the advantage is due to a generic strategy, a particular positioning in an industry, a combination of certain group of capabilities, or even the possession of a particular knowledge asset, can only be determined by theorizing the notion as an entity, as content which explains it. Equally, distinctions that have to do with whether the advantage is linked to common or idiosyncratic resources, with explicit or tacit knowledge, with exploration or exploitation states, or with performance levels achieved in times of stability or change, are born out of an entitative conceptualisation of competitive advantage formulated as content and frequently arrived at retrospectively, by linking variables in a study. Yet questions remain in content-driven definitions of competitive advantage that have to do with how these thing-like characterisations have been elaborated or arrived at. For instance, competitive advantage can be seen as a resource base in relation to what? Similarly, the temporality of competitive advantage as certain type of content or thing the firm has remains unaddressed. For example, competitive advantage can be understood as a position in

the market for how long? Does it have an indefinite temporality? Some of these difficulties can be explored by taking a process perspective on competitive advantage.

Some of the first works undertaken in strategy process research include those of Bower (1970), Pettigrew (1985) and Johnson (1987, 1988), who approached strategy longitudinally and contextually, focusing on its study as an activity that spans time. These works formulated strategy not as an entity affecting performance, as discussed before from the content angle, but as a process marked by temporality. Is competitive advantage a process of choice and decision making, where rationality and competition are assumed, or is it an organizational process that can be affected by cultural or political factors, or even by the external environment? Is it a function of organizational features, the external environment, or both?

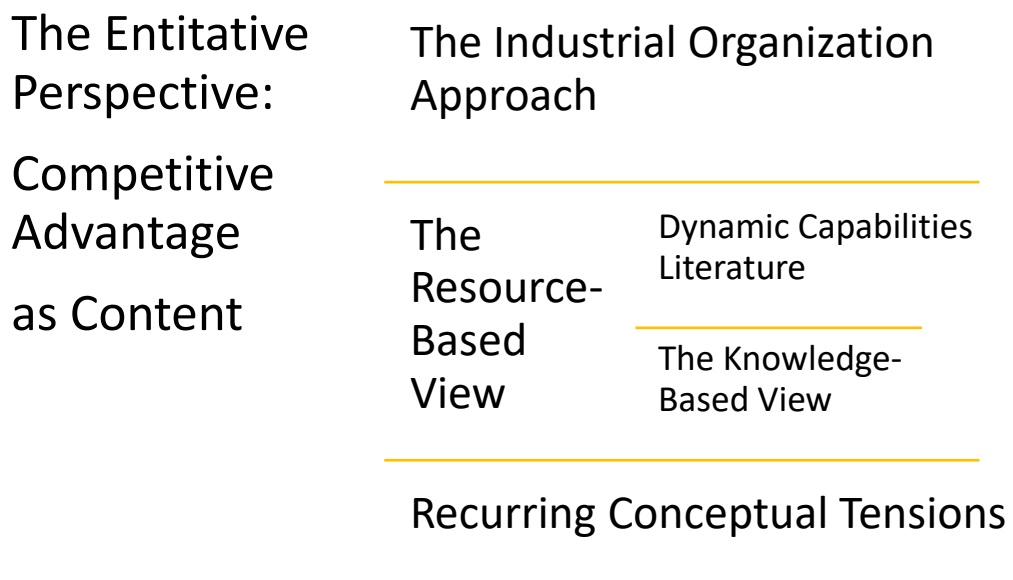
Given the focus of the process view on change, emergence, and development, the resulting knowledge proposed by this perspective is of the how-type (Langley et al, 2013; Pettigrew, 2012), which differs from the content perspective more interested in addressing the ‘what’ of strategy and consequently generating what-type of knowledge. As can thus be seen, both standpoints have opposing theoretical and analytical orientations.

2.3 Competitive Advantage as Content

The content perspective has been a mainstay in strategic management thinking, growing steadily in terms of research output and firming its place as mainstream theory (Furrer et al, 2008). This section explores some of the key arguments that have been formulated from the strategy content perspective, which hold relevance for the question on how firms compete for advantage. Four subsections make up this part. The first subsection covers the literature born out of the Industrial Organization paradigm, taking a particular look at the Porterian school on competitive advantage and the analysis of competition from an industry standpoint. The second subsection considers the resource-based view of the firm, presenting some of the main insights from this strand of the literature, which emphasizes not the external environment, as with the Industrial Organization, but the internal endowments of the firm. The third subsection branches out a discussion of what is often considered an extension of the resource-based view, the literature on dynamic capabilities. Here, insights relating to

how firms adapt and reconfigure their resources and capabilities to remain competitive through change is discussed. Lastly, the fourth subsection offers a conceptual summary of an often-considered extension of the resource-based view of the firm. A strand which is also internally focused, yet more nuanced in that it takes a special interest in the knowledge of the firm—the knowledge-based view. Towards the end of the section, the recurring conceptual tensions of the content perspective on competitive advantage will be taken up. The overall organization of this section concerning the competitive advantage as content is presented in Figure 2.2 below.

Figure 2.2: Outline of the ‘Content’ Perspective on Competitive Advantage



Source: Author

2.3.1 Industrial Organization Paradigm

Industrial organization is a field in economics that was seen as having promise for the development of thinking in strategic management because it touched on the behaviour of firms. One of the pillars in industrial organization, proposed by prominent industrial economists Mason (1953/1959) and Bain (1968), is the structure-conduct-performance framework, where structure refers to industry structure, conduct

refers to the (collective) behaviour of firms in an industry, and performance refers to the resulting performance of the industry. The explanatory logic that follows from the Mason/Bain framework is that the performance of an industry will be determined by how it is structured. In turn, firms in the same industry, affected by the same structure, will be seen to behave in the same way.

Michael Porter, an influential strategy scholar and an economist by training, drew on the industrial organization approach to delve further into firm conduct. Between 1980 and 1985, he published two influential manuscripts that essentially made core industrial organization constructs relevant and intelligible to a then evolving field of strategy. If industry performance is determined by structure, how is firm performance attained? Still grounding the analysis at the level of the industry, Porter challenged the industrial organization economists' deterministic assumption that firms operating in the same industry will behave the same. Instead, he proposed that the conduct of firms can impact the structure of an industry or market (Porter, 1981) depending on the strategies they choose to pursue (Porter, 1980).

Porter's work shaped the thinking around competitive advantage in several ways. First, in Porterian terms, a firm's competitive advantage will be given when it is able to position in a particular way in an industry, thus differentiating itself from its industry competitors (Porter, 1991). Three generic strategies are suggested as basic modes for competition: cost-leadership, differentiation, and focus. Firms in the same industry will perform differently depending on the type of actions they undertake and strategies they pursue (Mellahi & Sminia, 2009).

Further, he poses the performance of the firm is affected by particular industry characteristics and structure (Porter 1980, 1985). In order to strategize effectively, firms need to find their fit with the industrial environment. They can do this by considering their competitive surroundings. The five forces framework (Porter, 1980) can be used for assessing the appeal of an industry and identifying critical competition factors which helps firms to better understand their competitive environments in the industries where they exist. The industry forces in Porter's model refer to the influence exerted by the different types of organizations the firm interacts with, including suppliers, buyers, competitors/rivals, potential new rivals, and potential substitutes to the firm. In Porterian logic, the value system that makes up a given industry is given

by the focal firm along with the different groups of organizations represented by each force, e.g. the firm plus the suppliers, buyers, rivals, potential rivals, and potential substitutes (Porter, 1980).

In order to manage the industry forces at play in the value system where the firm operates, Porter further suggested a value chain approach to help firms determine which generic strategy they can apply in order to compete and outperform rivals. By evaluating where firms add value in their operations, and at what cost, the Porterian notion of the value chain classes the activities of the firm into primary and support functions. Relating this exercise to the value system that makes up the industry where organizations are at play, a firm can determine whether to compete on cost, differentiation, or within a given niche or segment (Porter 1980, 1985).

Porter's approach starts at the industry level with tools that aid firms in seizing up their competitive environment, i.e., the generic strategies, the five forces model, and the notion of the value system. However, with the addition of the value chain framework, the Porterian logic is extended to the internal constitution of the firm by considering its main activities. Taken all together, this set of tools can enable firms to find their fit in the markets where they operate and compete in.

A main advantage of Porter's competitive advantage theory is that it is easy to follow as it comes in the form of a model that can be applied. By comparing the firm's ability to compete in relation to other firms competing for the same customers in the same market, Porter's grounds our understanding of competition in the environment and beyond the single firm. Through his five forces model, he reduces the complexity of the competition phenomenon to a few simple notions that any firm or industry can relate to.

However, its applicability and usability does not come without drawbacks. Criticism around Porter's industrial organization view of competitive advantage points to its deliberate and purposeful nature (Chia, 2016). With a focus on the evaluation of the environment from an industry perspective and subsequent pursue of an intended strategy, the theory does not account for the emergent aspects of the competitive environment. In a manner consistent with mainstream economics, competitive advantage here can be mostly determined rationally and deliberately, through a suite of tools applied by the firm management. The management, in turn, is seen as being

able to shape and define the fit of the firm with its environment, suggesting a leaning towards an agentic-view of the world influenced by human volition.

Overall, the theory pays more attention to macro-level characteristics and forces that are seen in the industry that is analysed, than to firm-level issues, other than the main chain of activities that add value/competitiveness to the firm. The interest in Porter's competitive advantage conceptualisation resides in entities: firms, suppliers, rivals, functions, generic strategies, etc., and not so much in the processes of deployment of the activities that develop competitiveness. Consequently, further criticism to the theory deems it static, an issue that Porter himself recognized and partially addressed. In later work (Porter 1990, 1991), he extends the notion of product life cycles to industrial clusters, arguing how they can be seen to emerge, mature, and decline, and how they can be affected by structures in place within national contexts. However, the work does not delve into how these cycles and structures evolve, nor how to cope with these unfolding processes. Thus, from a processual standpoint interested in the unfolding of competing for advantage, important how-type questions remain.

2.3.2 Resource-Based View

The resource-based view (RBV) of the firm emerged and established as an important genre in strategic management thinking. While the work of Edith Penrose (1959) is thought to have inspired this resource-focused perspective on organizations, a whole raft of authors have contributed to its development. These included early conceptualisations by Wernerfelt (1984), popularized extensions of the theory by Barney (1991) and Peteraf (1993), and wider conceptual development by Barney 2001ab; Barney et al., 2001; Day and Wensley, 1988; Dierickx and Cool, 1989; Eisenhardt and Martin, 2000; Mahoney and Pandian, 1992; Priem and Butler, 2001ab; Winter, 2003; Zahra and George, 2002; Zollo and Winter, 2002.

The RBV is a theory of strategy that is inward looking: at its most fundamental level, it considers the firm and its resources. As summarised by Teece, et al. (1997, p. 517), in this theory “competitive advantage lies ‘upstream’ of product markets and

rests on the firm's idiosyncratic and difficult-to-imitate resources". Hence, this theory seeks to explain firm performance by stressing the importance of firm-specific factors and de-stressing the importance of industry factors (Rumelt, 1991).

According to this theoretical conceptualisation, firms differ from one another on the basis of their resource base. This principle of firm heterogeneity is at the centre of the theory: firm performance is explained by the differences in resources across different firms (Teece, et al., 1997). Over time, this uneven distribution of resources among competing firms makes them hard to move, thus accentuating the heterogeneity found in organizations and making it persist (Barney 1986, 1991; Mahoney and Pandian, 1992; Penrose, 1959; Wernerfelt, 1984).

Moreover, resources have varying degrees of 'stickiness' in the short term because they are not easily discarded, replaced, or substituted in the immediate future (Dierickx & Cool, 1989). The stickiness notion is important since it limits the firm in terms of its resources. It relates to Ghemawat's (1991) work on commitment and uncertainty, in that he poses that a firm's strategy will be shaped by a limited number of key investment decisions that are hard to reverse, that will affect other areas of the firm, and that are decided under uncertainty.

According to RBV theorists, the stickiness of resources is due to several reasons. For instance, in some cases, firms cannot get organised to develop new resources quickly (Dierickx & Cool, 1989). In other cases, some resources are not readily tradable, as is the case of tacit knowledge, intangible assets, 'know-how', and reputation (Teece, 1976, 1980; Dierickx & Cool, 1989).

In an influential contribution, Barney (1991) described the resources of a firm based on four key characteristics commonly referred to as 'VRIN': valuable, rare, inimitable, and non-substitutable. A resource is valuable if it can be used to implement a strategy to compete in the market. It is rare if it is uncommon and not readily available to everyone. It is inimitable if it is not easily replicable, copied, or imitated. It is non-substitutable if it cannot be replaced with another resource to implement the same strategy to compete in the market. In Barney's (1991) thinking, when a firm has a resource that fulfils all four VRIN criteria, it has a source of sustainable competitive advantage that will drive the firm's performance. As we can see here, Barney used his VRIN framework to go one step further in qualifying the key proposition of the RBV.

Namely, that 'VRIN' resources provide not just competitive advantage, but a sustainable advantage at that, hinting the advantage is expected to last over a period of time. He does not, however, go further in his theorizing to elaborate how or for how long this sustainability can be expected to last, leaving indefinite the sustainability aspect of his proposition (Wang and Ahmed, 2007).

Around the same time of Barney's (1991) VRIN framework, Prahalad and Hamel (1990) proposed the concept of 'core competence' as those capacities of the firm which are key in making it competitive. Their contribution further linked the notions of resources, competitiveness and performance, thus joining a growing set of vocabulary associated with the RBV. Prahalad and Hamel (1990) added to this concept further criteria related to the creation of customer value, a level of competence that is superior to competitors, and that can be extended into new production projects.

Key notions posed by the resource-based theory can be extracted from the preceding paragraphs. First of all, the theory uses an inside-out approach since it puts the firm and its resources at the centre of its strategy theory. Secondly, firms possess resource packages that are both heterogeneous and sticky. Third, the firm's resources can be a source of competitive advantage when they fulfil the VRIN characteristics proposed by Barney (1991) and develop as core capabilities as per Prahalad and Hamel (1990).

The inward-looking approach used by the resource-based view is useful when trying to understand management reality. In this sense, the theory has enriched the thinking in strategic management by extending its scope and body of knowledge (Mahoney and Pandian, 1992; Priem and Butler, 2001ab). Its internal, resource-oriented perspective is complementary to other theoretical approaches to strategy, which predominantly look externally, as in the previous section with the competitive forces of the industrial organization (Porter, 1985), or which look internally and externally, as with the strengths, weaknesses, opportunities, and threats framework (Andrews, 1971; Ansoff, 1965; Learned et al, 1969). Empirical data collected on this theoretical approach (Foss & Knudsen, 2003; Lockett, Thompson, & Morgenstern, 2009) indicate that the firm's resources and combination of resources can be a source of competitive advantage.

Notwithstanding its validity as a theoretical perspective, certain aspects of the RBV have come under scrutiny (Priem and Butler 2001ab; Barney, 2001a; Conner, 1991). In terms of its vocabulary, the term ‘resource’ and its associated constructs (e.g. capabilities, core capabilities) are deemed unclear and lacking conceptual definition (Thomas and Pollock, 1999). Scholars engaging with the theory have interpreted ‘resource’ in nuanced ways, associating it with physical resources and/or skills and competencies, such as factors owned and controlled by the firm (Amit and Schoemaker, 1993); inputs, assets, routines, and competences (Teece, Pisano and Shuen, 1997); routines (Nelson and Winter, 1982); combinations of routines (Ackermann and Eden, 2011); knowledge (Grant, 1997); etc. The critique also accused the theory of tautology, with authors proposing similar accounts to that of Barney (1991) (Priem and Butler, 2001ab), and indicating that resources are deemed VRIN in retrospect, after superior performance has been observed (Eisenhardt and Martin, 2000).

Another recurring criticism of the RBV classes the thinking as static. Claims of sustainable competitive advantage and persistently heterogeneous resource bases are thought unlikely in fast-moving markets characterised as volatile and uncertain (D’Aveni, 1994; Eisenhardt and Martin, 2000). Here, critics point to a failure in addressing the evolving aspects of the firm and the markets where it operates. Similarly, detractors note a failure to elaborate how resources are turned into competitive advantage (Wang and Ahmed, 2007). While the theory has convincingly argued how the growth, evolution and/or diversification of the firm can be determined/influenced by the resources it possesses (Penrose, 1959; Richardson, 1972), the mechanisms by which these resources create competitive advantage were not similarly addressed. That is, the market aspects of the theory that link to competitiveness were left underexplored (Mosakowski and McKelvey, 1997; Williamson, 1999; Priem and Butler, 2001ab).

The lines of attack endured by the RBV can be traced back to an entitative perspective that prioritizes entities over processes. The clear emphasis of the theory is on resources and capabilities, but not so much on the processes by which these resources and capabilities develop dynamically to compete for advantage. A natural consequence of such an entitative perspective is the generation of what-type

knowledge over how-type knowledge, which would explain the dynamic and emergent aspects of the theory.

The strategic thinking in the RBV is deliberate and rational: taking its resources as a starting point, the firm can determine how to compete. In turn, the managers and strategists can purposefully plan how to shape the resource base of the organization for superior and sustainable performance. Similar to the industrial organization approach, the thinking here is infused by a mostly voluntaristic and rational view of the world. The business environment is assumed as a reality that can be known and planned around to reach a desired state of performance. From such a deliberate and purposeful worldview, the emergent aspects of reality are left aside, as are the processes by which this resource-informed strategy develop competitiveness.

The starting point of the RBV as a theoretical approach differs from that of the industrial organization. Here, the thinking starts at a firm level: the organizational resources are seen as the genesis of competitive advantage. In the industrial organization, however, the thinking starts at a macro level: competitive advantage is primarily determined by the industry where the firm operates.

On the whole, the contribution of the RBV to the understanding of competitive advantage has been decisive. It augmented the thinking in strategic management by elucidating how the internal endowments of the organization can shape performance. Yet process-derived questions remain for this theoretical approach surrounding the evolving aspects of resource and capability development in the unremitting competition for advantage.

2.3.3 Dynamic Capabilities

In many ways, the literature on dynamic capabilities grew out of the Resource-Based View (RBV) of the firm. It came about in response to the continuing limitations and criticisms endured by the resource-focused perspective on strategy, particularly those that had to do with its static nature and failure to address the dynamism observed in business reality. Dissenting voices pinpointed not only that markets change, but also that resources and capabilities are impacted by change: they evolve, adapt, and

accrue. This is precisely what the dynamic capabilities perspective intended to capture (Wang and Ahmed, 2007; Ambrosini and Bowman, 2009).

The term, published in a paper by Teece, Pisano and Shuen in 1990, (Teece, Pisano et al. 1990) was first proposed as "the firm's ability to integrate, build, and reconfigure internal and external competences to address rapidly changing environments" (1997: 516). At a time when the RBV talked of sustainable competitive advantage (yet leaving the sustainable aspect undefined), the then emerging literature on dynamic capabilities recognized advantage as being temporary at best given the pace of change surrounding market settings. The underpinning notion here was that of a changing landscape, marked by dynamism and volatility. Hence, advantage is not assumed to be sustainable indefinitely for as long as resources are VRIN. Rather, advantage can be expected to be in constant need of reconfiguration (D'Aveni, 1994; Hamel and Prahalad, 1994).

Taken as first proposed, the concept of dynamic capabilities had the promise of a silver bullet in strategic management, concurrently setting out to deal with change and sustained performance. However, soon thereafter and arguably to this day, the notion grew more and more contested. Two decades after its introduction, the literature on dynamic capabilities remains mined with conceptual problems and controversies (Eisenhardt and Martin, 2000; Wang and Ahmed, 2007; Peteraf, 2013). Fundamentally, the term has been extended in several slightly different directions. For instance, from the original definition above, Teece and collaborators have suggested it as a set of routines in efforts resembling 'entrepreneurial action' that aim to sense, seize, and transform the competitive environment (Augier and Teece, 2009; Teece, 2012: 1396). For Eisenhardt and Martin (2000:1106-1107), they constitute routines of the organizational and strategic type, resembling best practices or simple rules, that are able to 'achieve new resource configurations'; while Zahra, Sapienza and Davidson (2006: 918) propose them in terms of the reconfiguration of 'resources and routines'. Helfat et al (2007: 121) pose dynamic capabilities as activities that are practised and patterned, while Barreto (2010:271) talks of a 'propensity to sense opportunities and threats' and making decisions in a timely manner. Adding to this conceptual difficulty is the fact that some research bypasses elucidating the concept altogether (e.g. Delmas, 1999; Farrant and Flynn, 1999; Lehrer, 2000; D'Este, 2002;

Salvato, 2003; Mota and de Castro, 2004) or contain contradictory arguments (i.e. Rindova and Kotha, 2001, talk of evolving dynamic capabilities, while Zollo and Winter, 2002, propose them as structured and persistent). In extant literature, a need for definitional clarity persists.

A firm-level perspective, the theory on dynamic capabilities uses the internal endowments of the organization as the conceptual starting point. Like in the RBV, firms differ on the basis of their resources. However, the argument used to explicate heterogeneity is different. In the preceding section, the logic of imperfect markets was used to explain the principle of firm heterogeneity in RBV theory. Namely, the idea that firms are differently endowed due to factor markets that are uneven and imperfect. The logic varies in the dynamic capabilities strand. Here, scholars argue that heterogeneity is due to resources being accumulated over time and in unique ways, making them highly singular to the firm and hard to replicate (Dierickx and Cool, 1989). The notion of resource accumulation, then, is at the centre of firm heterogeneity in the dynamic view. Although this perspective recognizes the ambiguity and idiosyncrasy around how some of these resources were developed (Dierickx and Cool, 1989; Reed and Defillippi, 1990), it does not go on to explain the particulars of how the journeys of resource accumulation came about.

Work incorporating the element of market dynamism has been developed in dynamic capabilities research to some extent. Empirical studies such as those by Athreye (2005) or D'Este (2002) have looked at firm evolution and industrial/sectorial dynamism. However, works such as these are case specific and lack an overarching framework that assembles the commonalities found in the empirics. By growing and collating the empirical work on dynamic capabilities, the theory can gain further relevance and impact. In particular, additional empirics can serve to provide a more refined understanding of the concept and serve as a guide for practitioners coping with strategic change (Priem and Butler, 2001ab).

Along similar lines, Eisenhardt and Martin (2000) suggest that the nature of dynamic capabilities will depend on the type of market involved, differentiating between more stable, linear, and predictable dynamic capabilities in moderately dynamic markets, and constantly changing, non-linear and situation-specific capabilities in high-velocity markets. Yet here, the emphasis is on differentiating

between the market and the resulting capability, and not on the processes by which these are deemed to unfold.

As was the case with the RBV discussed in the previous section, the dynamic capabilities perspective is a theory proposed at the level of the firm. The emphasis lies on discussing the abilities of the organization that adapt over time to sustain performance in the face of change. The conceptual starting point is located inside the firm, like the RBV, but unlike the industrial organization approach where the thinking starts with the environment at a more macro level as a determinant of competitiveness.

Yet, dynamic capabilities made a clear departure from the industrial organization and the RBV in one significant respect: its theorisation set out to incorporate change and development over time. Hence the need to name the concept 'dynamic', in an effort to differentiate from the previous static conceptualisations. Notwithstanding, when the thinking around dynamic capabilities developed, the notion was elaborated from an entitative perspective, which takes an interest in the things that make reality. Thus, dynamic capabilities came to be understood as entities or states, and conceptualised as abilities, routines, competences, etc. Although these abilities were recognized as having to change, the literature did not ultimately capture the change and development trajectories of competitiveness. From a process perspective that gives priority to change and movement, the concept would have to be reformulated as a journey of unfolding and emergence. This perspective remains to be explored in the literature, something that would also add how-type knowledge to complement the already existing what-type knowledge around the construct (Pettigrew, 2012; Langlely et al, 2013).

By incorporating the recognition that markets are volatile and unstable, the dynamic capabilities literature effectively acknowledges the uncertain and changing nature of the environment. Thus, the thinking goes, the abilities of the firm need to change accordingly to sustain the competitiveness and survival of the firm. This acknowledgement is significant. The expectation that things are going to change, and that the capabilities of the present might not be those required in the future, fuels nuance in strategic management thinking. While in preceding sections the thinking was deemed as largely static, rational and deliberate, here uncertainty and change are contemplated. Hence, the future is populated with emergence. For strategists and

managers in the organization, this adds an element of subjectivity in their judgement. It opens the possibility of voluntarism in a future that they are trying to shape by way of their strategic action. However, in a strand that is still more theoretical than empirical, practitioner insights on how to develop and manage dynamic capabilities in real-life situations are limited (Priem and Butler, 2001ab; Wang and Ahmed, 2007).

All in all, the dynamic capabilities perspective has fuelled dynamism in strategic management thinking. Its overarching effort to conceptualise a notion that is couched in change and development is a major point of departure from other strands of strategy theory. Nevertheless, work remains to be done in this area to address the controversies around its definition and manifestation over time. Perhaps a process turn on the construct is precisely what is needed to take this important theoretical contribution in a more dynamic and fluid direction.

2.3.4 Knowledge-Based View

The rubric of the Knowledge-Based View (KBV) is often referred to in the literature as an extension of the Resource-Based View (RBV) theory of the firm. Like its resource-focused predecessor, the KBV is a theoretical perspective concerned with firm-level resources. Yet unlike the RBV, the KBV posits knowledge as the genesis of competitive advantage. In this way, the KBV takes a more nuanced angle as a theory of the firm, which views knowledge as the single, most strategically significant resource of the firm (Grant, 1996ab; Spender, 1996). Scholarly articles putting forward initial sketches of this perspective emerged in the 1990s with notable contributions by Kogut and Zander (1992), Grant and Baden-Fuller (1995); Grant (1996ab); and Spender (1996). Other significant contributions relevant to this strand of the literature include Nonaka (1991;1994); Nonaka and Takeuchi (1995), Zack (1999), and earlier seminal contributions at the crossroads of economics and organisation studies like Cyert and March's (1963) and Nelson and Winter's (1982) behavioural and evolutionary theories of the firm, respectively.

As a perspective born out of the strategic management literature, the KBV concerns itself with arguing central research interests of the field, namely performance and competitive advantage. However, its close conceptual ties to other fields such as

knowledge management, organizational learning and technology management augments its scope to “address some other fundamental concerns of the theory of the firm, notably the nature of coordination within the firm, organizational structure, the role of management and the allocation of decision-making rights, determinants of firm boundaries, and the theory of innovation” (Grant 1996b: 110).

Due to the knowledge-focus of the perspective, the conceptualisation and understanding of knowledge as a construct is of paramount importance. Here, the literature argues beyond the foundational question of what knowledge is, but more comprehensively around what are the main types of knowledge, with an aim to establishing critical management implications in the creation of firm value (Grant 1996b). In this respect, probably the most recurring distinction made is that drawn from Polanyi (1966), which addresses and recognizes the difference between explicit and tacit knowledge.

2.3.5 Summary: The Content Perspective on Competitive Advantage

In the last four (sub)sections I have looked at diverse theoretical accounts on competitive advantage. The aim was to review extant literature and evaluate to what degree it provides guidance on competing for advantage. After going through competing strands of literature that address the notion of competitive advantage from particular starting points, what these strands have in common is their vantage point, the perspective from which the theory is approach and formulated. In strategic management, this perspective is known as the content perspective since it takes an interest in what constitutes strategy and what makes competitive advantage (Furrer et al., 2008). In the wider literature on organisation studies and the social sciences, this perspective is referred to as ‘entitative’ due to its interest in explaining the entities, states or substances that make up reality (Chia, 1995).

The Industrial Organisation paradigm provided an account of competitive advantage that started with the environment, theorising from an industry standpoint. The Resource-Based View (RBV) took a different angle, running the analysis at the level of the firm, and proposing competitive advantage using the resources and capabilities of the firm as the starting point. In a similar fashion, the literatures on

Dynamic Capabilities and the Knowledge-Based View (KBV) also proposed competitive advantage from the level of the firm, but while the interest in dynamic capabilities is to elucidate how resources and capabilities adapt and reconfigure over time, the KBV took concern with proposing knowledge as the genesis of competitive advantage. All in all, the content perspective has done much to structure the thinking around competitive advantage, proposing diverse theoretical explanations and various models to support the theory and practice around the construct. Through these different strands of the literature, the body of knowledge on competitive advantage has been progressively advanced and reinvigorated.

Nevertheless, the review suggests that the content perspective presents certain limitations and drawbacks linked to inconclusive relationships asserted between variables, mechanisms, and competitiveness (Chia and Holt, 2009). The scholarly debates discussed thus far recognize the dynamics of competing for advantage as complex, fluctuating and uncertain. However, this review finds extant research to be underdeveloped, leaving the question of how firms dynamically compete for advantage without an appropriate understanding.

Part of the challenge with the content perspective on competitive advantage can be traced back to its reliability on variance theories and use of cross-sectional data, which results in “acontextual, aprocessual and ahistorical” explanations that are “adroit at providing an image of dynamics while suppressing processes” (Pettigrew, 2012: 1307; Pettigrew et al, 2001: 699). The methodological approach often used by ‘strategy content’ research is effectively captured by Avital (2000: 666) as the “ubiquitous single-snapshot technique”, which formulates competitive advantage as a function of dependent and independent variables, but which overlooks the emergent and contextual aspects of competing for advantage. Like the different aforementioned strands argued, competitive advantage in this case is reduced to a given state, position or entity, e.g., a generic strategy, from a Porterian angle; an idiosyncratic resource base, from the RBV; a reconfiguring set of routines, from a dynamic capabilities perspective; or a particular tacit and explicit knowledge combination, from the KBV, to give a few examples. It is theorised by research that determines the relationships between certain chosen variables that are deemed to explain how competitiveness is gained, but which overlooks how competitiveness was arrived at, how it emerged over

time, and how it changed. As was adeptly signalled by Pettigrew (1985:60), such a perspective can, at most, start to elucidate “the intricacies of particular changes”, at the cost of foregoing explaining the “dynamics of changing”.

The failure to address the dynamic and emergent aspects of competitive advantage led to the adoption of a ‘process’ perspective in strategy research (Pettigrew, 2012). This change in perspective effectively shifted the focus of study from the ‘content’ of competitive advantage, to the ‘process’ of competing for advantage. In the succeeding section, the ‘process’ perspective on competitive advantage is reviewed.

2.4 Competitive Advantage as Process

This section presents a critical discussion on the contributions and limitations of the ‘process’ perspective on competitive advantage, a line of thinking that tries to incorporate the dynamics of change in the way competitive advantage is theorised and understood.

Before opening such a discussion, there are at least two insights worth mentioning that tie the preceding section with this one. First, the recognition that the content perspective on competitive advantage is not completely lacking in attention to processes. As was noted at several points in the prior section, some theorising originating from the content standpoint incorporated processes in its thinking. For example, Porter’s approach to the Industrial Organisation paradigm used notions of process such as the industry lifecycle, or the value chain model of the firm (Porter 1985; 1990). Equally, the literature on dynamic capabilities recognized the impermanency of competitive advantage and strived to formulate its theory on the basis of capabilities that periodically seek to reconfigure the resource base of the organization (Teece et al, 1997). As was noted in the concluding lines on the content perspective, the limited use of process thinking can be tied back to its use of an entitative worldview whose primary concern is to explain the entities that make up reality. This style of thinking makes it ontologically incompatible with a ‘processual’ worldview, which views change as the fundamental feature of reality. Second, and building on what was noted first, not all process thinking is necessarily ‘processual’.

As I will argue in the subsections that follow, some theorising emanating from the process perspective on competitive advantage remains entitative, and takes interest, for example, in explaining the processes that unfold between two given (permanent/fixed) states (Chia, 1995).

Notwithstanding, when it comes to the historical progression of the research on competitive advantage, the field of strategic management experienced a clear break in thinking between its content and process perspectives soon after its establishment (Furrer et al., 2008). The former, discussed and reviewed in the preceding section, studies what constitutes competitive advantage. The latter, tackled in this section, is interested, -at the outset-, in explaining the unfolding of competitive advantage over time.

Prior to delving into some of the main strands that make up the process perspective on competitive advantage, two aspects relevant to the discussion are considered. Firstly, in the subsection that follows, a conceptual summary captures the dissimilarity between variance and process types of research, which are two differing approaches that underpin research on competitive advantage. The second subsection takes the critical discussion further by considering the role of change in research in management and organisation studies. Here, some of the main models of change that have been proposed by extant scholarship are reviewed.

The third subsection considers some of the early works from the strategy process literature, which hold relevance for the question on how firms compete for advantage. As the difference between deliberate and emergent thinking made its way to the strategy debate (Mintzberg and Waters, 1985), the work of scholars such as Henry Mintzberg, Andrew Pettigrew, and Gerry Johnson are reviewed. The implications of this early strategy process work are considered, with some limitations sketched out.

The fourth subsection looks at the strategy-as-practice literature, examining the origin of this practice-based strand and reviewing relevant research published under this particular genre. Continuing with the practice orientation, the fifth subsection briefly touches on the strategy-in-practice rubric, a more nuanced practice view that was proposed in contention to strategy-as-practice.

Lastly, the sixth subsection summarizes the discussion from the process perspective on competitive advantage, focusing on some of the recurring conceptual tensions that were found. The overall organization of this section concerning the process perspective on competitive advantage is presented in Figure 2.3 below.

Figure 2.3: Outline of the ‘Process’ Perspective on Competitive Advantage

The Process Perspective:	Variance vs. Process Theories
Competitive Advantage as Process	An Overview of Change Models
	Early Process Studies
	The Practice Turn: Strategy-As-Practice A More Nuanced Practice View: Strategy-In-Practice
	Recurring Conceptual Tensions

Source: Author

2.4.1 Variance versus Process Theories: A Research Note

Recapitulating on the content perspective on competitive advantage, the review highlighted unsatisfying findings when it came to the dynamic aspects of the construct. A more dynamic understanding of competitiveness was left both underdeveloped and underexplored. In strategic management, the 1970s marked years where scholars

began to recognise the unbreakable links between structures and processes. For instance, works like those carried out by Mintzberg (1972; 1978) and Pettigrew (1973) approached the study of strategic change with a call for improved theoretical and empirical lucidity. Around the same time, studies focusing on the dynamics of decision making (Cohen et al, 1972) were also pursued, in the wake of the rise of behavioural theories a decade earlier (Cyert and March, 1963). The move towards more dynamic theorising was further cemented when Weick (1979) suggested a switch from talking about organizations, as nouns/entities, to talking about organizing, as a verb/activity. Drawing on Weick (1979), Mohr (1982) made a distinction between variance and process theories to denote a focus on how processes dynamically unfold. Summed up, these occurrences marked the start of the process movement within management research.

In Langley's words, the move to process is about theorising "how and why things emerge, develop, grow or terminate over time" (Langley et al, 2013:1; Langley 1999). Here, the main focus of analysis is the nature of the process itself. But how is it different from the variance approach? In a useful contribution, Van de Ven (1992) provided added clarity by contrasting how the term process is used in process and variance theories. In process theory, process is defined as "a sequence of events that describes how things change over time" (Van de Ven, 1992: 169). Crucially, this differs from the way process is used in variance theory, usually as "a category of concepts or variables that refers to actions of individuals or organizations", or "a logic that explains a causal relationship between independent and dependent variables" (Van de Ven, 1992: 169).

Outcomes in process theories are given by "the order in which the events unfold and of particular conjunctions of events and contextual conditions" (Poole et al, 2000: 36). In contrast, the focus of variance theories resides in the actors/objects, and not on the activities (Abbott, 1992). As we can see, the suggestion here is that process theory, -unlike variance-, is contingent on history, time and context. In Tsoukas' (1989) assessment, these aspects enable process theory to potentially identify the mechanisms underpinning the events under investigation, precisely due to its context-specific nature (Tsoukas 1989; Hedstrom and Swedberg, 1998).

Other aspects further distinguish process and variance theories. While process theory is bound to time, history and context, variance theory aims to provide general, context-free explanations developed on the basis of dependent and independent variables. Outcomes are arrived at by proposing causal links between such variables based on the selection and testing of valid measures. Developed on the backbone of linear statistical models, variance theories were noted as ill-equipped to deal with non-linear dynamics given that the selection and continuity of its causal linkages are implicitly assumed rather than demonstrated (Poole and Van de Ven, 2010; Poole et al, 2000).

Several assumptions underpinning variance theory are effectively argued by Poole et al (2000). First, the world is made up of entities, which are fixed over time and whose attributes do not change as time goes on. Second, explanation is given by way of necessary and sufficient causality. Considering the attributes of the entities that make up the world are independent of process or context, variance theories can theoretically identify the necessary and sufficient conditions underpinning the causal explanations. Third, variance theories use a ‘push’ type of causality that forces onto a unit of analysis to make it into the outcome variable or change it from what it was. Four, explanations are general, which means they are valid for a wide set of circumstances. Here, generality is the top priority. Accuracy and simplicity come in second place. Five, the role of time is considered negligible to the particular temporal sequence from which the independent variables are taken. Six, “at each point in time, the variables in the model contain all the necessary information needed to estimate their values at the next point in time” (Poole et al, 2000: 35). Hence, causality is considered immediate. And seven, the causal meaning of the attributes does not change over time.

The limitations and drawbacks discussed in the content perspective on competitive advantage can be understood in terms of the variance approach discussed in the preceding paragraphs. Consequently, content theories are seen as limited from a dynamic standpoint, failing to shed light on the mechanisms that bring about the (causal) relationships which explain phenomena. Equally, the content theories do not explain how the causal relationships change or evolve over time. As a result, the content perspective on competitive advantage was judged for its failure to address the

changing dynamics of competition. Since the interest of this research resides in explaining how firms compete for advantage over time, we must now turn to explanations that incorporate change and temporal dynamics. The role of the dynamics of change in research is thus considered in the next subsection.

2.4.2 The Dynamics of Change in Research

A recurrent line of criticism endured by the content theories on competitive advantage is an under consideration of the dynamics of change in their conceptualisation and empirics. When theorising competitive advantage, the content perspective largely treated competitiveness either as indefinite or implicitly sustainable. Even under the umbrella of dynamic capabilities, where the notion of change in uncertain markets was incorporated, the dynamics of how capabilities change was attempted but ultimately not developed. This research is interested in exploring the dynamics of competitive advantage, an as of yet untapped area of strategic management, in a move towards a better understanding of how firms compete for advantage over time.

Research into organizational and environmental dynamics leads us to explore the role of change and its use in extant literature. Change notions can broadly be classified under two approaches: planned and emergent (Mintzberg and Waters, 1985; Pettigrew, 1985; Burgelman and Sayles, 1986; Pettigrew et al, 2001; Burnes, 2005; Van de Ven and Sun, 2011). In a pivotal contribution by Mintzberg and Waters (1985), change processes were noted to undergo a significant difference from planning to implementation. Their distinction between deliberate and emergent strategy is similar to insights offered by Burgelman (1983bc) around internal corporate venturing, where he draws a difference between ‘induced’ (planned) and ‘autonomous’ (unplanned) strategies (Burgelman 1983c: 1350).

Prior to the distinction between deliberate and emergent approaches to change, the literature largely featured planned, linear change models. Consider for instance Lewin’s (1947) three step framework of ‘unfreeze, move, and refreeze’ which divided complex, non-linear processes into separate, identifiable, and sequential stages that essentially entail static states. What came out of these planned and deliberate change

theories was rather simplistic prescription for practitioners that did not, however, reflect what was observed in later studies of strategic change (Pettigrew, 1985).

After the crucial Mintzberg and Waters' (1985) distinction between deliberate and emergent change, the emergent approach began to supplement planned change theories. Van de Ven and Sun (2011) proposed a convenient analogy between the two approaches to change. They argue deliberate change pairs with an 'action' strategy' able to cope with linear change processes, while emergent change goes with a 'reflection strategy' better suited to explain the dynamics of non-linear change. In the former, the change agent is to "intervene in and control a change initiative by diagnosing and correcting difficulties that prevent the change process from unfolding as the change agent thinks it should" (Van de Ven and Sun, 2011: 58). In the latter, the change agent is to reflect and adapt the change strategy "to the one that better fits the process of change unfolding in the organization" (Van de Ven and Sun, 2011: 59). Between action and reflection, Van de Ven and Sun further explain breakdowns as "the perceived discrepancies or gaps between the change processes we observe in an organization and our mental model of how the change process should unfold (2011: 58).

Nonlinear dynamics consistent with emergent approaches have been explained in several ways. For instance, the punctuated equilibrium model proposed by Nadler and Tushman (1989) makes a distinction between evolutionary and revolutionary periods of change. Here, periods of stability are 'punctuated' by shocks of change. In Darwin-infused theories of evolutionary change, the well-established framework of 'variation-selection-retention' or its more recent version of 'enactment-selection-retention' views change as incremental, interrupted by instances of variation (Burgelman, 1991; Weick, 1979; Weick et al, 2005). Punctures of change or instances of variation in otherwise stable states are different from change seen as continuous, as suggested by the continuous transformation model (Brown and Eisenhardt, 1997; Burnes, 2005). Here, the ability to change is a matter of survival, with change residing at the 'edge of chaos', a place everlastingly on the margin of instability (Stacey, 1995: 495).

Yet another model of change uses the notion of 'duality' to explain stability and movement. Such is the case of the literatures on routines (Feldman and Pentland,

2003) and practice (Dougherty, 1992; 2001; 2008), where following Farjoun (2010), stability and change are “rather than separate and opposed...fundamentally interdependent, both contradictory and complementary” (Farjoun 2010: 203). This notion of duality is for instance reflected in the formulation of routines as constitutive of ‘ostensive’ and ‘performative’ parts (Feldman and Pentland, 2003). However, a contending view of duality has been pointed out by Simpson and Lorino (2016), where stability and change are not two sides of the same coin, but rather two different ways of viewing the world. The two opposing worldviews cannot be joined into one, hence rejecting Farjoun’s (2010) use of the term.

Different perspectives on change are useful in helping us understand and explain the dynamics of competition. Notwithstanding, for Tsoukas and Chia (2002), the models proposed thus far do not go far enough. In their view, they “have been useful insofar as they have provided us with snapshots of key dimensions of organisations at different points in time, along with explanations of the trajectories that organizations followed” (2002: 750), providing summary accounts at best. To go further, the view of change in the dynamics of competition calls for an alternative perspective, an issue tackled in Chapter 3, after first doing a careful review of the process perspective on competitive advantage, its contributions and setbacks, in the subsections that follow.

2.4.3 Incorporating Change: Early Studies from the Process Perspective

This section focuses on evaluating some of the early works and scholars that undertook strategy research from a process standpoint, which is known in the strategic management field as the ‘strategy process’ strand (Furrer et al, 2008). The aim is to assess the contributions and limitations of the process perspective on the question of how firms compete for advantage. To be sure, this perspective differs in one clear way from the content perspective reviewed in the previous section: its interest lies in tracking the development of the strategy process.

Since processes span time, the process perspective incorporates an interest in explaining the dynamics of time and change. Yet, the extent to which this interest in dynamics is pursued, achieved, and maintained will be a subject of discussion in the

paragraphs that follow. Reiterating from subsection 2.4.1, not all process research, for instance, is pursued by way of process theories that focus on the dynamics of change; some are carried out through variance approaches that denote an ultimate concern with entities and not processes and/or dynamics.

The early works considered in the discussion that follows were undertaken by scholars broadly associated with the strategy process literature. The review starts with the early process conceptualisations and interests of Henry Mintzberg, to then pay attention to other organizational thinkers and management theorists seen as relevant to this rubric. They include Pettigrew and Johnson. Brief reviews will be attempted one scholar at a time.

By more than one account, Henry Mintzberg has been credited with pioneering strategy process research (Pettigrew, 2012; Sminia, 2009). His interest in strategy development processes started early on in his long and fruitful academic career, when as a PhD student he became interested in the nature of managerial work (Mintzberg 1968, 1973, 1975). After getting his doctorate, he got to work on a comprehensive theory of business policy, which covered organisational and strategy themes that would guide his ensuing work, including organisational structure and power, strategic decision making, and strategy analysis and formation.

In the realm of decision making, he focused his efforts on the processes of strategic decisions, about which, according to him and his co-authors, “very little” was known at the time, and the mostly normative models then offered by the literature (e.g. strategy planning models proposed by the strategy content stream) included “techniques that have been unable to cope with the complexity of the processes found at the strategy level” (Mintzberg et al, 1976: 246). The empirical work on unstructured decision processes led by Mintzberg concluded that a basic structure underlies most decisions. The structure, formulated as a model containing 12 elements, included 3 major phases, 7 central routines and 3 supporting routines. Actual decisions were found to follow a certain path through the model, which is shaped by ‘dynamic factors’ that have the ability to stop, delay, and restart the decision processes. Probably one of the most telling realizations the researchers had was that not all strategic decisions get implemented. Thus, Mintzberg’s work proceeded by focusing on organizational structures (Mintzberg, 1979a) and power (Mintzberg, 1983), and crucially, a third

stream he labelled 'tracking strategy', which was concerned with strategy formation processes (Mintzberg, 1979b; Mintzberg and Waters, 1985).

Mintzberg's approach to research favoured inductive methods entailing detailed case studies with rich, descriptive, and often concrete data. This methodological style was in direct contention to the preferred methods of the time, which he found to be overly prescriptive, 'bureaucratic' in their rigour, and "factoring out the human dimension, imagination, insight and discovery" (Mintzberg 2005: 358). It has been speculated that it was this particular approach to investigation, in conjunction with his research work on tracking strategy, that led him and Waters to later describe the strategy formation process in what was then an unconventional manner: as a change process, which was controversial to the preferred choice approach of the time (Mintzberg and Waters, 1985; Mintzberg, 1990; Langley et al, 1995; Sminia, 2009). Crucially, it would be this distinction that would lead Mintzberg and Waters (1985) to propose strategy as both deliberate and emergent, a pivotal observation that would literally open up the debate (and the research) on the process perspective in strategic management.

Yet, in the end, it was Mintzberg's configurational approach to theorising that would somehow dilute the ultimate nature of his contribution to strategy process proper. Despite his predilection for induction and qualitative data (e.g. "I need to be stimulated by rich description, stories are best of all" in Mintzberg, 2005, p. 362), his grand passion, and that for which he holds great talent, is in detecting patterns and designing configurations. His detailed, extensive data is synoptically translated into figures and diagrams that denote models, paths, and structures of the ideal type. Consider for instance his five basic organizational configurations, work which remains another influential contribution to management and organization studies. These are: basic structure, machine bureaucracy, professional bureaucracy, diversified form, and adhocracy (Mintzberg, 1979a). In what can be considered an ultimate inclination towards states and shapes (rather than processes and forces/movement), Mintzberg links up his seminal work differentiating types of strategy processes (Mintzberg and Waters, 1985) with his typology of organizational structures (Mintzberg, 1979a) in a view of change that involves organizations changing configurations to find fit between their external forces and their internal endowments (Miller and Mintzberg, 1984;

Mintzberg, 1990a). Configurational fit, then, explains continuity and change in Mintzberg's mind. However, in an interesting twist of character, his views on strategic analysis famously got him involved in heated debates against the deliberate, non-emergent practice of strategic planning (see Mintzberg, 1994ab; Ansoff, 1991, 1994).

Overall, Mintzberg's contribution to the strategy process debate, research, and body of knowledge is undeniable. He not only kickstarted the conversation that would unleash the interest, -to this day-, in strategy development and formation processes, but also laid shiny building blocks to the morphing corpus that houses its knowledge. Howbeit, if we adhere strictly to the emergent character of what was intended at the birth of strategy process (i.e. an interest in change and organizational dynamics), his terminal contribution to process theory per se could be probed. For one, his configurational style of conceptualisation lends itself more towards entities and ready states than to processes. This signals an underlying entitative perspective towards process, which was also seen to favour structures and patterns in what perhaps denotes a slightly more deterministic (than agentic) view of the world. Although he distinctly encouraged a wealth of very detailed data, he ultimately abstracted the data and the stories to favour higher, more macro levels of thought that corresponded with ideal types. Lastly, he manifestly defended emergence and the tracking of strategies and decisions to capture actual going-ons. In doing this, he went against mainstream practices of the time, which he found to be too normative and crucially, lacking the dynamics of actual reality. By linking findings with structures and endorsing a configurational fit to strategy, his theory was good in getting to process outcomes, yet not entirely emergent in that it did not focus on how occurrences led to outcomes nor how the processes unfolded over time.

If Mintzberg is best known for his configurational approach, Andrew Pettigrew set his mark by developing and championing the contextualist approach to strategy process. His first, -perhaps inadvertent-, steps in doing so were tied to what quickly became an epoch-making study in strategic management: his 10-year affair with the Imperial Chemical Industries (ICI), a UK conglomerate now extinct, featuring research on strategic change (Pettigrew, 1985a). After a brief stint studying the politics of decision-making (Pettigrew 1973, 1979), with the ICI studies he was more

concerned with infusing (and keeping) context in the research, and exploiting it for its explanatory power in the realm of strategy formation and development.

When he first embarked on the ICI study, Pettigrew had thought to study several units in the company to see how they fare in terms of organizational development. With time, however, it became more of a wide-ranging study on strategic change trying to understand why similar change initiatives across the organization had dissimilar outcomes. In evaluating what he found, Pettigrew argued that the explanation hinges on context, which in his interpretation boils down to the developmental course of ICI and its accompanying historical processes. This particular take on context, which over time came to be known as Pettigrew's 'contextualist' trademark, set himself apart from the practice of the time. In fact, Pettigrew famously sentenced contemporary research of being "ahistorical, aprocessual, and acontextual" (Pettigrew, 1990; Pettigrew, 2012: 1307). Thus, his contextualist stance put him on a particular radio wave that was distinct enough from other studies of strategic management of the period.

Following an assessment of the ICI studies published by Sminia and De Rond (2012), Pettigrew (2012) admits to recurring to theoretical abstraction of the structuration type (Giddens, 1979) and using it as a framework from where to analyse the content, context, and process of ICI's organizational change. The duality of structuration, given by its structure and agency components, enabled Pettigrew to cover the context of the change, but also the actions around it. Empirically, the processes of change are also described in political and cultural terms, which at the time was not mainstream but rather novel. Here, Sminia and De Rond (2012) and Pettigrew (2012) agree that the particular aspects of Pettigrew's contextualism helped to add humanity to the mostly rational studies of strategy of the time. By making context front and centre, Pettigrew's work went beyond the dominant theories of the period, which used rationality, choice, and planned change to explain recurring clashes around content and process, and strategy formulation and implementation. In contrast, Pettigrew's focus on explaining change by analysing the relationship between the context of the change and its content and process over time resulted in a rich analysis where the political, economic, social, and cultural factors were not stripped away. As

a result, the study had a far-reaching impact beyond strategic management and into several branches of the social sciences (Sminia and De Rond, 2012; Pettigrew, 2012).

In a nutshell, the ICI studies were seen to provide an alternative account on strategic change. The work stood in opposition to rational and linear accounts of change, yet at the same time it acknowledged that change is not always a continuous incremental process (Pettigrew, 1985). However, questions remained regarding how his contextualist account of strategic change linked to outcomes (Sminia, 2009; Sminia and De Rond, 2012). This limitation Pettigrew attempts to resolve in later work.

Post-ICI, subsequent studies carried out at his Centre for Corporate Strategy and Change looked at competitiveness across firms, interrogating if the way organizations cope with success determines their competitive outcomes, even when dealing with similar environments (Pettigrew and Whipp, 1991). This would then be the *modus operandi* for later Pettigrew research (Pettigrew et al, 1992; Pettigrew and Fenton, 2000; Pettigrew et al., 2003). What these studies have in common is the use of mechanisms to explain the implications of change processes, which incidentally are interpreted and explained as social processes. In explaining the implications of the change, Pettigrew attempts to explain variations in outcomes by identifying the thematic patterns (i.e. the generative mechanisms as per Tsoukas, 1989) which are key to the processes of change.

The studies are longitudinal, and in the case of the competitiveness studies (Pettigrew and Whipp, 1991), they are also comparative, pairing high and low performing industry peers. The mechanisms empirically found are different in their contextual nature, yet the same in that they serve to explain the change processes and their corresponding outcomes. For instance, in the competitiveness study, the mechanisms were five: environmental assessment; capacity to lead change; capacity to link strategic and operational change; the human factor as a resource and a liability; and overall coherence in managing the process of competition and change (Pettigrew and Whipp, 1991). The public sector was addressed in the 1992 study (Pettigrew et al, 1992), where selected district health authorities of the NHS were studied in terms of change in strategic services. Here, the rate and pace of change were deemed to be explained by eight factors: environmental pressure; supportive organizational culture; quality and coherence of policy; key leaders of change; agenda and locale of change;

quality of managerial clinical relations; simplicity and clarity of change goals; cooperative and inter-organizational relationships. Lastly, when looking at innovation (Pettigrew et al, 2003; Pettigrew and Fenton, 2000), mechanisms of changing structures, boundaries and processes were used to explain the change.

In a rare chance to review his work in a scholarly journal, Pettigrew (2012) succinctly rounds up his career: “the overriding intellectual purpose of my work has been to catch reality in flight. My interest is in the dynamic quality of human conduct in organizational settings... The process studies associated with my name have all treated time and temporality seriously. I have tried to make time for time, not only to reveal the temporal character of human conduct, but also to expose the relationship between human behaviour and the changing and multiple levels of context in which it is embedded. With this emphasis on the dynamic quality of human behaviour, there is also a quest for embeddedness in social and organizational analysis. This is achieved partly by locating present behaviour in its historical antecedents, but also by analysing individual, group, and organization behaviour in their sectoral, cultural, economic, social, and political contexts” (Pettigrew 2012: 1305).

With Pettigrew’s statement in the last paragraph, we can attest his ultimate concern with the process of strategy. In a fruitful research trajectory, he forever changed the landscape of strategic change inquiries with the publication of his seminal work on ICI, ‘The Awakening Giant’ in the year 1985. Through this and subsequent work, he has tried time and again to explain how context, content, process and outcome intertwine. His contextualist approach has relied on both structure and agency, carving out the mechanisms and patterns in a wide-ranging stream of actions followed over the course of many years. In his view, the explanatory power of his theorisation hinges on the primary use of context. In his view: “the power of context as an explanation of action and the outcomes of action is enabled by the treatment of context as an interactionist field of multiple levels of analysis... It is critical to observe that the power of embeddedness as an analytical strategy can only be revealed by the opportunities to see context and action being played out over long periods of time. Embeddedness and temporality are reciprocal and need one another in analytical investigation... the process analysts’ repetitive questioning about ‘how’ embodies this constant search for underlying mechanisms which drive processes, and the equally

repetitive questioning about ‘why’ is the key to establishing causal links between process mechanisms and outcomes” (Pettigrew, 2012: 1315-1316). This broad and holistic use of context in analysis and explanation aims to cover both the deliberate and emergent, discussing not only the rational and linear aspects of the change processes, but also the social, political and cultural features of it. While contextualism goes a step further than mainstream deliberate analysis, it however does not fully get to covering the more emergent aspects of change. In the end, Pettigrew seems to point at management and their capacity (or lack thereof) to sustain an ability to/for change. However, his reliance on underlying mechanisms and patterns to explain change points to an ultimately entitative set up.

Like Mintzberg (1979) and Pettigrew (1985), Gerry Johnson espoused an interest in strategic management issues from a process perspective. Following these two authors, Johnson (1987, 1988) placed himself within the cadre of scholars interested in studying processes of strategic change in organizations, with an aim to incorporate a more comprehensive view of strategy. Although he later developed a more practice-oriented assessment of strategy, a strand covered in a successive subsection of this review, his early work featured empirical studies consisting in longitudinal, contextual case studies rich in qualitative accounts of strategic change.

At the time when he was conducting his early work, Johnson’s interest in the dynamics of change was in direct contention to the preeminent deliberate and rational studies of strategy of the period, something that he himself acknowledged and made a point of. For instance, he stated: “this research was concerned to study strategic change as a longitudinal, contextual process, rather than as the espoused theory of managers. It will be shown that a somewhat different picture of the process of strategic management emerges if patterns of development of strategy in the business are examined in terms of the events, dramas and routines of organization life and the belief systems of managers” (Johnson 1988: 80).

Johnson’s notable work in the realm of strategy process can probably be fairly condensed by considering his empirical work and conceptual contributions emerging from a study of a retail clothing company over a 15-year period (Johnson 1987, 1988). Here, he tries to explain the complex aspects of undergoing strategic change within the internal culture of the organization. In doing it, he rejects the (rational) notion of

managers as proactive formulators of strategy, who are able to deliberately adapt the complexities of the environment for configurational fit between the inside and the outside of the firm. Instead, Johnson takes an 'organizational action' view of strategy formulation, which he contrasts with the former view summarizing quite conveniently: "...strategy can best be seen as the product of the political, cognitive and cultural fabric of the organization. The expectation would be that strategic decisions could be explained better in terms of political processes than analytical procedures; that cognitive maps of managers are better explanations of their perceptions of the environment and their strategic responses than are analysed position statements and evaluative techniques; and that the legitimacy of these cognitive maps is likely to be reinforced through the myths and rituals of the organization" (Johnson, 1988: 80). Throughout the study, Johnson develops a particular view of strategy development, which hinges on the context where the change unfolds, and incorporates its social, cultural and political aspects.

Johnson formulates his contribution as the 'cultural web', a tool to drive strategic cultural change within an organization. His web is made up of 7 elements, which include the organizational paradigm, rituals and routines, stories, symbols, power structures, control systems, and organizational structures. Johnson proposes culture effectively as the way to read and drive an organization's strategy. In his view, the culture represents the way things are done in a firm and the reasons for its past success, but also the social and cultural artefacts that make it up (e.g. its unique routines and symbols, etc.). Hence, tooling managers/strategists in the firm with the cultural web, they will be able to map (and re-map, as needed) the culture of the organization for competitive advantage. In addition, barriers to change can be identified, discussed and dealt with (Johnson 1987, 1988).

All in all, Johnson's extended study of the Coopers retailing organization, and through it, his contributions to the area of strategy formation and development, marked an important endeavour in the process strand of strategic management. At the time, the empirical study he embarked on contributed firmly to a then very limited empirical portfolio of process thinking. His culture-infused approach to tracking strategy constitutes a practical tool for managers trying to cope with competition and change since it covers not only the underlying beliefs and narratives of the organization, but

also its more formal structures and systems. By making use of it, strategists in the firm can voluntarily try to shape their internal environment through social, political and cultural angles in an attempt to find an effective match with the external environment. In the end though, the elements in Johnson's cultural web denote an entitative underpinning more concerned with states and entities than with movement. The cultural web is probably more attuned to getting to process outcomes than to deal with the dynamics of unfolding change, something which also makes the tool more deliberate than emergent.

In the paragraphs immediately above, a selection of what makes up the thin portfolio of early studies in the strategy process tradition was reviewed. One by one, the work of influential scholars who publicly committed to the establishment and furthering of the process perspective in strategic management was considered. The aim was to explore the merits and limitations of the process enquiry in strategy and the way it unfolded in its early days. Here, the interest lies in understanding how firms compete for advantage, as opposed to what constitutes competitive advantage, a question that was explored in the preceding section.

In order to do this, the contribution of some of the first, -and arguably some of the most representative-, thinkers in strategy process was dissected. This included exploring the work of Henry Mintzberg, Andrew Pettigrew and Gerry Johnson. In all cases, the work was found to have an entitative underpinning, which was more concerned with states, mechanisms, patterns, and elements than with force, movement, and (other) change dynamics. While an interest in taking a process perspective was clearly declared, the theorisation and conceptual abstractions proposed by the scholars in their theories seemed to link more easily to entities than to emerging and unfolding processes. For instance, Mintzberg proposed configurations, Pettigrew focused on the context and action(s) of change, and Johnson suggested a cultural mapping of the organization.

Nevertheless, at a time when mainstream strategy was dominated by rational and deliberate ideas, these studies and scholars have firmly contributed with their distinct approach. They looked at organizational change processes with an interest in understanding how strategy unfolds over time. Their commitment to longitudinal

research projects spanning several years stood in clear difference from mainstream strategy work being pursued at the time using the variance approach.

In terms of understanding how firms compete for advantage, the process scholars reviewed here probably stand on slightly different terrain from one another. For example, if we evaluate Mintzberg's work, competitive advantage likely hinges on finding (and attaining) the adequate configurational fit between the structure of the firm and its environment. For Pettigrew, it is about having (and maintaining) an ability to change, thereby being able to assert change and ensure continuity in the firm's journey. And lastly for Johnson, competitive advantage is probably connected to periodically carrying out a cultural map of the organization. It can also be noted that while all three scholars took an interest in organizational change journeys, of the three, Pettigrew was the one who perhaps most explicitly took an interest in the change processes concerning the competitive advantage of the firm, through his competitiveness studies (Pettigrew and Whipp, 1991).

2.4.4 The Practice Turn: The Strategy-as-Practice Perspective

The present subsection pays attention to a stream of literature that arose in strategic management over the past two decades. Dubbed strategy-as-practice (s-as-p), this particular approach has been suggested as a distinct way into the actions and activities of strategy work (Whittington, 1996; Johnson et al, 2003; Jarzabkowski et al, 2007; Chia and MacKay, 2007; Jarzabkowski and Spee, 2009; Golsorkhi et al, 2010). As expressed by some of the scholars driving this area of research, s-as-p is specifically interested in "the micro-level activities, processes and practices that characterize organizational strategy and strategizing" (Golsorkhi et al, 2010: 1).

To foreshadow vaguely the research activity within s-as-p is deemed both pertinent and timely when considering the question of how firms compete for advantage. First, this practice-oriented approach fits naturally under the process perspective we have been discussing in the second part of this review. Given that s-as-p is interested in the actual doings of strategy formation, implementation, and organizational strategizing more generally, it corresponds with a process view of strategy that is concerned with the 'how' of strategy work. Second, its practice

orientation, with a clear focus on activities and actions, denotes a research perspective complementary with the wider practice turn in the social sciences. More on this follows.

As a theoretical perspective, the s-as-p approach originated on the back of the so-called practice turn in social theory. The turn refers to a realization, identified and developed in several branches of the social sciences, regarding the fundamental role of practices in social reality. Thinkers across several schools of thought have facilitated this realization, including sociologists (Giddens, 1984; de Certeau, 1984), philosophers (Wittgenstein, 1951; Foucault, 1977), anthropologists (Bourdieu, 1990), and activity theorists (Vygotsky, 1978).

In s-as-p, the turn was interpreted as a way into the activities and practical reasons of the actors and communities building the social context in the practice of strategy.

Within strategic management, the peculiar absence of human agents/groups in mainstream strategy theory suddenly dawned on scholars in the field, opening up this conceptual angle as we know it (Jarzabkowski and Spee, 2009). For instance, in 1996, Whittington observed the field's inclination to see strategy processes as a whole, thereby ignoring the micro-level, ordinary, everyday activities of the people and organizations doing the actual strategy work (Whittington, 1996). In 2003, the research agenda of s-as-p was characterized for the first time as "the close understanding of the myriad, micro activities that take up strategy and strategizing in practice" (Johnson et al, 2003: 3). Back then, the approach was referred to as the 'activity-based view of strategy', perhaps following earlier perspectives with similar names, e.g. the resource-based view of the firm, the knowledge-based view of the firm.

Writing on the subject again a decade later, in 2006 Whittington ascribed the activities of strategy to the wider social context, proposing s-as-p along a three-piece framework of practices, praxis and practitioners (Whittington, 2006). In his view, practices are the routine behaviours that strategy practitioners draw upon when performing strategy work; praxis is the actual, situated work of strategy; and practitioners are the actual people doing, influencing and implementing strategy. A year later, Johnson and collaborators proposed another all-encompassing framework based on the level and type of analysis performed within s-as-p (Johnson et al, 2007).

Here, the levels identified were three: a micro level of actions, a meso level which corresponds to the firm or organizational level, and a macro level corresponding to the wider field. In turn, the types of analysis suggested were those concerning strategy content matters, and those concerning strategy process.

Further conceptual development came with a timely review by Jarzabkowski and Spee (2009), where a typology of s-as-p research was proposed along the lines of the frameworks that had been proposed prior. The typology is based on two dimensions: the level of the praxis, and the type of practitioners. Here, nine possible domains were identified. Micro-praxis by an individual actor within an organization (domain A), meso-praxis by individuals (domain B), macro-praxis by individuals (domain C), micro-praxis by aggregate actors within an organization (domain D), meso-praxis by aggregate actors (domain E), macro-praxis by aggregate actors (domain F), micro-praxis by extra-organizational aggregate actors (domain G), meso-praxis by the extra-organizational aggregate (domain H), and macro-praxis by the extra-organizational aggregates (domain I). Theoretical and empirical research was identified in all but a couple of domains, witness to a growing body of knowledge around the practice perspective in strategy.

When considering the research contributions of s-as-p as a distinct approach, we can appreciate its activity orientation, often performed at a micro-level. Its interest in the actual doings of the actors and groups involved in strategy has remained a constant. This is of value in the face of an inquiry regarding how firms compete for advantage given that both are concerned with processes and actions happening over time. However, when we consider more closely some of the central themes that have been explored within s-as-p thus far, questions around the actual doings of competing for advantage remain. For instance, extant research couched s-as-p as discourse (e.g. Vaara et al, 2004), sensemaking (e.g. Balogun and Johnson, 2004, 2005; Stensaker and Falkenberg, 2007; Rouleau, 2005), power (e.g. Laine and Vaara, 2007; Mantere and Vaara, 2008), identity (e.g. Rouleau, 2005; Mantere, 2005; Nordqvist and Melin, 2008; Jarzabkowski et al, 2007), strategizing tools (e.g. Seidl 2007; Spee and Jarzabkowski, 2009), or micro-activities in specific organizational settings (e.g. Vaara et al., 2004; Paroutis and Pettigrew, 2007; Maitlis and Lawrence, 2003). Yet, the movement that comes with tracking the processes, practices, and change of competing

for advantage over time is not elaborated, leaving it as a potential area for future research.

In the end, the limited answers on the matter of competing for advantage can be traced back to the (still) entitative underpinning of the s-as-p approach. Although the angle of the research at the outset is clearly processual by way of its preoccupation with activities spanning time, the end result denotes a reality constitutive of entities, not processes. This can be seen in the way the theorisation is set up, which draws on issues of structure and agency to explain reality and propose practice knowledge. Often, actors and organizations are charged with intention, will and choice, and structures with deterministic influences, interplay from which practices emerge. This set up denotes the primacy afforded to agents and structures, by way of which practices come in as a result.

In response to the limitations of the approach, an alternative was proposed under the theme of strategy-in-practice, which is considered in the ensuing subsection.

2.4.5 A More Nuanced Practice View: The Strategy-In-Practice Approach

As we have seen in the preceding subsection, the strategy-as-practice (s-as-p) field has been an active one since its initial establishment. The interest in furthering the practice perspective in strategy research continues to this day, making it a contemporarily busy area of enquiry. However, its success does not mean s-as-p is without its detractors or alternative views. In this subsection, we shall spend a little bit of time going over a slightly different practice orientation, the strategy-in-practice (s-in-p) approach, which was proposed in contention to s-as-p.

Over the past two decades, Robert Chia and his collaborators have spent some time evaluating the merits and limitations of the s-as-p field as it stands today (Tsoukas and Chia, 2002; Chia and Holt, 2006, 2009; Chia and MacKay 2007; Rasche and Chia, 2009). In the process, they have proposed a different ontological and epistemological angle to the practice perspective, which resulted in the proposition of the ‘in-practice’ approach. In what follows, this particular perspective will be briefly considered for its own strengths and drawbacks, with a further discussion of the ontological and

epistemological underpinnings of the approach dedicated in the ensuing chapter (see section 3.3).

To argue their way to s-in-p, Chia and his colleagues make reference to the practice turn in social theory, which opens up their theorisation drawing board and allows them to position s-in-p in contention to s-as-p. To start their theorisation journey, they draw on the work of Heidegger (1971) and Bourdieu (1990) to argue their approach as a more explicitly emergent take on practice, which for them is a socially-embedded process. For instance, at the onset of their argument, they refer to Heidegger's (1971) being-in-the-world as a more sensitive ground for a practice orientation due to its immanent nature and its emphasis on the experience of existence, or rather, existing. From there, they interpret Bourdieu's (1990) work on practice as fertile land from where to launch their approach. Specifically, they make use of Bourdieu's notion of 'habitus' or the "systems of durable transposable dispositions" emanating from "the *opus operatum* and the *modus operandi*...the incorporated products of historical practice" (Bourdieu, 1990: 52-3). In their interpretation, habitus is defined as "a durable disposition or attitude toward the world that is common to a group of people" (Chia and Holt, 2009: 129). What this ultimately does is allow them to embed the agents and their actions into the notion of practice, thus giving primacy to practice. In their words: "it is agents and processes that are subordinate to, and constituted from practices and practice-complexes. Consequently, it is the unconsciously acquired practice-complexes that generate the possibilities for strategy, not so much individual consciousness and intentionality" (Chia and MacKay, 2007: 232). In this way, Chia and collaborators argue that through habitus, we are socialized into certain practices that "...orient and educate our attention and share our dispositions" (Chia and MacKay 2007: 232).

The philosophical foundations on which they build s-in-p are threefold. First, given the primacy of practices over agents, actions, and processes, the effectiveness of actions is ascribed not to an agent's intentions, meanings, and choices, but rather to his or her practices, or the "historically and culturally shaped internalized propensities and dispositions" (Chia and Holt, 2009: 129). Second, the process of socialization plays a huge role in determining how an agent acts, effectively affecting his or her *modus operandi*, which in turn affects strategy outcomes. Here, they provide examples

of social processes such as cultural transmission, socialization, institutionalization, and disciplinary regimes to help us understand that it is the broader process of socialization, and not (only) an actor's intentions, which determines how we act. Not only that, but they go as far as to suggest that socialization is so influential in determining action that the very idea of deliberate choice is questioned (Chia and Holt, 2009; Chia and MacKay, 2007). Third, and following from the previous two philosophical underpinnings, the locus of engagement of the s-in-p inquiry is the field of practice, and not, as with s-as-p, the actions of individuals. In line with this, they propose "the study of practice demands a perspective which situates the practitioner, right from the start, in the context of an active engagement with the constituents of his or her surroundings" (Chia and MacKay, 2007: 233; Chia and Holt, 2009: 131).

The s-in-p approach was conveniently summarized by Chia and MacKay (2007:238): "a post-processual practice perspective views practices as social skills that have been culturally acquired, and as such, oftentimes unconsciously absorbed. This implies that practices, like strategy-making, are not always directly attributable to individual intentions and purposes but are influenced by materially acquired predispositions. Strategy-making does not always involve the necessary formulations of goals, mental maps or plans. It may well be true that when breakdown occurs, or when routines have been established, deliberate purposefulness strategizing may occur. But this is more the exception than the rule. For the most part, strategy-making on an everyday basis takes place unreflectively, on-the-spot and in the twinkle-of-an-eye". The approach, then, takes a more holistic view of strategy work in that it tries to account for both the emergent and deliberate aspects of it.

In trying to clarify their approach further, Chia and his collaborators briefly imagine a methodological approach that would be sensitive to their proposition. In doing so, they call for a 'near-documentary' style of research that tries to capture the experience of being. They say: "we want to get a sense of strategy as an undertaking of disclosure in which the future and past are felt in the unfurling present rather than set out along linear extensions and measured entirely in clock time" (Chia and Holt, 2009: 132). While this notion garners interest, as of present time, the 'near-documentary' method/technique has not been used or developed empirically, perhaps

due to the methodological and practical challenges borne out of its immanent philosophical foundation. More on this in chapter 4.

Overall, the s-in-p approach holds as a distinct perspective within the practice strand in strategic management. By carving its own ontological and epistemological position, it contrasts well with its more popular intellectual sister, the s-as-p literature. By drawing on broader social theory, s-in-p argues its way to a philosophical foundation that gives priority to practice over agency and structure. We see here that its proponents subject agency and structure to a notion of practice that is rooted in the immanent nature of the living experience through the process of socialization. This particular positioning signals a processual underpinning and in so doing, it differs from the more entitative perspective taken by s-as-p theorisation. In addition, the way its proponents describe the approach, and their understanding of strategy shows a concern for emergence and movement/change, as well as a recognition of the deliberate aspects of strategy work. This embracing of both the emergent and deliberate features of strategy is significant. As was the case with other approaches and perspectives reviewed prior, more entitative and deliberate theories have dominated the strategy field thus far. And while here we have a recognition and awareness of both deliberate and emergence, care needs to be applied to consider the particular inclination of Chia and his co-authors. In some cases, the particulars of the argumentation points to a view of strategy that is perhaps more emergent than deliberate. Chia certainly spent some time developing a comprehensive intellectual exercise out of this idea. In his book, authored with Holt, 'Strategy without design' (Chia and Holt, 2009), the whole premise rests on recognising the extent of the emergent character of strategy work. However, as was pointed out before, no empirical use of s-in-p has been produced to date, something that possibly reduces the force and standing of this carefully developed perspective; if no empirical application exists, doubts can potentially arise regarding the practical use and value/impact of the theorisation.

Now, going back to the guiding question of this section, that is, how firms compete for advantage, the s-in-p probably offers some value. The approach is essentially a process perspective, formulated in terms of the practice of strategy as an activity, as something people and organizations do. Here, the approach stands in contrast to other models and theories of strategy that ultimately see competitiveness as

entities in the forms of capabilities, positions, knowledge, configurations, and the like. In the eyes of Chia and collaborators, competition is probably a relentless occurrence, unfurling in the now, encompassing the past and continuing into the future. As such, we can start to appreciate why illustrating this perspective in real life has proven a challenge to this particular group of scholars.

2.4.6 Summary: The Process Perspective on Competitive Advantage

The last five (sub)sections presented a critical consideration of the process perspective in strategy, particularly as it concerns the question of how firms compete for advantage. The goal was firstly to identify the roots and aims of the process standpoint, and from thereon, to review and evaluate its extant literature. In strategic management, this perspective is known as the process perspective; it takes an interest in understanding how strategy unfolds and how firms compete for advantage over time (Furrer et al., 2008). In the wider literature on organisation studies and the social sciences, this perspective is referred to as ‘process’, ‘processual’, or in some instances, ‘post-processual’, due to its interest in explaining the processes through which reality happens (Chia, 1995).

Since the process perspective stands in direct contention to the entitative worldview, part of the discussion in this section was dedicated to elucidating a bit further how these two perspectives differ in ontological and epistemological terms. While in process terms the interest lies in understanding reality as unfolding processes, from an entitative vantage point the playing field is constitutive or substantialist, in that reality is made up of things, substances, entities. Crucially, the processual worldview incorporates the role of time and change, given that processes are activities and events that span time.

The discussion in this section recognized the differing approaches taken by each perspective to carry out research. Most notably, it was noted how variance approaches are more naturally aligned with entitative studies, while process approaches are in principle more compatible with process-oriented research. However, the review uncovered how process studies can start with process intentions and yet finish with entitative underpinnings. We pick up on this point again later.

In 1985, Mintzberg and Waters pointed to the deliberate and emergent features of strategy (Mintzberg and Waters, 1985). This particular instance in the scholarly debate of the field cannot be overlooked. Up to that point, strategy was mainly seen as deliberate and rational. Yet after this intellectual intervention, the emergent, process avenue was opened up.

As was established, some of the early works carried out in the process tradition contributed firmly to a new conception of strategy and competitiveness where the how of time and change was embraced. The questions changed. They were no longer about ‘the what’ of strategy, or ‘the what’ of competition, but rather, ‘the how’ of doing strategy and competition. Time was of interest. Change was of appeal. How do we explain the activities of strategy? How do they unfold? Competitiveness was not assumed indefinite (as in the content perspective), but uncertain and continuously changing.

Longitudinal research commitments spanning several years (e.g. the tracking strategy cases, the ICI studies, the Coopers study, as discussed before) stand to this date as proof of the differing ambition of process-oriented strategy scholars. The review started by looking at the work of Henry Mintzberg, Andrew Pettigrew, and Gerry Johnson, and it showed how their respective points of departure had one thing in common: an interest in the doings of strategy. They started with an aim to explain the how and why of strategy outcomes and performance. Methodologically, their approach was different from the dominant ‘single-snapshot technique’ (Avital, 2000: 666) of the time, professing preferences for longitudinal qualitative work that followed the comings and goings of firms over considerable periods of time. The data was rich and spoke of the intricate journeys of the organizations and strategists under study. Yet ultimately, their process orientation was condensed to entities and states, consequently diminishing and partially fulfilling the promise of process strategy. For Mintzberg, it came down to configurations (Mintzberg, 1979a; Mintzberg, 1990a); for Pettigrew, it was context (Pettigrew, 1985; 2012), and for Johnson, culture (Johnson, 1987, 1988).

Over time, the strategy field took a practice turn, with strategy-as-practice being developed in order to expose what people doing strategy actually do, i.e., to expose the practice of strategy. Often, this entailed looking at the micro-level activities

of individual actors or aggregate actors within a firm. However, perhaps due to the differentiation between levels of activity and a possibly overdue focus on the micro level, the approach has encountered problems linking specific findings with the outcomes of strategy processes observed in forming and implementing strategy.

In defiance of strategy-as-practice, the strategy-in-practice approach provided a different reading of the practice perspective. The reading assigned primacy to practice over agents and actions, yet, as was highlighted, its lack of empirical development leaves its perhaps more process-oriented view an unfulfilled potential.

Taking the process perspective as a whole, this review finds that this particular strand of research is of yet incomplete, not fully developed. While the incorporation of process, time, and change did much to contribute to the thinking in strategy, illustrating how strategy happens and how practitioners work, it is still mostly entitative underpinnings leave room to go back to its original premise: that of uncovering the emergent, and adding the movement and fluidity that comes with change. Hence, the question of how firms dynamically compete for advantage is deemed still open for theoretical and empirical investigation.

In the next section, the recurring conceptual tensions found both in the content and process perspectives on competitive advantage are discussed.

2.5 (Recurring) Conceptual Tensions

The review conducted in this chapter leaves open the question of how firms compete for advantage over time. Time and again, the critical discussion signalled inconclusive knowledge around the process of competition. Often, the discussion spoke of limitations, which were multiple and of varied nature throughout. In all cases, the issues were linked to seemingly confronted notions arising from different worldviews, theoretical underpinnings, and/or philosophical asymmetries. Examples that can be recalled as a case in point have to do with several issues. For instance, a parallel between the entitative and process perspectives; content and process ideas in strategy; deliberate versus emergent models; industry-level frameworks set against firm-level ones; micro, meso, and macro divides; variance against process approaches; cross-sectional research contrasted with longitudinal studies; structure confronted with

agency; or deterministic approaches faced with voluntaristic ones. This section takes the discussion further by addressing the recurring theoretical strains, identified as conceptual tensions, and considers them for their practical implications on the study of competing for advantage.

Upon encountering some of these conceptual difficulties, other scholars have pointed they may have to do with the meta-perspective with which the research was approached. For instance, Gomez (2010) uses a Bourdieusian approach to overcome some of the frequent dichotomies in strategy. She argues Bourdieu (1990) provides a useful systemic view of practice that prevails the relationship between agents and their surrounding field(s). Like this, she does away with the opposition between micro and macro, structure and agency, and rationality and emergence.

To be sure, perhaps the most fundamental distinction made in researching competitive advantage thus far has been the standpoint from which the work was approached. As was recognized in these pages, the content/process divide in strategic management can be traced back to the inception of the field, having certainly affected the way competitiveness is understood and explained: as a possession, property, or state, from its content/entitative perspective, or as a process to be tracked over time, from its process perspective.

Notwithstanding the content/process divide, the review also highlighted the two camps are curiously connected. For instance, the discussion touched on process notions in the content literature, such as the Porterian value system (Porter, 1980, 1985), as well as content features in the process strand, such as Mintzberg's configurations (Mintzberg, 1979a). Is there a way to overcome the dichotomies and pursue the research on competitiveness in a more holistic manner?

Chia and his collaborators seem to have explored this idea to some extent (Tsoukas and Chia, 2002; Chia and Holt, 2006, 2009; Chia and MacKay 2007; Rasche and Chia, 2009). They start by dissecting the entitative and process views. In their assessment, the entitative perspective is underwired by an ontology of 'being', that is, it takes an interest in the nature of things. Hence, this 'being' perspective "privileges thinking in terms of discrete phenomenal 'states', static 'attributes' and sequential 'events'" (Chia, 1995: 579). This is different from the process perspective, equipped with an ontology of 'becoming', which "emphasizes a transient, ephemeral and

emergent reality... deemed to be continuously in flux and transformation and hence unrepresentable in any static sense” (Chia, 1995: 579). Further, they argue in favour of a reconciliatory ‘processual’ perspective of Heideggerian nature, that of being-in-the-world, which is ontologically prior to both being and becoming, and hence encompasses the two (Heidegger, 1971; Chia, 1995; Chia and Holt, 2009). It is precisely this primary distinction that is seemingly able to provide further clues to some of the other tensions, and they refer to it as a post-processual stance.

In the realm of knowledge, Chia and colleagues again point to the differences created by the being/entitative and becoming/process perspectives, questioning whether knowledge is static or dynamic. While the being perspective sees knowledge as an entity that defines what do to, the becoming perspective seeks how-to knowledge, establishing how to do something (Chia and Holt, 2009; Chia, 2014; Pettigrew, 2012; Langley, 1999). From a post-processual perspective, they offer the notions of ‘ambulatory knowledge’ and ‘knowing-as-you-go’ to refer to the more immanent experience of knowing (Chia and Holt, 2009).

When it comes to action, Chia and his co-authors argue the being/becoming difference by asking whether it happened deliberately or non-deliberately. In an entity-filled reality, actions are deliberate, intentional, and thus, ‘purposeful’. In a processual reality, actions are the opposite. They emerge spontaneously, non-deliberately, ‘purposively’. In their words, “in purposeful activities, there is a conscious deliberation and planning involved and cognitive representation is presupposed. The outputs of such purposefulness are tangible products... In purposive acts, however, there is no predefined ‘end purpose’ in mind. Action emanates spontaneously from the internalized disposition of the individual; it is an act of disclosure more than an act of production” (Chia and Holt, 2009: 110). In a more immanent state, they argue, action unfolds in the mode of ‘spontaneous emergence’ or ‘local practical coping’.

2.5.1 A delve into the literature looking at the deliberate and the emergent

Notwithstanding what was exposed in the previous sections, there is a more recent part of the literature that takes care to uncover perspectives looking at the

deliberate and the emergent aspects of strategy. These studies hold relevance for this study on competing for advantage and shall be considered here.

Mirabeau and Maguire (2014)'s research in a global telecommunications equipment provider between 1997 and 2006 uncover why some strategic behaviours become emergent strategy. The authors recognise that while some autonomous behaviours endure in the strategy of the firm, others become ephemeral and develop as part of its emergent strategy process. The article provides a model for emergent strategy formation by elaborating the role of practices which articulate the strategy of the firm. In particular, the authors offer a view into strategic behaviours which are not constant but emergent and ephemeral, and how these provide impetus to impact the organisational context by temporarily embedding themselves into the firm's objectives, units, and routines.

Kopmann et al (2017), in a study based on 182 firms at the project portfolio level, argue that both deliberate and emergent strategies complement each other and influence project portfolio success. The authors point out that this is particularly relevant in period of turbulence in the environment, where the case for top-down, deliberate strategy implementation decreases. However, in such environments, this study has found that possibilities for emergent patterns unfold along with the implementation of intended activities. Based on their findings, they argue that deliberate strategy implementation along with recognising the role of emergent strategy have an impact on performance and strategic control.

In a longitudinal study of a multinational firm between 2001 and 2014, Demir and Knights (2021) consider the practice of innovation by looking at top-down, formal, deliberate procedures along with deviant, non-formal ones. The study shines a light on how these deviant, non-sanctioned practices, referred to as unsanctioned practice innovations, have varied productive and sometimes creative effects on formal innovation and its top-down planning. By analysing these deviant practices in an in-depth study, the authors argue that unsanctioned practice innovations have implications for the formal innovation process by enabling diverse deviant manoeuvres and novel approaches to organisational problems.

Aspara et al (2023) study the history of the Nokia Corporation between 1986 and 2015 considering how chance events and political dynamics impact strategic

change. According to this study, chance events and their resulting political dynamics generate periods of indeterminacy in the firm, where several competing strategies emerge. Interestingly, these competing strategies become apparent either directly following chance events, or indirectly from the dynamics generated by the political tensions in the environment. In the process of finding strategic direction, multiple strategic scenarios are considered until the indeterminacy ends when the firm collectively converges upon an acceptable strategic direction.

Eisendhart and Sull (2001) and the more recent offering by Foss et al (2022) constitute efforts in the literature to further Mintzberg's perspective on emergent strategy in dynamic, complex, and/or fast-moving environments. Eisendhart and Sull (2001) recognise the impossibility of knowing how long a competitive advantage could last. While stable markets may allow firms to follow sophisticated rules and strategies developed on the basis of detailed scenarios of the future and rational analysis, the authors argue that the inherent uncertainty in markets and their complex dynamics pose challenge for the firm in handling their sources of advantage. In these more complex and rapidly changing environments, Eisendhart and Sull (2001) suggest seizing on the opportunities that emerge in the here-and-now by following simple rules and uncomplicated strategies. Foss et al (2022) equally recognise the dynamic nature of the environments in which firms often operate, dwelling on the writings of F.A. Hayek to complement Mintzberg's view on emergent strategy. In the authors' perspective, Hayek's work holds relevance in the way rules emerge from knowledge that is experiential and often developed on the back of tacit, adaptive and dispersed possibilities within the dynamics of organisational environments, allowing the firm to handle unanticipated consequences through a framework of inimitable rules that enable it to better manage advantage through the emergent aspects of the strategy process.

In a noteworthy theoretical contribution which considers relevant examples from prior literature, Nayak et al (2020) offer a model for skilled adaptive action with implications for a view of advantage that adapts and paves the way for the entrepreneurial fitness of firms. Crucial within the authors' perspective is a novel exploration of the dynamic capabilities notion, which departs from more mainstream interpretations of the concept by considering the role of tacit, idiosyncratic sensitivities

and predispositions that precede cognition. In their view, these sensitivities and predispositions are shared through social practices, particular to the history of each firm, enabling organisations to deal with external challenges in an effective manner through resources and capabilities which reconfigure, refine, and adapt according to the opportunities that emerge in the unfolding environment of the firm.

As we can see from above, the articles considered in this section pertain to more recent offerings in the literature where deliberate and emergent aspects of strategy have been considered. While none of these studies dealt with the process understanding of how firms develop competitive advantage over time, they nonetheless hold relevance for a study that looks to incorporate a process perspective on the way firms manage competitiveness and performance.

2.6 Concluding Lines: Competing Literatures on Competitive Advantage

How do firms compete for advantage? Such was the guiding question that gave the initial inspiration and direction to this chapter. Throughout its pages, the goal was to establish the state of knowledge on competitive advantage. As a construct, competitive advantage is arguably one of the chief notions in strategic management, a field enduringly preoccupied with firm performance (Porter, 1980; Lippman and Rumelt, 1982; Ghemawat, 1986; Hansen and Wernerfelt, 1989; Barney, 1991; Peteraf, 1993). Hence, the sustained interest around competitiveness in strategy comes as no surprise. More than that, it has been a busy and constantly reinvigorated area of study, resulting, in a way, in the creation of competing literatures (and notions) on what it actually is, what it entails, and how it unfolds. These competing ideas on competition are precisely what this chapter has considered, reviewed, and discussed.

One of the most poignant insights produced by the present review has to do with the existence of recurring conceptual tensions around the construct of competitive advantage. Studied as a theoretical and empirical idea; as an ontological, epistemological and methodological notion; as entity and process; competitive advantage has unsettled issues, puzzles yet unresolved. While the competing notions on competitiveness were all found to have their merits and demerits, none of them have fully addressed the processual aspects of competition as understood in terms of its change dynamics and unfolding processes over time.

In order to further the question on how firms compete for advantage, this review suggests that a more exhaustive assessment of the meta-theoretical underpinnings of extant knowledge is required. Chapter Three undertakes such a task, in the hope that doing away with these conceptual tensions might provide a better understanding of the process of competition. Following the two different worldviews often discussed in this review (i.e. the entitative and process perspectives), the next chapter considers whether re-conceptualising the notion of competition from that of 'being' (i.e. competition), to that of 'becoming' (i.e. 'competing') might uncover the emergent character of its change process (Tsoukas and Chia, 2002: 570).

III An Alternative ‘Competing’ Perspective



"This garden is beautiful," said Tiny Dragon.
Big Panda nodded. "And we only found it because we
went the wrong way so many times."

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3.1 Introduction

In Chapter Two, a literature review exploring the question of how firms compete for advantage was undertaken following the traditional content/process divide in strategic management. It was shown how the content literature is aligned with an entitative perspective interested in exploring the things, namely, the entities, that make up reality. Subsequently, the process literature was critically appraised, discussing how despite its concerns with the processes that make strategy and competitive advantage, oftentimes the extant process theory remains entitative, proposing entity-type concepts to explain strategy formation and implementation processes. By the end of the chapter, some of the recurring and enduring conceptual tensions around the notion of competing for advantage were discussed. In its closing lines, a deeper delve into the metaphysical underpinnings of the entitative and process worldviews was suggested for its potential to reconceptualise traditional notions of competitive advantage, shifting it from a 'being' perspective, which remains entitative, to a 'becoming' perspective, which offers a more immanent look into the dynamics of competition.

Hence, while the prior chapter assessed competing theories on the notion of competing for advantage, this chapter aims to develop another view on the topic. In other words, it sets out to explore an alternative 'competing' perspective. In order to do this, the initial task undertaken is a more thorough journey into the metaphysical underpinnings of the entitative and process worldviews. The first part of this chapter presents the results of this intellectual exercise, which includes an exploration into the ontologies of the entitative and process perspectives, as well as a review of the main philosophical paradigms used in strategic management.

The conversation then moves along to the second part of the chapter, where the 'becoming' perspective is explored for its potential to reconceptualise the question of how firms compete for advantage. This is done by drawing from the ideas of Robert Chia and his collaborators, who argues the becoming perspective from a 'processual'/'post-processual' standpoint dubbed 'wayfinding' (Chia and Holt, 2009).

Towards the end of the chapter, the recurring conceptual tensions identified in Chapter Two are reassessed taking into account the new 'wayfinding' perspective offered. This, we argue, represents a new frontier in competitive advantage research.

The chapter recapitulates by briefing the main insights discussed thus far, and concludes along the lines of the becoming perspective of competing for advantage proposed as wayfinding.

3.2 Entity or Process? The Metaphysics of the Entitative and Process Perspective

An ongoing debate in the social sciences is the one around the entitative and process worldviews, two distinct perspectives which stand in opposition to one another. Scholars in the social sciences, including strategic management theorists, have debated the implications of these two fundamentally opposed worldviews in the way reality is seen and understood (Tsoukas and Chia, 2011; Chia and Holt, 2009; Van de Ven and Poole, 2005). The debate centres around the distinct metaphysics of the two worldviews and its resulting impact on the nature of the theories proposed to explain management notions.

The entitative perspective, sometimes also referred to as the ‘substantialist’ worldview, rests on the fundamental proposition that reality is made up of entities, substances, or things. It can be traced back to the Greek philosopher Parmenides, who (first) posited the idea of a universe constituted of entities. It follows that in a world made up of things, process and change are secondary by-products of an entity-filled reality. Thus, this perspective gives primacy to entities over process. The entitative perspective is extensively ingrained Western thought; its popularity credited to Aristotelian thinking, which insisted that the world is made up of discrete objects (Ingold, 2000; Rescher, 1996; Whitehead, 1925).

By contrast, the process perspective sees process as being the fundamental constituent of the universe. In this worldview, primacy is given to processes, and consequentially, things are only regarded as temporarily stabilised instances of processes that are in the course of unfolding (Rescher, 1996). Although the process perspective is attributed to the ideas of the Greek philosopher Heraclitus in the Western world, it is considered a dominant philosophy in the East, particularly in Chinese and Indian thought (Whitehead, 1929/1978, p. 7, Chia 1996, 1997). Crucially, the notion of entities is not rejected in process thinking. Rather, entities are reconceptualised as

products of processes. Hence, from a process standpoint, a wave is understood as an instance in the process of currents flowing, a traffic jam is seen as a moment in the process of urban mobility. As conveniently stated by Rescher, process thinkers are “perfectly prepared to acknowledge substantial things but see them rather in terms of processual activities and stabilities” (Rescher, 1996: 52).

In substantial metaphysics, entities and substances are the building blocks of the world. These entities are seen as being discrete, individual, and separate, and they are connected, in the words of Ingold, by external contacts “whether of spatial contiguity or temporal succession” (Ingold, 2011: 236). This worldview stands in stark contrast to that professed by the process perspective, examined below.

The metaphysics of the process worldview was effectively synthesised by Rescher (2000: 5), who draws on Heraclitus to express the following: “...reality is not a constellation of things at all, but one of processes. The fundamental “stuff” of the world is not material substance, but volatile flux, namely “fire,” and all things are versions thereof (*puros tropai*). Process is fundamental: the river is not an *object*, but a continuing flow; the sun is not a *thing*, but an enduring fire. Everything is a matter of process, of activity, of change (*panta rhei*). Not stable things, but fundamental forces and the varied and fluctuating activities they manifest constitute the world. We must at all costs avoid the fallacy of materializing nature” (emphasis in original). In a similar vein, Whitehead (1929/1978; 1933) draws on Bergson (1922/99) to affirm “nature is a process”, thereby invoking change, historicity, temporality, and passage as fundamental truths that need to be dealt with in a process-oriented understanding of the world.

The sharp metaphysical differences between the entitative and process worldviews can be effectually illustrated with examples. For instance, it is common to hear ourselves say “it is raining”, referring to “it” as an entity that is carrying out the activity of “raining” (Chia, 1996: 159). Yet in actual fact there is no separation between the rain and its falling, which is why, as Chia (1996) observes, in certain languages of Oriental origin, this phrase would be expressed as “rain is falling”, in recognition of the fact that the rain, as an idea, *constitutes* its falling. Similar illustrations were pointed out by other scholars. For instance, Rescher (2000:7) mentions how in the evaporation or freezing of water, there is no entity effectively

producing this activity. Still drawing on processes of nature, both Rescher (2000:7) and Ingold (2011: 17) use the example of the wind to point out commonplace expressions such as “the wind blows” or “the wind freshens”, when in reality the wind *is* fresh, it *constitutes* its blowing. These and other illustrations can serve to contrast the differing ontological priorities afforded by each worldview. In the entitative perspective, entities, substances and things are given primacy, and processes are reduced or conceptualised as stationary, motionless conditions. Whereas in the process perspective, entities, substances and things *constitute* processes. In other worlds, things *are* the processes of their unfolding.

As we can start to appreciate, the contrast between the entitative and process worldviews can have an impact on the way competition is understood in research, the fundamental difference being whether we see it as an entity (i.e., competitive advantage) or as a process (i.e., competing for advantage). Following this distinction, we might refer to “firms having this or that competitive advantage”, or in the second case, “firms competing for advantage”.

The metaphysical journey started here is taken further in the ensuing subsections. First, subsection 3.2.1 discusses the differing ontologies of the entitative and process worldviews. Namely, the being and becoming ontologies are compared and contrasted. Second, subsection 3.2.2 uncovers the dominant underlying ontology in strategic management, teasing out implications for the question of how firms compete for advantage in its closing lines.

3.2.1 Being or Becoming? The Ontologies of the Entitative and Process Perspectives

Continuing with the philosophical exercise started earlier, the distinct metaphysics of the entitative and process worldviews points to the dissimilar ontological bases of these perspectives. Namely, the distinction places the ‘ontology of being’ against the ‘ontology of becoming’. In this subsection, we will explore what this difference is, and why it matters.

Following the entitative metaphysics, entities are the defining components of the universe. Chia (1997: 690) does a good job of synthesizing the truisms that make

up the 'being' ontology in five basic principles. First, reality is made up of discrete, separate things, which are isolated and exist independently of us noticing them. Second, things are primary to process, which in turn means that processes, such as change or transformation, are by-products of things. It also means that processes are not primary constituents of reality. By extension, the notion of being is primary to that of becoming, which is equivalent to saying that being comes before, or precedes, becoming. Third, the notions of stability, rest, and equilibrium are conceived of as natural states. Hence, movement or change only occurs when things are distressed, disturbed, agitated, or broken down. Fourth, change, transformation or adaptation can only be initiated by an external force. Importantly, this notion explains the widely held idea of 'causation' and its effects. Fifth, the priority given to entities means that the being ontology rests on a subject-object thinking logic, which in turn influences the categories of reality that are deemed decisive. Crucially, the being ontology and its fundamental assumptions continue to inform a great deal of social scientific thought in the current era.

The axioms behind the being ontology stand in stark contrast with those of the becoming perspective. The basic principles behind the 'becoming' ontology are suitably summed up by Rescher (2000: 5-6):

- “1. Time and change are among the principal categories of metaphysical understanding.
2. Process is a principal category of ontological description.
3. Processes are more fundamental, or at any rate not less fundamental, than things for the purposes of ontological theory.
4. Several, if not all, of the major elements of the ontological repertoire (God, Nature as a whole, persons, material substances) are best understood in process terms.
5. Contingency, emergence, novelty, and creativity are among the fundamental categories of metaphysical understanding.”

Thus, we can appreciate how from a becoming perspective, the time-bound aspects of reality are its most fundamental features. Change, temporality, and activity in

processes of novelty emergence, alteration, adaptation and passage are the most defining aspects of what is real.

An aptly-developed analysis by Chia (1997: 695-698) seconds and furthers the principles of the becoming ontology exposed above by Rescher (2000). As a starting point, Chia (1997) comments on the ultimate nature of the process-based becoming perspective by asserting the belief that “all things flow” in a perpetual, continuous process of becoming, change and transformation. This belief, which stands as an alternative to the more dominant truths of the being ontology, is built on the philosophical explorations of scholars such as James (1910), Bergson (1913ab) and Whitehead (1926/85, 1929, 1938), who in turn drew on the work of Heraclitus and Leibniz.

In a forceful statement, Chia boils down the becoming ontology by asserting “there are no fixed entities, no ultimate terms, no essences. In short, transition is the ultimate fact” (Chia, 1997: 696). From thereon, he moves on to call out the first theoretical priority of becoming. Namely, the primacy of activity and movement over things, entities and substances. Second, privilege is afforded to the process of becoming over the notions of outcomes and end states. Following this principle, a notion such as the firm, with its commonly-thought of features and discrete existence is seen, from a becoming perspective, as a temporal stopping, in our minds, of what really is a “dynamic and transforming complex of ever-changing interactions” (Chia, 1997: 696). Third, the essential feature of nature is change, not stability. This means that stability is only arrived at through our deliberate intellectual interference of what ultimately is a ‘moving’ reality. Finally, Chia (1997) comments on the principle of *immanence*, derived from Whitehead (1932), which refers to the idea that each unfolding moment contains in itself its genealogical past as well as its future, thus making it novel. He states: “Accordingly, the past is immanent in the present, and this fact implies that each outcome, each end-state is never straightforwardly what is appearing. Instead, it always embodies the events of its past. Thus, each moment of duration absorbs the preceding one, transforming it and with it the whole, constituting at each stage of the process a novel and never-to-be-repeated event” (Chia, 1997: 697). Noticeably, the principle of immanence signals a distinct conceptualisation of time and

duration, which stands in contrast to the idea of ‘clock’ or mechanical time intrinsic in the being ontology. This issue is picked up again in the following section (see 3.3.1).

As the preceding discussion uncovered, the difference between the being and becoming ontologies, embedded in entitative and process metaphysics respectively, is one of significance. Table 3.1 below summarizes some of the main points of discrepancy between the two perspectives by exposing their distinct conceptions of reality, nature, and change.

Table 3.1: The Being vs. the Becoming Ontology

	Being Ontology	Becoming Ontology
Reality made up of...	things, entities, substances	process, change, movement, activity, transformation
Theoretical priority to...	end-states, outcomes, entities	process
Primacy of...	being over becoming	becoming over being
Nature is...	static, stable, in rest, in equilibrium	flow, process, change
Change is...	initiated by external forces	nature’s essential feature

Source: Author, drawn from Rescher (1996, 2000), Chia (1996, 1997), Chia and King (1998)

As we have seen, the divergence between the being and becoming ontologies is fundamental. In the ensuing subsection, the playing out of this divergence in the realm of strategic management is discussed.

3.2.2 Competitive Advantage or Competing for Advantage? Underlying Ontologies in Strategic Management

The previous discussion served to establish the sharply delineated, clear-cut divergence between the being and becoming ontologies in research. The discussion is taken further here by considering how this divergence is displayed in the domain of strategy, specifically regarding the question of how firms compete for advantage.

So, taking our cue from 3.2.1, from a being ontology, competition is formulated as an entity involving stability and equilibrium as natural states, and a tendency towards outcomes and end-states. From a becoming ontology, competition is a relentless, always-unfolding process where movement, activity and transformation are theoretical priorities (Rescher, 1996, 2000).

Taking stock of the insights produced in the second chapter, which reviewed the state of knowledge on competing notions of competition in strategy, a link can be established between the being ontology and the content literature. We discussed how this stream takes an interest in the entities that constitute strategy, proposing the notion of competitive advantage as one of its central tenets (Furrer et al, 2008). Table 3.2 illustrates how this central notion has been studied in the jurisdiction of content strategy, putting into evidence the copious work of scholars in this area. Theories were proposed as early as 1817 with Ricardo's conception of comparative advantage. Other competing notions followed, going through Porter's (1980, 1985) influential competitive advantage theory, to Gunter McGrath's (2013) more recent notion of transient advantage. In all cases, the notion of competition was fundamentally linked to the outcome of firm performance, and even though the type of markets assumed by each theory might be different, they all discuss how performance is enabled by competition, and traditionally measured in terms of (economic) rents. Often, the role of the manager or strategist reveals the agency attributed, and throughout, an underlying being ontology can be uncovered. A second glance at the competing notions of competition in Table 3.2 can help us establish that in 'strategy as content', an entitative conceptualisation dominates. This conceptualisation can be boiled down to the leading notion of 'competitive advantage'.

Table 3.2: Competing notions of Competition in the ‘Strategy as Content’ Literature

Notion	Representative Author(s)	Level/Orientation	Nature of rents	Market	Manager/Strategist	Underlying Perspective
Comparative Advantage	Ricardo 1817	Macro	Ricardian	World market	Rational decision maker	Entitative/Being
Competitive Advantage	Porter 1980, 1985	Industry	Chamberlinean	Industries	Rational decision maker	Entitative/Being
Sustainable competitive advantage-(RBV)	Wernerfelt 1984 Barney 1991	Firm	Ricardian	Factor markets	Rational decision maker	Entitative/Being
Sustainable competitive advantage (KBV)	Grant 1996, 1997	Firm	Ricardian	Factor markets	Rational decision maker	Entitative/Being
Temporary competitive advantage (dynamic capabilities)	Teece et al 1997 Eisenhardt and Martin 2000	Firm	Schumpeterian	High-velocity, volatile	Schumpeterian	Entitative/Being
Transient advantage	Gunter McGrath 2013	Firm	Schumpeterian	High-velocity, fast-moving, globalized	Schumpeterian	Entitative/Being

Source: Author, drawn and adapted from referenced authors; Dagnino, 1996; Mellahi and Sminia, 2009, Sminia, 2021.

It serves to spend a bit of time analysing how entrenched the being ontology is in the field. This can be effectively done by exploring related entitative notions of competition, typically expressed in strategic management as ‘content’ notions. Tables 3.3 and 3.4 present some of the entity-type ‘content’ notions around competition in the content and process strands of the field respectively. For instance, we can recall how the Resource-Based View (RBV) of the firm proposed entities such as ‘VRIN resources’ or ‘core capabilities’ as the genesis of competitive advantage (Barney, 1991; Prahalad and Hamel, 1990). Even within the ‘strategy as process’ stream of the field, entities endure, using as a case in point Mintzberg’s (1979a; 1990a) configurations, or Johnson’s (1987, 1988) cultural map of the organization.

The aforementioned tables are presented in the next page.

Table 3.3: Content Notions of Competitive Advantage in the ‘Strategy as Content’ Literature

Content Theory	Representative Author(s)	Example(s) of Content Notion(s)	Underlying Perspective
Comparative Advantage	Ricardo 1817	<ul style="list-style-type: none"> • Factors of production 	Entitative/Being
Competitive Advantage	Porter 1980, 1985	<ul style="list-style-type: none"> • Position in the market or industry • Generic strategies: price leadership, differentiation, focus/niche • Five forces model • Value System 	Entitative/Being
Sustainable competitive advantage (RBV)	Wernerfelt 1984 Barney 1991	<ul style="list-style-type: none"> • VRIN resources • Core capabilities 	Entitative/Being
Sustainable competitive advantage (KBV)	Grant 1996, 1997	<ul style="list-style-type: none"> • Knowledge resource/capability 	Entitative/Being
Temporary competitive advantage (dynamic capabilities)	Teece et al 1997 Eisenhardt and Martin 2000	<ul style="list-style-type: none"> • Dynamic capabilities 	Entitative/Being
Transient advantage	Gunter McGrath 2013	<ul style="list-style-type: none"> • Transient advantage 	Entitative/Being

Source: Author, drawn and adapted from referenced authors.

Table 3.4: Content notions invoked the ‘Strategy as Process’ Literature

Process Theory/ Approach	Representative Author(s)	Example(s) of Content Notion(s)	Underlying Perspective
Configurational fit	Mintzberg 1979, 1990	<ul style="list-style-type: none"> • configurations 	Entitative/Being
	Johnson 1987, 1988	<ul style="list-style-type: none"> • Cultural map of the organization 	Entitative/Being

Source: Author, drawn and adapted from referenced authors.

Although it is clear that process notions of competition have not led the way in strategic management, some scholars do invoke process-type notions. Table 3.5 presents some of the notions that involve process conceptualisations. Yet, as commented in the prior chapter, these notions are invoked but they do not form the core of the theorisation. We can appreciate how for instance Porter (1980, 1985) refers to the cycles of an industry or a product, the notion of a cycle being a process in itself. We can appreciate how he relies on the notion of the cycle when composing theoretical frameworks both at the industry and country level, yet content (not process) notions, as discussed before, make up the basis of his theorisation. Perhaps this is due to the fact that these researchers, starting from a being entitative worldview, see these details as part of their underlying assumptions rather than as the core of the conceptualisation.

Table 3.5: Process notions invoked the ‘Strategy as Content’ Literature

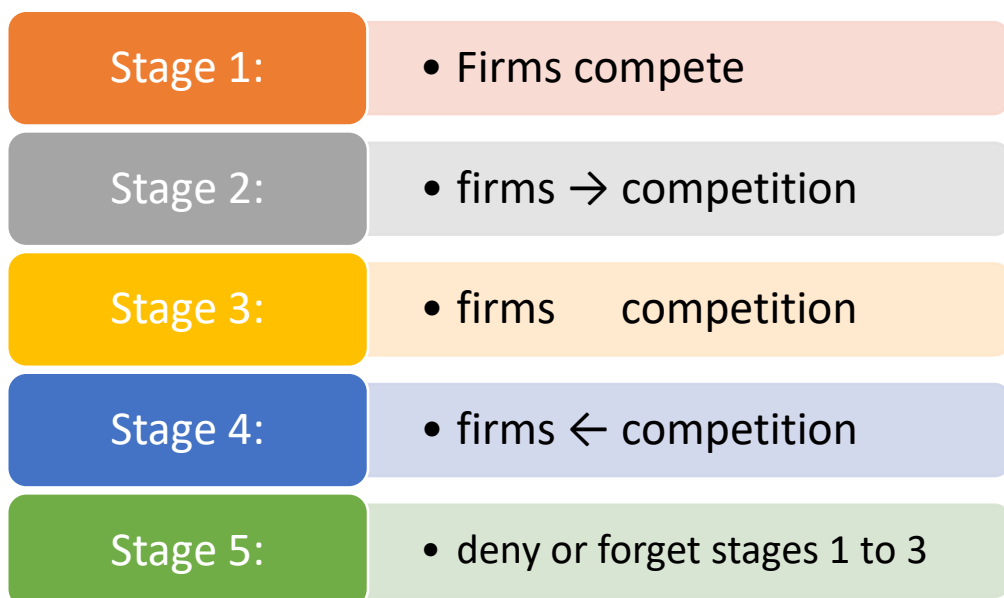
Content Theory	Representative Author(s)	Example(s) of Process Notion(s)	Underlying Perspective
Competitive Advantage	Porter 1980, 1985	<ul style="list-style-type: none"> • Product/Industry Lifecycle 	Entitative/Being
Temporary competitive advantage (dynamic capabilities)	Teece et al 1997 Eisenhardt and Martin 2000	<ul style="list-style-type: none"> • Capabilities that adapt over time 	Entitative/Being

Source: Author, drawn and adapted from referenced authors.

The thinking logic behind much of the mostly entitative (being) notions of competition in extant literature can be aptly revealed by drawing on Woolgar’s (1988) ‘splitting and inversion’ model of scientific discovery. Figure 3.1 illustrates this model adapted to the notion at the centre of this study, that of competition. Woolgar starts by commenting on the process of research in science, which typically gets underway by observing some occurrence in the world we inhabit. So, following the exemplar in

figure 3.1, in stage one, an observation: firms compete. This initial notion gives rise to a particular projection about the observation that becomes the legitimate object of the research. So, we see in stage two, firms projected as competition, making the reified notion of competition the focus of the investigation. In stage three, the object of study takes a life of its own and becomes separated, independent from our perceptions of it. Hence, stage three, competition is illustrated as separate from firms. In stage four, by inverting the relationship between our observation and the object of study, we come into a mislaid impression that it was in fact the object of the study that gave rise to our observation. So, we see in stage four this relationship is now reversed, and competition gives rise to firms. Lastly, in stage five, investigators become so accustomed to work in this inverted way that the first three stages are denied or forgotten. By this stage, a fallacy has been formed and maintained that researchers categorically assert the independence and existence of their objects of study. Whitehead (1926/85) referred to this as the ‘fallacy of misplaced concreteness’ (Rescher, 1996, 2000).

Figure 3.1: Woolgar’s model of splitting and inversion adjusted to the notion of competition



Source: Author, drawn and adapted from Woolgar, 1988: 68-69.

But what about the alternative process-based perspective, that of ‘competing for advantage’? The discussion entertained up to this point served to unveil how the dominant being ontology manifests in theorisations of competition. Ample evidence was put on display to discuss how entitative (normally dubbed ‘content’) conceptualisations of competition abound, effectively reifying competition into things typical of a being ontology: entities, substances or properties that make competition the possession of a firm, as in table 3.3. While some content theories did include process notions, as demonstrated in table 3.5, these were invoked or assumed, rather than explained or theoretically developed. Further, table 3.4 served to discuss to what extent the being ontology is entrenched in strategy, presenting examples of content notions formulated in theories developed within the strategy-as-process literature.

It is clear then how the entitative perspective exerts a strong influence across both sides of the content/process divide in the strategy realm. Effectively, we have seen there is process in content, as well as content in process. Yet ultimately the entitative being ontology prevails, and thus competition, theorised as content (i.e. competitive advantage) or as process (i.e. competing for advantage) remains an entity (Tsoukas and Chia, 2002; Chia, 1996, 1997; Chia and Holt, 2009; Chia and MacKay, 2007; MacKay and Chia, 2013). This insight is significant, since theories emanated from a perspective that favours entities and stability over process and change cannot be expected, in realistic terms, to deal with the process of competition conceived as an activity spanning time, movement and change. Thus, the question at the centre of this study, namely how firms compete for advantage, remains theoretically open. Crucially, it constitutes an opportunity to embark on further conceptual work in this area, but from the as-of-yet unexplored/uncharted becoming perspective.

Taking up competition conceived from a process-based becoming ontology might advance the discussion in strategy by highlighting weaknesses and limitations with current extant theorising (Alvesson and Karreman, 2007). Taking this alternative essentially starts by theorising about competition not as a being entity, as competitive advantage, but as a process of becoming that involves activity; namely, as ‘competing for advantage’. Critically, adopting this becoming ontology could provide new,

alternative value in strategic management by focusing on the (never-ending) process of unfolding competition. In other words, by focusing on the ‘becoming of competing for advantage’. Such a research stance is explored and advanced in the ensuing section, by taking hold of the ‘wayfinding’ becoming approach ontologically proposed in strategic management by Robert Chia and Robin Holt (Chia and Holt, 2006; 2009), and furthered by Chia (Chia 2016; 2017; Bouty, Gomez and Chia, 2019).

3.3 A Journey into Chia’s Wayfinding

This section turns to the ‘wayfinding’ becoming ontology proposed by Robert Chia (and collaborators) (Chia and Holt, 2009), and assesses it for its value in considering the question of how firms compete for advantage. The overall aim of this section centres on exploring the process ontology behind the wayfinding approach, advancing a process epistemology around it, and considering the resulting framework for empirical research into the becoming of competing for advantage.

The section opens up by entertaining a brief account on the background and career of Robert Chia and his longstanding dedication to process theory in organization and management studies. This is followed by a consideration of the wayfinding approach as has been proposed to date, to then venture into a critical discussion of epistemological insights proposed to advance a process epistemology around wayfinding.

By the end of the section, the insights drawn from wayfinding are assessed for its implications in the recurring conceptual tensions identified in the second chapter.

3.3.1 A briefing on Robert Chia

Robert Chia is an organizational theorist with a time-honoured interest in process philosophy. Currently a Research Professor in Management at the University of Glasgow, he holds a PhD in Organization Studies and an MA in Organizational Analysis from Lancaster University. With training in mechanical engineering completed at the Singapore Polytechnic, he grew up and spent the first phase of his

professional career in Singapore, working in engineering and human resource management for sixteen years in a large multinational firm based in the Asia Pacific. In the second phase of his career, he joined the world of academia in the UK, and has since featured as a steady contributor and assessor of ideas in the field of organization studies and management more generally. His intellectual interests include strategy, decision-making, organization, business education, and parallels in East and West mentalities.

Presumably, Chia developed an interest in the philosophy of management and organization studies during his doctorate under the supervision of Robert Cooper, a social theorist with a knack for considering philosophical and sociological questions on the nature of the organization. Working under the influence of Cooper and collaborating with him, once in academia Chia draws on his life and industry experience in the East, as well as his life and intellectual career in the West, to consider management topics with a practice orientation and a healthy dose of philosophy. Over the years, he has drawn from a wide range of fields and scholars to advance his arguments, many of which can be situated in the domains of organization studies, strategic management, business education, and management practice. Often publishing with other contemporary academics, Chia draws significantly from the ideas of intellectuals such as Whitehead, Heidegger, Bateson, Bergson, Bourdieu, Gibson and Ingold to further a process-led worldview. A constant of his intellectual exploration has been an interest in process philosophy.

In the realm of strategy, Chia developed the ‘wayfinding’ approach as a process becoming perspective/ontology interested in the emergent nature of strategy work. In ‘Strategy without Design’, a book published with Robin Holt in 2009, Chia proposes wayfinding as a way into the emergence of strategy and a means to get to the ‘bowels’ of strategy work. The ontology behind this approach is discussed in the ensuing section.

3.3.2 The process becoming perspective of ‘Wayfinding’

Following calls in the literature for process-based organizational research focusing on why and how things develop and change (Langley et al, 2009), and

drawing on the crucial distinction made by process philosophy between entitative and process worldviews (e.g. Rescher, 2000), I offer here a specific take on process philosophy known as ‘wayfinding’, which can be of help in addressing the continuously changing process of competition.

To date, contributions on the wayfinding perspective remain limited and largely theoretical. A relevant primer includes the trio Chia and Holt (2006), Chia and Holt (2009), and Chia (2017). Apart from the scant published literature on it, more telling is the fact that wayfinding constitutes a scarcely talked about, sparingly visited corner of strategy meta-theory, curiously distanced, -philosophically and practically-, from the perspectives at the mainstream centre of the field, such as competitive advantage, the resource based-view, dynamic capabilities, and others.

To date, the wayfinding empirical literature comprises the pair MacKay and Chia (2013) and Bouty, Gomez and Chia (2019). While MacKay and Chia (2013) do not invoke wayfinding specifically, they draw upon similar analytical elements found in the more recent Bouty, Gomez and Chia (2019). To this duo, Chia (2017) added a theoretical contribution on wayfinding as organisational learning. While Chia sparingly refers to wayfinding in other theoretical contributions he has made throughout his prolific academic musings, such as in Chia and Holt (2006, 2009), his 2017 article is the only instance where he specifically focuses on the wayfinding concept to theoretically explain organisational phenomena.

The core of ‘wayfinding’ process analysis rests on the defining tenet of process philosophy. Namely, that process is the fundamental constituent of the universe and where, by extension, “time and change are among the principal categories of metaphysical understanding” (Rescher, 2000: 5). In this worldview, primacy is given to processes, and consequentially, entities/things are only regarded as temporarily stabilised instances of processes that are in the course of unfolding (Rescher, 1996). Built on the metaphysical explorations of philosophers such as James (1911/96), Bergson (1913) and Whitehead (1926/85, 1929), the process perspective can be ultimately traced back to Heraclitus’ insistence on an ever-changing reality where nature is always in flux. Conversely, an opposite worldview where discrete entities are

the main constituents of a static, unchanging reality has its origin in the philosophies of Aristotle and Parmenides (Mansley-Robinson, 1986).

Subscribing to a process worldview, Chia and Holt (2009: 159) propose ‘wayfinding’ as a way into the meta-theory of emergent strategy. They say: “Here strategy-making is about reaching out into the unknown and developing an incomplete but practically sufficient comprehension of the situation in order to cope effectively with it [...] What this implies is that strategy is continuously clarified through each iterative action and adjustment and not through any predetermined agenda”.

Crucially, the notion of wayfinding we are referring to here is drawn from a vital distinction between the entitative and process perspectives. From an entitative worldview, competitive advantage is a definite state of being where change is deliberately navigated through purposeful action. Whereas from a process perspective, competitive advantage is viewed as the emergent process of becoming, continually wayfinding its way through change.

3.3.3 Navigation and Wayfinding: An Ingoldian Detour

This section makes a detour into Ingold’s (2000) anthropological explorations into the journey of life in order to elaborate an understanding of *competing* for advantage and how it might differ from competitive advantage.

Specifically, inspired by Chia and Holt’s (2009) wayfinding as referred to above, an Ingoldian view of change into the strategy realm reinterprets competitive advantage and *competing* for advantage as two distinct modes of travel. In the Ingoldian worldview, these are referred to as navigation and wayfinding, respectively. Following Ingold (2000), navigation is a deliberate type of movement, where rational, purposeful knowledge (e.g. a map in cartography; a strategic plan in strategy; a standard operating procedure in a manufacturing environment) enables one to determine beforehand where to go. In other words, existing knowledge precedes and guides action. Wayfinding, on the other hand, denotes an emergent type of movement where the journey is unknown and therefore no map, preconceived strategy, or standard procedure exists. Here, knowledge is not prior but ambulatory, as one can only learn by embarking on the journey. In other words, one knows as one goes, not

before (Ingold, 2000; Chia and Holt, 2009; Chia, 2017). These Ingoldian modes of travel further resonate, respectively, with Heideggerian building and dwelling modes of existence (Heidegger, 1971) and Maturana's (1975) observer and autopoietic domains, along entitative and process worldviews.

Following Heidegger (1971), and in line with principles of process philosophy (e.g. Rescher 1996; 2000), dwelling and wayfinding are the inherent forms of the world, and thus precede building and navigation. Hence, from a dwelling perspective where the world is not ready-made and where action is not preceded by preconceived knowledge, in 'wayfinding' one is continuously engaging with unfolding situations, coping with what is at hand and adjusting as one goes. Chia and Holt (2009) refer to this type of purposive action in terms of 'everyday, practical local coping'.

3.4 A Wayfinding Process-Philosophical Approach

The previous section considered the 'wayfinding' approach in strategy as proposed by Chia and Holt (2009) and discussed the main theories, fields, and scholars upon which 'wayfinding', as a journey into the emergent aspects of strategy work, draws on. However, the discussion also recognised the as of yet very limited existence of empirical application of the wayfinding approach, existing in the literature mainly as a process-based becoming ontology. This section continues the critical discussion by considering process research from within the entitative, process and becoming perspectives, aiming to seek out further epistemological clues around the wayfinding approach.

A first step to develop the discussion proposed for the present subsection is to ponder whether there are differences in process research when approached from the different worldviews discussed thus far. These are the entitative and process perspectives, and, following the wayfinding discussion in the preceding subsection, the process-based becoming perspective. Crucially, this exercise is useful in advancing the wayfinding ontology into an epistemology suitable for empirical work.

3.4.1 From competitive advantage to *competing* for advantage: unearthing two distinct philosophical underpinnings in competition literature

In a recent keynote speech on manufacturing in the era of industry 4.0, Tom Williams, former COO of Airbus Commercial Aircraft, gave this advice to a room packed-full of eager manufacturers: “We need to separate hype from reality... Don’t delude yourselves. There is no lasting competitive advantage; there are only the hygiene factors to remain competitive. So, how competitive do you want to get up in the morning?” (Williams, 2018). His central message was that competitive advantage does not reduce to a single, stable thing, but to a disposition to everyday action and to the everyday activity of competing. Conversely, in academia strategy scholars hold almost compulsively to an entitative perspective on competitive advantage, defining it as a thing, effectively, an entity, which explains performance (cf. Porter 1985; Barney, 1991; Teece, Pisano and Shuen, 1997). In this section, I make a fundamental departure from this prevalent line of theorizing to elaborate competitive advantage from a process-based, philosophically informed view. Adopting a processual lens, I argue, - similar to Williams’ practitioner view above-, that there is no competitive advantage to talk of, but rather the continuous process of *competing* for advantage.

To this day, the central scholarly debate in the strategic management literature still concerns the issue of competitive advantage (Lippman & Rumelt, 1982; Porter, 1985; Ghemawat, 1986; Hansen & Wernerfelt, 1989; Barney, 1991; Peteraf, 1993). An ‘entitative’ worldview unites some of the loudest answers to this perennial question (cf. Porter 1985; Barney, 1991; Teece, Pisano and Shuen, 1997). From this perspective, reality is made of up entities and things are the primary building block of the world (Rescher, 1996, 2000). Yet, the main limitation produced by this worldview has to do with time. Because organisational life is notoriously non-static but rather marked by change, both scholars and practitioners recognise that competitive advantage cannot be assumed to be a permanent attribute or possession of the firm (Mellahi and Sminia, 2009).

Departing from this line of theorizing, Chia and Holt (2009) propose a ‘wayfinding’ philosophy to the ensuing debate, building their idea on the metaphysics of an entirely opposite worldview, that of process philosophy (e.g. Rescher, 1996, 2000). From a process perspective, time and change are the primary features of reality,

and thus competitive advantage is a matter of unfolding emergence in an ever-lasting flow of change (Rescher 1996, 2000). It is precisely this philosophical idea I turn to here, advancing ‘wayfinding’ into a philosophically-informed research method. Subscribing to central tenets of process philosophy, I ask a vital question in organization and management: how is it that firms compete for advantage over time? Critically, ‘wayfinding’ builds on a key distinction made by process philosophy between the entitative and process worldviews. In the former, competitive advantage is a discrete entity where change is purposefully determined through deliberate action. In the latter, competitive advantage is a process of emergence, perpetually ‘wayfinding’ its way through change.

Tucked away in an unexplored corner of strategy meta-theory, the section proceeds by elaborating further on the philosophical idea of ‘wayfinding’ and its process-based underpinnings and contrasting it to the entitative underpinning commonly used in competitive advantage research. In so doing, the paragraphs that follow proceed to unearth competitive advantage and *competing* for advantage as the two contrasting perspectives at the centre of the competition literature.

3.4.2 Competitive advantage and *competing* for advantage as two ontologically-distinct analytical frames

Scholarly debate in organization and management has recognised the limitations of entity-driven theories (e.g. Ansoff, 1987; Porter, 1980) in unstable research environments marked by continuous change (Meyer, Gaba and Colwell, 2005). Critically, scholars have pointed to assumptions of stability and linearity guiding a vast majority of traditional research (Garud and Van de Ven, 2002), which fail to give suitable answers when applied to settings marked by non-linear, fast-paced dynamics (Brown and Eisenhardt, 1997). The debate extends to the issue of competitive advantage, where scholars have been trying to incorporate the unstable and sometimes chaotic dynamics of change with inadequate outcomes (Peteraf et al, 2013; Priem and Butler, 2001ab; Wang and Ahmed, 2007). As a result, a reinvigorated need for process-based organizational research focusing on why and how things emerge, develop and go away over the course of time has been articulated (Langley et al, 2009). Following this call and drawing on the crucial distinction made by process

philosophy between entitative and process worldviews (e.g. Rescher, 2000), I offer here an application of process philosophy known as ‘wayfinding’, which can be of help in addressing the continuously changing process of competition.

The core of ‘wayfinding’ process analysis rests on the defining tenet of process philosophy. Namely, that process is the fundamental constituent of the universe and where, by extension, “time and change are among the principal categories of metaphysical understanding” (Rescher, 2000: 5). In this worldview, primacy is given to processes, and consequentially, entities/things are only regarded as temporarily stabilised instances of processes that are in the course of unfolding (Rescher, 1996). Built on the metaphysical explorations of philosophers such as James (1911/96), Bergson (1913) and Whitehead (1926/85, 1929), the process perspective can be ultimately traced back to Heraclitus’ insistence on an ever-changing reality where nature is always in flux. Conversely, an opposite worldview where discrete entities are the main constituents of a static, unchanging reality has its origin in the philosophies of Aristotle and Parmenides (Mansley-Robinson, 1986).

Subscribing to a process worldview, Chia and Holt (2009: 159) propose ‘wayfinding’ as a way into the meta-theory of emergent strategy. They say: “Here strategy-making is about reaching out into the unknown and developing an incomplete but practically sufficient comprehension of the situation in order to cope effectively with it [...] What this implies is that strategy is continuously clarified through each iterative action and adjustment and not through any predetermined agenda”.

Crucially, the notion of wayfinding we are referring to here is drawn from a vital distinction between the entitative and process perspectives. From an entitative worldview, competitive advantage is a definite state of being where change is deliberately navigated through purposeful action. Whereas from a process perspective, competitive advantage is viewed as the emergent process of becoming, continually wayfinding its way through change.

Hence, two contrasting analytical frames develop from this ontological distinction: competitive advantage, and the wayfinding-inspired *competing* for advantage.

Effectively, at the crux of competition we encounter juxtaposing analytical angles borne out of differing worldviews.

IV Carving out a ‘*Competing*’ Methodology

*“As you start to walk out on the way,
the way appears”*

-Rumi, *Your True Life* [poem]

4.1 Introduction

Chapter Three examined the ‘wayfinding’ becoming ontology for its potential as an alternative, process-philosophical perspective into the question guiding this investigation, the issue of how firms compete for advantage. Here, the process-philosophical worldview will be further examined for methodological clues that can support and frame this investigation.

In particular, the work of Chia and Holt (2009), which introduced the wayfinding process philosophy into the strategy realm, will be scrutinised for methodological pointers of relevance to this study on the unfolding process of competition. Yet, considering Chia and Holt (2009) remains chiefly an ontological exploration of the wayfinding process perspective, it should be noted that the methodological implications of the approach were for the most part not taken up in this work. In fact, the singular, most important methodological inkling Chia and Holt (2009) provide comes in the way of the near-documentary, an absorptive stance of research that the authors propose but leave undeveloped, and which the researcher in this study proceeds to elaborate. Hence, as per this research, the near-documentary is an immersive approach to empirical investigation where the researcher places herself in the middle of the research setting to document events and activities ‘live’, as they happen, in a similar fashion to traditional documentary filmmaking, except in this case, without videorecorders, hence the ‘near-’ qualification. To capture processes in motion is the core remit of the near-documentary approach as pursued here.

The chapter is organised as follows. Section 4.2 considers the philosophical anchoring of a process methodology. In particular, the process ontology is assessed for its potential to tease out the dynamics of the process of competition. Section 4.3 develops the near-documentary immersion (Chia and Holt, 2009) as a style of inquiry adept for this investigation. The specifics of the near-documentary are then developed further in sections 4.4 and 4.5, respectively, where the processes of gathering and analysing material are spelled out. Sections 4.6 and 4.7 provide the specific ontological details of the methodological approach, while section 4.8 taps into the ethical considerations of this inquiry. Lastly, section 4.9 summarizes the methodological approach taken in this research and summarizes the chapter.

While hereafter we elaborate the near-documentary as a methodological stance well suited to capturing how firms compete for advantage, the near-documentary performed in this study is rendered in further detail over the two subsequent segments of this thesis, chapters 5 and 6. Thus, the methodological matters discussed here are developed in close connection and cross-referenced with the contents of the next two segments. In a nutshell, the present chapter proposes the main methodological considerations of the near-documentary; Chapter 5 provides an overview of the empirical setting in the period of study, similar to what the first raw cut of a documentary would do; and Chapter 6 provides the analytical framework emerging out of this study, along with four deep-dive case studies that were captured and analysed through the near-documentary efforts, similar to what the process of editing and putting together a finalised documentary would be like.

4.2 Process Methodology

Following Orton (1997), process methodology, distinct from purely inductive or deductive methodologies, proposes rich knowledge by bringing together rich theory with rich data. Further, as per Flyvbjerg (2001), Langley (1999) and Van de Ven (2007), process methodology aims to propose knowledge that is practical, specific, and context-bound.

Hence, the methodological approach pursued in this study should attain practicality while also remaining theoretically robust. Such an approach should therefore examine the question of how firms compete for advantage by investigating how competing unfolds in practice through events that progress over time within an organisational context. This calls for a methodological orientation that enables the researcher to capture the everyday practice of competition, in all its minutia and commonplace, and in the undistinguished and unrefined flurry of things, people, and events that constitute the continuous process of competing over a substantial amount of time.

4.2.1 Ontology and Process Methodology

The distinction between process and entitative ontologies impacts how a process methodology can be pursued. From a process worldview, process is the fundamental constituent of the universe and by extension, “time and change are among the principal categories of metaphysical understanding” (Rescher, 2000: 5). In this worldview, primacy is given to processes, and consequentially, entities/things are only regarded as temporarily stabilised instances of processes that are in the course of unfolding (Rescher, 1996). Built on the metaphysical explorations of philosophers such as James (1911/96), Bergson (1913) and Whitehead (1926/85, 1929), the process perspective can be ultimately traced back to Heraclitus’ insistence on an ever-changing reality where nature is always in flux. Conversely, an entitative worldview where discrete entities are the main constituents of a static, unchanging reality has its origin in the philosophies of Aristotle and Parmenides (Mansley-Robinson, 1986).

A process worldview is seen as congruent with the research interest of this study focused on the continuous unfolding of competition. From such a processual ontology, the world is seen as processes always in the making and in the midst of becoming. Yet not much has been said about the manner in which empirical research is pursued from a process worldview (Steyaert, 2007; Van de Ven and Poole, 2005; Pettigrew, 2012). Consider Pettigrew’s (2012: 1316) remarks: “Latterly, philosophical writing by Tsoukas and Chia (2002) and Chia and MacKay (2007) has attempted to bifurcate the process field into weaker and stronger views of process by positing a different ontology for the stronger view. However, as yet this interesting distinction has failed to have much impact on the practice of process scholarship, which is our main interest here”. Here, Pettigrew, himself a practitioner of process research, does not make a distinction between entitative and processual ontologies of process, referred to as ‘weaker’ and ‘stronger’ respectively. The remark also suggests the challenge in pursuing a process ontology when carrying out an empirical investigation. The research design of this study should therefore attain to mobilise and adopt such a strong process-philosophical worldview.

4.2.2 Process Onto-Epistemology

The overarching onto-epistemological principle guiding the design of the methodological framework of this study is rooted in the research question's interest in how competing unfolds. Understanding the dynamics of competing over time must therefore be enabled by a research design that captures the specific and diverse activities, actions, and events of competition as they happen. Crucial to this undertaking is the ability to capture the ongoing process of competition directly and in real time. Quoting Schatzki (2006: 1866), "The real time of an organization is the unfoldings of the performances of the organization's actions. To experience an organization in real time is, thus, to experience the movements of its performances and events; to understand an organization in real time is to grasp, explain, or theorize these interrelated and patterned passages."

Crucially, research focused on the constant unfolding of competing is based in the realm of action. Therefore, the empirical strategy must be carried out in real time, over a continuous period of time, by means of a methodological approach that is sensitive to the dynamics of the setting where competition unfolds. Such a methodological approach is best served by a process-philosophical worldview interested in the moving nature of reality, and should be well placed to allow researchers to draw links between the theoretical and empirical makings of competition (Chia and MacKay, 2007).

4.3 The near-documentary

In 'Strategy Without Design', Chia and Holt (2009:159) argue the wayfinding view "treats the agent as intimately immersed in and inextricable from contexts, and, as such, his or her actions emanate from within the constantly evolving circumstance". That is, subjects are engrossed in and inseparable from a continuously changing landscape. Yet, when it comes to the methodological implications of Chia and Holt's (2009) wayfinding process-philosophical perspective, the authors briefly suggest a 'near-documentary' stance of research, which is left undeveloped. Few additional clues are offered, which the researcher in this study takes up and elaborates further to support her inquiry into how firms compete for advantage.

Interestingly, Chia and Holt (2009: 128) see parallels between researching and practising strategy. They say: “researchers and strategists alike (insofar as strategists themselves are engaging purposefully in a search after the meaning of organisational life) are required to reach into the being-amidst-things”. For them (Chia and Holt, 2009: 132), the near-documentary takes on an absorptive stance where, in a similar manner to the artistic depictions of Pierre Chardin, “subjects are utterly engrossed in their own experience, without any awareness of being seen; they are under way”, and where “the viewer is cast aside; what is being conveyed is the elementary possession of a moment being lived” (Chia and Holt, 2009: 132).

Chiefly, the near-documentary tries to get at how things are under way in the everyday. In the words of Chia and Holt (2009: 132): “the depiction is getting at the everyday by stilling and suspending it, allowing us to look askance at how things are in world when they are not being looked at. The subjects remain elusive, temporary, everyday, unadorned; they are prosaic”. Like the artistic renderings of Chardin, this absorptive stance of research also has parallels with traditional documentary making, where footage is captured raw, unrehearsed, and unrefined, in the ordinariness of the everyday. Hence, the near-documentary aims to get at the ‘how’ of that which is under way and continuously becoming. Yet while traditional documentary making captures footage in-motion using videorecorders, the near-documentary aims to capture the world under way happening live by artificially arresting what is being observed for research purposes. That is, while immersed in the research setting, the near-documentary will seek to continuously arrest processes and activities observed in motion by artificially making them into static records captured for analysis. This continuous process of artificial arrestation of events in the near-documentary creates temporary anchorings, which are records of empirical material that were artificially arrested and provisionally anchored for investigation and study.

The process of generating temporary anchorings as empirical material in the near-documentary relies on an everyday immersion in the research setting in order to capture artificially arrested events as they unfold. Given this absorptive stance focuses on processes unrelentingly in motion, the immersed researcher will make use of extensive note-making while following activities in the research setting. This happens mainly through shadowing-in-observation, which refer to the instances where the

researcher is engaged in non-participant observation of unfolding activities that are being followed while concurrently note-making. Shadowing-in-observation sometimes leads the researcher to embed short reflection passages of what is being observed into the note-making, which is referred to as reflecting-in-action in the near-documentary. Equally likely are instances where the researcher interacts casually with the people involved in the activities being followed by engaging in informal conversation. These instances are referred to as live, off-the-cuff conversations given they occur spontaneously during the near-documentary immersion. These characteristics of the near-documentary are elaborated in further detail in sections 4.3.1 and 4.4.

All in all, the principal aim of the near-documentary is to capture a moving reality by means of immersion in a research setting in order to understand how it unfolds over time.

4.3.1 The near-documentary immersion

The near-documentary style of inquiry of this study unfolded within a specific research setting, that of Rosti Automotive (RA), a UK automotive group active at the time of the research as a tier 1 supplier of plastic parts and components to automotive OEMs. Given that the chief interest of the study was to develop an understanding of how firms compete for advantage over time, a longitudinal approach to data was taken in order to capture the overall case-stream of the activities unfolding in the organisation at the centre of the research. In order to do this, a nine-month immersion was pursued between April and December 2018, starting with the scoping of the research setting and progressively proceeding until the gathering of the empirical material was completed.

The crux of the data originated at RA's oldest continuously operating site located in Larkhall, Scotland, from hereon referred to as Rosti Automotive Larkhall (RAL), where the researcher was involved as a researcher-in-residence. Notably, the 'in-residence' qualification here refers to the active involvement of the investigator with the research setting over a significant and continuous period of time. It enables immersion with a constant stream of activities and signals a more engaged process of

gathering empirical material by residing within the minutia of incessantly unfolding processes. In addition, in-residence signals a more unfettered access to the research setting, which is key when trying to understand processes and activities spanning time. In this way, the in-residence nature of the near-documentary immersion differs from more traditional data collection approaches involving a more passive collection of data readily available, such as trawling over databases, company records, or archives. It also differs from empirical research involving cross-sectional studies, or longitudinal research where researchers come in and out of the research setting to collect data several times or rely exclusively on interviews or observations made during a short, limited amount of time.

The immersion supported the goal of developing a near-documentary account of the everyday processes of competing for advantage, where the shopfloor of RAL was identified as the principal place where the activities of competition were actively unfolding on a daily basis. Hence, the immersion consisted in a sustained and concentrated period of engagement with the RAL manufacturing space, where over nine months the researcher was engrossed in the constant stream of its doings.

Accounting for the public transport logistics of getting to and from the RAL factory in the outskirts of Glasgow on a regular commute, a typical week of immersion for the researcher meant attending the plant five days a week, Mondays through Fridays, for close to 9.5 hours each time, generally between 7.20 am and 4.40 pm. This excluded the 2-week shutdown period in the summer where operations were temporarily suspended at RAL and throughout the UK automotive supply chain to allow the workforce to take time off. On occasion, the researcher accompanied RAL staff on visits to customer factories and sister plants in the RA group, which served to augment her understanding of how competition unfolded on the shopfloor of other factories in the organisation and the wider sector where it operated. Three such opportunities were possible during the immersion period. Two visits to RA sister plants in Pickering and Stamford Bridge in Northern England in early and late September 2018, respectively, and a visit to a customer plant, a multinational tier 1 automotive supplier, in the Midlands in November 2018.

Most days, however, the immersion concentrated almost entirely on the shopfloor of RAL, where all of its production activities ensued. Production was largely

confined to the manufacturing of automotive plastic parts and components in the mould shop of the factory, which operated injection moulding machines of diverse size, and the painting, assembly, and finishing of moulded parts in the paint shop and finishing area of the plant. Production was organised in three shifts: the 'day' or morning shift between 6 am and 2 pm, the 'back' or afternoon shift between 2 pm and 10 pm, and the 'night' shift between 10 pm and 6 am the following day.

For the most part, the researcher covered day and back shift activities on the RAL shopfloor, following the ongoing stream of competition efforts that shaped how the organisation competed over time. The nature of the production activities at RAL meant the researcher spent most of her days on her feet, attending production meetings or observing particular manufacturing activities unfold. There were a series of regular production meetings happening on a daily basis at Larkhall, which the researcher normally attended. They occurred in different parts of the shopfloor and were typically swift (3-8 minutes on average), standing affairs where production accounts, recent and ongoing, were discussed. On a regular day of immersion, the researcher attended the following meetings:

- the 8:30 am Material Review Board morning meeting, where recently scrapped parts were inspected, reviewed and discussed;
- the 8:45 am production meeting of paint plant 3 of the factory, which was the paint plant most recently installed at Larkhall;
- the 9:30 am production meeting of the paint shop and finishing area of the plant, where all the painting, assembly and finishing activities of the factory were discussed;
- the 10:00 am production meetings of the mould shop area of the plant, which happened in three successive short assemblies at each of the three manufacturing cells of the mould shop;
- the 2:45 pm Material Review Board afternoon meeting, where recently scrapped parts were inspected, reviewed, and discussed.

On a monthly basis, the researcher also attended the Workers' Council meeting, which brought together the management of the plant with representatives of the Larkhall workforce for production updates and a chance to discuss and review the needs of the staff in terms of production support and equipment, training and professional

development, human resource initiatives, and upcoming holiday periods, among other things.

Outside of these regular appointments, the researcher would normally roam the factory, observing different production activities, making notes, taking pictures, and engaging in casual conversations with operators, team leaders, and managers. These unstructured, casual moments of immersion outside of the regular shopfloor meetings gave the researcher plenty of opportunities to get acquainted with the everyday goings-ons and continually unfolding processes of the plant. It enabled immersing herself into diverse production processes in different areas of the plant and, through observation and note-making, to capture the ordinary 'live' competing efforts of RAL as they happened. These moments related to all sorts of things, from observing specific injection moulding manufacturing runs and particular painting and/or assembly processes, to observing the installation of new equipment, the relocation of machines, and the reorganisation of certain production units or areas of the shopfloor. It also included observing tool changes, machine maintenance processes, quality inspections, finishing and packing, among other activities. As an example, the researcher was able to observe the installation of the first collaborative robot or 'cobot' brought into the RAL shopfloor to work alongside an injection moulding machine of medium-size in the mould shop area of the plant. Through observing, making notes, taking pictures, and engaging in casual conversation with the RAL staff involved in the installation of the cobot, the researcher was able to witness, follow, and understand how the cobot was to work alongside the moulding machine by picking and packing the parts that were being moulded as they were coming out of the moulding machine. After the initial observation when the installation and trials were completed, the researcher had further opportunities to observe the cobot in action in subsequent production runs, where a single operator could now oversee production across two adjacent moulding machines thanks to the collaboration of the functioning cobot doing the picking and packing of manufactured parts. In other examples, the researcher was able to observe and capture, through note-making, sketching, and photographing, how the landscape of the shopfloor continuously morphed. For instance, she was able to observe changes in the layout of the scrap area of the plant where all waste was accumulated, changes in the disposition and organisation of cell 3 of the mould shop

following the arrival of additional machines, or changes in the paint shop and finishing area following the set up or reorganisation of assembly and finishing stations, among other things. Lastly, moments of freely roaming around the factory also enabled the researcher to observe and/or follow up on specific activities or processes that were mentioned in the regular production meetings that she had not yet seen or wanted to understand better. While production meetings touched on recent and ongoing production matters, their sheer swiftness was often not enough for the researcher to fully grasp what was being discussed. Hence, by following up and going to see the production activities as they were unfolding, the researcher was able to capture the daily happenings of RAL more fully.

Every so often, the researcher had the chance to organise interviews with diverse RAL staff, which she would arrange outside of the shopfloor to allow for the interviews to be recorded. Given the ongoing production activities of the plant, recording interviews right on the shopfloor was not possible due to the noise levels of the moulding machines and paint plants which were in continuous operation. Although the interviews happened outside of the RAL shopfloor, they nevertheless supported the near-documentary immersion by providing time and space to gather additional information based on prior direct observation records and informal conversations with the very people that had been involved in the processes and activities captured via immersion. The interviews also allowed the researcher to expand her understanding of activities she had witnessed through immersion by seeking clarification, asking for further details, or expanding on issues that were being discussed in the factory either informally on the shopfloor, during the regular production meetings of the plant, or through company records such as the weekly factory newsletter. Considering RAL was a busy, continuously operating manufacturing plant with myriad production processes unfolding concurrently at any one time, the constant note-making by the researcher during the immersion often meant records were also made swiftly, as activities ensued. Hence, while observation and informal conversation records had to be made on-the-move, interviews allowed activities or issues to be revisited by giving the people directly involved in them the opportunity to reflect in a more tranquil setting when they are not concurrently and actively working, and thus able to expand on issues or provide their perspective on them.

By immersing herself in the everyday activities of RAL for a concentrated period of time, the researcher was able to get a feeling of the daily rhythms and routines of the factory, as well as those occurrences that happened out with production plans. Equally, the immersion allowed for the collection of rich, deep-dive data concerning diverse case-streams of activity at Larkhall. In the ensuing section, the sources of the near-documentary are discussed.

4.4 Gathering material

The immersion period on the shopfloor of RAL allowed the researcher to collect comprehensive longitudinal data of diverse type over a period of 9 continuous months in 2018. While the research did not involve the use of filmmaking like in traditional documentary projects, the approach of the inquiry is qualified as near-documentary to remark the quasi-film nature of the documenting efforts of the researcher in developing sources of information that could support the research. By continuously immersing herself in the midst of the Larkhall operations over a concentrated period of time, she progressively developed and accumulated in-depth empirical material, the nature of which is addressed in this section. While the vast majority of the material gathered corresponds to daily production activities unfolding on the RAL shopfloor, the empirics also relate to the wider trajectory of the RA organisation between 2016 and 2018, a period when its competitive strategy was purposefully transitioning into the automotive sector. The empirical material can be broadly organised into primary and secondary sources of information. Subsections on each follow.

4.4.1 Primary Data Captures

The near-documentary gathering of information in the context of a research project whose chief interest lies with continuously unfolding processes involves the artificial temporal arrestation of events and activities observed in motion to capture them as empirical material for analytical purposes. This temporal arrestation of processes into research material is referred to here as ‘temporary anchorings’, in what

Gibson's (1963) ecology of visual perception would term 'optic invariants'. A wide-ranging and continuous accumulation of minute temporary anchorings, relating to happenings witnessed on the RAL shopfloor over a sustained period of time, is what makes up the primary sources of information of the near-documentary.

Chief among the primary data collected in this study relates to the activity of note-making by the researcher. Considering the immersed nature of the data collection, at the core of a continuously operating manufacturing floor, the temporary anchoring of processes observed in motion involved the making of fieldnotes, which denotes the artificial arrestation of events by the researcher in a written format. The noise levels on the shopfloor did not allow for audio recording and hence note-making was a crucial data gathering activity that expanded for the entire duration of the researcher's immersion within the research setting.

In total, 760 A4-sized pages of fieldnotes were amassed via comprehensive note-making. These covered, most crucially, over 740 hours of shadowing-in-observation instances where the researcher was involved in non-participant direct observation of shopfloor activities, which unfolded while following processes and/or research participants at the research site and concurrently note-making. At times, the observations were complemented with reflecting-in-action annotations, which refer to short reflection passages embedded in the note-makings of the shadowing-in-observation activities of the researcher. Overall, shadowing-in-observation fieldnotes covered manufacturing, painting, assembly, finishing, packaging, and distribution activities witnessed at the RAL factory. Sporadically, they also covered time spent on the shopfloor of customer plants and sister RA factories.

In addition, the fieldnotes cover over 250 daily, casual, off-the-cuff conversations held "live" on the shopfloor with operators, team leaders and other staff, on the basis of immediately preceding or concurrent observation activities. Occasionally, the live, off-the-cuff conversations also covered 'coming-together gatherings' of a few shopfloor staff as they held and quickly dissolved informal and impromptu meetings to have a quick word regarding emerging and/or ongoing happenings in the factory. Over 400 production meetings happening daily were also captured via extensive note-making; audio recording of these was mostly rendered impractical due to their sheer swiftness and overall noise levels on the shopfloor.

Lastly, the fieldnotes cover monthly meetings of the workers’ council. Capturing data on the shopfloor by observing activities or attending swift production gatherings enabled empirical sensitivity to capture unexpected issues and purposive coping efforts that spontaneously emerge in production environments and that are often noticed, discussed, and tackled in the everyday happenings of competition.

Complementing the fieldnotes, primary data was also gathered in 27 digitally recorded, one-on-one conversations with company staff including company executives, senior managers, plant managers, engineers, and team leaders. For increased reliability of the data, these individual conversations were developed based on prior direct observation records and annotated information. All recorded conversations were held at RAL between May and November 2018. They lasted between 30-75 minutes and were transcribed for analysis. A summary table of the one-on-one conversations is provided below.

Table 4.1: Summary List of One-on-One Recorded Conversations

Company Roles/Staff Interviewed	No. of Interviews
RA Group CEO	1
RA Group Senior Account Manager	1
RA Group Design Engineer, Product Development Department	1
RAL Managing Director	1
RAL Operations Manager	3
RAL Technical Manager	3
RAL Human Resources Manager	1
RAL Material, Planning & Logistics Manager	1
RAL Financial Controller	1
RAL Engineering Department Manager	1
RAL Paint Shop and Finishing Area Manager	1
RAL Paint Shop and Finishing Area Team Leader A	1
RAL Paint Shop and Finishing Area Team Leader B	1
RAL Paint Shop Process Engineer and Technical Team Leader	1
RAL Paint Shop Maintenance Operator	1

RAL Mould Shop Team Leader A	1
RAL Mould Shop Team Leader B	1
RAL Mould Shop Team Leader C	1
RAL Production Part Approved Process & Quality Assurance Engineer	1
RAL Technical Team Leader	1
RAL Production Support Operator	1
RAL Maintenance and Toolroom Team Leader	1
RAL Warehouse Manager	1

Source: Author

Annotated information was another feature supporting the primary sources of the investigation. For the most part, it consisted of marginalia written on secondary information entailing company records of diverse kind provided to the researcher by RAL staff. The information annotated served to provide context on the records at the time they were received. For instance, annotated information on a production report would typically include the date and event/moment in which it was provided, but also supplementary, contextual information connecting the report with the discussion around it. If the report was provided during a paint shop production meeting, for instance, the annotated information would normally connect and cross-reference the fieldnote-makings of the particular meeting with detailed parts of the report. In this sense, annotated information included not only factual details, but also quick points of discussion and/or short quotes captured ‘live’ in the moment.

Along with everything else, ‘photographic animations’ were made to supplement and support other primary sources. These consist of minuscule, often times daily photographic records captured by the researcher on the RAL shopfloor while observing activities, holding off-the-cuff conversations, attending formal production meetings, and/or impromptu coming-together gatherings in the factory. The photographic animations amount to over 800 images taken for the most part on the shopfloor. For instance, when attending a material review board meeting, photographic animations of the diverse scrapped parts and waste bins were taken, registering the different defects discussed in this type of meeting and/or the level of

waste that was being produced. These often minute image-based records were taken in quick succession to accumulate a photographic account of shopfloor activities, which would then be cross-referenced with fieldnotes to enhance the information that was being gathered through note-makings with rich context. Photographic animations also included regular snapshots of different parts of the RAL shopfloor as it continued to morph its layout following changes in machinery or the organisational disposition of production cells and/or production support areas.

A summary of the primary sources used in this investigation is presented in Table 4.2 below.

Table 4.2: Primary Sources of Information

Primary Data Details
<ul style="list-style-type: none"> • 760 A4 pages of fieldnotes including records of: <ul style="list-style-type: none"> ○ Non-participant observation of daily activities on the shopfloor covering over 740 hours ○ Over 250 daily, casual, live, off-the-cuff conversations with company staff including senior managers, plant managers, engineers, team leaders, and operators ○ Attendance to over 400 daily production meetings on the shopfloor ○ Attendance to monthly workers' council meeting • 27 digitally recorded, one-on-one conversations with company staff including executives, senior managers, plant managers, engineers, and team leaders. • Photographic animations with over 800 photos taken on the shopfloor

Source: Author

4.4.1 Secondary Data Capture

While the primary sources of information described in the preceding section make up the crux of the data pertaining to the near-documentary of the everyday competing efforts of RAL, secondary sources of information were also gathered during the researcher's immersion period in the organisation. This secondary data supports and complements the primary empirical material and falls largely in two categories: company documents and news articles.

The company documents gathered were facilitated to the researcher by different members of the RAL team. These company records were being continuously gathered by the researcher week after week of immersion, as events and production activities were unfolding. They refer to internal documents of the organisation, including some internal communication and emails. The nature of these documents is diverse, and they amount to 354 physical pages and 590 digital files. They include production reports, operations reports, company presentations, announcements, internal notices, weekly newsletters, quality assurance reports, training materials, continuous improvement projects and initiatives, tracking and monitoring spreadsheets, and health, safety, and environmental reports, among other things.

News articles published in UK media and automotive-specific sites and platforms were also gathered. By and largely, the articles served to provide information around events unfolding in the broader production and market environment surrounding RA. They were particularly helpful in understanding how some processes out with the company's control were impacting not only the RAL shopfloor and the wider RA group, but also other parts of the supply chain. In total, over 60 media articles were collected for this investigation.

A snapshot of the secondary sources used in this study is presented in table 4.3 below.

Table 4.3: Secondary Sources of Information

Secondary Data Details
<ul style="list-style-type: none">• Company documents (production and operations reports, company presentations, company announcements, internal communication, weekly newsletter, quality assurance reports, training materials, health, safety, and environment reports, etc.)• News articles relating to company's production and market environment

Source: Author

4.5 Analysing the gathered material

After nine months of immersion into the everyday competing efforts of RAL, the near-documentary was brought to a close and the researcher was left with a comprehensive and in-depth volume of material to sift through for analysis. Considering that the focus of the investigation was to get an understanding of the processes of competition continuously unfolding at RAL, the empirical material gathered was not only substantial, but more significantly, it was convoluted, with pages and pages of temporary anchorings of activities, events, and processes to make sense of and interpret.

With no fixed process-philosophical methodology to follow from extant empirical research, analysis proceeded through emergent and meandering wayfinding efforts based on the philosophical perspective offered by Chia and Holt (2009), as well as guidelines for 'naturalistic inquiry' (Lincoln and Guba, 1985). Here, the wayfinding experience of the researcher, similar to that of the wayfinding strategy practitioner, is about "reaching out into the unknown and developing an incomplete but practically sufficient comprehension of the situation in order to cope effectively with it" (Chia and Holt, 2009:159) in an analytical process that serpentine, like the wayfinding view of strategy itself where "strategy is continuously clarified through each iterative action

and adjustment and not through any predetermined agenda” (Chia and Holt 2009: 159). A two-stage analysis and interpretation process emerged, which attempted to unveil the relationships between the empirics of the near-documentary and the research question concerning how firms compete for advantage. Each stage of analysis is elaborated below.

The first stage of analysis entailed developing a ‘thick description’ (Lincoln and Guba, 1985) of the broad-stroke processes of strategic change and competition at the research setting. Similar to the first raw cut of a documentary where a rough draft of the narrative is attained, the first stage of analysis of the near-documentary provides a thick, general compilation of the material. The historical overview of RA case-stream was produced (Eisenhardt, 1989; Yin, 1994; Langley, 1999), and the chronological evolution of the major production activities at the specific site of the near-documentary was retraced, that of RAL. This is captured in Chapter Five, which provides the high-level empirical architecture of the research setting so that the RA organisation, its operating context, and its principal activities and competition efforts can be considered in-line with the particular lens of this investigation.

From the thick description of the research setting developed in stage one, the second stage of interpretation and analysis consisted in unpacking an extensive volume of empirical material into nuanced categories of information and data relationships. In contrast with the first stage analysis where a general description of the major processes of competition at Rosti was produced, the second stage involved going through empirics that were not general but specific, not thick but detail-rich, and not high-level but in-depth. In other words, the material analysed in the second stage was indicative of a deep-dive into the everyday processes of competition at RAL, sorting through material containing specificity, comprehensiveness, and abundance of intricate details. Hence, while the first stage of analysis describes the major changes in the production activities of the Rosti Group between 2016-2018, the second stage provides four fine-grained case studies of specific competing efforts at the Rosti Larkhall site in 2018. The former, captured mostly through a descriptive narrative, is contained in Chapter 5. The latter combines an in-depth, richly-detailed narrative of case studies complemented with images, sketches, and myriads of extracts from fieldnotes,

interviews, informal conversations, company records, and news headlines, as per section 6.3 in Chapter 6.

Crucially, given the focus of the study on the ongoing process of competition, stage two started by distinguishing between data-points and data-streams as a first step in developing nuance in the analysis of empirical material concerning activities and processes in motion. While data-points entail specific pieces of empirical material occurring at discrete points in time in the past, data-streams represent flows of information unfolding across time. It follows that data-points are laced into data-streams through careful synthesis. Consider for instance the following data point: (i) an unexpected shutdown of the Jaguar Land Rover (JLR) Solihull plant, a customer of RAL, was announced on 8 October 2018. This data-point was laced with other subsequent data-points along the same data-stream, such as (ii) the RAL factory loses sales and gets reduced orders from JLR Solihull; (iii) RAL loses sales and gets reduced orders from other customers in the Solihull automotive supply chain; (iv) RAL staff instinctively use the unexpected downtime in production activities to fulfil backlogged orders and carry out additional new product introduction (NPI) trials. These examples, available in full detail in the ‘Solihull shutdown’ deep-dive case study in subsection 6.3.3, show how data-points of specific occurrences at RAL aggregate into data-streams concerning larger connected processes. Table 4.4 below shows the type of data involved in this research.

Table 4.4: Process-based typification of data in this Study

Data Type	Description
<i>Data-points</i>	Specific pieces of evidence that represent what occurred at discrete points in time realised in the past.
<i>Data-streams</i>	Flow-based, dynamic, and pluralistic streams of data denoting the unfolding of processes and events spanning periods of time.

Source: Author

Once the distinction between data-points and data-streams was made, further nuance was developed by distinguishing the data gathered on processes of competition at the research site along three interlaced, process-based categories of information. Namely, process threads, process events, and process complexes. Let us consider each of these terms in turn. Process threads are chronologically observed data-points entailing specific pieces of processual empirical material gathered in connection with larger data-streams. Process events are data-streams of connected, chronologically-ordered process threads entailing episodes of activity observed at the research setting across time. Lastly, process complexes are data-streams of process events concurrently unfolding and interacting dynamically. Drawing on the same examples in the paragraph above regarding the Solihull shutdown, the data points mentioned in (i) to (iv) are to be understood as process threads, while the Solihull data-stream mentioned is to be understood as a process event. For examples of process complexes, we can consider each of the deep-dive case studies portrayed in section 6.3, which entail different process events unfolding and interacting dynamically within process complexes concerning, for instance, how production processes were newly developed (see 6.3.1) or improved upon (see 6.3.2), how best practices came about (see 6.3.4), and how events in the wider automotive sector, such as the JLR Solihull shutdown, shaped daily happenings at the RAL factory (see 6.3.3). The three process-based categories of data analysed in this research are summarised in table 4.5.

Table 4.5: Process-based categorisation of data in this study

Data Category	Description
Process threads	Chronological data points of specific activities, happenings or occurrences empirically observed and realised in the past
Process events	Streams of connected data points/process threads entwining into episodes of activity empirically observed across time
Process complexes	Confluences of process events interacting dynamically across time

Source: Author

Most importantly, a critical distinction in the empirical material was identified following Ingold (2000), where navigation and wayfinding ontologies were developed into onto-epistemologies. Chiefly, in the Ingoldian worldview (Ingold, 2000), navigation is a deliberate type of travel where rational, pre-conceived knowledge directs one's movement on where to go. Differently put, when navigating, purposeful knowledge guides action. In contrast, wayfinding, referred to as wayfaring by Ingold (2000), denotes an emergent type of travel where the destination is unknown and no pre-existing knowledge exists. Hence, in wayfinding, knowing emerges as one embarks on the journey, as one wayfinds (Ingold, 2000; Chia and Holt, 2009; Chia, 2017). More onto-epistemological details follow in sections 4.6 and 4.7 further below.

With the principal analytical distinction between navigation and wayfinding distilled, process threads and process events were differentiated in even greater nuance along these lines. Hence, specific process threads and process events were identified as corresponding to (deliberate) navigation or (emergent) wayfinding streams of data, while process complexes were identified as fields of analysis involving the entwinement of navigation and wayfinding process events. Drawing again on the

examples from the ‘Solihull shutdown’ deep-dive case study referred to above, the process threads and data points previously mentioned make up a wayfinding process stream of data that emerged unexpectedly, out with RAL’s previous knowledge or plans. The wayfinding process threads start with the sudden announcement of the Solihull shutdown and follow with the lost sales and reduced orders at RAL and the purposive use of downtime by staff towards backlogged orders and additional NPI trials, for instance. Drawing on the ‘Solihull shutdown’ case study further, a navigation process stream was seen to unfold when RAL deliberately establishes mitigation measures for the whole plant and then implements them, consequently containing some of the effects of the Solihull shutdown at the RAL plant. These examples of navigation and wayfinding process events confluence in time, thus making the ‘Solihull shutdown’ process complex, available in full detail in subsection 6.3.3. Table 4.6 below presents the specific analytical categories of data used in this study.

Table 4.6: Specific constituents of the Analytical Framework

Analytical Category	Description
Process threads	Navigation and wayfinding chronological data points (specific activities, happenings or occurrences empirically observed)
Process events	Navigation and wayfinding streams of data made up of chronological data points/process threads
Process complexes	Confluences of navigation and wayfinding process events

Source: Author

An extensive volume of intricate empirical material made up for a protracted second stage of analysis, where case-streams of activity were slowly retraced over multiple sources of data and distilled into processual categories of information along the principal navigation and wayfinding distinction. This process was manual and non-linear, continuing to emerge as the researcher got more and more immersed in the data. As case-streams of activity representing competition efforts at RAL were painstakingly uncovered and refined, the analytical scaffolding of the study gradually developed, where nuanced data relationships emerged beyond the generic typification and categorisation of information mentioned above.

The complexity and comprehensiveness of the material gathered via the near-documentary made it impossible for all the sources of information to be processed and integrated through the use of an analysis software, such as NVivo. Chiefly, this was because the data was interlaced not only through several data sources spanning handwritten text, audio, photos, and secondary data, but also because the processual information arrested for analysis in this study spanned multiple categories of information; namely, process threads, process events, and process complexes, as previously elaborated.

The rest of the analysis and interpretation unfolded in a process of abducting-in-wayfinding. That is, in a continuous back and forth between the empirical material and the developing onto-epistemologies of the analytical framework. As specific case-streams of activity were retraced, the narrative of the different case-streams emerged. And as the narratives emerged, further development of the case-streams followed by supplementing additional sources of information that further enriched the context where the processes described in the narrative unfolded. Sections 6.2 and 6.3 in Chapter 6 elaborate this process in detail, where nuanced components of the navigation and wayfinding analytical frames were developed and then used to interpret the deep-dive case-streams concerning everyday competition efforts at RAL.

4.6 Surfacing ‘navigation’ and ‘wayfinding’ from the conflux of competitive advantage and competing for advantage

This section makes a detour into Ingold’s (2000) anthropological explorations into the journey of life in order to elaborate an onto-epistemological understanding of competitive advantage and *competing* for advantage as differing analytical frames.

More specifically, inspired by Chia and Holt’s (2009) wayfinding as referred to above, I mobilise an Ingoldian view of change into the strategy realm which reinterprets competitive advantage and *competing* for advantage as two distinct modes of travel. In the Ingoldian worldview, these are referred to as navigation and wayfinding, respectively. Following Ingold (2000), navigation is a deliberate type of movement, where rational, purposeful knowledge (e.g. a map in cartography; a strategic plan in strategy; a standard operating procedure in a manufacturing environment) enables one to determine beforehand where to go. In other words, existing knowledge precedes and guides action. Wayfinding, on the other hand, denotes an emergent type of movement where the journey is unknown and therefore no map, preconceived strategy, or standard procedure exists. Here, knowledge is not prior but ambulatory, as one can only learn by embarking on the journey. In other words, one knows as one goes, not before (Ingold, 2000; Chia and Holt, 2009; Chia, 2017). These Ingoldian modes of travel further resonate, respectively, with Heideggerian building and dwelling modes of existence (Heidegger, 1971) and Maturana’s (1975) observer and autopoietic domains, along entitative and process worldviews.

Following Heidegger (1971), and in line with principles of process philosophy (e.g. Rescher 1996; 2000), dwelling and wayfinding are the inherent forms of the world, and thus precede building and navigation. Hence, from a dwelling perspective where the world is not ready-made and where action is not preceded by preconceived knowledge, in ‘wayfinding’ one is continuously engaging with unfolding situations, coping with what is at hand and adjusting as one goes. Chia and Holt (2009) refer to this type of purposive action in terms of ‘everyday, practical local coping’.

Taking together the distinctions at the conflux of navigation and wayfinding discussed thus far, a new comprehensive view of competition unfolds. Using navigation and wayfinding as the primary analytical scaffolding, Table 4.7 below

differentiates between competitive advantage and *competing* for advantage by dissecting its key onto-epistemological distinctions. Firstly, the notion of competition is marked by two differing worldviews present at the confluence of navigation and wayfinding. For instance, while navigation is rooted in an entitative ontological underpinning, referred to as ‘building’ in Heideggerian terms, in an ‘observer’ Maturanan-type domain, wayfinding is borne out of a process perspective, referred to as dwelling and autopoietic in Heideggerian and Maturanan-terms, respectively (Heidegger, 1971; Maturana, 1975). As a result, distinct onto-epistemological commitments and priorities follow, with navigation giving precedence to the ‘process *of competition*’, where the primary interest lies not in the process, but in the competition itself, understood in terms of entities or end-states, or ‘strategic outcomes’ in strategy terms. From a navigation standpoint, then, process is epiphenomenal and secondary to the primary notion of reality understood as *competitive advantage* as the main conceptual frame. Wayfinding, however, gives precedence to the notion of process and thus puts primary interest in a view of reality where process is not secondary, as in the ‘process *of competition*’ before, but rather in a worldview where process *is* reality and change, and therefore ‘process *is competing*’ and hence the main conceptual framing becomes *competing for advantage*. In the strategy literature, navigation and wayfinding can be traced back to the distinction between deliberate and emergent strategy (Mintzberg and Waters, 1985), and thus one could speak of *deliberate competition* or *emergent competing*, respectively, which in turn point to contrasting empirical orientations. Whereas navigation calls for *map-using* in a deliberate type of competition where you already know where you want to go and how you want to compete, wayfinding is defined by *mapping* where you only know as you go and hence how you compete only emerges as you engage in it, not before (Ingold, 2000; Chia and Holt, 2009). This means that while in navigation competitive advantage is marked by deliberate and rational knowledge deduced a priori, in wayfinding, *competing* for advantage is an emergent process marked by ambulatory knowledge that develops on the move along the process of change. In this sense, navigation makes competitive advantage *successional* in a process of competition that is *occurrent*, which means competitive advantage occurs in a more guided fashion where one desired state of competitive advantage succeeds or is achieved after another.

Conversely, in wayfinding, competing for advantage is *processional* and *concurrent*, since it refers to a relentless process that carries on occurring in the continuous procession of competition (MacKay, Chia and Nair, 2021). See Table 4.7 below.

Table 4.7: Differentiating Competition as ‘Navigation’ and ‘Wayfinding’

	Navigation	Wayfinding
Ontological Underpinning	<i>Entitative</i>	<i>Process</i>
Heideggerian modes	building	dwelling
Maturanan domains	observer	autopoietic
Onto-epistemological commitments	Process <i>of</i> competition Process <i>of</i> reality/change (Process is epiphenomenal)	Process <i>is</i> competing Process <i>is</i> reality/change
Onto-epistemological priorities	Entities, end-states, strategic outcomes	Process
Conceptual framing	<i>Competitive advantage</i>	<i>Competing for advantage</i>
Correspondence in Strategy Literature	<i>Deliberate competition</i> Deliberate strategy	<i>Emergent competing</i> Emergent strategy
Empirical hook/orientation	<i>Map-using</i> know before you go predetermined competition	<i>Mapping</i> knowing as you go competing emerges as you compete
Nature of Competition	Competitive advantage is <i>successional</i>	Competing for advantage is <i>processional</i>
Reality of Competition	<i>occurrent</i>	<i>concurrent</i>

Source: Author, drawn and adapted from MacKay, Chia and Nair (2021); Chia and King (1998); Rescher (1996, 2000); Chia (1996, 1997); Heidegger (1971); Maturana (1975).

In the section that follows, the analytical distinction between navigation and wayfinding is advanced further in order to arrive at the overall onto-epistemological framework pursued in this study to analyse the data.

4.7 An epistemological primer: abstraction criteria emerging from the onto-epistemological distinctions at the confluence of navigation and wayfinding

Here, we draw on the distinctions between the navigation and wayfinding analytical frames presented earlier to make further differentiations between them at the epistemological level. Inspired by the work of Chia and Holt (2009) into the wayfinding aspect of strategy, I proceed to propose further defining aspects of navigation and wayfinding that will serve us in analysing the empirical data concerning this study.

As we referred to above, while navigation is deliberate and purposeful, wayfinding is emergent and purposive. Hence, navigation will be seen as largely planned, studied, deliberate and methodical, whereas wayfinding will be unplanned, unstudied, spontaneous and instinctive. Table 4.8 elaborates the defining aspects of navigation and wayfinding in further detail.

Table 4.8: Abstraction Criteria to differentiate between Navigation and Wayfinding

<i>Defining Aspects</i>	
Navigation	Wayfinding
Planned	Unplanned
Purposeful	Purposive
Studied	Unstudied
Aware	Unpremeditated
Mindful	Unwitting, unmeant
	Unaware
	Unmindful
	Incognizant
Informed	Uninformed
Determined	Spontaneous
Resolute	Impulsive
Deliberate	Uninhibited
Dedicated	Unstudied
Committed	Impromptu
Conscious	Spur-of-the-moment
	Off-the-cuff
	Based on gut feeling
Intentional	Unintentional
Calculated	Uncalculated
	Accidental
Prearranged	Emergent
Preconceived	Unfolding
Predetermined	Inadvertent
	Haphazard
	Willy-nilly
Careful	Thoughtless
Cautious	Intuitive
Measured	Instinctive
Methodical	Instinctual
Systematic	In situ
Regular	Sponte sua
Integrated	

Source: Author, drawn and adapted from Chia and Holt (2009).

The distinction between navigation and wayfinding also translates in terms of action. Thus, while before we contrasted navigation as map-using with wayfinding as mapping, type of actions surrounding navigation will tend to be deliberate, coordinated and planned, with an end-view in sight, whereas wayfinding actions will tend to be based on habitual and iterative, tentative experimentation, with no end-view in sight but rather ‘making do’ as one goes. Table 4.9 elaborates on the different type of actions between navigation and wayfinding.

Table 4.9: Types of Action defining Navigation and Wayfinding

<i>Type of Action</i>	
Navigation	Wayfinding
Deliberate (Consciously) Coordinated or Planned	Habitual (based on habitus) Thoughtless Iterative Tentative experimentation ‘Making do’ ‘Readiness to hand’
Informed, intentional, deliberate response	Instinctual, habitual, unthought response
Map-using	Mapping
With an end-view	With no end-view

Source: Author, drawn and adapted from Chia and Holt (2009); Ingold (2000).

Lastly, differing aspects and actions around navigation and wayfinding also result in different types of knowledge. Thus, while the preceding section juxtaposed navigation as knowing-before-you-go and wayfinding as knowing-as-you-go, the predetermined aspects of knowledge around navigation will be characterised as rationalisation deduced as priori, whereas in wayfinding knowing will be more ambulatory, changing as one experiments in the spur-of-the-moment as the process of

competition unfolds. Table 4.10 elaborates on the differences in knowledge between navigation and wayfinding.

Table 4.10: Types of Knowledge defining Navigation and Wayfinding

<i>Type of knowledge</i>	
Navigation	Wayfinding
A priori Deduced Rational	Empirical Experiential Ambulatory
Episteme (theoretical, explicit, universal, general knowledge) Techne (technical, craft knowledge)	Phronesis (practical wisdom/knowledge)

Source: Author, drawn and adapted from Chia and Holt (2009); Ingold (2000).

Taken as a whole, the differing ontological and epistemological aspects between navigation and wayfinding can be used to construct an analytical scaffolding to interpret the data. In Chapter 6, the resulting analytical framework for this study is explained in detail, and then used to interpret the empirical data.

4.8 Ethics

Prior to embarking on the near-documentary immersion for the purposes of data collection at RAL, a research strategy was formulated with a view towards developing the ethical considerations of the study. The researcher proceeded to secure ethical approval by making an application to the Ethics Committee of the Department of Strategy and Organisation, later merged with the Department of Management Science, at Strathclyde Business School. The process entailed filling out the Research Ethics Form in use at Strathclyde, where the research strategy was specified, along

with the Participant Information Sheet (available in Appendix b) and the Participant Consent Form (available in Appendix c), where further details of the investigation were set out. Once ethical approval was granted and the researcher secured access to the research setting for data collection, the Participant Information Sheet and Consent Forms were circulated among RAL staff. All participants signed the consent form, which was also signed and cleared by the Operations Manager of the factory.

The information gathered in the study was treated in a confidential manner at all times. Access to the data was only available to the researcher and her supervisory team at Strathclyde Business School. Physical files were kept under lock while digital files were password-protected. Participants' names were anonymised to ensure the privacy of their identities, and references to RAL members of staff in the narrative of the deep-dive case studies only include clues of their generic roles. Importantly, the researcher was given permission to use the name of the organisation in this thesis, and all the empirical material included in the manuscript, including images of the company logo, pictures of the research site, and images of company records were reviewed and approved by the RAL Operations Manager.

4.9 Conclusion

In this chapter I have elaborated a process-philosophical methodological approach to this investigation based on the 'wayfinding' perspective in strategy first proposed by Chia and Holt (2009). An 'absorptive' stance of research was mobilised through the development of a 'near-documentary' style of inquiry aimed at developing nurtured sensitivity towards the research setting.

The chapter provided the philosophical anchoring of the methodology and then proceeded to detail how the methodological and analytical framework emerged in carrying out an empirical investigation around the matter of how firms compete for advantage. Importantly, the near-documentary style of inquiry was explained, including details of the immersion period performed at the research setting in order to gather data to support the investigation. The sources of data of the study were detailed, and the process of analysis and interpretation explicated. Towards the end of the chapter, the ethical considerations were attended to.

While the main methodological considerations of the study are included in this segment of the thesis, the two subsequent chapter contain further details. Specifically, Chapter 5 provides the overview of the research setting, while Chapter 6 elaborates the analytical framework and subsequently mobilises it in analysing four deep-dive case studies contained in its pages.

V The Setting of ‘Competing for Advantage’

“A story has no beginning or end; arbitrarily one chooses that moment of experience from which to look back or from which to look ahead.”

*-Graham Greene, *The End of the Affair* (1951)*

5.1 Introduction

In this chapter, I set forth the empirical setting which was identified and leveraged for the purposes of this study. While the ensuing chapter will focus specifically on the analysis of particular findings stemming from the research setting, the one here provides the all-important empirical architecture of the inquiry, so that the case study organisation, its operating context, and its activities can be considered in-line with the particular lens of this investigation.

The guiding principle for the development of the empirics was to understand the continuing dynamics of competition across time. To fulfil this aim, the researcher immersed herself into the ‘live’ operations of Rosti Automotive (RA), a UK automotive group, collecting real-time longitudinal data. In juxtaposition with research where notions of competition are built at a single point in time, through cross-sectional studies, or retrospectively, the aim here was to elaborate the everyday process of competition over a period of time. Thus, the overall case-stream was developed broadly covering the years 2016-2018, a period when Rosti Automotive transitioned from being a manufacturer of plastic parts to being an automotive supplier of plastic parts and components. The change in how Rosti competed for advantage undertaken in this period provided a suitable context to study the emergent process of competitive strategizing, of chief interest to this research.

Crucially, in order to gain an authentic understanding of the everyday dynamics and flow of competition and its significance in time, the study included a nine-month near-documentary immersion at the founding Rosti Automotive site in Scotland, referred to hereafter as Rosti Automotive Larkhall (RAL), undertaken between April and December 2018. The extended fieldwork enabled collecting data on a small scale, tracking for instance the minutia of quotidian coping efforts happening from one moment to another on the shopfloor, the place where the competition activities of the organisation are effectively realised. The relative size of the organisation allowed for data collection on a large scale as well, following the strategic trajectory of the firm across its trading history.

Overall, the research setting features a deep-dive into the process of competing for advantage at an automotive manufacturer, profoundly shaped by market and sector-specific happenings impacting how competition unfolds along the supply chain, while

at the same time paying attention to its actual, daily competing efforts on the shopfloor. This contrasts with extant research where competition is studied by researching multiple firms across certain industries or markets, or in other instances, by focusing exclusively on the actions and/or decisions of top management teams.

The chapter is organised as follows. First, an overview of Rosti Automotive is put forward. This is followed by a consideration of the changing structure and operating context of the firm, focusing on how Rosti's transition into the automotive sector in 2016-2018 unfolds in its overall organisational structure as well as in its everyday competing activities and coping efforts on the shopfloor. Towards the end, the chapter concludes by establishing a link between the crux of the empirical setting and how specific instances stemming from the overall case-stream will be further discussed and unpacked in the analysis segment that follows.

Crucially, the research was undertaken from the lens of the 'wayfinding' ontology (Chia and Holt, 2009; Chia, 2017), deemed to provide a more authentic, process-based understanding of the continuous occurrences of competition in organizational practice. As such, the research proceeds to study, with distinct empirical sensitivity, the everyday, practical coping activities and processes that make up competition and serve the firm to extract advantage over time.

5.2 Overview of Rosti Automotive

The organisation was originally established in 1991 in London, UK, as a manufacturer of plastic components. Shortly after its inception, the company relocated to Scotland at the height of the Silicon Glen, taking on work for original equipment manufacturers (OEMs) such as Sun Microsystems, IBM and NCR. The company soon identified an opportunity to expand its primary injection moulding capability to painting, establishing its first paint plant around the year 1994 serving the likes of Motorola and Sony Ericsson. For the ensuing 10 years, the company does injection moulding, assembly, and paint for a variety of OEMs, changing ownership at least a couple of times, shifting from its privately-owned, family-run origins, to being acquired by international players in the plastics industry, and growing the business consistently in both size and turnover.

Following the decline of the Silicon Glen at the turn of the century, it was the company's reputation as a quality injection moulder, which landed it its first doublings in the automotive sector. Around the year 2004, three or four automotive accounts allowed the company to diversify into automotive for the first time, providing tier 1 suppliers with plastic auto parts and components. Its focus, however, remained largely outside of automotive, where throughout the financial crisis of 2008 and in its aftermath, investments proved tricky for the organisation, reducing staff significantly yet staying afloat. By 2012, its primary injection moulding activities were severely linked to low variety, high volume manufacturing work for a couple of long-standing accounts that were gradually offshoring all production to the Far East. To mitigate the situation, the company started to progressively intensify its work in automotive. By 2014, under new ownership and as part of the Sweden-headquartered Rosti (Plastics) Group operating in Europe and Asia, it acquires a British automotive injection moulding group with 3 plants in the UK, transitioning its focus to automotive work entirely by the end of 2016.

In January 2017, the four automotive plants in the UK split from the broader Rosti Group and formally re-brand as Rosti Automotive, an operation entirely based in Britain. The re-branding exercise was notably marked by a transition from tier 2 automotive work to increasingly tier 1 work by the end of 2018. The transition coincided with considerable investment in complex injection moulding machinery, increased paint, and assembly capabilities, and more recently, design, research, and development.

At the time of this study, Rosti Automotive was trading as a tier 1 supplier to the premium European car market, with four manufacturing plants across England, Scotland and Wales, one group headquarters, a team of about 1750 people, and annual sales of about £150 million. Serving automotive OEMs such as Toyota, Volvo, Nissan, Jaguar Land Rover, and Ford, future growth is partly dependent on continued development of its capabilities in close partnership with OEMs, and partly dependent on market changes in the UK automotive supply chain, most notably made uncertain by the UK's withdrawal process from the EU single market, where automotive supply chains are extensively developed and closely integrated.

A summary of the historical overview of Rosti Automotive can be found in Table 5.1.

Table 5.1: Illustration of the historical journey of Rosti Automotive, 1991-2018

1991-2004
<ul style="list-style-type: none"> • Establishment during Silicon Glen peak and subsequent changes in ownership through Silicon Glen decline and dotcom bubble burst in the new century.
2004-2014
<ul style="list-style-type: none"> • Expansion and growth at the turn of the century, primarily through plastic injection moulding capabilities, lead to plastics manufacturing expertise and initial doublings in the automotive sector with tier 2 automotive work. • In the aftermath of the global financial crisis, plastic injection moulding moves to the Far East while the company progressively intensifies automotive work.
2014-2016
<ul style="list-style-type: none"> • Acquisition by Sweden-based Rosti plastic injection moulding group and subsequent expansion of UK operations via integration of a British automotive group with 2 plants in England and 1 plant in Wales.
2016-2018
<ul style="list-style-type: none"> • Specialisation in automotive work. Separation from broader Rosti group and establishment in the UK as an automotive supplier, transitioning from tier 2 to tier 1 automotive work. • Rebranding as Rosti Automotive Ltd. With 4 automotive plants across England, Scotland, and Wales, and HQs. In Leamington Spa, England.

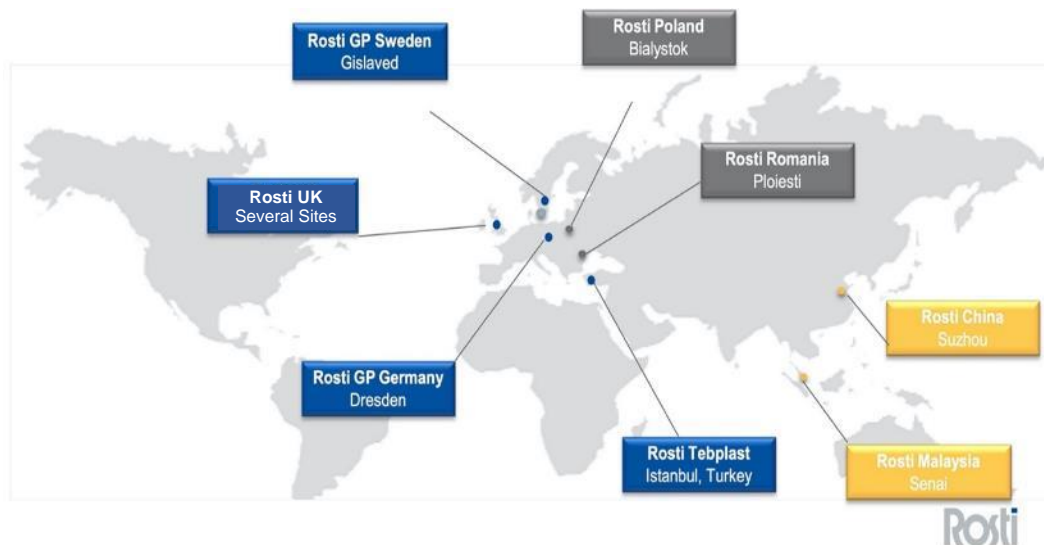
Source: RAL

5.3 Rosti's shifting structure, 2016-2018

The most recent history at Rosti Automotive in the years 2016-2018 was one of transition. Immediately before this period, the firm was trading in the UK as a general plastic injection moulder, under the ownership of the Rosti Group, a larger plastics corporate with headquarters in Sweden and operations across Europe and Asia. Consequently, the firm was part of a larger corporate structure, as shown in figure 5.1.

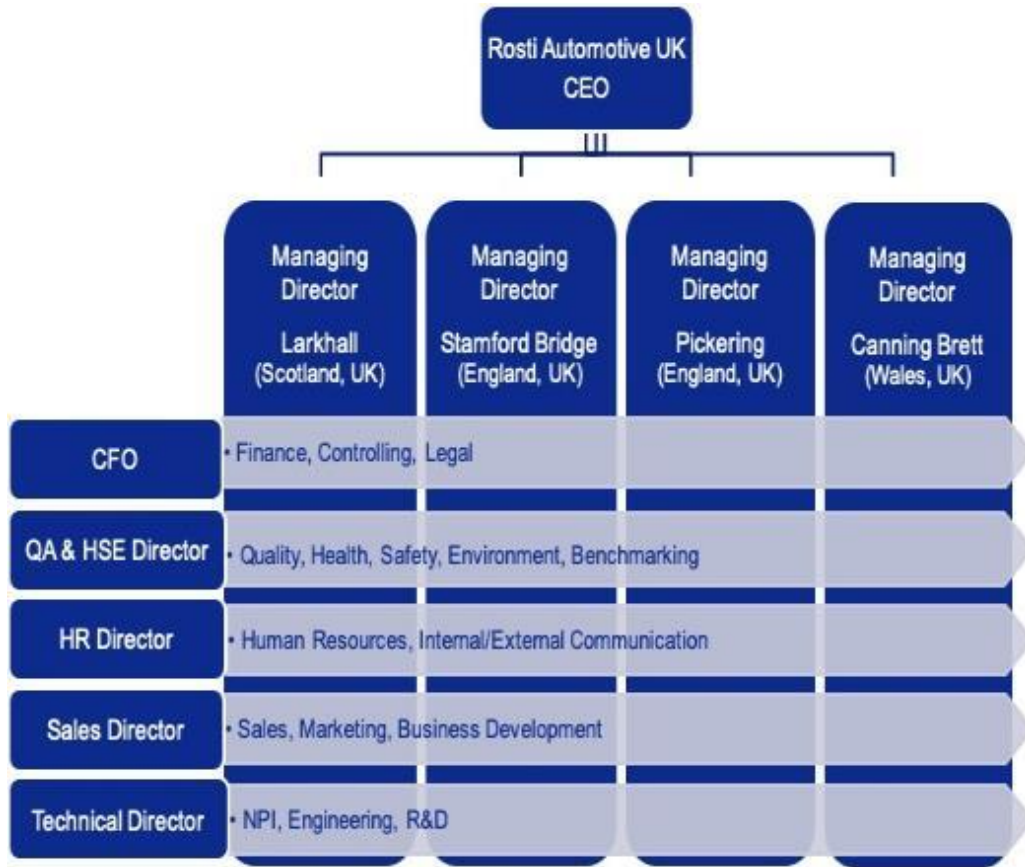
Yet, as of 2016, the operations of Rosti in the British territory started to transition towards a specialisation in automotive work. Between 2016 and 2018, Rosti Automotive is born and established in the UK following the acquisition of a British automotive group with three existing plants in Britain. Thus, by the end of 2018, the structure of Rosti Automotive is composed mainly of four automotive factories: its founding site in Larkhall, Scotland, plus its three newly-acquired plants in England and Wales, all reporting to the group CEO, with support functions operating across all sites. Figure 5.2 illustrates the high-level organisation chart of Rosti Automotive in 2016-2018.

Figure 5.1: Rosti's corporate structure prior to 2016-2018 transition



Source: RAL

Figure 5.2: Rosti Automotive (UK) Organisation Structure, 2016-2018



Source: RAL

5.4 The shifting journey of Rosti operations, 2016-2018

The preceding section briefly uncovered how the transition into the automotive sector shifted the overall structure and organisation of Rosti as a firm. Here we take a closer look at how this transition unfolded at a more granular level by considering the shifting journey of Rosti’s everyday competing activities and efforts in 2016-2018.

Nowhere was this transition more visible than at Rosti Automotive Larkhall (RAL), the group’s site in Scotland. RAL was the group’s oldest continuously operating site in the UK, manufacturing plastic parts in the same location since 1991.

Prior to the transition into automotive, RAL had been doing a combination of automotive and non-automotive work effectively since its inception. In contrast, its sister plants in Pickering and Stamford Bridge, England, and Canning Brett, Wales, were of automotive tradition, and thus the shift in everyday competing efforts was naturally less marked.

The shopfloor of RAL did however go through a more noticeable transition from injection moulder to automotive supplier in the period between 2016 and 2018. Most notably, the transition towards automotive work progressively shaped and reorganised shopfloor operations towards optimisation, specialisation, and increased value-adding capabilities. By the time this study was completed, RAL's shopfloor was streamlined in terms of layout, logistics, production, and personnel. Table 5.2 synthesizes the most salient aspects of the transformational journey of the Scottish plant in the years 2016-2018.

Table 5.2: The shifting journey of Rosti Automotive Larkhall, 2016-2018

2016	2017	2018
Part of ROSTI Plastics Group with presence in Europe and Asia	Part of newly created 'ROSTI Automotive' Group, with 3 other sister plants in the UK	Still operating as part of Rosti Automotive Group (UK)
'Heritage' injection moulding plant design serves increasing automotive work	Plant gradually transitions to mainly automotive work	Plant reorganised to specialise in automotive work
Shopfloor organised in three main areas: mould shop, paint shop, and warehouse	Shopfloor organised in two main areas: mould shop and paint shop	Shopfloor organised in two main areas: mould shop, and paint shop & finishing
Mould shop consists of large mould shop area	Mould shop consists of one large mould shop area	Mould shop subdivided into 3 production cells organised by machine size and type
Paint shop equipped with 2 paint plants	Paint shop equipped with 2 paint plants; additional paint plant being set up	Paint shop and finishing area equipped with 3 paint plants and a finishing area
Warehouse contained within main shopfloor area	Warehouse transitions outside of shopfloor area	Small warehouse 2 added for raw materials inbound to shopfloor, and main warehouse 1 located outside shopfloor
Capabilities include moulding, painting of interior parts, and assembly of non-automotive and (tier 2) automotive parts	Capabilities include moulding, painting of interior parts, and assembly of mostly tier 2 automotive parts	Capabilities include moulding, Ceracon foam sealing, painting of interior and exterior parts, and assembly of tier 1 and tier 2 automotive parts and components
Under 400 personnel	Under 300 personnel	Under 250 personnel
		Scrap review area and 1 st cobot introduced on shopfloor; 'Ceracon Centre of Excellence' established

Source: Author

Between 2016-2018, RAL goes from being a plant among many in an extended corporate structure of plastic injection moulding sites in Europe and Asia, to being one of four plants in a UK-only manufacturer of automotive parts and components. This transition gradually unfolded in its shopfloor. At the most basic level, the shopfloor went from housing the mould shop, paint shop, and warehouse, to housing only the mould and paint shops, with the warehouse being moved and subsequently extended around the shopfloor area. The mould shop in itself went from being organised in one large mould area housing all moulding machines, to three mould production cells with machines grouped by size and type. The paint area, in turn, went from having two paint plants to having three, as well as housing a finishing area where automotive parts and components were assembled, finished, and packed. The layout and logistics of the warehouse also shifted. First, it moved to a new space next to the main shopfloor area, with all materials and components coming in and out of the shopfloor passing through the same part. Later, a small warehouse 2 area was added on the opposite end of the plant to house all raw materials inbound to the shopfloor. In this way, the flow of materials would go from raw materials in warehouse 2, to being transformed into parts and components on the shopfloor, to then go outside the opposite end of the factory into the main warehouse where finished goods were stocked and subsequently delivered.

Alongside the shifting layout of RAL, the capabilities present at the plant progressively transitioned over 2016-2018. While in 2016 its capabilities included moulding, painting, and assembly of a mix of automotive and non-automotive parts, the automotive work it was doing was mostly tier 2 work, with painted parts being entirely interior automotive parts. In 2017, the work shifted almost entirely to tier 2 automotive work. And by 2018, the plant was doing an increasing share of tier 1 work supplying directly to automotive OEMs, with its moulding and painting capabilities further specialised. For instance, one of the cells in the mould shop specialised in a specific 'Ceracon' foam sealing technology, which housed the Ceracon Centre of Excellence for the whole Rosti Automotive group, while its paint shop added capability to paint and finish interior as well as exterior automotive parts and

components. The size of the personnel at Larkhall shifted with its increased capabilities, going from roughly 400 to under 250 people by the end of the transition. Further, by 2018 the shopfloor included a ‘scrap review area’, where scrapped parts and components were monitored daily, and which resulted in a best practice for the entire Rosti Automotive group. Figure 5.3 illustrates the shifting layout at RAL through the transition period, with aerial images of the Larkhall factory showing how the plant grew and extended before and after the transition.

Figure 5.3: The shifting layout of Rosti Automotive Larkhall (RAL) before and after transitioning into the automotive sector

RAL factory pre 2016-2018 transition into automotive



Source: RAL

RAL factory post 2016-2018 transition into automotive



Source: RAL

The RAL factory rebranded as Rosti Automotive



Source: Author. Image taken at RAL.

5.5 Conclusion

This chapter proceeded to present and discuss the case study at the heart of this research. By considering the case of Rosti Automotive through a period of transition, the unfolding change processes in the organisation was examined for the period between 2016 and 2018. More specifically, the chapter aimed to lay out the change from plastics manufacturer to automotive supplier in the said period, uncovering the shifting structure and operational context of the firm.

In the chapter that follows, in-depth instances stemming from the particulars of the research setting here presented will be analysed for their significance into the processual nature of competing for advantage.

VI Analysing ‘*Competing* for Advantage’

“Nothing is forever except change.”

-Gautama Buddha

6.1 Introduction

The preceding chapter established the empirical architecture of this research by laying down the basics of the Rosti Automotive (RA) research setting. It provided an overview of the operating context and activities of the organization in the period between 2016 and 2018, when the firm transitioned from being a general plastic injection moulder to becoming a specialised plastic injection moulder for the automotive industry.

In this chapter, particular findings stemming from the case will be presented and discussed in detail. More precisely, following the long-term immersion of the researcher into the everyday shopfloor activities of the founding RA site in Scotland, Rosti Automotive Larkhall (RAL), an in-depth consideration of the everyday flow of competition will be pursued in these pages, with a view towards unpacking the intricacies of competitive dynamics and crucially, understanding the significance of its continuing unfolding over time.

The chapter starts by presenting the specifics of the analytical framework in section 6.2, subsequently mobilising it in four different in-depth analysis segments in section 6.3. More precisely, subsections 6.3.1 through 6.3.4 present data-laden accounts of specific competing efforts observed in the everyday manufacturing activities at RAL. These accounts are presented in the form of four thematic fine-grained case studies covering the minutia of quotidian coping efforts unfolding from one moment to another on the shopfloor of the firm, which is effectively the place where RAL's competition efforts are realised in its operational day-to-day. While the case studies are all slightly different from one another, they show how 'navigation' and 'wayfinding' analytical events confluence and interact as manufacturing activities are under way in the factory.

Towards the end of the chapter, section 6.4 collates findings from across the four deep-dive case studies and analyses them for their overall significance. Inferences are drawn from across the chapter as a preamble to the discussion on the implications of this investigation for theory and practice, which are explored in the final segments of this thesis. The chapter ends with concluding thoughts on the research findings.

6.2 The analytical framework encompassing navigation and wayfinding process events in the empirical data

From hereon we present the different ways in which navigation and wayfinding interacted empirically, entwining into process complexes that detail how the dynamics of everyday competition unfold. The process complexes will be shown through the use of case studies, or data-laden thematic accounts of confluences of navigation and wayfinding process events, also referred to as navigation and wayfinding journeys, which underpin strategic change and lead to synergies of competing for advantage at the case study firm.

In order to elucidate the ways in which navigation and wayfinding journeys were seen to interact with each other, the case studies are accompanied by illustrative figures of the process complexes that follow the analytical framework mobilised in this study. Using the framework as conceptual scaffolding, the process complexes display the chronological unfolding of data points in the form of process threads of activities happening in the everyday competing efforts of RA. Table 6.1 below depicts the main constituents of the framework.

Table 6.1: Main Constituents of the Analytical Framework

<i>Analytical Category</i>	<i>Description</i>
Process threads	Navigation and wayfinding chronological data points (specific activities, happenings or occurrences empirically observed)
Process events	Navigation and wayfinding journeys made up of chronological data points/process threads
Process complexes	Confluences of navigation and wayfinding journeys/process events

Source: Author

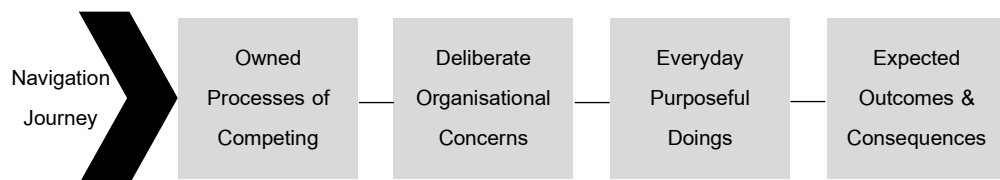
Following the data observed and collected, process threads are placed in the process complexes navigation and wayfinding journeys. More precisely, in navigation journeys, process threads entail deliberate activities which unfold from owned processes of competing, or Rosti's planned and preconceived processes, to deliberate organisational concerns, or Rosti's intended objectives, to everyday purposeful doings, or the everyday planned activities at Rosti, through to expected outcomes and consequences, which Rosti anticipates on the basis of its planned processes and preconceived objectives. Table 6.2 summarizes the conceptual relationships in navigation journeys, while Figure 6.1 shows a visual representation of how a navigation journey unfolds.

Table 6.2: The Analytical Makings of Navigation Journeys

<i>Navigation Analytical Component</i>	<i>Description</i>
Owned processes of competing	Planned and pre-conceived processes
Deliberate organisational concerns	Predetermined, intended objectives
Everyday purposeful doings	Everyday planned activities
Expected outcomes and consequences	Anticipated, foreseen outcomes and consequences

Source: Author

Figure 6.1: The Analytical Scaffolding of Navigation Journeys



Source: Author

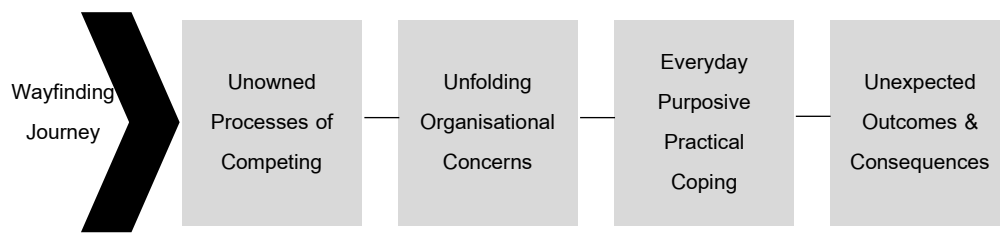
On the other hand, in wayfinding journeys, process threads entail emergent activities which unfold from unowned processes of competing, or contextual processes out with Rosti's planning, leading to unfolding organisational concerns, which are emergent objectives or immediate concerns arising at Rosti, which in turn unfold into everyday purposive practical coping or spontaneous, impromptu activities happening on the shop floor as coping efforts, which lastly result in unexpected or unknown outcomes and consequences for Rosti. Table 6.3 presents the conceptual elements of wayfinding journeys. Figure 6.2 illustrates how these elements relate to each other and unfold empirically in wayfinding journeys.

Table 6.3: The Analytical Makings of Wayfinding Journeys

<i>Wayfinding Analytical Component</i>	<i>Description</i>
Unowned processes of competing	External, contextual processes out with the firm's plans and/or control
Unfolding organisational concerns	Emergent and/or immediate concerns arising at the firm
Everyday purposive practical coping	Spontaneous, impromptu doings unfolding the everyday as coping efforts
Unexpected outcomes and consequences	Unanticipated, unforeseen, fortuitous, and/or inadvertent outcomes and consequences

Source: Author

Figure 6.2: The Analytical Scaffolding of Wayfinding Journeys




Source: Author

Overall, the illustrative figures in the case studies represent particular process complexes observed at RA, with synergies emanating from the confluence of different navigation and wayfinding journeys and detailing the ways in which navigation and wayfinding entwine to extract advantage. These are referred to as ‘competing synergies’ in the analytical framework since they are the result of the convergence of deliberate and emergent competition efforts at the firm. To signal that these synergies unfold as navigation and wayfinding conflux, i.e., flow together, they are referred to as ‘*competing synergies*’, in the gerund form, rather than as competition synergies, which would denote a more static, finished occurrence.

As synergising unfolded, it was observed that RA was able to extract advantage from the convergence of its synergies in a myriad of ways. Hence, the analytical framework includes details of how instances of ‘extracting advantage’ come about. It should be noted individual synergies not always derive immediately in instances of extracting advantage. Sometimes they lead to further deliberate or emergent efforts, as the case studies that follow will elaborate. However, as competing synergies converge, extracting advantage eventually develops in specific and broad ways. For instance, an unexpected consequence may synergise into subsequent purposive practical coping efforts or result in a further unexpected outcome in an unfolding wayfinding journey. Further examples include cases where an unexpected outcome synergises into a new deliberate organisational concern or impacts everyday purposeful doings along unfolding navigation journeys. In the confluence of these synergising examples, extracting advantage develops. Please refer to the illustration in Figure 6.3 for details

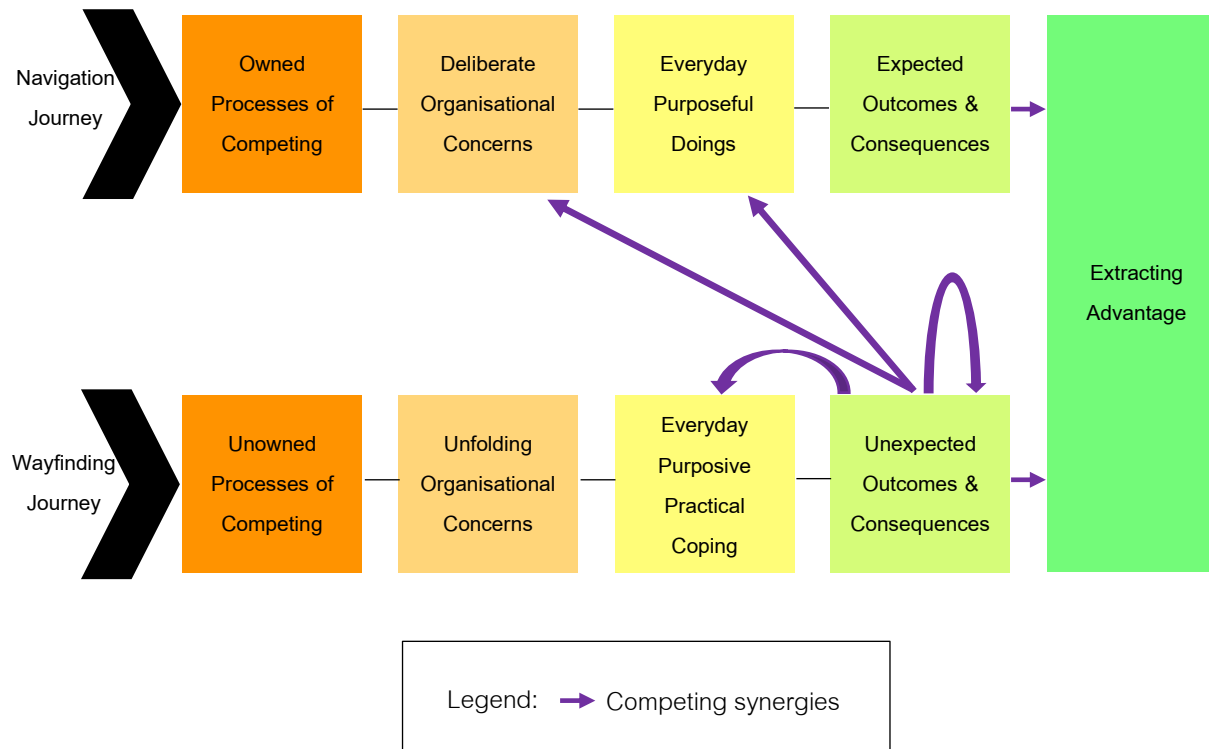
of how competing synergies and extracting advantage are indicated in the analytical framework.

To aid the reading and understanding of the depicted process complexes in the case studies that follow, the analytical scaffolding includes certain characteristics. Namely:

- Navigation journeys are illustrated in the top half of the process complex;
- Wayfinding journeys are illustrated in the bottom half of the process complex;
- Instances of extracting advantage are illustrated to the far right of the process complex;
- Competing synergies are indicated by the use of purple arrows (e.g. );
- A colour palette is used to illustrate how navigation and wayfinding journeys unfold from processes of competing through to instances of extracting advantage. The palette flows from **orange** to **amber**, to **yellow**, to **light green**, and lastly to **green**. More specifically:
 - In navigation journeys, owned processes of competing are illustrated in orange, deliberate organisational concerns in amber, everyday purposeful doings in yellow, expected outcomes and consequences in light green, and extracting advantage in green.
 - In wayfinding journeys, unowned processes of competing are depicted in orange, unfolding organisational concerns in amber, everyday purposive practical coping in yellow, unexpected outcomes and consequences in light green, and extracting advantage in green.

Please refer to Figure 6.3 to see how these characteristics are illustrated in the conceptual framework.

Figure 6.3: Analytical Scaffolding for Process Complexes used in this Study



Source: Author

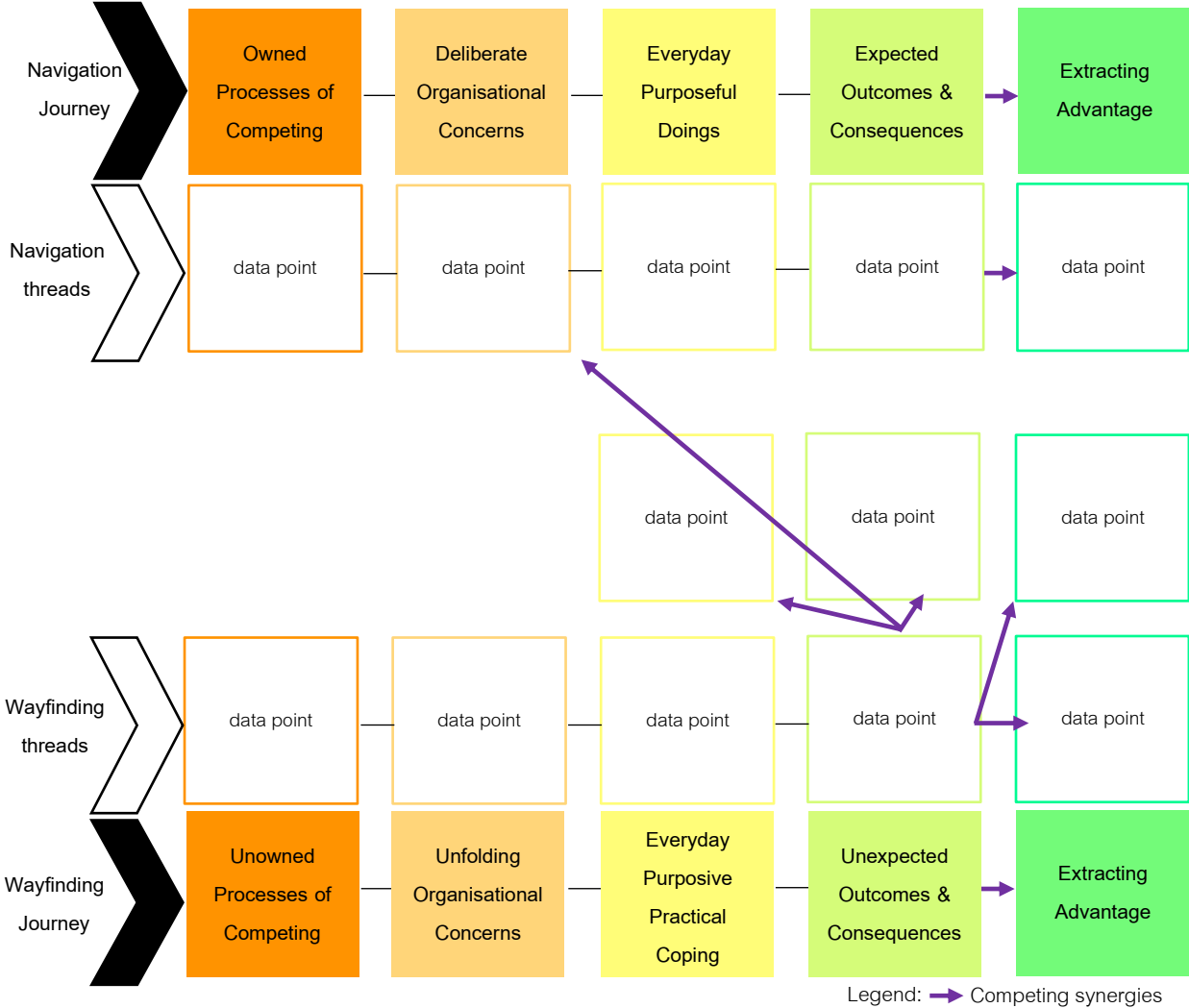
While the analytical scaffolding serves to examine and dissect the process complexes uncovered in this study, the actual process complexes that emerged from the empirics of the research are more detailed. In order to show this, the process complexes illustrated in the ensuing case studies include the analytical scaffolding. Yet crucially, they are also populated with the relevant data points observed along the different navigation and wayfinding journeys, appearing as navigation threads and wayfinding threads, respectively. For a representative illustration or ‘mock-up’ of what a process complex looks like in the case studies in this study, please refer to Figure 6.4. While the characteristics of the analytical scaffolding discussed and illustrated above remain the same, Figure 6.4 shows where and how the data points are placed along the navigation and wayfinding journeys of the process complexes. Importantly, the colour palette is respected. While the analytical scaffolding presents the different elements of the journeys in colour-filled text boxes, the data points are illustrated using colour-coded frames along the same palette. Thus:

- In navigation journeys, navigation threads are illustrated using orange frames for owned processes of competing, amber frames for deliberate organisational concerns, yellow frames for everyday purposeful doings, light green frames for expected outcomes and consequences, and green frames for extracting advantage.
- In wayfinding journeys, wayfinding threads are illustrated using orange frames for unowned processes of competing, amber frames for unfolding organisational concerns, yellow frames for everyday purposive practical coping, light green frames for unexpected outcomes and consequences, and green frames for extracting advantage.

Please refer to Figure 6.4 for a sample of a process complex typical of this study.

Figure 6.4:
Representative
Illustration
(mock-up) of
Process
Complexes used
in this Study

Source: Author



6.3 The synergistic interweaving of navigation and wayfinding in process complexes of competing for advantage at Rosti Automotive

The data presented in this section corresponds to efforts made by Rosti Automotive (RA) to compete in the automotive market between 2016 and 2018, and in all cases, the data were collected by the researcher during her immersion at the Rosti plant in Scotland, Rosti Automotive Larkhall (RAL), in 2018.

Four different case studies will be presented and discussed in subsections 6.3.1 through 6.3.4. Each of these segments is organised as follows. At the start of the subsection, a brief overview of the case study is offered. This is followed by the case study itself, which provides a detailed account of a process complex comprising particular navigation and wayfinding process events observed at RAL. Towards the end of the subsection, an analysis and illustration of the process complex for the vignette is rendered, where the data presented in each empirical account is interpreted using the analytical framework presented in section 6.2.

More specifically, each case study entails the confluence of a specific navigation process event and a specific wayfinding process event. These process events are processual in nature, i.e. they describe processes unfolding over time, which were longitudinally observed by the researcher during her long-term immersion in the day-to-day activities of the RAL factory. For this reason, the process events are also referred to as navigation and wayfinding journeys, to indicate their unfurling spanning a continuous period of time, as opposed to an event of a non-processual nature happening at a single, specific point in time. Taken together, the navigation and wayfinding process events in each case study make up a process complex, which is the field of analysis interpreted and dissected for its significance in the subsections that follow. Figure 6.3 in the preceding section is an illustration of a process complex as understood in this study.

As was previously referred to, all of the empirical accounts hereon presented are examples of occurrences that were observed at the case study organisation in the

midst of its daily activities. They were not chosen at the outset of the research by following a conscious selection process, nor were they suggested or pre-emptively informed of to the researcher by the host organisation. The longitudinal, immersed nature of the study enabled the collection of rich detail covering the minutia of daily happenings at Larkhall over successive days and months, which through analysis, were built into process complexes in the manner explained above and as per the methodology of the investigation, which was covered in chapter 4.

From the universe of process complexes collected in the study, the ones included here are presented due to their explanatory power regarding the nature of the process of competition over time, of chief interest to this research. The case studies recount how production processes were newly developed and/or improved upon, how certain best practices came about, and how contextual events shaped daily happenings at the factory.

The first case study is presented below in subsection 6.3.1, followed by the second one in subsection 6.3.2, the third one in subsection 6.3.3, and the fourth and last one in subsection 6.3.4. Findings across all case studies are subsequently elaborated upon in section 6.4.

6.3.1 Case Study 1 – Immersion Study - ‘A specialised unit emerges’

The case study that follows accounts for how a sudden need for shopfloor space at RAL led to the development of a new ‘Ceracon’ capability and specialised unit of production, which was later formalised into a group-wide ‘centre of excellence’ for the whole of Rosti Automotive. This first case serves as an immersion exercise into the near-documentary methodology developed in this study. It is based on retrospective data initially, which is subsequently built upon following the near-documentary approach.

A specialised unit emerges

In the year 2016, RA starts transitioning its overarching strategy from a general plastic injection moulder to an automotive supplier of parts and components. As the previous chapter recounts, the company decides to take on more automotive work after seeing several of its long-standing injection moulding accounts shift manufacturing to the far East. However, besides acquiring three plants of automotive tradition in the UK, there is no explicit implementation strategy that is expected to accompany and realise the company's professed intentions of specialising in automotive work. At each of the factories that made up the group, this meant they knew an intensification of automotive work was to be expected, along with a consequent decrease in general injection moulding work. Yet, they did not know exactly how the new strategy would impact their daily operations, nor their specific manufacturing processes and activities, or even their shop floor layout.

A manufacturing process present across the different RA plants in England and Scotland at the time involved the production of door modules with 'Ceracon' foam-sealing technology. A Ceracon machine adds a foam seal around the edges of a door module capable of absorbing the impact and reducing the shock and noise produced when a car door is closed. Even more importantly, the Ceracon provides a water-tight seal for the electrics that are housed in the door module of a vehicle, such as the electric window motor, speaker(s), and the door lock electrics. In order for a supplier to get approval to produce a door module, the part needs to pass a 'monsoon test' to see if it remains functional when exposed to heavy rainfall. Once approval is granted, the parts are sampled and tested by the OEM regularly to check for failures.

A total of five Ceracon machines were distributed at the RA plants in 2016, one of which was functioning at Rosti Automotive Larkhall (RAL) in the outskirts of Glasgow. Figure 6.5 below shows door modules produced at the Larkhall plant. Both left-hand (LH) and right-hand (RH) door modules are visible in the picture, with black Ceracon foam around the edges of the parts.

Figure 6.5: Plastic door modules manufactured at Rosti Automotive

Source: Author. Image taken at RAL.



Up to that point, all door modules produced at Rosti followed the same two-stage production process. First, the door modules were moulded in the moulding machines. Once moulded, they were packed and sent to the warehouse as ‘work in progress’ (WIP), until recalled to the shopfloor, when the second part of the production process would take place. This consisted in adding a shock-resistant, water-tight foam seal across the edges of the door modules using the Ceracon machines, and then putting the parts in an oven to cure the foam onto the part. Once the parts were cured, the product was packed in boxes ready for delivery to the customer. This two-stage production process was standard operating procedure at Rosti and seemed to work fine across the factories, so there were no imminent plans or reasons to change it.

Towards the end of 2016, the team at RAL in Scotland found themselves with a need to create additional space on the shopfloor to accommodate a new 3-coat exterior paint plant they decided to invest in. In figuring out how to create the additional space, they decided to try out an idea they had concerning the Ceracon machine.

Essentially, the idea involved integrating the production of the door modules into a single-piece flow process by putting the moulding machine, the Ceracon machine, and the oven in a single production unit or cell, one next to the other. Instead of making the door modules in two separate stages, as they had been doing so far, they would mould the part in the moulding machine, add the foam immediately after in the Ceracon machine, within 60 seconds of its moulding, and then cure it in the oven for a period of 8-10 minutes. Once cured, the parts would be ready to be packed for delivery to the customer. They explained their reasoning:

“...we needed some space, so we thought we could get it close to the [moulding] machines and get it running as one-piece flow...” -Senior Manager, RAL.

At the time, RAL staff were unsure whether a single-piece flow production process was technically feasible for this type of part. Specifically, they feared the Ceracon foam would not adhere properly to a recently moulded, still-warm plastic door module. Once the Ceracon was applied, another reservation they had was whether the door module would become warped or shrink excessively when exposed to the 80° Celsius of the oven where the part had to be held at an elevated temperature for 8-10 minutes. While in the two-stage production process the part was able to cool down while it remained stored in the warehouse as WIP, changing the process to a one-piece-flow required the door module to go through a tightly controlled cycle-time in a continuous production process. Hence, for the staff at Larkhall, questions about their idea remained. Would the Ceracon adhere properly to the recently moulded part? Would the shrinking of the plastic remain within tolerance while meeting the required customer dimensions for the part? A door module with an incomplete foam seal and/or shrunk too small would lead to failures and customer rejections.

Of course, to know for sure if the idea was feasible, they would have to move the machines in question one next to the other, which meant making changes to the layout of the shopfloor and spending money to relocate machinery. So, they engaged in a kind of trial and error in an effort to test their idea organically. Continuing from the quote above:

“...so it was almost like a trial and error; we just thought it would work so we just did it, rather than it being planned... It was a wee bit kind of organic; we thought it would work, it wasn't planned, we wanted to see how this would work, so we did it” -Senior Manager, RAL.

Although they had done a bit of Internet-based research and seen other companies doing a similar process, nothing of the sort had ever been tried at Rosti, in their own production environment and with the machinery, tools, and specific products they had. Yet the quick tests they were able to do before incurring into any expenses seemed to encourage their suspicion.

By the time the Senior Manager in charge requested a £20,000 out-of-budget expense to move the Ceracon machine next to the moulding machine producing the door modules, he had enough faith it would work. Yet, making the expense still meant taking a chance on something for which he had no absolute assurances. In his own words, it was about *“being brave”*, subsequently qualifying the move with a more colourful expression:

“You have to get your c-ck on the block... You need to be brave... I've done that a lot of times in my career” -Senior Manager, RAL

However, upon trialling the idea in a single-piece flow, they confirmed its feasibility and subsequently realised its benefits. Namely, the new process took the manufacturing process from two separate stages to a single-piece flow, thereby avoiding the creation of WIP inventory, reducing double handling and extra movement of the product, reducing labour from 2 operators to 1, and improving the efficiency of the space by optimising the shop floor layout and adding more value per metre square. While all these things represented improvements, the reduced WIP and labour were of particular value to the senior management of the plant. They were part of RAL's key performance indicators (KPIs), or metrics they closely monitored for their overall impact on the contribution margin, which they aimed to keep at above 40%.

By 2017, the new process became the way Ceracon products were ran at RAL, updating the work instruction of the part to reflect the improved process. Soon, word

spread in the group. Larkhall's new process reduced the overall cycle time of the door modules to 10 minutes, versus 2 or 3 weeks at the other sites due to the separate production stages.

"...we got it on one machine, so then we could do it on all the others. CEO said, 'Great idea, why are the other sites not running it like that?'
-Senior Manager, RAL.

In 2018, as a result of the improvements in the Ceracon process, the CEO at RA decided to create the Ceracon Centre of Excellence (CCE), a name he came up with as he commissioned the consolidation of all Ceracon machines at RAL. All 5 Ceracon machines were progressively moved to Larkhall in the first two quarters of the year, with the new process being made best practice and standard work instruction for all Ceracon products across the group. The management at Larkhall saw this occurrence as significant for several reasons. As explained by a Senior Manager:

"Ceracon door modules go into every car; there is a different set for each car, across all [car] platforms. It allows better utilisation of machine capacity. We can run 3 and 4 different car modules in one machine. There is a good annual sale on the Ceracon. So, it gives us another expertise, and it's also more value-add rather than just moulding. Any door modules that are quoted, automatically need to be quoted from RAL rather than the other two plants. It creates more work internally for the plant".

A 'Ceracon' Process Complex

Figure 6.6 below illustrates the process complex by which the Ceracon Centre of Excellence (CCE) came to be. Starting with an unfolding concern at the Larkhall plant, identified as the 'sudden need for space' (see * in corresponding unfolding organisational concern amber box frame in the bottom half of figure 6.6), this arising concern arises and denotes the start of an impromptu wayfinding journey, represented

in the bottom half of figure 6.6. As a way to cope with the emergent concern for space, shop floor staff trial a one-piece-flow Ceracon process as a practical coping effort in the midst of everyday activities at the plant (see corresponding everyday purposive practical coping yellow frame). To the surprise of RAL staff, the one-piece-flow Ceracon process unexpectedly works (see corresponding unexpected outcomes and consequences light green frame), resulting in several synergies allowing RAL to extract advantage. For instance, the new Ceracon process reduced labour and WIP, improved the production efficiency of the plant, and increased the value extracted per square metre on the shop floor (refer to corresponding extracting advantage green frames in the bottom right of the figure). In addition, two other unexpected and unintended consequences unfolded as emergent synergies in this wayfinding journey: (i) the one-piece-flow process became the new Ceracon procedure at RA, and (ii) the CEO designated the creation of a ‘Ceracon Centre of Excellence’ at RAL (see corresponding unexpected outcomes and consequences light green frames indicated with a purple line).

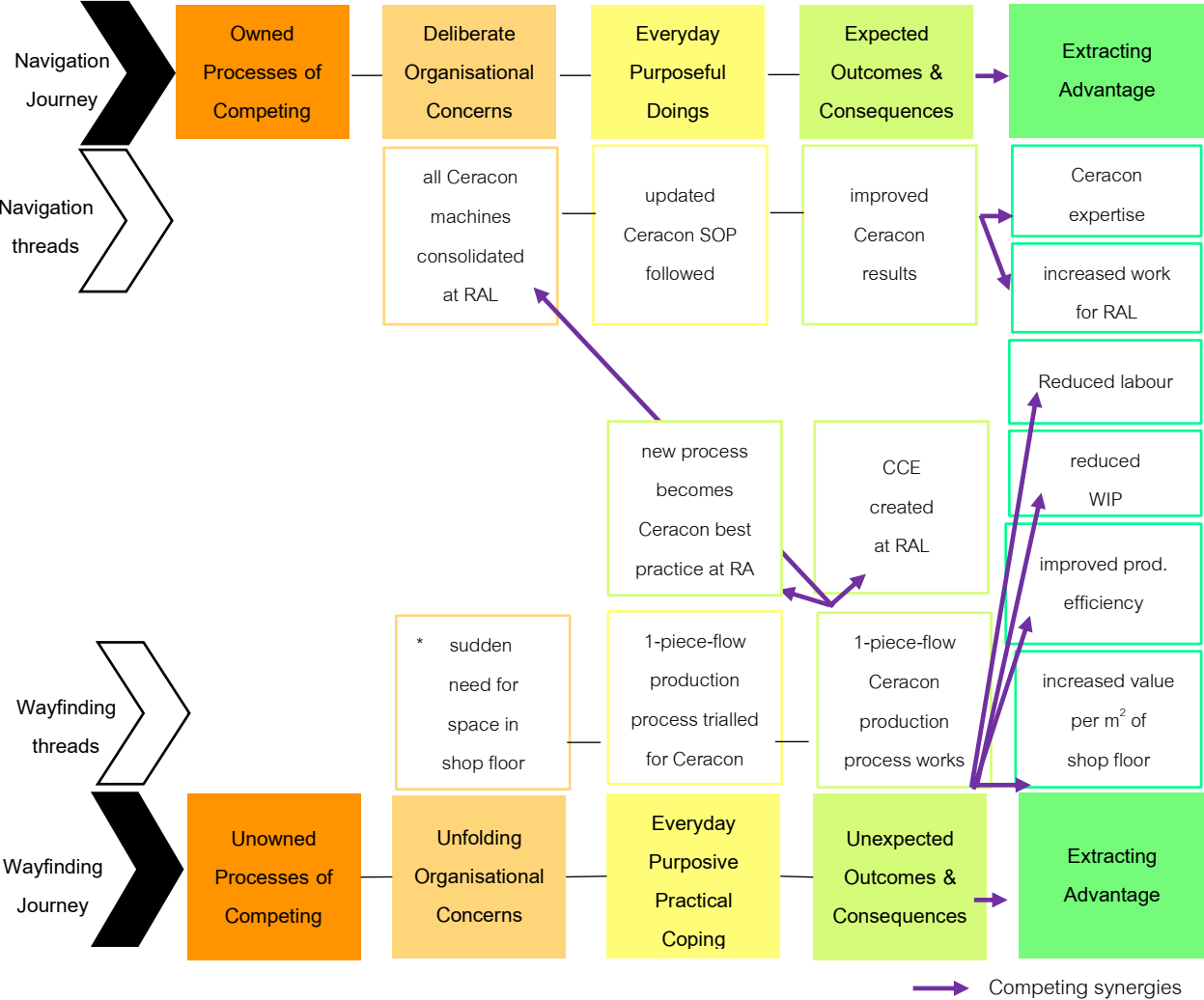
Once the Ceracon Centre of Excellence was deemed to be established at Larkhall, a further synergy unfolded in the way of a deliberate organisational concern: the decision to consolidate all Ceracon machines from thereon at the Scottish plant (see corresponding deliberate organisational concern amber frame in the top half of figure 6.6), a calculated intention which denotes the start of a planned navigation journey, illustrated in figure 6.6 in the top half of the figure. As all Ceracon machines are moved from other RA plants to RAL, shop floor staff follow the updated and revised Ceracon standard operating procedure in the daily manufacturing of door modules that make part of the planned everyday purposeful doings of the factory (see corresponding everyday purposeful doing yellow frame). These planned Ceracon activities result in the improved production outcomes they had learned about in the Ceracon trial process (see corresponding expected outcomes and consequences light green frame), which in turn serve the firm to extract further advantage, as RAL is able to develop a particular expertise in Ceracon, which other RA plants did not have, as well as secure more work for the plant, as from that point onwards, all Ceracon work in the RA group automatically went to the Larkhall factory, and not to any other factory

in the group (see corresponding extracting advantage green frames in the top half of the figure).

As we are able to see in this particular process complex, an emergent wayfinding journey laced onto a deliberate navigation journey, confluencing to spontaneously develop a new Ceracon best practice at RAL that resulted in further advantages for the plant. Effectively, starting with an unfolding concern for space at the Larkhall factory (see * in figure 6.6), a new production process for automotive door modules was tested and subsequently adopted as best practice for the entire firm, resulting in several performance advantages and the creation of a specialised unit at the Scottish plant. By charting the different process threads happening in their chronological order, Figure 6.6 shows how a wayfinding journey was initiated when an immediate concern arose, resulting in unexpected outcomes and consequences and subsequent advantages at the case study firm. This journey in turn entwines into a linked navigation journey which determined further deliberate outcomes and consequences for the factory and the attainment of additional advantages.

Figure 6.6: The serendipitous unfolding of a new ‘Ceracon’ process at RAL

(Source: Author)



6.3.2 Case Study 2 ‘The Ceracon Centre of Excellence copes with customer complaints’

The second case study of the study follows from the first one. It depicts how the Ceracon production process, which was described in subsection 6.3.1 above, was improved upon following the emergence of customer complaints.

The Ceracon Centre of Excellence (CCE) copes with customer complaints

In the first half of 2018, a ‘Ceracon Centre of Excellence’ was established at Rosti Automotive Larkhall (RAL) following the spontaneous emergence of an improved Ceracon process by shop floor staff between 2016 and 2017. The preceding case study explains how the Centre came into being by way of a serendipitous journey which started at the Rosti plant in Scotland. By mid-2018, the creation of five Ceracon cells at RAL effectively constituted the establishment of the Centre, which was by then running in daily production.

The Ceracon Centre of Excellence (CCE) was conceived as a specialised production unit within the Rosti Automotive (RA) Group that manufactures and supplies plastic door modules for a myriad of car models to Original Equipment Manufacturers (OEMs). It takes its name after the specific ‘Ceracon’ technology that adds a foam sealing to otherwise plain door modules which are manufactured in plastic and put inside every vehicle door.

A few months into the continuous running of the Ceracon Centre of Excellence, customer complaints arose pointing towards problems on the shopfloor. Labels were being wrongly applied to the boxes containing the door modules. Boxes with right-hand side modules were labelled as left-hand side, and vice-versa. The complaints were reported and discussed in the routine production meeting for the Ceracon cell, specifically cell 3 in the mould shop, and as a result, the operators and team leaders involved were trying to figure out how to avoid further problems of this nature. They

suspected the mixing up of labels was probably down to involuntary errors in the production line.

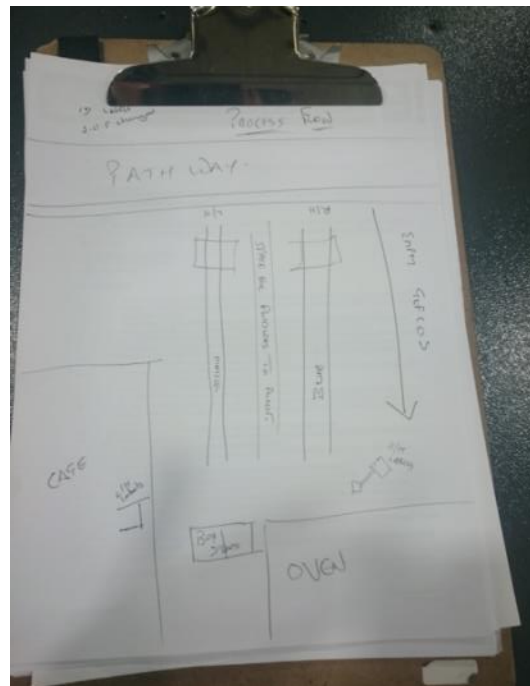
In the course of an afternoon in October 2018, a team leader in cell 3 proposes to two of her operators to test and try out a slight modification in the layout of one of the Ceracon cells. Using the same colours that differentiate right-hand side labels from left-hand side ones, they used blue and yellow paint respectively to visually create separate production lanes in the machines through to the space on the shopfloor where the boxes of finished products were held. In this way, the idea was, the operator would visualise consistently where to put right-hand side and left-hand side parts in the Ceracon cells throughout production. Before they left for the day, they revised the work instruction by crossing out parts and writing in the modifications, and over the course of the following day, they ran a single Ceracon cell using this revised procedure. Upon establishing through different operators, team leaders, and shifts that the procedure was helpful, they formally updated the work instruction and applied it throughout all cells of the Ceracon Centre of Excellence. A pictorial illustration of this particular journey can be found in Figure 6.7, which uses photographic evidence of the coping efforts pursued by the Rosti staff over the course of October 24-25, 2018.

Figure 6.7: Pictorial illustration of a wayfinding episode in cell 24 of the Ceracon Centre of Excellence, RAL, October 24-25, 2018

General layout of Ceracon cell 24 before changes



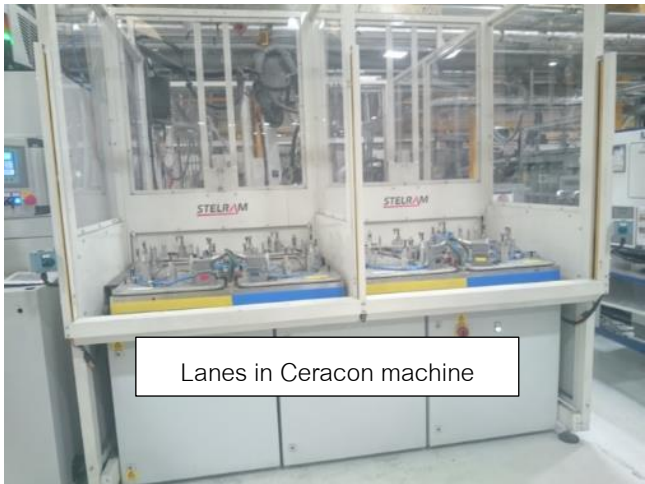
Sketch of proposed layout to test in Ceracon cell 24





Lanes created in moulding machine

Left-hand side (yellow) and right-hand side (blue) product lanes created throughout Ceracon cell 24



Lanes in Ceracon machine



Lanes in oven



Lanes in packaging area

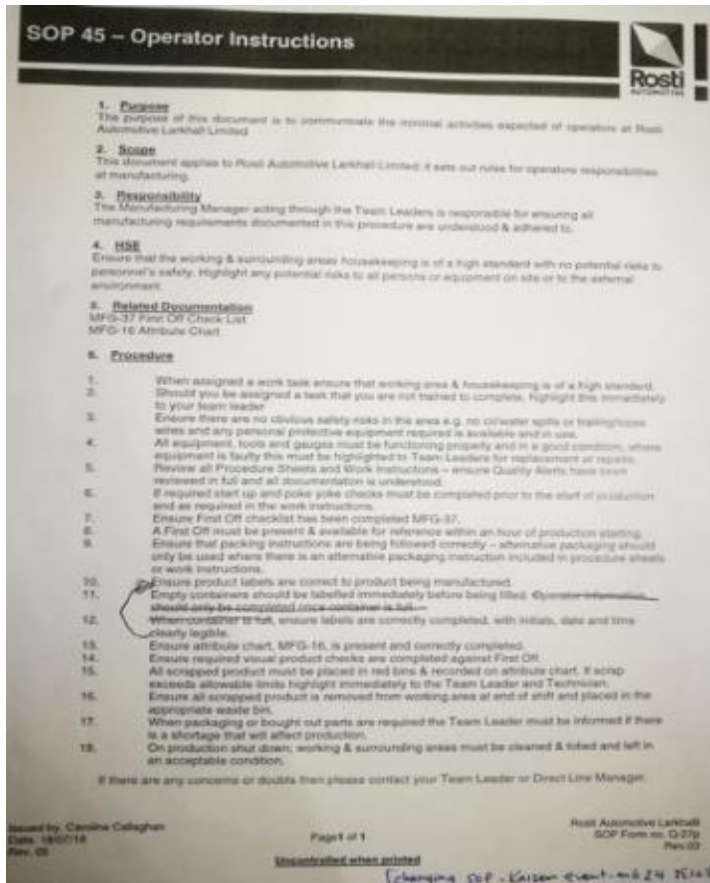


Yellow Label for Left-hand side parts



Blue Label for Right-hand side parts

General layout of
Ceracon cell 24 after
changes



Affected Standard
Operating Procedure
(SOP) with hand-
written edits of the
proposed changes

Source: Author. Images taken at RAL.

Customer complaints ceased and towards the end of the study, the team at RAL had further improvement ideas for the Centre. Namely, to automate the Ceracon cells through the use of robots so that labour can go from 1 operator per cell to 1 operator for all 5 cells, limiting operator handling of parts to finished products, inspection and quality controls, improving the overall performance of the centre, and paving the way for additional business opportunities in Ceracon products.

The ‘Ceracon’ Process Complex following customer complaints

Figure 6.8 illustrates the process complex of the shifting journey the Ceracon Centre of Excellence went through from the moment complaints surfaced. As was seen above, the Centre had been running for a few months when customer complaints arose. The complaints emerged unexpectedly, becoming unfolding organisational concerns (see * in corresponding unfolding organisational concern amber frame in bottom half of figure 6.8), denoting the start of an unplanned wayfinding journey, represented in the bottom half of the figure. In the spur of the moment, shop floor staff tested a revised layout in a single Ceracon cell in a spontaneous effort to deal with the complaints that had been reported (see corresponding everyday purposive practical coping yellow frame). In their coping efforts, they created ‘visual lanes’ throughout Ceracon cell number 24, which they thought could help avoid the labelling issues that had been the focus of the complaints. Intuitively and to their satisfaction, upon trialling the new layout, they realised the visual lanes worked, which was a naturally occurring outcome of their coping efforts (see corresponding unexpected outcomes and consequences light green frame), which in turn synergised into two additional unintended consequences: (i) the standard work instruction for the whole Ceracon Centre was tentatively edited to reflect the new layout (see corresponding unexpected outcomes and consequences light green frame marked with a purple arrow), and (ii) as a natural follow-on coping measure, the shop floor staff replicated the new layout across the five Ceracon cells to test it further, as part of their everyday purposive practical coping (see corresponding everyday purposive practical coping yellow frame marked with a purple arrow).

Following the further tests with the new layout across all cells, the Ceracon standard operating procedure (SOP) was formally revised and regularly followed as part of the everyday purposeful doings in the planned production of the factory (see corresponding everyday purposeful doings yellow frame in the top half of figure 6.8). The deliberate adoption of the revised Ceracon SOP, systematically used in regular production, marked the start of an intentional navigation journey, which is represented in the top half of figure 6.8. Soon after their conscious commitment to this new standard, the complaints subsided and they obtained improved Ceracon results, outcomes they were anticipating as the calculated fruits of their deliberate actions (see corresponding expected outcomes and consequences light green frame). Following the improved results, the Centre was able to extract advantage. They expanded their Ceracon expertise by means of their improved process as well as identified new value-added opportunities in Ceracon production (see corresponding extracting advantage green frames).

See the illustration of the process complex below.

Figure 6.8:
Unfolding
concerns give rise
to further
improvements at
the Ceracon
Centre of
Excellence

Source: Author.

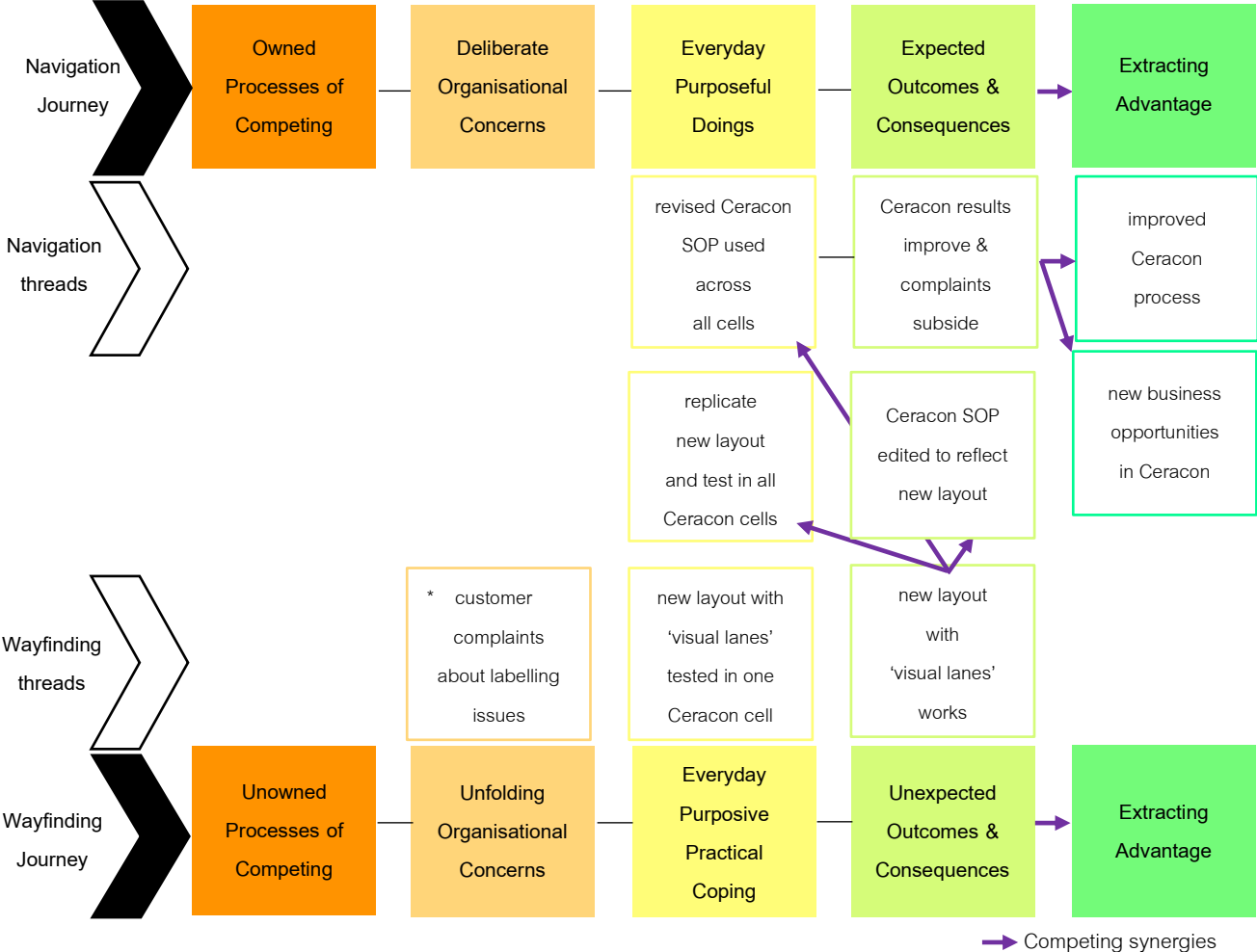


Figure 6.8 above charts the process threads as they unfolded in this particular process complex. Unexpected customer complaints instinctively embark shop floor staff at the Ceracon Centre of Excellence on a wayfinding journey, which spontaneously leads them to stumble upon an improved Ceracon process. Taking stock of their refined knowledge, they then set the chart for a deliberate navigation journey, where they attain improved results and extract advantage.

As Figure 6.8 suggests, the emergence of unanticipated customer complaints on the Rosti shop floor gave rise to a wayfinding journey leading to an unintended revision of the Ceracon production process. While trying to find a way to deal with this situation, the testing and trialling of revisions to the Ceracon process depicts the coping efforts put forward by staff. As the figure then indicates, eventually these purposive coping efforts entwined into a purposeful, directed navigation journey where standard work instructions were formally revised and methodically followed, resulting in preconceived improved results and the development of additional advantage for the Centre as a whole.

The ‘Ceracon’ Case Studies

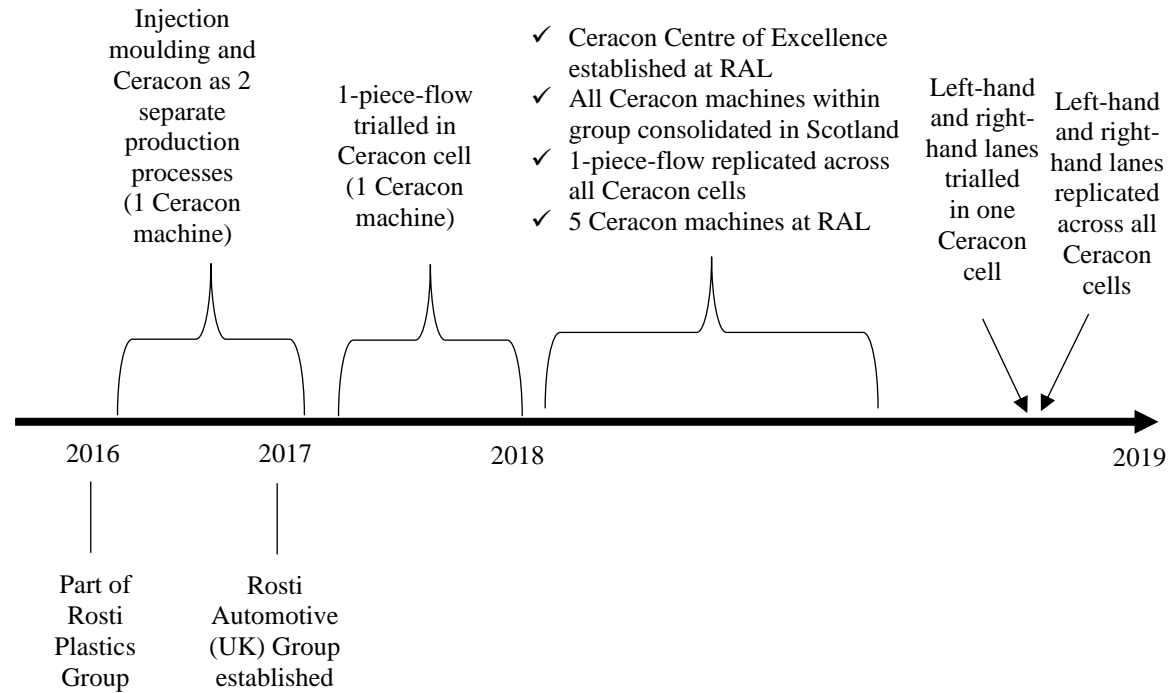
Case studies 1 and 2 in subsections 6.3.1 and 6.3.2, respectively, tracked happenings pertaining to the Ceracon Centre of Excellence at Rosti Automotive. Overarchingly, these cases provide empirical evidence regarding the unfolding of “a pattern realized despite, or in the absence of intentions”, as per Mintzberg and Waters (1985: 257). In this instance, it was the case of concerns emerging purposively on the shopfloor which gave rise not only to a new area of expertise in Ceracon technology, but also additional advantage which was extracted along the synergistic interweaving of navigation and wayfinding journeys at the heart of the factory. Figure 6.9 further below presents the overall timeline of changes at the Ceracon Centre of Excellence from 2016 through the end of 2018.

As we were able to see, the end of 2016 marked the spontaneous wayfinding of an improved Ceracon process at Rosti Automotive Larkhall, which allowed the

plant to go from two separate production processes in the manufacturing of plastic door modules, to a single-piece-flow production process. The advantages extracted from this experience leads to the development of Ceracon expertise and the eventual establishment of a specialised unit, the Ceracon Centre of Excellence, which was created and commissioned by the CEO in 2018. Later that same year, the Ceracon process at Rosti is further refined following customer complaints.

Crucially, the Ceracon Centre of Excellence comes to be in an unexpected turn at Rosti Automotive Larkhall. Although the company was transitioning strategy to become an automotive supplier between 2016-2018, a Centre of Excellence was never part of the cards, nor part of their strategy, yet it came to be nonetheless, shaping the Larkhall shop floor layout and everyday competing activities in significant ways.

Figure 6.9: Timeline of Purposive Changes at RAL's Ceracon Centre of Excellence



Source: Author

6.3.3 Case Study 3 ‘The inadvertent shutdown’

The third case study tells what happened on the manufacturing shopfloor following an unexpected event outside the organisation: the abrupt shutdown of an important JLR plant the Larkhall factory was supplying into. In the pages that follow, the case study uncovers how RAL was able to unveil opportunities and concealed potentialities in the midst of utmost concern, in what initially emerged as a completely unparalleled situation.

The inadvertent shutdown

It was 2018 and the British car industry had been on a rocky road for some time, twisting and swerving in the wake of major events in the national spectrum (e.g. 2016 Brexit referendum; 2017 UK ‘Diesel gate’ crisis), and trying to improve road conditions as and when it could (*“UK car sales fall, as Jaguar Land Rover issues hard Brexit warning – as it happened”*, Guardian Business News, 5 July 2018). Yet, the sector was trying to feel the pulse of the unfolding event which concerned them the most: the rolling Brexit negotiations by Theresa May’s government, which were perceived to be in a double whammy of uncertainty and chaos. At the time, the UK was fast approaching the end of the two-year period it had been granted to formally leave the European Union, which was due to happen in March 2019. As Brexit loomed, the issue was succinctly summed up by a Rosti Automotive (RA) executive as follows:

“I don’t think there is a direction at the moment... The direction could change. The Brexit is going to happen in 5 months’ time. So, the whole landscape could be completely different in six months...” -Executive, RA

In this foggy panorama, RA was in the midst of leaving its general injection moulding tradition with no other strategy than to specialise its capabilities in automotive work. When prompted, a senior manager at Rosti Automotive Larkhall (RAL) put it in blunt terms:

“I am not really aware of what the current Rosti Automotive strategy is. We don’t appear to have one at the moment....I think at the moment, the strategy, I don’t think we have much of a strategy.” -Senior Manager, RAL

One of RA’s key customers, Jaguar Land Rover (JLR), seemed to be feeling the pressure and by September 2018, it had taken one of its factories in Castle Bromwich, Birmingham, from a full production schedule to a three-day-a-week schedule. The move got picked up in the media with headlines such as:

“Jaguar Land Rover to cut output at UK car plant after warnings on Brexit, diesel” (Reuters, 17 September 2018)

“Jaguar Land Rover says about 2,000 staff will go to three-day week” (The Guardian Business News, 17 September 2018)

“Jaguar workers put on three-day week until Christmas” (BBC news, 17 September 2018)

At RA, the latest developments were interpreted as ‘*difficult trading conditions*’, as per the company’s newsletter on the 24 of September of 2018. Yet it maintained a hopeful undertone, declaring at the same time it had managed to win ‘*more than £50 million of new business*’ thus far in the year (‘New Business Success’, RA communication published in RAL newsletter, 24 September 2018) and announcing it was in an active search for new customers, maintaining conversations with Honda and BMW (‘The search for new customers’, RA communication published in RAL newsletter on 1 October 2018).

At the Rosti factory in Larkhall, a similar mood was reflected in its own internal communications. Although Brexit and the JLR Castle Bromwich announcement were of worry, the consequences were all inadvertently fine for them for the time being, and the forecast remained agreeable. The Workers’ Council meeting held at the time put this in evidence:

“September/October looks to be busy and sales forecasts put us in a good place making the outlook good reasonably good” (official minutes, RAL Workers’ Council Meeting, 27 September 2018).

“We’re sitting on 4% return at the moment... September and October look reasonably good.... £2.4/2.5m turnover mark [monthly] ... [...] ... I wanted to say something about things in the news, like JLR going to three days, Brexit, and the like. Ironically, that has actually helped us to some extent as other plants have increased their requirements, helping our sales. For instance, some production was diverted to Solihull [JLR plant customer of RAL] and so it is coming to Larkhall. It’s actually bad news on the telly, but it was good news for us, ironically... you need to be careful what you see on tv” – RAL Managing Director, Workers’ Council Meeting, 27 September 2018.

A week into the fourth and last quarter of the year, the summer was firmly behind, and operations ensued at the Larkhall plant. It was Monday, 8 October 2018, and the week was getting underway at the factory. The plant update published on that day seemed to point towards a good omen:

“General Update: Higher demand from JLR helped us through September to increase Sales revenues and secure a healthier financial position. Whilst still below our budget forecast, the numbers are encouraging, and look set to continue to year end.” (RAL newsletter, 8 October 2018)

The day shift had started and finished between 6 am and 2 pm, and as the back shift was commencing, the material review board meeting proceeded normally on the shop floor at 2.45 pm for about eight minutes. The scrap resulting from the morning operations was reported and discussed, and at the meeting’s conclusion, the team leaders and operators present went back to their activities. However, sometime in the next 60 minutes, a situation started to unfold.

Between 3 and 4 pm, the management at Larkhall received a telephone call from one of its customers, the JLR plant in Solihull, England. They were informed that a shutdown of operations at Solihull was imminent due to a worldwide build-up of stock, and thus, they were stopping operations for a period of two weeks, between 22 October and 4 November 2018. By 5:01 pm, news of the Solihull shutdown was being widely reported on news and media platforms across the UK. National and local headlines read:

- *“Jaguar Land Rover to shut Solihull plant for two weeks as Chinese sales slump”* (Reuters, October 8, 2018, 3:34 pm)
- *“Jaguar Land Rover to shut Solihull plant for two weeks after China sales slump”* (The Guardian, October 8, 2018, 4:46 pm)
- *“Jaguar Land Rover's Solihull plant set for two-week shutdown”* (Business Live, October 8, 2018, 4:49 pm)
- *“Jaguar Land Rover announce two-week Solihull shutdown”* (Coventry Live, October 8, 2018 5:01 pm)

What was different about this shutdown was its unplanned, unexpected nature. While plant shutdowns are normal in the UK automotive supply chain, typically these are planned at the same time of the year for the whole sector to allow operators to take holidays while maintenance and minor works can take part in the factories across the supply chain. For instance, these planned shutdowns conventionally happen for a fortnight in the summer and in between Christmas and New Year's Eve.

The JLR Solihull plant operated the assembly lines for several car models. Among them:

- L494 (Land Rover 'Range Rover Sport')
- L462 (Land Rover 'Discovery')
- L560 (Land Rover 'Range Rover Velar')
- X260 (Jaguar XF)

At the time, the Larkhall factory was involved in all of these supply chains and, up to that point, its production cells were working on the basis of JLR's six-month forecast

figures along with the 'daily call-in', the electronic report which effectively translates the forecast into precise sales orders.

By 9 am the day after the announcement, Tuesday, 9 October 2018, the management team at Larkhall discussed around £285,000 of expected sales to the Solihull plant as being at risk as a result of the shutdown. All the while, the press continued to ring the alarm bells:

"Tata Motors hits the skids as JLR plans factory shutdown" (Financial Times, 9 October 2018, 09:33 am).

"Agency staff 'could jump ship' as Jaguar Land Rover workers 'kept in the dark'" (Birmingham Live, 10 October 2018, 1:38pm)

Towards the end of the week, by Friday, 12 October 2018, the managers and team leaders at Larkhall were starting to get an idea of how and where the Solihull shutdown would impact their own operations. At the Material Review Board meeting that morning at 8:45 am, these ideas started to find their way in conversation, in the form of organic yet impending coping measures Larkhall could take. For instance, while reviewing the scrap generated the day before and quickly commenting on activities for the following week, remarks of this sort were swiftly made in passing: *"the cube machine will not be on for two weeks... that's why it's only 7 labour, cause of Solihull"* (Operations manager, RAL). These remarks between the operations manager and a team leader referred to cell 3 in the mould shop, a unit where most of the production typically feeds directly into the JLR Solihull assembly line. With production at Solihull now being suspended for two weeks, production activities in Larkhall's cell 3 would naturally be diminished. Consequently, the cell could be expected to run with only 7 operators during the shutdown period, as opposed to 10 operators (7 RAL operators plus 3 agency operators) on a typical week.

By 9 am the same day, Friday, 12 October 2018, the management team at Larkhall discussed the state of affairs up to that point: the reduction in sales due to the shutdown now amounted to about £433,000 as Solihull and other RAL customers in the Solihull supply chain revised and minimised their orders. Moreover, by the

following Monday morning, the reduction in sales was expected to amount to approximately £583,000, as the remaining customers in the specific supply chain adjusted orders.

Exactly a week after the announcement, the Larkhall factory update of Monday, 15 October 2018, discussed the evolving situation in the RAL newsletter and revealed the firming up of some of the coping efforts thought of and discussed in passing the week prior, as well as additional mitigation measures. It said:

“General Update: As everyone will have read in the press, JLR’s Solihull plant are shutting down for 2 weeks in October to minimise a build-up of stock around the world. Each [Rosti Automotive] site is finalising plans to ensure we can manage the situation as effectively as possible.

This will include, reducing orders for raw materials, reducing overtime working etc.

The two weeks in question are weeks commencing 22 and 29th October 2018. For many of our sites, these dates correspond with school half terms. As a result, we have decided to make available the possibility of additional unpaid holiday to people who want to take an additional break from work. If you are interested, then please contact your manager for further information.

Whilst this additional shutdown is disappointing to us all, we must remember that this announcement only affects Solihull, and we have other customer demands still to fulfil. We will also take the opportunity to rebuild stocks.” (RAL newsletter, 15 October 2018)

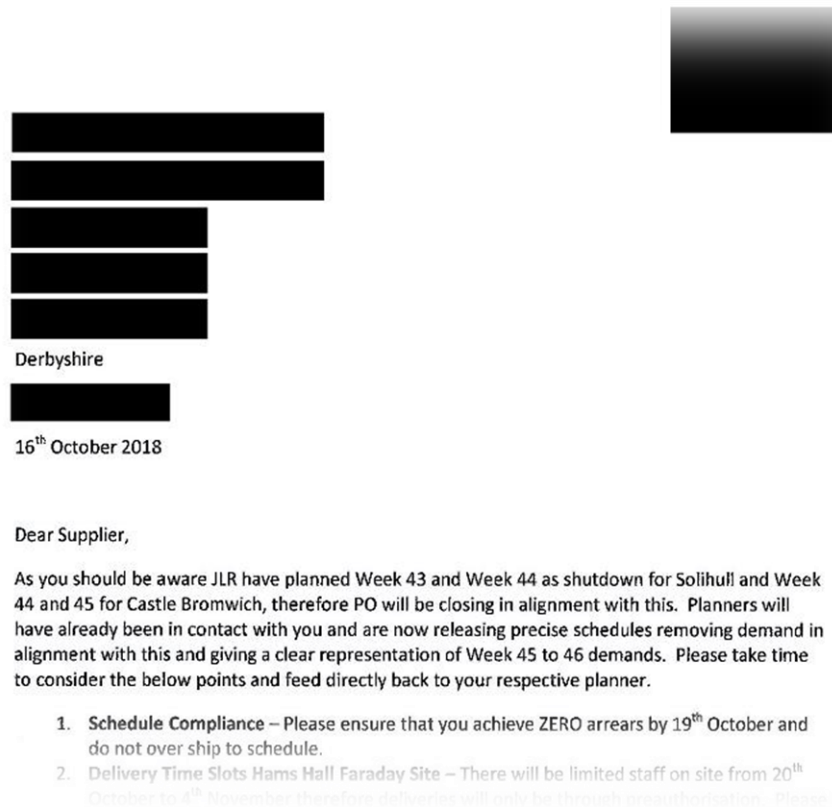
The factory update above evidences the Solihull shutdown as a formal concern for the organisation and announces the adoption of several deliberate measures to cope with the situation. These included:

- Reducing labour costs and reorganising staffing in preparation of the 2-week shutdown. This was done by cancelling all temporary (agency) workers for the shutdown period, reducing staff overtime, and offering additional unpaid holidays to any staff member interested.
- Reducing orders of raw materials in line with the revised production figures for the shutdown period.
- Eliminating all production backlogs across the factory, aiming to reach the standard RAL target of having a 5-day stock on all parts and components.

However, the situation remained fluid and several other impacts were emerging on the Larkhall shop floor in unexpected ways. For instance, at least 4 machines in cell 1 of the mould shop would likely be affected, as well as two of the three Larkhall paint plants; paint plant 1 at about 50%, and paint plant 3 at almost 100%.

Follow-on shutdowns elsewhere in the Solihull supply chain swiftly followed, with other RAL customers announcing they were shutting down operations in a clear ‘domino-effect’ alignment with JLR. The picture in Figure 6.10 below is one such official communication sent to Larkhall by Customer X, a multinational tier 1 supplier serving the Solihull assembly line. The communication, dated 16 October 2018, states Customer X’s plant located in Derbyshire, England, will shut down on the same dates as the JLR Solihull plant, removing the projected demand it had planned for its own suppliers and cancelling orders for the shutdown dates.

Figure 6.10: Customer X Communication sent to RAL in the aftermath of the JLR Solihull Shutdown, 16 October 2018



Source: RAL

Immediately after Customer X's communication was received, the foretold order cancellations started to materialise at Larkhall. In fact, the morning after, on 17 October 2018, an analyst with the Materials, Planning and Logistics Department commented:

“This week Customer X [RAL customer in question] has been cancelling orders; they have essentially cancelled all orders for two weeks. So, after today's delivery, they won't want anything until week 45 [the week Solihull resumes activities]” -Analyst, Materials, Planning and Logistics Department, RAL, 17 October 2018

For the Larkhall Paint Shop (PS), these cancellations, while bad, surfaced as an opportunity to fill all pending orders and eliminate any existing backlogs. More specifically, it meant making their way towards completing production of two thousand car sets, which would cover not only the ordered volumes but also a 5-day stock on the parts as required by the customer. Thus, the quotidian review of orders and production activities that would happen every morning at 9 am as part of the PS Production Meeting, -which looked at each and every PS customer-, surfaced remarks like:

“Customer X: “73s have been done”-PS team leader, PS Production Meeting, 16 October 2018.

The team leader is referring here to the only pending item on Customer X’s list of upcoming orders, a request for 324 lower grille assembled components for the L494 Range Rover Sport, product code ‘pla001ass073b’, simply known as ‘73s’ in the PS staff lingo. She informed this particular order, valued at £11,010.49, had been fulfilled, while pointing to the said order in that day’s PS production meeting report, pictured below (see the first highlighted line of the report in Figure 6.11). The meeting attendees quickly realised all remaining orders listed were for the fifth of November onwards, once both the JLR Solihull and Customer X’s Derbyshire plants were due to resume activities.

Figure 6.11: PS Production Meeting Report, 16 October 2018

Item number	Text	Requested si	Remainder	Value (£)
pla001ass073b	L494 MY18 Lower Grille Assy 'With Camera'20118711 ¹¹⁻¹³ Value less done*	18/10/2018	324	£11,010.49 £11,010.49
pla001ass073b	L494 MY18 Lower Grille Assy 'With Camera'20118711	05/11/2018	144	£4,893.55
pla001ass070b	L494 MY18 Outer Grille LH Assy20118619	06/11/2018	912	£6,241.73
pla001ass071b	L494 MY18 Outer Grille RH Assy20118618	06/11/2018	120	£821.28
pla001ass072b	L494 MY18 Lower Grille Assy 'No Camera'20118710	06/11/2018	504	£16,966.15
pla001ass070b	L494 MY18 Outer Grille LH Assy20118619	07/11/2018	360	£2,463.84
pla001ass071b	L494 MY18 Outer Grille RH Assy20118618	07/11/2018	360	£2,463.84
pla001ass072b	L494 MY18 Lower Grille Assy 'No Camera'20118710	07/11/2018	288	£9,694.94
pla001ass073b	L494 MY18 Lower Grille Assy 'With Camera'20118711	07/11/2018	108	£3,670.16
pla001ass070b	L494 MY18 Outer Grille LH Assy20118619	08/11/2018	840	£5,748.96
pla001ass071b	L494 MY18 Outer Grille RH Assy20118618	08/11/2018	720	£4,927.68
pla001ass072b	L494 MY18 Lower Grille Assy 'No Camera'20118710	08/11/2018	576	£19,389.89
pla001ass073b	L494 MY18 Lower Grille Assy 'With Camera'20118711	08/11/2018	144	£4,893.55 £82,175.57
pla001ass070b	L494 MY18 Outer Grille LH Assy20118619	12/11/2018	360	£2,463.84
pla001ass071b	L494 MY18 Outer Grille RH Assy20118618	12/11/2018	360	£2,463.84
pla001ass072b	L494 MY18 Lower Grille Assy 'No Camera'20118710	12/11/2018	288	£9,694.94
pla001ass073b	L494 MY18 Lower Grille Assy 'With Camera'20118711	12/11/2018	72	£2,446.78
pla001ass070b	L494 MY18 Outer Grille LH Assy20118619	13/11/2018	360	£2,463.84
pla001ass071b	L494 MY18 Outer Grille RH Assy20118618	13/11/2018	360	£2,463.84
pla001ass072b	L494 MY18 Lower Grille Assy 'No Camera'20118710	13/11/2018	288	£9,694.94
pla001ass073b	L494 MY18 Lower Grille Assy 'With Camera'20118711	13/11/2018	72	£2,446.78
pla001ass070b	L494 MY18 Outer Grille LH Assy20118619	14/11/2018	360	£2,463.84
pla001ass071b	L494 MY18 Outer Grille RH Assy20118618	14/11/2018	360	£2,463.84
pla001ass072b	L494 MY18 Lower Grille Assy 'No Camera'20118710	14/11/2018	288	£9,694.94
pla001ass073b	L494 MY18 Lower Grille Assy 'With Camera'20118711	14/11/2018	108	£3,670.16
pla001ass070b	L494 MY18 Outer Grille LH Assy20118619	15/11/2018	720	£4,927.68
pla001ass071b	L494 MY18 Outer Grille RH Assy20118618	15/11/2018	720	£4,927.68
pla001ass072b	L494 MY18 Lower Grille Assy 'No Camera'20118710	15/11/2018	540	£18,178.02
pla001ass073b	L494 MY18 Lower Grille Assy 'With Camera'20118711	15/11/2018	180	£6,116.94
pla001ass073b	L494 MY18 Lower Grille Assy 'With Camera'20118711	16/11/2018	72	£2,446.78 £89,028.68

PS Prod 16.10.18

Source: RAL, with handwritten notes by Author

In subsequent PS Production meetings, reports indicating the staff were coping their way through the situation and progressing towards their aim of getting to two thousand car sets were arising one day after the other. Inadvertently, PS staff had also uncovered an opportunity to work on New Product Introduction (NPI) trials by coping with any downtime in production to get ahead on these. Consider the remarks below with further evidence available in Figure 6.12.

PS Production Meeting, 17 October 2018:

“Customer X: “we are building the stock”-PS team leader

“Ok, basically I want to get everything ready up to and including November 8 [the week Solihull resumes activities]...[...]. Alright, just keep plugging away” -PS manager

PS Production Meeting, 19 October 2018:

“Customer X: they stopped it altogether now. If you see, next time they want parts is the fifth of November [2018] [referring to Customer X orders listed in the PS production meeting report, pictured below in Figure 10], ... [...]... It is terrible for revenue, but it gives us time to do trials for the L551 skid pans...[...]. By next week, I want to be ready with up to the orders for the twelfth of November [2018]...[...]. We are in a pretty good position. Really well done” -PS Manager to team leaders in attendance

Figure 6.12: PS Production Meeting Report, 19 October 2018

Item number	Text	Requested at	Remainder	Value (£)
pla001ass073b	L494 MY18 Lower Grille Assy 'With Camera'20118711	05/11/2018	108	£3,670.16
pla001ass070b	L494 MY18 Outer Grille LH Assy20118619	06/11/2018	552	£3,777.89
pla001ass072b	L494 MY18 Lower Grille Assy 'No Camera'20118710	06/11/2018	468	£15,754.28
pla001ass070b	L494 MY18 Outer Grille LH Assy20118619	07/11/2018	360	£2,463.84
pla001ass071b	L494 MY18 Outer Grille RH Assy2011861E	07/11/2018	120	£821.28
pla001ass072b	L494 MY18 Lower Grille Assy 'No Camera'20118710	07/11/2018	288	£9,694.94
pla001ass073b	L494 MY18 Lower Grille Assy 'With Camera'20118711	07/11/2018	108	£3,670.16
pla001ass070b	L494 MY18 Outer Grille LH Assy20118619	08/11/2018	840	£5,748.96
pla001ass071b	L494 MY18 Outer Grille RH Assy2011861E	08/11/2018	720	£4,927.68
pla001ass072b	L494 MY18 Lower Grille Assy 'No Camera'20118710	08/11/2018	576	£19,389.89
pla001ass073b	L494 MY18 Lower Grille Assy 'With Camera'20118711	08/11/2018	144	£4,893.55
				£74,812.64
pla001ass070b	L494 MY18 Outer Grille LH Assy20118619	12/11/2018	360	£2,463.84
pla001ass071b	L494 MY18 Outer Grille RH Assy2011861E	12/11/2018	360	£2,463.84
pla001ass072b	L494 MY18 Lower Grille Assy 'No Camera'20118710	12/11/2018	288	£9,694.94
pla001ass073b	L494 MY18 Lower Grille Assy 'With Camera'20118711	12/11/2018	72	£2,446.78
pla001ass070b	L494 MY18 Outer Grille LH Assy20118619	13/11/2018	360	£2,463.84
pla001ass071b	L494 MY18 Outer Grille RH Assy2011861E	13/11/2018	360	£2,463.84
pla001ass072b	L494 MY18 Lower Grille Assy 'No Camera'20118710	13/11/2018	288	£9,694.94
pla001ass073b	L494 MY18 Lower Grille Assy 'With Camera'20118711	13/11/2018	72	£2,446.78
pla001ass070b	L494 MY18 Outer Grille LH Assy20118619	14/11/2018	360	£2,463.84
pla001ass071b	L494 MY18 Outer Grille RH Assy2011861E	14/11/2018	360	£2,463.84
pla001ass072b	L494 MY18 Lower Grille Assy 'No Camera'20118710	14/11/2018	288	£9,694.94
pla001ass073b	L494 MY18 Lower Grille Assy 'With Camera'20118711	14/11/2018	108	£3,670.16
pla001ass070b	L494 MY18 Outer Grille LH Assy20118619	15/11/2018	720	£4,927.68
pla001ass071b	L494 MY18 Outer Grille RH Assy2011861E	15/11/2018	720	£4,927.68
pla001ass072b	L494 MY18 Lower Grille Assy 'No Camera'20118710	15/11/2018	540	£18,178.02
pla001ass073b	L494 MY18 Lower Grille Assy 'With Camera'20118711	15/11/2018	180	£6,116.94
pla001ass073b	L494 MY18 Lower Grille Assy 'With Camera'20118711	16/11/2018	72	£2,446.78
				£89,028.68

PS Prod mtg 19.10.18

Source: RAL, with handwritten notes by Author

When the Solihull shutdown started on Monday, 22 October 2018, the situation was still making headlines in the press: “*JLR Solihull plant begins two-week shutdown as sales decline*” (Autocar news site, 22 October 2018). All the while, the Larkhall plant continued to operate, by then with a better understanding of the extent of its impact on the plant. Official communications from the factory acknowledged a loss in sales of around 25% along with a firm intention to control costs as much as possible. Adding to the coping efforts announced the week prior, unfolding mitigation opportunities that had emerged inadvertently on the shop floor a few days before were now being firmed up for the whole factory. More specifically, following the PS’s coping efforts to use downtime towards NPI trials, the whole factory was now deliberately asked to do so, something particularly relevant in the mould shop cell 3 and paint plant 3, which were involved in the upcoming launch of the L551 Range Rover Evoque at the end of the year. The factory update for the week was:

“General Update: As has been extensively reported in the national news, JLR’s factory in Solihull stops production for two weeks as they act to reduce levels of high-volume cars in stock. This move was short notice and has obviously had an impact on us here at Larkhall. Our monthly sales will be reduced by circa 25% and we must make every effort to control costs in this period. We made the decision to keep operating for our other customers and in an effort to really drive new product introduction trials on L551 parts.” (RAL newsletter, 22 October 2018)

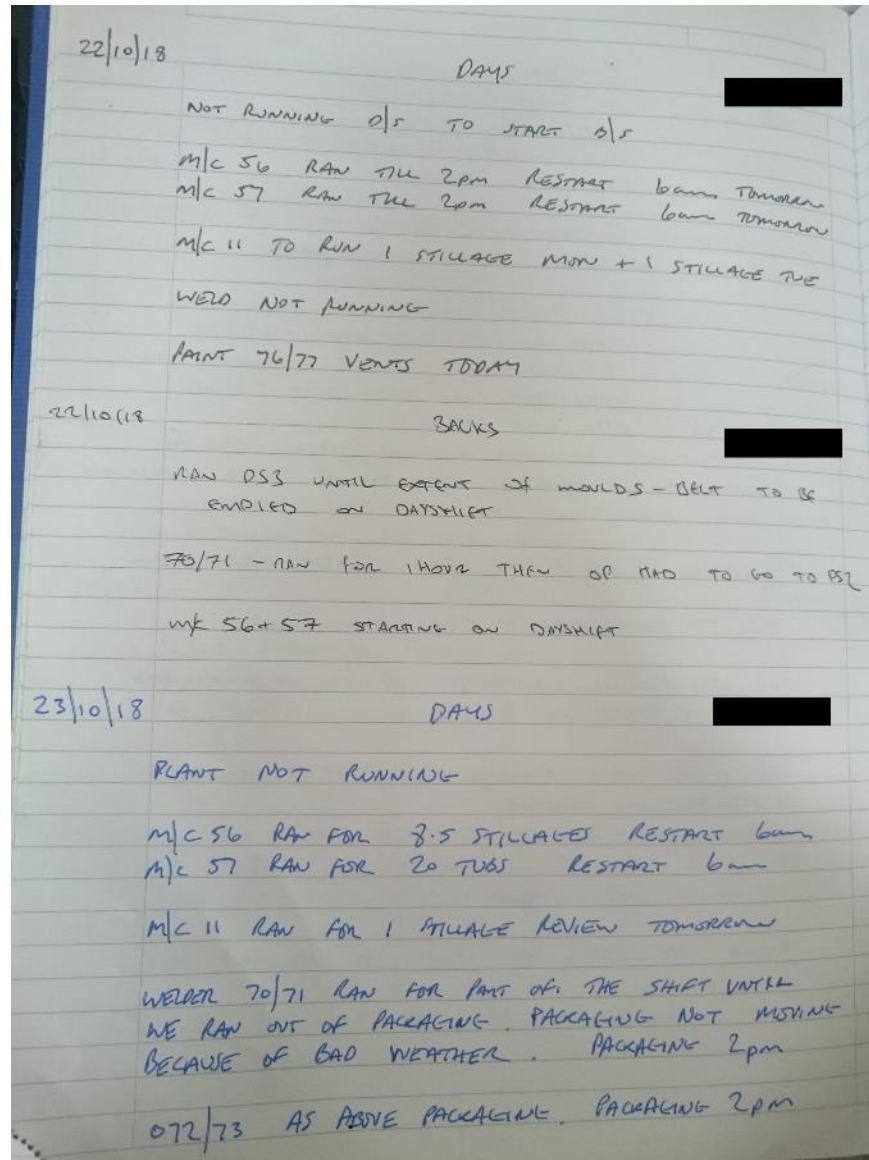
Elsewhere in the factory, staff were grappling with rolling changes in production as a result of lost sales and cancelled orders, coping as best they could. For instance, the warehouse was adjusting its delivery schedule as it deemed necessary. At the time, the warehouse manager was thinking of doing 2 week-day deliveries per day during the shutdown period, as opposed to 5 deliveries per day during regular operations. On weekends, he was thinking of doing only 2 loads instead of the usual 7 or 8. He figured his overall pallet utilisation would rise to about 76%.

The PS, on the other hand, -running by then with no agency staff, same as the rest of the factory-, purposively resolved to operate its plants on a reduced schedule while striving to fulfil all pending orders and get ahead on other work. This was confirmed in their daily production meetings. For instance, at the daily meeting for paint plant 3, held at 8:45 am on 23 October 2018, the PS team leader on shift reported: “we ran [paint plant 3] on the back shift yesterday... Same again today, starting [paint plant 3] on the back shift, for two runs of the belt”. A few minutes later, at the PS Production meeting held at 9:00 am on the same day, upon examining orders in the day’s report, the PS manager commented:

“Kostal: ...if we do it over the next couple of days, we could be out of arrears for two or three thousand pounds ...[...]... X260: slowly getting out of the X260 ...[...]... Come on, we are nearly out of this; we just have a couple more days of pushing and then we will be out of this. I know we can do it ...[...]... We need to get to 1600 moulds this week, but if we can get it, we can probably get to 2000 car sets ...[...]... Anyway, come on! We can do this!” -PS Manager, PS Production Meeting, 23 October 2018

Paint plant 3’s reduced schedule was also reflected within the PS’s internal communications. For instance, in the team leaders’ notebook for the plant, where lead operators report on the major production developments of every shift, entries for 22-23 October 2018 detail staff working two shifts, the day shift and the back (or afternoon) shift, out of the normal three, which would have included the night shift as well. In addition, the paint plant in question was only running production on the back shift, and not on the day and night shifts also, as would have otherwise happened during regular operations. Figure 6.13 below shows these details in an extract from paint plant 3’s team leader notebook for the referred dates, where the entries only cover “days” (day shift) and “backs” (back shift). The absence of a record entry for the night shift indicates the plant was neither staffed nor running during the night of October 22, 2018. Further, the entries note “plant not running” during the day shifts of October 22 and 23, 2018.

Figure 6.13: Entries in the Paint Plant 3 Team Leader Notebook, 22-23 October 2018



Source: RAL

Further evidence of the reduced schedule was also visible in the assembly stations for some of the PS customers. Figure 14 below shows a marked reduction in the number of daily assembled components for Customer X parts starting on the week of the

Solihull shutdown and consequent Customer X Derbyshire shutdown. In the image in figure 6.14, the last column to the right shows zeros handwritten in blue marker for each assembled part under the October 22 date, markedly different from the handwritten entries immediately to the left, which show the assembled quantities realised for the days prior to the shutdown.

Figure 6.14: PS Assembly Tracker Sheet for Customer X Parts, 8-22 October 2018

Welder Assembly

PLA001ass070b

07-Oct	08-Oct	09-Oct	10-Oct	11-Oct	12-Oct	13-Oct	14-Oct	15-Oct	16-Oct	17-Oct	18-Oct	19-Oct	20-Oct	21-Oct	22-Oct
	288	576	576	576	576			288	576	576	576	576			288
	441	513	513	585	265			351	279	347	126	0			0

PLA001ass071b

07-Oct	08-Oct	09-Oct	10-Oct	11-Oct	12-Oct	13-Oct	14-Oct	15-Oct	16-Oct	17-Oct	18-Oct	19-Oct	20-Oct	21-Oct	22-Oct
	288	576	576	576	576			288	576	576	576	576			288
	531	513	531	477	474			297	459	441	72	0			0

PLA001ass072b

07-Oct	08-Oct	09-Oct	10-Oct	11-Oct	12-Oct	13-Oct	14-Oct	15-Oct	16-Oct	17-Oct	18-Oct	19-Oct	20-Oct	21-Oct	22-Oct
	324	468	468	468	396			324	468	468	468	396			324
	346	386	444	451	216			36	216	397	168	0			0

PLA001ass073b

07-Oct	08-Oct	09-Oct	10-Oct	11-Oct	12-Oct	13-Oct	14-Oct	15-Oct	16-Oct	17-Oct	18-Oct	19-Oct	20-Oct	21-Oct	22-Oct
	72	108	108	108	108			72	108	108	108	108			72
	108	110	108	90	198			324	168	0	0	0			0

Source: RAL

Unexpected impacts continued to emerge throughout every corner of the factory, and as they did, staff moved along with them coping and adapting *in situ* and *sponte sua*. For instance, a Quality Engineer perceived an increase in quality issues

reported by customers he had been coping with since the shutdown started. Using a particular client as an example to try to explain himself, he said:

“Because they have now [during the Solihull shutdown] so much time, they are just looking at eeeverything I was getting maybe 5 emails a day from them!”

In a similar vein, an Information Technology (IT) support staff noted a surge in IT support requests, managed through user generated ‘IT tickets’ detailing individual requests on the system. He pointed to the surge being significant, at about 40%, since the IT department had to cope with more user requests yet with the same number of support staff. While they normally run on an average of about 89 open tickets/requests at any given time for all 460 IT users across the RA sites, since the shutdown started, open tickets had increased to about 120. Drawing a quick conclusion, he attributed the surge in IT support requests to staff having more time on their hands due to the decreased production activities since the shutdown started. In a further case in point, the Larkhall Maintenance and Toolroom team leader was startled to note his team’s ability to carry out additional, unplanned Preventive Maintenance (PM) work on tools, as such opportunities arose. Pointing to examples, he said: *“We were able to ‘PM’ machine 52 yesterday, and machine 51 last week’.*

The shutdown concerned management and workers alike at RAL. With the situation still evolving, it was acknowledged and discussed during the monthly meeting of the council of workers with plant management. The usual briefing from the Larkhall Managing Director included a telling remark on the unexpected and sudden nature of the shutdown, emphasising how only days after their last meeting, - which had been held on 27 September 2018-, news of the shutdown emerged on 8 October 2018 and *‘everything changed’*. He continued:

“There’s a lot of things that were out of our control... also the forecast for the rest of the year...the numbers are particularly damaging... bottom line, we need to be really careful financially... you must have seen the demand going down [on the shop floor]... [...]...all we can do is deal with the issues that we’ve got. Brexit, Diesel, etc, we cannie

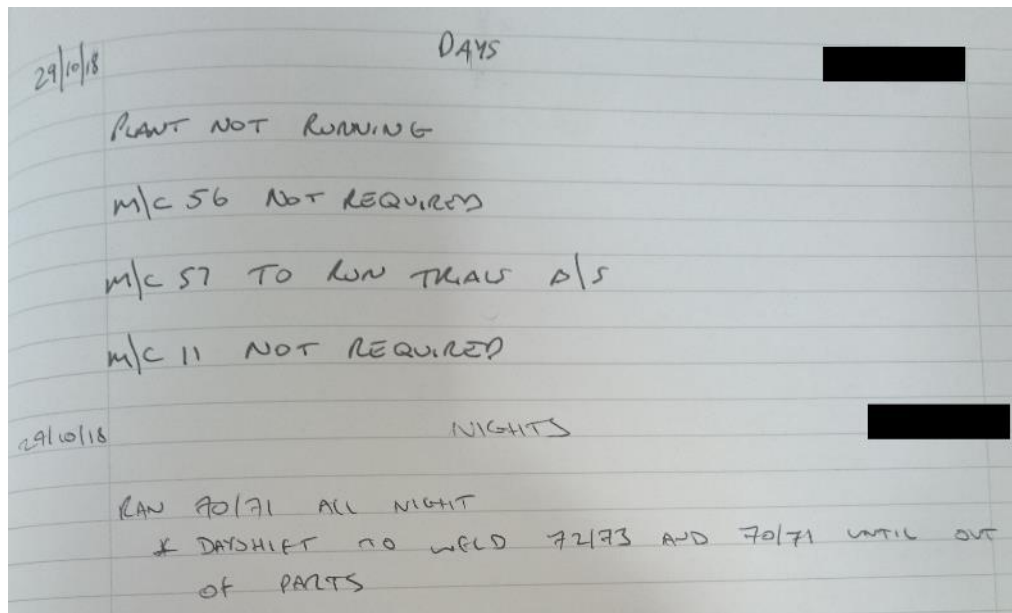
control that. Am I worried? Yes, I am but... we need to keep plugging away” -RAL Managing Director, Workers’ Council Meeting, 25 October 2018

As the second week of the shutdown got underway on Monday, 29 October 2018, the factory acknowledged the emergence of some positive unintended consequences. As a result of their coping efforts, RAL had not only managed to fulfil all backlogged orders and build up stock, but also get ahead on impending NPI trials. The factory update read:

“General Update: As reported, in line with the JLR Solihull shutdown we have been operating at a reduced output over the last week and this will continue over the next five days. On a positive, it has enabled us to get ahead on L551 new product introduction tool trials and to completely eradicate all small backlogs to customers, notably Kostal.”
(RAL newsletter, 29 October 2018)

On the shop floor, the mood was also more upbeat as operators and team leaders alike were capitalising on the hidden opportunities afforded by the shutdown, namely filling orders, intensifying trials, and getting ahead on scheduled work. The PS area, for instance, noted trial activities in its internal communications. Figure 6.15 below shows recorded entries from the paint plant 3 team leaders’ notebook indicating trials ran in their area on 29 October 2018.

Figure 6.15: Entries in the Paint Plant 3 Team Leader Notebook, October 29, 2018



Source: RAL

The extract below from a PS Production Meeting held on 1 November 2018 provides further examples of the everyday coping efforts by staff in their attempts to find their way through the unfolding situation. As the meeting attendees were examining the report for the day's meeting, going over one order after the other, remarks indicative of an overall positive undertone, with space for jokes and smirks, surfaced. Consider these exchanges as evidence of their inadvertent signs of progress, getting ahead on work, fulfilling orders, and building up stock.

Extract from PS Production Meeting, 1 November 2018:

"Kostal: everything is away for the week for Kostal; we are now working on next week...[...]. Customer X: moving along nicely there...[...]. L550: good result there...[...]. X152: ... this is the week that keeps on giving. I'm feeling quite emotional!...[...]. AshLacey/L550: there's plenty of 2s and 3s in stores...[...]. This is a really good result. I have nothing but thanks" -PS Manager

“I can’t believe we are disappointed we don’t have a 3-week stock... We are usually running at the last minute” -PS team leader (with a half-smile)

“Aye, there has been times when Gloria [PS team leader] has had to shout ‘stop the van!’” -PS Manager (smiling back)

“Yes, there was one time she had to do that” -PS team leader (outright laughing)

As the meeting was coming to an end:

“We might be able to have another week off in December” -PS team leader, (pronounced with a smug tone while again looking at her line manager)

“The only week off you will have is... [coughs twice while mumbling ‘wee cough’ in common Scottish lingo]” -PS Manager (joking remark).

By the time the shutdown ended, and operations resumed at Solihull on Monday, 5 November 2018, the reports emerging from the Larkhall plant commented on their coping performance dealing with this most unexpected turn of events. Around that time, the factory updates were:

“General Update: We have just closed the month and in financial terms it looks reasonable given the significant reduction in sales as a result of car plants being closed for two weeks.” (RAL newsletter, 5 November 2018)

“General Update: It is encouraging that we are seeing a level of demand returning from JLR after the plant shutdown at the end of October. Sales for the first two weeks of this month have been at forecast levels and we are now running the additional order received from Marks and Spencer.” (RAL newsletter, 12 November 2018)

The updates report an overall reasonable performance by the plant in spite of events, with activities at Larkhall starting to get back to normal, both in terms of sales and production.

The Shutdown Process Complex

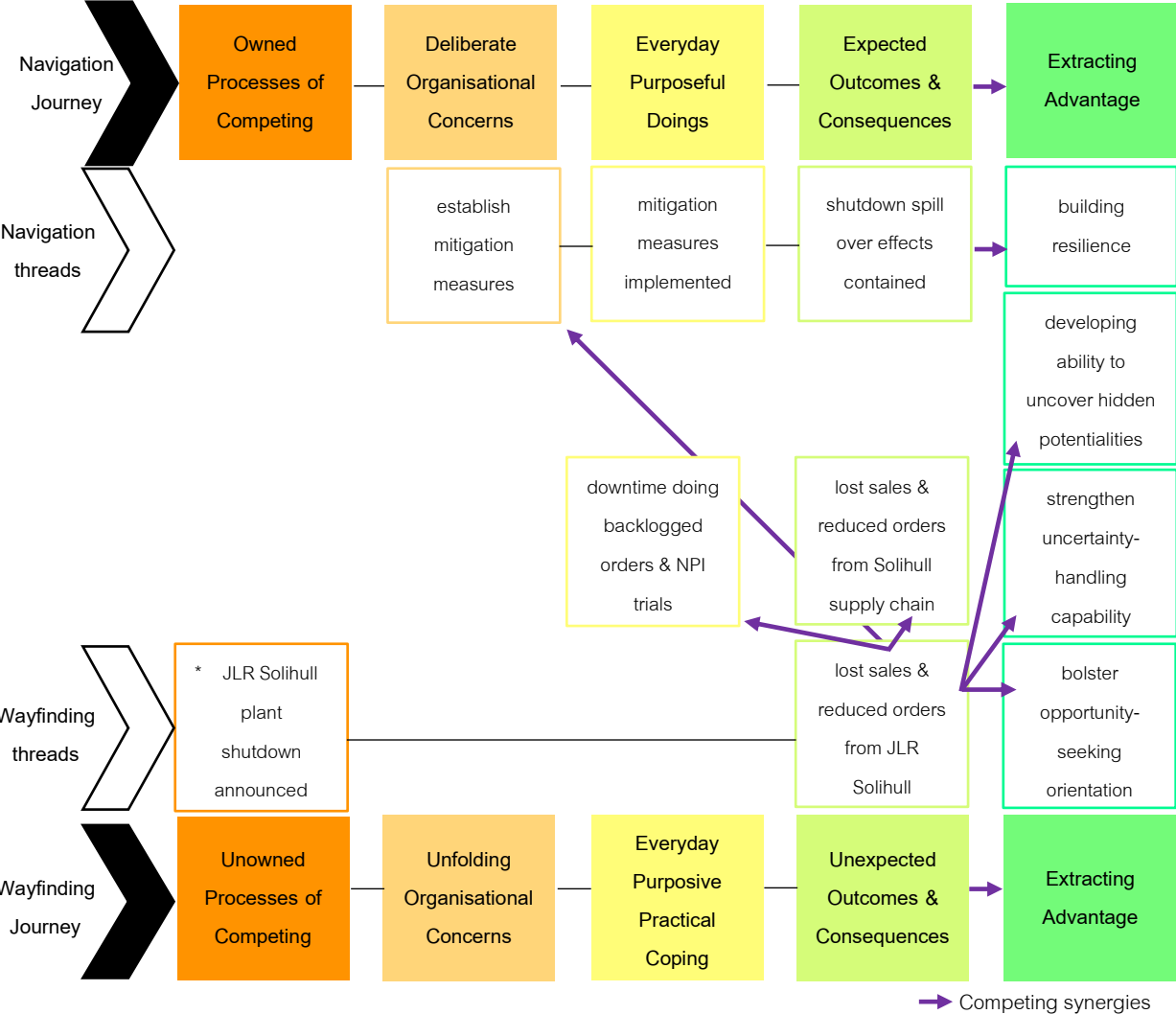
Figure 6.16 below illustrates the process complex depicting the JLR Solihull shutdown announcement and the events that unfolded on the RAL shop floor in its wake. Starting with an unowned process denoting an incident out with Rosti's control and plans, the JLR Solihull plant announces an unprecedented two-week shutdown of its production activities (see * in the corresponding unowned processes of competing orange frame in the bottom half of figure 6.16), thus marking the start of an unintentional wayfinding journey, illustrated in the bottom half of the figure. Considering RAL's involvement in this particular supply chain as a direct tier 1 supplier to Solihull, within hours of the announcement an instant unexpected loss in sales and orders from JLR Solihull emerged, even before RAL could figure out what to do about this sudden turn of events (see corresponding unexpected outcomes and consequences light green frame). A knock-on effect immediately compounded, as other RAL customers in the Solihull supply chain also reduced and/or revised orders (see corresponding unexpected outcomes and consequences light green frame, marked with a purple arrow). As these immediate impacts materialised, shop floor staff started to react to the unfolding situation by using any arising downtime periods to fulfil pending orders and get ahead on any other pending work, including trials (see corresponding everyday purposive practical coping yellow frame, marked with a purple arrow).

Moving quickly to contain the situation as much as possible, staff at Larkhall firmed up and doubled down on their initial purposive coping efforts by establishing further deliberate mitigation measures (see corresponding deliberate organisational concerns amber frame in the top half of figure 6.16), such as intensifying new product introduction trials, reducing orders for raw materials, suspending temporary workers, and offering additional unpaid holidays. These measures, as evidenced in the preceding section, were announced as a resolute mitigation plan which was formally communicated to all staff, marking here the start of a navigation journey in the plant's efforts to deal with the situation, illustrated in the top half of figure 6.16. The measures were promptly adopted and followed from that moment onwards in the everyday

production activities of the factory (see corresponding everyday purposeful doings yellow frame), resulting in the attainment of partially contained outcomes and consequences in the wake of the shutdown (see corresponding expected outcomes and consequences light green frame).

Figure 6.16: An unprecedented shutdown gives way to local practical coping measures

Source: Author



Given the fluidity of the situation, the navigation and wayfinding journeys in this process complex unfolded concurrently, in a vigorous iteration of practical coping measures quickly formalised into organically adopted, deliberate mitigation measures, as further impacts and coping efforts continued elsewhere in the factory. Examples of this, as evidenced in the previous section, were efforts to cope with increased quality issues or emerging opportunities for preventive maintenance, while consciously and swiftly cancelling all temporary workers and reducing orders for raw materials.

Throughout this process complex, the good emerged unsuspectingly with the bad, and the unexpected lived alongside that which was considered more likely, reasonable or expected. In a series of purposive, impromptu moves, the Larkhall plant was seen to uncover hidden potentialities, handle the uncertainty of the situation in whatever ways available to it, figure out opportunities amid the concern, and build up the overall resilience of the firm. In these myriad ways, RAL was able to extract advantage from what initially emerged as a completely unprecedented situation (see corresponding extracting advantage green frames to the right of figure 6.16).

6.3.4 Case Study 4 ‘Scrap not: production waste finds a time and place’

The final case study of this research portrays how a new best practice came about as a result of deliberate and emerging concerns unfolding practically concurrently in relation to the waste being produced at the Larkhall factory.

Scrap not: production waste finds a time and place

As the year 2018 got under way, it had only been a year since the Rosti Automotive UK Group had decided to specialise in automotive work. The year prior, the company separated from the larger Rosti (Plastics) group to establish as Rosti Automotive (RA) on January 1st, 2017, and with that, there was a gradual increase in automotive work across all RA plants in the UK, along with investment to better serve the automotive standard. Following suit, the Larkhall plant also came to be renamed as Rosti Automotive Larkhall (RAL) on the first day of 2017, and what followed was

a rocky transition period where Larkhall's last general moulding clients left the company (following a trend that had started several years prior where production was moving to the Far East), while automotive work increased and capital investment initiatives were considered, such as the approval of a new paint plant.

The newly established RA had big improvement ambitions for its plants in the UK, including RAL. In the words of the Chief Executive at the time:

"I think.... [chuckles]... I actually think it's quite simple... [...] The spoiler is cheaper in the next car than in this car, always. Simple as that. That means that you need to find... because if you know that you have salary increases, you have inflation, and then you have customers who want price reduction. If you are not doing cost reductions, and that means both in materials and in labour, actually, business will die, simple as that. Over time, it will not survive. So to be able to be competitive, to be able to attract the right talent of people, we really need to improve, ...a lot. That is..., that is the nature, the heart, the heartbeat of automotive industry" -Chief Executive Officer (CEO), RA

When January 1st 2018 came about, Larkhall had had its worst yearly financial performance, decreasing its annual sales by £5 million in 2017 to £28 million, down from £33 million in 2016. The landscape in the wider automotive industry had also been rocky, with events affecting the national and industrial spectrum that continued to apply pressure on the UK automotive supply chain as a whole (e.g. 2016 Brexit referendum; 2017 Brexit Withdrawal Act; 2017 UK 'Diesel gate' crisis). Things were particularly shaky for Jaguar Land Rover (JLR), one the main staples of the British automotive scene and RA's main customer at the time. Telling media reports for JLR included: *"Jaguar Land Rover cutting production at Halewood plant - but says jobs are safe"* (Liverpool Echo, 19 January 2018).

By February 2018, Larkhall was already seeing its sales forecast slipping, in line with the production cuts of its main customer. In the 'Operational Performance Review' monthly meeting of the RA plants, key performance indicators (KPI) results for RAL for February 2018 indicated the plant was getting dangerously close to break-

even point. At 2.3% of sales, scrap was identified as a key issue that they could improve on to combat the gloomy sales. Scrap was in fact an issue affecting all RA plants from its early transition days into automotive. The significance of the issue was captured in this quote from the Chief Executive:

“One of the major challenges for Rosti was the cost of non-quality. And for me, I can actually easily turn it into, by reducing waste, that's a particular improvement, because cost of non-quality is just summary name for all waste...[...] ... So when I started here two years ago, people didn't know what cost of non-quality were [sic], so we visualized that, we were very rigorous, we agreed on a survey report, we want to see follow up, and we want to have a very detailed report. So by that I shocked my management team, by showing that this business had eight and a half percent cost of non-quality. 8.5% on bottom line, and for us it was 13 million pounds, -sorry for my English-, which we were 'pissing' waste, and I committed those eight and a half percent should be 5 percent, which we achieved last year [2017]. I have committed to the board that it should be 3 percent this year [2018], we are well under way, and I also committed to the board that world class is 2 percent or less...” -CEO, RA

The 3 percent cost of non-quality goal for the whole of RA for 2018, mentioned by the Chief Executive above, translated into Larkhall's senior management team committing to keeping its scrap to 1.5% of sales for the year in question—a target figure that was subsequently fixed in its annual budget for 2018. For most of the year prior, the Larkhall plant was generating approximately 27 tonnes of general waste a week, or roughly 100 tonnes a month, for a level of scrap that was close to 3.5% of sales. At 2.3 % in February 2018, the actual performance statistics at the start of the year were indicating improvement efforts still needed to be strengthened.

The Operations Manager for the site, in charge of all production, knew he had to reduce scrap further. But how, he had yet to decipher. Scrap was one of the main KPIs he continuously tracked. He had already committed to an improved scrap target

for the year, as was indicated above, so it made sense to track it. But also, in his view, scrap, along with energy and labour, were things that *“impact the bottom line directly”* (Operations Manager, RAL). Thus, he continued to explain, when he makes a saving or a gain that would directly add to the bottom line, he can add that onto the bottom line directly, or sometimes he will use it to balance out other costs or invest in projects. And in respect to scrap specifically, he stresses: *“generating more or less scrap directly impacts the bottom line”* (Operations Manager, RAL).

By April 2018, the outlook for RAL’s main customer, JLR, continued to deteriorate. Brexit concerns and slumping Diesel sales made for a particularly worrying combo for Jaguar, and the press was following the changing conditions closely. In fact, the headlines from the period were quite revealing. They included:

- *“Jaguar Land Rover to cut 1,000 jobs due to Brexit 'headwinds'”* (The Guardian, 13 April 2018)
- *“Jaguar Land Rover to Cut 1,000 Jobs Amid Brexit, Diesel Concerns”* (Industry Week reporting licensed content from Bloomberg, 13 April 2018)

These dual worries quickly reached Larkhall. When asked to reflect on the period, the Operations Manager pointed to two particular clouds in the horizon: the uncertainty over the Brexit process, and the significance of the Diesel emissions scandal in the UK, particularly for its main client, JLR, whom he approximated about 90% of its cars were Diesel.

Soon thereafter, JLR shared with its suppliers an updated ‘Operating Strategy’ document indicating reduced orders for the rest of the year. The knock-on effects for RAL were immediately evident. In the words of the Operations Manager:

“...that obviously affected the sales forecast for the plant for the year. We had to make a cut of £100,000 from our IPC, which is our Indirect Personnel Cost, so that £100,000 would have meant... we had to have a redundancy so we had to make a saving of £100,000 per month of the indirect costs within the factory.” -Operations Manager, RAL

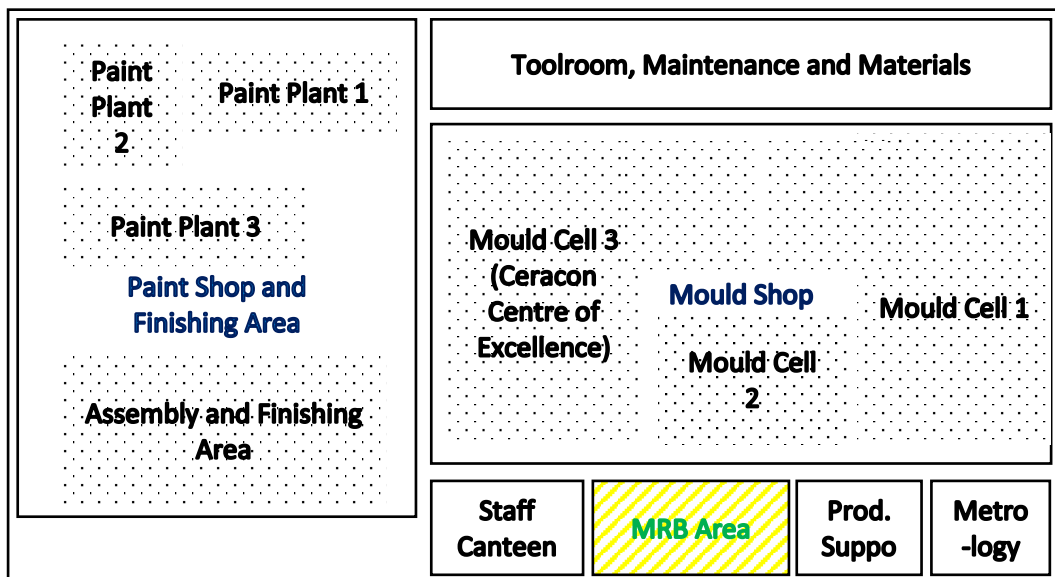
Yet the redundancy RAL was able to do was not enough, and again the issue of scrap jumped to the fore. The Operations Manager explains:

“...So, we looked at the areas that we could reduce through redundancy, and we could only come up with £70,000 worth of cuts we could do in a month without affecting the business. So, we made the decision to say that we could take the scrap from £50,000 a month to £25,000 a month. So effectively taking the scrap from 2.5% of sales to between one and one-and-a-half percent of sales. So, basically halving the scrap within the factory. That was a value of £25,000.” -
Operations Manager, RAL

At this point, the team at RAL knew they had to prioritise their efforts to cut scrap levels. The Operations Manager put in motion a ‘scrap reduction initiative’, an effort that started to develop in the Scottish site. He thought of a name, the Material Review Board (MRB), inspired in industry standards. He attests: *“So the MRB is an industry standard in manufacturing. It stands for Material Review Board. It’s sort of an established concept in name.”* (Operations Manager, RAL).

Yet, where and how would this MRB take place? Following machine layout changes in the shopfloor in connection with another factory initiative, the Ceracon Centre of Excellence [see case studies 1 and 2 in subsections 6.3.1 and 6.3.2, respectively], space suddenly freed up in the factory that offered a unique type of potential. The space freed up by a Ceracon machine’s change of location was effectively a non-manufacturing space—located in one of the front edges of the shopfloor, it was not covered by the crane, hence it could not serve as a production area. Figure 6.17 below provides a basic representation of the Larkhall shopfloor at the time when the scrap area was identified. Offices and other non-productive factory areas, such as the warehouse, are not included in this illustration. However, the location of the MRB area, opposite the mould shop’s production cell 2, is included and highlighted.

Figure 6.17: RAL Shopfloor with MRB Area



Source: Author. Research fieldnotes.

Moreover, the space identified was close to the offices of key managerial functions of the plant, which in the Operations Manager’s view, fit nicely with his developing idea of the scrap reduction initiative. As per his words:

“...With regards to where to put it, I wanted it to be as close to the engineering, quality, supervisory managers, everyone needs to walk by it and see it, so the reason it is where it is, is to make it as visual as possible. I wanted to involve everyone in the factory because it’s everybody’s problem” -Operations Manager, RAL

In his mind, the MRB was shaping up in lax and uncontrived terms. Specifically, he said: *“One of the things with the MRB is that it’s very loose”* (Operations Manager, RAL). Yet the intention driving the initiative was clear. Scrap needed to decrease and perhaps this newly available space in the shopfloor had the potential to drive an improvement over time by creating momentum, an impelling force. He attested:

“... the reason we did it was due to the scrap being higher than it should have been, or the impetus to give us a sort of platform where we can monitor scrap more effectively and see if there’s any sort of high scrap areas that are jumping out, or a more sort of visual area for the scraps, rather than it being hidden...” -Operations Manager, RAL

Up to that point, scrap components were scattered throughout the factory. This meant scrap could more easily ‘hide away’ or not be noticed in the midst of a busy manufacturing plant. The feeling was:

“Before [the scrap reduction initiative started], we still had the same bins but it was various locations around the factory, so there was less sort of... you could put one scrap in one location and some other scrap in some other location, so you wouldn’t get the full extent of the amount of product that was going either into recycling or landfill.” -Operations Manager, RAL

With the advent of the MRB area, the scrap initiative started to take shape by developing organically on the shopfloor. It did not happen all at once, and the team at Larkhall did not seem to have a finished plan for it. Rather, it was shaping up spontaneously in twists and turns, in a fashion that was not entirely incongruous with the rest of the activities at the factory. After all, the Managing Director at the plant was quite hands off and did not generally provide direction, as attested by the Operations Manager, who being in charge of over 90% of the staff, is effectively the second-in-command at the Larkhall site. For him and the other senior managers at the plant, direction is set by KPIs, sales figures, and the budget. He says: *“we know what we need to do”* (Operations Manager, RAL). And when prompted about how the process of figuring out what they need to do unfolds, he described it in improvised and make-do terms. He said: *“direction is set ad-hoc”* (Operations Manager, RAL).

This ‘ad-hoc’ approach seemed to be in line with the experience in the broader RA, where no pre-defined strategy was found to be in place besides a professed desire to keep improving, continuously, in a manner that is relentlessly in motion and ‘never standing still’. In the words of the Chief Executive:

“I don’t think it is one magic snap, which can solve everything, it’s all this continuous improvement... involving a lot of people... and, actually, I think the most difficult is actually the pace to implement all of these things... don't sit and wait, don't make the process of Capex [Capital Expenditure] very complex, don't have approval processes, let people do things, and by that you have rings on the water where, you know... it expands. So I think that's extremely important....[...]... And I don't believe that every seven years, which is the frame of timing [referring to the average vehicle platform life cycle in the automotive industry,], that you are sitting and thinking and bang!, you come up with a great idea.... it's the continuation of improvements all the time...[...]...it's not rocket science, it's nothing which we can't afford to do, it's nothing which will rock the boat and change everything, it's small, small steps...[...]... Therefore, therefore I think we need to ingrain in our DNA, ‘never stand still’”- CEO, RA

Going further, when the Chief Executive was remarking specifically about the tools to improve scrap levels, he stressed a relentless search for improvement. His words were:

“Again, very simple, the five why's, why we have the problem, what is the pareto, that’s the biggest thing, how we are attacking them, and then ding, ding, ding, ding, just drive down, down, down, down. Never give up, never stand still!” -CEO, RA

Continuously unfolding improvement in an ad-hoc, strategy-less fashion, was the hallmark of the automotive business for him, as captured in this quote:

“We don't have very much, or any strategic document on this, how we do strategy, but it's...it's very simple: we need to do things better today than yesterday and do it better tomorrow than today. Otherwise, some competitor will, and we will either run out of business, start to lose business, or....or...., or both” -CEO, RA

Research on the RA brand and values, commissioned by the company and conducted by an independent market research firm at the time, further distilled the strategy-less, ad-hoc approach of the organisation when visiting the different Rosti sites and talking to its customers. For instance, the research found that RA had *‘quick and nimble decision-making’* yet *‘no clearly defined and communicated business strategy’* (RA Brand Strategy and Values Presentation, May-June 2018). When this research was presented to the senior management team at RAL, people present agreed with the reaction to the research that was expressed by the Technical Manager, which he attributed to the continuing unfolding nature of automotive work. In his words: *“It’s a journey, not a destination”* (Technical Manager, RAL). And a few months later, the Operations Manager had similar sentiments, when he expressed:

“I am not really aware of what the current Rosti Automotive strategy is. We don’t appear to have one at the moment.....I think at the moment, the strategy, I don’t think we have much of a strategy.” -Operations Manager, RAL

Meanwhile, in the Larkhall shopfloor, the scrap initiative was purposively taking shape. Once the scrap area was established in the newly available space, MRB meetings started happening sometime in May 2018. With regular meetings at a designated place, the scrap was no longer ‘hiding away’ throughout the shopfloor but centrally visible for everyone to see and visually take notice. The scrap initiative seemed to help gain awareness of what the production waste actually was and how to grapple with it. The feeling was:

“By moving all of the [scrap] components into one area, you can visually see the full scrap that’s coming out of the factory. So, you can then start targeting certain components that are higher scrap or ones that are ‘regular offenders’... So painted products from paint shop 3, or bonnet bezels, products in the Cube, products from Ceracon... high value components with expensive materials...” -Operations Manager, RAL

From the beginning, MRB meetings were happening twice a day to involve as many staff as possible. The first meeting early in the morning, at 8:30 am, during the ‘day’ or morning shift, and the second meeting early into the ‘back’ or afternoon shift, at 2:45 pm. The quote that follows puts this reasoning into evidence:

“Two meetings daily, and that was from the beginning. And the reason for that was that the first meeting in the morning catches the day shift and then the second meeting has the back [afternoon] shift, so you are going to be having a meeting with 66% of the workforce and the supervisory team each day, so it’s maximum coverage” -Operations Manager, RAL

Yet, as the Operations Manager had referred to before, it was still a loose idea, and the meetings had no predetermined agenda or format. In his words:

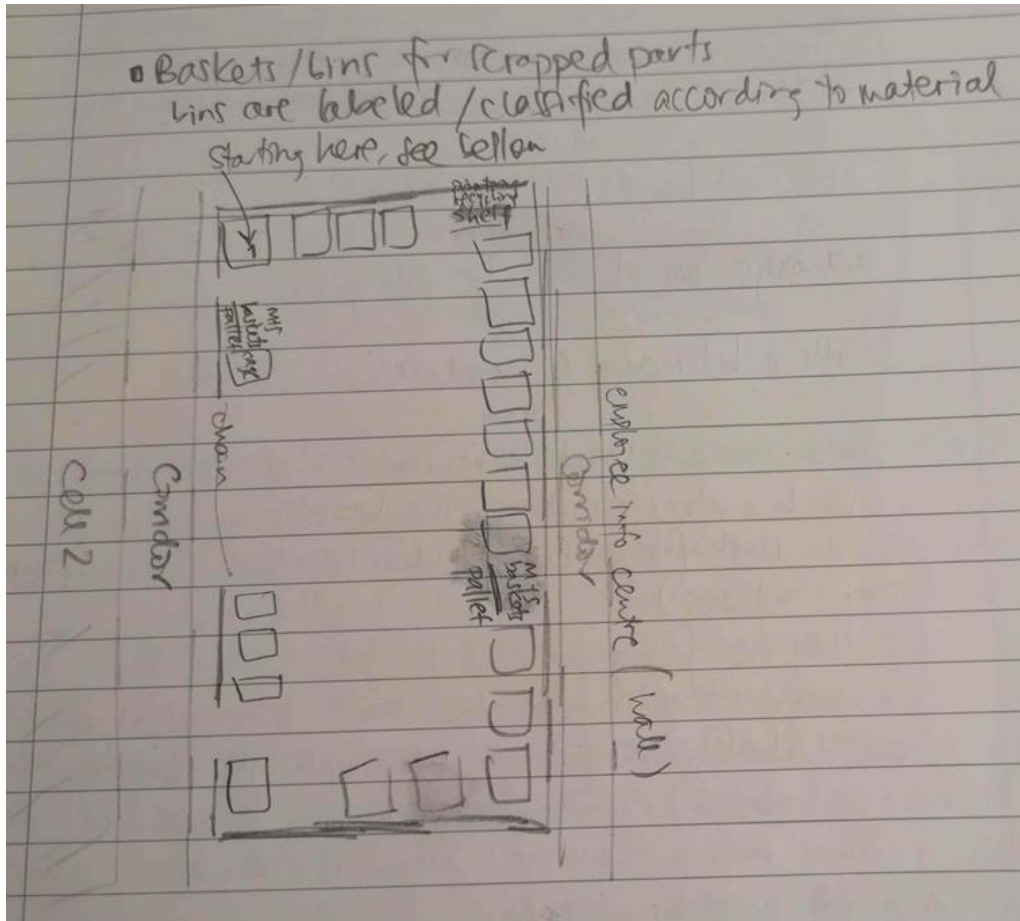
“...One of the things with the MRB is that it’s very loose. The meetings only last maybe 10-15 minutes. There’s not really any real minutes taken or notes...” -Operations Manager, RAL

Instead, what started happening was that at the designated times, staff would come together in the scrap area and a quick meeting, initially led by the Operations Manager, would unfold. A mix of staff would be in attendance at these meetings. Typically, this included the team leaders for each of the mould shop production cells, the team leaders from the paint shop and finishing area, as well as the mould shop technical team leader. Often, the quality manager would join.

The layout of the scrap area was simple. Large bins were arranged in a semi-circular fashion for components of different kind, starting with waste from primary production in one end, to waste from secondary and tertiary production and increased levels of value-add in the other end. More specifically, the first few bins contained recyclable and non-recyclable mould production waste, or parts that had been moulded only. In the opposite angle, the bins contained recyclable and non-recyclable paint production waste, or parts that had been moulded, painted, and/or finished. Below,

figure 6.18 contains a sketch of the MRB area's initial layout, while figure 6.19 provides visual imagery.

Figure 6.18: Sketch of the initial layout of the MRB area, RAL, first semester 2018



Source: Author. Research fieldnotes.

Figure 6.19: Images from the newly established MRB area, RAL, first semester 2018



Source: Author. Images taken at RAL.

Different types of scrap had been identified, each with its own waste bin. Figure 6.19 shows examples of bins classified according to the type of scrapped material they contain. See bins in the pictures above with “non-recyclable mould production waste only, general waste” and “painted PP [polypropolyne] only, recyclable process waste”. Table 6.4 below provides a list of the scrap bins classified by material type at Larkhall’s MRB area.

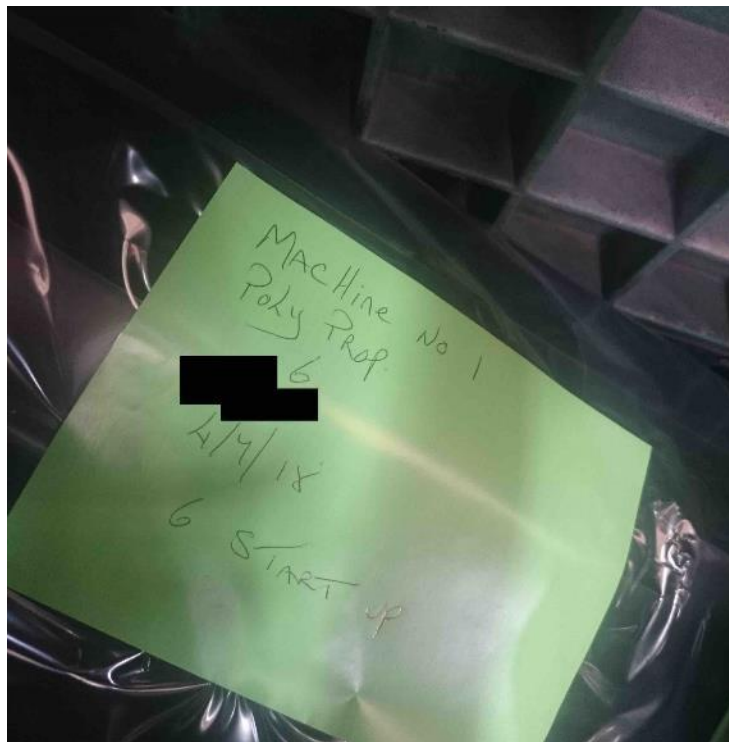
Table 6.4: Scrap bins classification, MRB area, RAL, first semester 2018

Scrap Bins Classification
1 Non-hazardous, non-recyclable waste only (2 bins)
2 ABS [Acrylonitrile Butadiene Styrene] only (process waste) (recyclable)
3 PC/ABS [Polycarbonate/Acrylonitrile Butadiene Styrene] only (process waste) (recyclable)
4 PC [Polycarbonate] only (process waste) (recyclable)
5 PP [Polypropylene] parts only (process waste) (recyclable) (2 bins)
6 PP [Polypropylene] sprues only (process waste) (recyclable) (2 bins)
7 Nylon only (process waste) (recyclable)
8 Non-recyclable mould production waste only (general waste)
9 Non-recyclable mould production sprues only (general waste)
10 Non-recyclable paint production waste only (general waste)
11 Painted PP [Polypropylene] only (process waste) (recyclable)
12 Painted PC [Polycarbonate] only (process waste) (recyclable)
13 Painted PC/ABS [Polycarbonate/Acrylonitrile Butadiene Styrene] only (process waste) (recyclable)
14 Painted ABS [Acrylonitrile Butadiene Styrene] only (process waste) (recyclable)
15 Upstream ducts (process waste) (recyclable)
16 Parafoam only (packaging waste) (recyclable)
17 Bags and wraps only (packaging waste) (recyclable)
18 Cardboard only (Paper and card waste) (recyclable)

Source: Author. Research fieldnotes.

As daily manufacturing activities unfolded in the factory, production waste was bagged or taped together and taken to the MRB area to be disposed of in the respective bins. A label would be applied to each bag or bundle of waste indicating its type as well as the date the components were scrapped. Often, additional information would also be added to the labels. For instance, the quantity of scrapped parts, the machine the scrap came from, the operator that had handled it, and even a brief explanation for it, such as ‘start up’, referring to scrap produced at the start of a production run, or ‘over-run’, referring to parts that had been over-produced at the end of a production process, or brief references to the type of failure the scrapped parts and components exhibited, such as ‘scratches’, ‘damage’, or ‘blistering’. Figure 6.20 below shows an example of scrapped components. The label in the image identifies 6 pieces of polypropylene parts were scrapped at machine number 1 in the mould shop, during a production run start-up on the fourth of July of 2018, by the operator in question (operator name redacted in the picture).

Figure 6.20: Labelled scrap components, RAL, 4 July 2018



Source: Author. Image taken at RAL.

In the early days of the scrap reduction initiative, a scrap meeting would serve for the staff to review and question together, in a quick discussion, the components that had been scrapped and identified as waste in the different production shifts. After each meeting, the bins were emptied, and the scrap was taken outside the factory for disposal. Figure 6.21 below captures a typical exchange moment in an MRB meeting.

Figure 6.21: Staff exchanges during a scrap meeting, 5 July 2018



Source: Author. Image taken at RAL.

The meetings proceeded in a largely similar fashion every day, twice a day, starting with a review of waste from the mould shop, followed by a consideration of scrap from the paint shop and finishing area. Consider the account below for illustrative purposes, which provides a summary of the morning MRB meeting of the twentieth of June of 2018.

MRB Meeting, 8:30 am, 20 June 2018:

At 8:26 am, the staff is already in the scrap area and the meeting is about to start. Two team leaders from the mould shop are present, along with two team leaders from the paint shop, the mould shop technical team leader, the paint shop manager, the quality manager, and the operations manager. The bins contain waste from the previous production shift. In this case, the night shift, which ran from 10:00 pm on 19 June 2018 to 6:00 am on 20 June 2018. The team leaders hold their respective production cells' notebooks, printed period scrap reports, and/or filled out attribute charts to support discussion in the meeting. Bin by bin, the staff moves along the scrap area fleetingly discussing the bags of scrap that are found in each waste container.

The Operations Manager asks questions in quick succession. For instance, while holding a bag of scrap in his hand, he asks one of the mould shop team leaders if the components inside the bag are a sure failure or if the difference between the moulded parts and their respective quality standard is minimal. If the difference is minimal, there is a possibility these scrapped parts could be sent back to the shopfloor. She indicates she will look into the issue further and report back.

The production waste from the mould shop is swiftly reviewed, and by the time the small crowd reaches the paint shop's production waste, a conversation on imbalances in production starts. A brief exchange between the quality manager, the paint shop manager, the operations manager, and the paint shop and technical team leaders unfolds. Pointing to a bag of scrapped painted parts, they ponder whether an imbalance happened affecting this particular paint run, and whether production should be stopped or not. When the paint shop manager points out that 130 parts are in the bag in question, the operations manager replies: "*this is really bad*", indicating the level of scrap is significant, particularly for components with high levels of value add

that have been moulded and painted. Trying to explain the situation, the paint shop manager shows the technical team leader 3 scrapped samples from the bag in question, pointing to the imperfections in the form of small scratches on the parts. They are trying to gauge whether the imperfections happened in the moulding stage, or in the paint shop. Holding the attributes chart from the paint shop in his hand, the operations manager finally asks the paint shop team: “*why did we not stop production here?*” He was pointing to the part on the chart where defective parts started being observed. Shortly thereafter, the meeting adjourns, and the staff go back to their duties. It’s close to 8:40 am.

In a comparable exchange, the afternoon MRB meeting of the same date unfolded in an almost identical fashion, with the review of moulded scrap first and painted scrap second. As in the account above, managers and shopfloor staff considered the scrap results from the prior production shift, that of the morning of June twentieth, 2018, trying to understand and cope with the circumstances that led to waste being produced. Consider the following extract.

Extract from MRB Meeting, shortly after 2:45 pm, 20 June 2018:

“...Is there anything we can do? [...] How do we stop that from happening?” -Operations Manager to Paint Shop team leader

Both the team leader and the paint shop manager commit to finding out more about the issues in the production run affecting the parts in question.

Doing a quick calculation, the Operation Manager establishes that one set of parts, at £3 a piece, equals to scrapped components worth £120. More severely, the other part in question accounted for approximately £250.

June and July 2018 were the first couple of months when the Larkhall site started to hold twice daily MRB meetings. At 8:30 am and 2:45 pm, these meetings started to become a fixture of the shopfloor’s daily activities, and they continued to unfold as in the very beginning—swiftly and with no pre-determined agenda. Yet the

value of using part of the limited shopfloor space to accumulate and review daily waste was not immediately apparent to everyone. There was something counterintuitive about it, and the Managing Director of the plant was among those who had expressed his doubts, as recounted by the Operations Manager below.

“Scrap was at two and a half percent, so there was a lot of scrap going out. Every time he [referring to the Larkhall Managing Director] would walk by, the bins were overflowing and it just looked really bad, as if we were completely out of control, but what it was was... that’s the scrap for the entire factory, everything is in there, even all the bins from the canteen. It’s not just the plastic waste, it’s the general waste as well. So, I thought he just thought it was a really... it was a detractor from the factory’s look when visitors are coming... It was a visual...he thought that it looked bad for customer visits...” -Operations Manager, RAL

Yet early on, the impact of the scrap reduction efforts started to become more apparent. As a result, the initiative was gaining impetus and support, respectively, as evidenced by the quotes below.

“...I think it’s had the opposite effect... You know, customers come on site, they can see we’ve got a scrap area they can go in themselves and see what’s in the scrap area, and it’s really visual, so everyone can see. I think it’s had the opposite effect.” -Operations Manager, RAL

“There was a bit of resistance from my Managing Director, cause he didn’t like the MRB meetings, he didn’t like the visualization of the scrap, but I think we’ve convinced him that it has made a big reduction in the scrap...” -Operations Manager, RAL

Not only was the initiative getting the support of the staff and management at Larkhall, but it was also starting to be identified as a best practice that the other RA sites would want to emulate and instate at their own plants. Continuing from the last quote, consider this statement:

“...[...]... it has made a big reduction in the scrap, and offered a lot of positive feedback both from customers and other Rosti plants, that it was the right thing to do and that they will want to implement the same at the other sites”

-Operations Manager, RAL

In fact, on 18 June 2018, the Group-level Quality Director organised a meeting with all the quality managers of the RA Group at the Larkhall site to see how the scrap review area worked and how the MRB meetings were being conducted. Her particular interest was in understanding how to take what was identified as a ‘step change’ in scrap reduction to the other RA sites, as evidenced by the statement below.

“...there was a [RA] Group Quality meeting here round about July or August, and from that, the Group Quality Director has said that she would like the other plants to do something similar, that’s why she had that meeting here...”

-Operations Manager, RAL

From previous monthly levels of scrap fluctuating between 2 and 2.5% of sales, in June and July 2018 the scrap reduced to 1% of sales in the first two full months of experimenting with MRB meetings in the scrap area. Yet perhaps more tellingly, the initiative was involving more people in the scrap reduction efforts. Now that the scrap was being visualised, analysed, and questioned on a daily basis, it was no longer the Operations Manager’s remit only. It was becoming an effort involving operators and team leaders on the shop floor, who upon knowing that scrap was being looked at, were incentivised to carefully distinguish a good part from a bad part, and to consider how to produce more efficiently as well as how to make small improvements as the factory’s activities proceeded. Consider the statement below.

“I think that one of the main things is that some of the scrap that used to go in the bin... When you are scrapping 2.5% of sales, it was clear that not all that was scrap. So, we were throwing out good product, and that may have been through operators not fully working at the machines, it may have been through poor start-up processes by technicians, [...] there may have been occasions where maybe some operators are taking a wee bit longer on their tea breaks, some parts

are falling in the ground, things like that. But now, the fact that it needs to go in the MRB area, then everybody knows they need to justify why the parts are going in there, rather than, you know, accepting that they're bad parts....[...]... so this sort of puts probably a wee bit more responsibility back in the operators and team leaders for the scrap daily, rather than it being my problem. It's probably... it's probably me giving a wee bit more empowerment to the team leaders to manage their areas better, and actually, they know they are going to be held... so they are empowered to actually make scrap improvements or general improvements in their area but now they're also held to account, they're gonna have to justify why they haven't done them as well..." -Operations Manager, RAL

The initiative not only brought together staff during the meeting, but crucially, it created a space where operators, team leaders, and technicians would seek cooperation during the production runs in order to monitor scrap as it was being produced. The Operations Manager explains how the continuous monitoring of the scrap was being performed in the factory:

"...It allows to see if there's parts going in there that stay above the target set for the operators. So, if they see scrap above 5% in one hour, they need to get a technician and stop the machine. If the scrap is above 3% for two hours, someone needs to get a technician to stop the machine. Whereas in the past it could have ran for five hours, you know, making higher scrap, and not doing literally anything about it...." -Operations Manager, RAL

In fact, the Operations Manager then goes on to explain how the scrap initiative was giving renewed value to some of the existing production procedures that up to that point were in place but not continuously acted on. For instance, before the introduction of the MRB meetings, production figures were being recorded in terms of good parts and failed, scrapped parts in an ongoing manner by the production software in use at the factory, as well as through attribute charts, or charts denoting discrete production

units manufactured in a given production run, which were manually filled-out by the operators. However, these automatic and manual records had not been continuously verified and actively monitored. See below a sample of a 2- page attribute chart in use at the mould shop of the Larkhall site.

Figure 6.22: RAL mould shop attribute chart sample

Rosti Automotive
Form No: ROST1 MFG - 16
Manufacturing 3
Rev: 7
06-03-17

Mouldshop Attribute Chart

Rosti

Date: _____ Machine Number: _____ Rosti Part No: _____ Description: _____

Note: First off Process must be completed within a 1 Hr process window or the machine must be stopped (Operator must contact Technician to stop the machine)

Operator	07:00	07:30	08:00	08:30	09:00	09:30	10:00	10:30	11:00	11:30	12:00	12:30	13:00	13:30	14:00	14:30	15:00	15:30	16:00	16:30	17:00	17:30	18:00	18:30	19:00	19:30	20:00	20:30	21:00	21:30	22:00	22:30	23:00	23:30	24:00	24:30	25:00
Line	I have reviewed																																				
Contamination	1st off /																																				
Silvering	Proc. Sheet																																				
Gassing	/ WI &																																				
Punching	Quality																																				
Scratches	Alerts																																				
Damage	(Operator																																				
Bleeding	initial)																																				
Shots	D/S -																																				
Glossing																																					
Sinking																																					
Weld Line																																					
LOW Foam																																					
Short on Foam	B/S -																																				
Offtrack /Overlap Foam																																					
No Adhesion of Foam	N/S -																																				
Foam Handling of Foam																																					
Startup, Shutdown & 2 Hr Check	Operator Signoff																																				

Note: If after start-up (first on is in place) hourly scrap level exceeds 6% at any point, or scrap exceeds 5% for two or more consecutive hours, inform Shift Technician and note details on the Corrective Action Log on the reverse of this sheet. If the Technician has not attended the machine within 30 mins inform your Team Leader who will arrange for the machine to be switched off immediately until a Technician is available. Technicians must note Action Taken on the reverse of this document.

Total Failures	I-Bed Count			Back Shift			Night Shift			
	Day Shift	Total Made	Total Scrap	% Scrap	Total Made	Total Scrap	% Scrap	Total Made	Total Scrap	% Scrap
Quantity Made										
% Scrap = Failures / Quantity Made x 100										

Page 1

Rosti Automotive
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Mouldshop Attribute Chart

Rosti

Downtime Log

Downtime Reason	07:00	07:30	08:00	08:30	09:00	09:30	10:00	10:30	11:00	11:30	12:00	12:30	13:00	13:30	14:00	14:30	15:00	15:30	16:00	16:30	17:00	17:30	18:00	18:30	19:00	19:30	20:00	20:30	21:00	21:30	22:00	22:30	23:00	23:30	24:00	24:30	25:00			
No Labour																																								
No Materials																																								
Tool Damage																																								
Tool Change																																								
Damp Material																																								
Contamination																																								
No packaging																																								
No Master																																								
No First Off																																								
No Manu Pack																																								
Plant Failure																																								
Machine Fault																																								
Tool Trial																																								
Not in use																																								
Planned Maintenance																																								
Total Downtime																																								
% Downtime																																								

Corrective Action Log

Corrosion/Problem	Time Reported	Time	Action Taken	Signed	Time

Page 2

Source: RAL

As the MRB meetings started to unfold, time-specific reports from the production software as well as manually-handwritten attribute charts became tools the operators and team leaders could rely on to monitor scrap live, as well as to support the MRB discussions. Consider the evidence below for a glimpse of how the scrap reduction initiative was unexpectedly finding new value in old procedures, effectively creating ‘new wine in old bottles’.

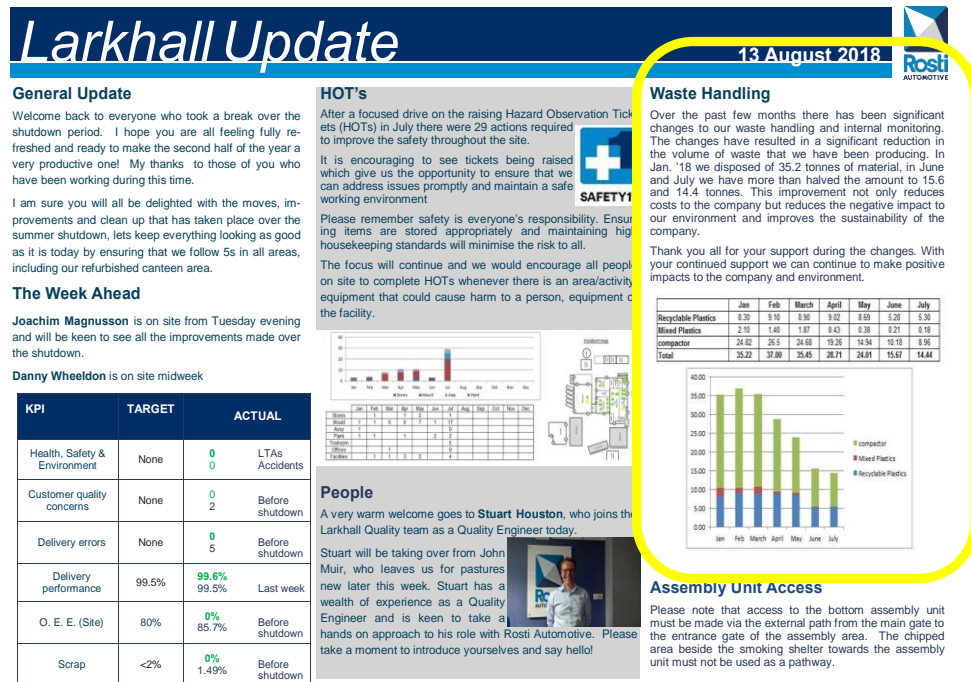
“And it’s almost checking that the data that is put in the Matec [RAL’s production planning software] and attributes [attribute charts] is correct, because, you know, if there’s only 2 parts put in the scrap [record] but there’s 20 in the bin [in the scrap area], so where do the other 18 come from? So someone needs to explain where they came from.” -Operations Manager, RAL

As the meetings continued past the first couple of months, scrap levels continued to fluctuate and even slightly increase. While the initiative had been largely ‘loose’ up to this point, it called for further improvement and coordination efforts in the Operations Manager’s mind. See his reasoning below.

“I think it’s stable now around 1.5 [% of sales, Aug-Oct 2018]. In the first two months of doing it, probably June and July [2018], the scrap value dropped to 1% of sales, and I think it’s crept back up because we’re not tracking it well enough. So, I think some of the improvements we’re making aren’t sticking, and I think that’s where we need better management or coordination in the MRB area and having it as its own area” -Operations Manager, RAL

Yet, the momentum of the initiative was increasing. When the scrap for the first half of 2018 was considered, the continuous tracking and monitoring seemed to be bearing its fruits. The plant update of the 13th of August of 2018 announced that the factory had more than halved the scrap levels over the course of the first semester. Figure 6.23 below contains a snapshot of the factory newsletter in question.

Figure 6.23: RAL Newsletter and Factory Update, 13 August 2018



Source: RAL. Relevant content highlighted by author in yellow frame.

The text of the highlighted part in the figure above reads:

“Waste Handling: Over the past few months there has been significant changes to our waste handling and internal monitoring. The changes have resulted in a significant reduction in the volume of waste that we have been producing. In Jan. '18 we disposed of 35.2 tonnes of material, in June and July we have more than halved the amount to 15.6 and 14.4 tonnes. This improvement not only reduces costs to the company but reduces the negative impact to our environment and improves the sustainability of the company.

Thank you all for your support during the changes. With your continued support we can continue to make positive impacts to the company and environment.” (RAL newsletter, 13 August 2018)

Further small improvements were purposively unfolding over the next few months, specifically between August and October 2018. Sometimes the changes had to do with the way the MRB meetings were run. Other times, the layout of the scrap area was slightly adjusted. For instance, towards the end of August 2018, something curious happened. When the time came for the MRB meeting in the afternoon of August 23, 2018, at 2:45 pm the scrap review was cancelled for the mould shop due to inexistent scrapped components from the mould production. Consider the summary account that follows.

MRB meeting, 2:45 pm, 23 August 2018:

Seconds into the meeting, the mould shop staff in attendance was immediately relieved. A handful of scrapped moulded parts was in evidence in the bins, the scrap level so low that it did not warrant a discussion or review. This was a first, something previously unseen in these bi-daily gatherings. The meeting proceeded for a couple of minutes further, when the Operations Manager reviewed the waste from the paint shop production, which as evidenced by a discussion of 120 seconds, was also low. By 2:47 pm, the MRB meeting had been adjourned, in what had been the swiftest scrap discussion so far.

At the time, the initiative had been running for roughly three months, following its impromptu start the May prior. Nevertheless, merely 17.5 hours later, the MRB meeting at 8.30 am on 24 August 2018 ensued for all of 15 minutes, when the overall tone was one of raising the awareness of operators and team leaders alike on the different types of scrap that were being generated, and the importance of following the informal procedures that had been set so far for the meetings, such as labelling the bags of waste. The conversation highlighted that not all waste that was being examined in the MRB meetings was equal. Some scrap was the result of errors, or perhaps production runs not stopped in time, thus generating excess parts not required, while other scrap was due to accidental technical faults. Consider the account below.

MRB Meeting, 8.30 am, 24 August 2018:

The meeting starts with a swift review of the waste production from cell 1 in the mould shop. Upon inspecting a bag with no label, the Operations Manager asks the cell 1 team leader to please remind operators to always label the bags of scrapped components, to which she instantly nods. The discussion moves on to consider scrapped components from cell 2 of the mould shop. Here, the Operations Manager notices 2 batches of 850 pieces each of scrapped components. After a short query about these batches, he learns they were scrapped after being moulded in the incorrect colour. The cell 2 team leader agrees to follow up with more information on this episode. The discussion moves on to consider the production waste from cell 3, and by the time the scrap review for the mould shop is completed, the Operations Manager notes to staff in attendance: “*probably half of it is over-run [production] scrap*” in reference to the mould production waste. Standing straight, he asks the mould shop team leaders to pay closer attention and stop moulding machines promptly instead of overrunning them and producing parts that are not required. Moments later, the conversation has moved on to the paint shop scrap, where it is informed that there was a sudden and unexpected electrical cable fault the evening prior in one of the paint plants. As there was no alarm for it, the fault remained undetected at first, causing about 70 faulty parts that were scrapped. This is discussed a bit further, with the paint shop technical team leader indicating he will be providing further information at the production meeting for the paint plant in question in a few minutes’ time. The meeting adjourns moments later, at around 8:44 am.

Similar instances of raising awareness and developing the initiative further through the daily scrap encounters ensued. For instance, during the morning MRB meeting of August 28, 2018, the discussion included talk of monitoring machine cycle times in search of efficiency improvements in production, mitigation measures decided in the spur of the moment upon discussing technical problems with machines, as well as the

need to develop an inquisitive habitual predisposition that tries to understand not only what the scrap levels are like, but crucially, how they are produced and why. Consider the summary account below.

MRB Meeting, 8.30 am, 28 August 2018:

The meeting starts with a follow-up discussion of scrap produced by moulding machine 55, which had been producing imbalances recently due to issues with the cycle time of production. The team leader informs the Operations Manager that the machine is *“back to 82 seconds a cycle”*, which they agree is an improvement and thus the Operations Manager asks the mould shop technical team leader to adjust the settings of this machine in the factory’s production software. Moving on, they identify scrap produced from trials that were run by the Engineering Department the day prior. Since these components were produced as part of a new product introduction project, the Operations Manager remarks the resulting scrapped components are to be considered technical scrap, given the parts in question are not yet in production. Swiftly, they move on to discuss failed parts produced in cell 3 of the mould shop, where Ceracon units with ovens, it is reported, are not functioning correctly. The team leader for the cell explains the ovens were not turning the night prior during the night shift. The Operations Manager asks: *“do we have a problem with Ceracon [production]? We’ve got problems on most Ceracons at the moment?”*, to which the team leader succinctly replies in Scottish lingo, *“aye”*. Because the ovens are not turning, the foam that is applied to the parts in question do not stick and as a result they are cut off from the part during the production process. They decide to email the team leader coming to take over the afternoon or ‘back’ shift to alert her of the situation and provide her with the cleaning procedure for the nozzle that applies the foam to the parts, as they continue to monitor the situation and search for improvements. The meeting ensues, and the paint shop team leader reports an overall scrap of 11% for the paint

shop production from the shift prior, to which the Operations Manager reacts by saying:

“We need better information. We cannot just be saying 11% scrap. The technicians should be feeding more information, we cannot be always relying on Steve [the paint shop technical team leader], waiting on him to get information” -Operations Manager, looking at the paint shop staff in attendance

Upon reviewing the rest of the paint shop scrap, he continues: *“we need to investigate... every bin here, we need answers”*. The meeting adjourns at almost 8:45 am.

An example of the changing and evolving layout of the scrap area spontaneously emerged on 29 August 2018, when a shelf was added in one corner. Since the area was there to consolidate waste from the entire factory, the production support team leader on the shopfloor added a shelf with different small baskets and labels so that waste from printing and battery-operated devices could also start to be collected for recycling. Figure 6.24 below contains an image of the corner of the MRB area with the added shelf.

Figure 6.24: Impromptu layout changes to MRB area (added shelf), RAL, 29 August 2018



Source: Author. Image taken at RAL.

Changes continued to unfold. Three weeks later, the discussion went back to the need for better information. Specifically, in the morning MRB meeting of 21 September 2019, the remarks gravitated towards information that is not only authentic and reliable, but crucially, information that can be explored, through discussion, for its significance. A candid exchange happened upon encountering improvements with two parts that often found their way to the scrap bins. Consider the following extract.

Extract, MRB Meeting, 8.30 am, 21 September 2018:

Some minutes into the meeting, the review moves on to the painted parts and there is little to be found in the scrap bins. The paint shop team leader reports a yield of 100% was achieved in paint plant 1 in the previous shift the day prior, to which the Operation Manager asks: *“Is this a genuine result... or is it not? Has this ever happened before? 100% yield on a piano black part?”* The paint shop team leader confirms it has never happened before and there is a sense of momentum in the meeting, given that ‘piano black’ parts are the most difficult painted parts to get right, and they all know it. Mere moments later, when discussing improved scrap levels for a small painted part with a Chrome component, the Operations Manager again asks: *“is the Chrome better or is it the focus?”* to which both the paint shop team leader and paint shop manager agree it’s the improved focus by the operators. The meeting adjourns.

As the third quarter of the year ensued, the scrap levels remained stable at around 1.5% of sales and the MRB meetings continued to unfold on a bi-daily basis. Although the initiative was still developing, as the passages and examples above indicate, the practice was identified as successful. The scrap initiative continued to firm up as a best practice and was put on the spotlight even at the highest levels of the company. For instance, when the RA board made a routine visit to the Larkhall plant on 25 September 2018, the scrap initiative was made into a ‘story board’ and highlighted as a recent achievement to the board members of the company when they were touring the shopfloor grounds. Figure 6.25 below depicts this effort.

Figure 6.25: MRB story board developed for RA Board Visit to RAL, 25 September 2018



Source: Author. Images taken at RAL.

Yet there were clearly more things to try out in order to keep improving the practice. For instance, merely a week after the initiative had been showcased to the RA board, the information theme surfaces again in MRB discussions, this time with a call for data-informed dialogue. It was October 1, 2018, a Monday, and the plant had started the week with uplifting news. Over the weekend, the senior management team

at Larkhall had picked up the top prize in the 2018 Plastic Industry Awards in a ceremony in London. The accolade was ‘Processor of the Year’, shown in figure 6.26 below, a coveted and prestigious prize in the plastics moulding sector that the factory had won only once before, almost a decade earlier in 2009.

Figure 6.26: Processor of the Year Prize awarded to RAL, Plastic Industry Awards 2018

The Plastics Industry Awards 2018 Processor of the Year

Sponsored by
ENGEL
moulders' group

Winner 2018

Rosti Automotive Larkhall

The quality of this year's finalists once again presented the judges with a challenging task. Ultimately, Rosti Automotive Larkhall stood out for their "consistently high standards of performance, whilst maintaining top level standards of Environmental and Health and Safety", the judges said, praising the winner's "focus on continuous improvement". Congratulations to Rosti Automotive Larkhall on this well-deserved recognition.

Proud winners managing director [redacted] and the team from Rosti Automotive collect the award from Nigel Baker, managing director of the Engel Moulders' Group, sponsor of this award category. At the far right is the presenter of the evening, Brendan Cole.

Rosti
AUTOMOTIVE

Source: Winners Brochure, The Plastics Industry Awards 2018 (available online).

Hours after news of the award was going round in informal conversation in the shopfloor, the MRB meeting of the afternoon of October 1, 2018, surfaced a more serious discussion. As the meeting was coming to a close moments after 2:45 pm, the Operations Manager called for ‘data-driven’ information from the paint shop staff after encountering significant scrap levels of a painted part, which was being closely monitored for defects and had also been flagged in the prior MRB meeting of the day during the morning shift. In this and similar exchanges in the period, the staff at Larkhall was starting to see how the scrap area could be formally established as its own cell with its own targets and KPIs. In a lean manufacturing space such as RAL, this meant enacting the scrap area as its own ‘Gemba’, the Japanese terminology meaning ‘the actual place’ and referring to ‘a place where value is created’ in the Japanese lean six sigma production method.

Effectively, recognising the scrap area as a Gemba meant that it too was a valuable space. To show it, the area would get its own Gemba board and daily Gemba meetings, where key statistics and happenings could be updated, tracked, monitored, discussed, and continuously improved, as in other production areas of the plant. Consider the Operations Manager informal evaluation of the initiative expressed at the time, including his ideas for further improvement:

“I think now that we’ve done it for 3 or 4 months, it is working, and I think we should be sort of putting a bit more planning behind it, or possibly, it’s almost like a GEMBA meeting, so having its own GEMBA tracking board so that we can track the top scrap issues... That’s where I see it going next... Maybe we have it as a recycling centre that has its own targets and KPIs...[...]... The tonnage that goes into recycling versus the tonnage that goes into landfill, versus the cost of scrap, and then maybe the top 5 components that have been through there and actions on how to reduce them... I think that’s where I see it going” -
Operations Manager, RAL

While the target scrap level for the year, which had been committed to in the budget for 2018, was being achieved, there was still an overwhelming sense that the

practice had to continue to develop. For instance, although the actual scrap levels were at the targeted 1.5% of sales as the last quarter of the year kicked off, the need for continuous improvement and monitoring was clear. This was so given the production plans for the factory at the end of 2018 and the projections for early 2019, when Larkhall was starting several new product introduction (NPI) projects while committing to additionally improved scrap levels for the new year. As expressed by the Operations Manager early into the last quarter of 2018:

“We are sitting at 1.5 [% of sales, in terms of scrap]. Next year is 1.25 [% of sales], so we need to be down a wee bit ‘til the end of the year to hit next year’s budget, but also we are doing a lot more new projects coming in, so we are going to need to be below 1 [% of sales] to account for the new projects taking us up to 1.25 [% of sales in scrap]. I think we need better control in the area, and monitor what we’re doing” -
Operations Manager, RAL

Interestingly, while the need for increased deliberateness in the initiative was being felt, so was the yearning for continued organic, *in situ* decision-making. In effect, while the information to support a further formalised MRB effort was already in place and in existence at the plant, in the form of data being generated by RAL’s standard operating procedures, there was a sense that ‘better data’ had a continuous performance aspect to it. That is, data had to be explored and mobilised on an ongoing basis, as opposed to studied analytically after-the-fact. The evolving MRB mindset seemed to point towards a ‘both/and’ approach. The statement below illustrates RAL’s quest for purposeful-and-purposive analysing, where a commitment to specific pre-determined data was to be instinctively explored and leveraged in the daily happenings and practical discussions of the MRB area.

“I think the data is all there. I think we just need to monitor it better. I think we’re not... We are capturing it [in the attributes charts from the production areas], but we are not capturing what’s going through the MRB area... So, all the data is in the factory. It’s in the maths and Matec [RAL’s production software], the attributes [charts]... We could

probably create a sort of job that is analysing that.... I think it's better that we continue with the MRB meetings but we track the data live, rather than reviewing the old data... Yeah, take the scrap data from the Matec and from the attribute but display it in the MRB area as in like a GEMBA board, and if that product continues in the top 5 appearing, we've then got some data behind us to see this has been an offender every week, it's still here, what are we going to do about it. We actually record an action... once it appears on the board, one of the team leaders will be championing to improve that... it would be recorded when it was raised, who's going to take the action and by when they're going to complete it or at least report back... At the moment, it's quite loose. We're speaking about ... so I think we're being more reactive in this scrap meeting than proactive. We're not planning the problems, we're just reacting to them. I think we need to be more proactive.” - Operations Manager, RAL

We can see from the quote above that further improvements in the MBR area, it was thought, would come from performative data, or data that is continuously monitored and explored for its own value, and purposively acted on to create opportunities for improvement for the plant on an ongoing basis. Parts that are continuously showing up in high numbers in the scrap area could be swiftly championed. However, a crucial condition for this to happen was to infuse the so far ‘loose’ initiative with a dose of studied resolution in the form of formal tracking of key statistics that are consolidated and discussed about in an established place of the factory.

Indeed, the looseness of the initiative risked it remaining solely visual and not improving further to explore better ways to find value in the information it was so far providing on an exclusively visual basis. If kept uncontrived and observable-only, the initiative, the staff learned, could also be misleading. Just as in the beginning the setting up of a waste consolidation area seemed counterintuitive, now, months into the initiative, to keep it completely loose and agenda-less also presented issues. The quote below explains how the visual component of the scrap area could sometimes lead to false perceptions as to what parts represent the most concerning production problems

and miss those parts that are not visually attracting the eye but should be focused on more. Consider the following statement:

“The reason I ask for more data cause what I’m seeing in the bin is worse than I’ve seen in the past or it’s higher, so I’ve got nothing to base it on rather than just visually. I attend two meetings a day [for MRB], and I attend the meetings every week, and I’ve got a general feeling that it’s worse than it was. I’ve got no data to back up really, because we’re not really tracking it in the MRB area. So, I think that’s why it would be helpful if we start tracking what’s going in there.... I think as well the area that makes more scrap is the area that makes higher value components, so the large components because they take up more space in the bin and generally there’s more material use, so the value will be higher. It is a wee bit misleading cause a lot of the cost out components are complex with the amount of operations that goes in them, they can be quite high value but they don’t look it cause they’re in a small bag, so generally we can focus more on the large visual parts... so you could have a small bag that will fit in your hand with 200 buttons in it, the yield of that might be 90, 85%, if we are throwing out 10 to 15% of the parts, but it doesn’t really look like it, then we go to the cube part that it’s 4% [scrapped], but it fills a bin, so we might be missing some opportunities cause we’re not looking in the data... We could reduce that cost for that part from 15% to say 5, but we’re focusing on the visual ones, rather than basing on the sort of value we can save, so I think that’s maybe an area we’re missing” -

Operations Manager, RAL

Through the experience of continuously running the meetings, the ideas on the potential for the scrap area were evolving. In fact, in order to progress the initiative from its visually-cued origins, it was thought the scrap area could use the Gemba board it was thinking of incorporating, as referred to previously, to complement the purposive observation and off-the-cuff discussions of the MRB meetings with hard data. For instance, the Gemba board could track the five highest ranked scrapped

components by value in a way that could potentially add focus to the MRB discussions as they take place. By pairing visual cues with key data in the quotidian *in situ* and *sponte sua* MRB discussions, greater levels of business impact could be attained by prioritising action on high-value components. Specifically, the reasoning was:

“... the top 5 will be based on the cost, using an 80-20 pareto-type thing... it will be based on a value, rather than a quantity. And I think that’s what I’ve been saying, looking at the visual aspect alone, you focus on the ones that take up the most space, rather than the ones that cost the most, and can make the biggest impact on the business” - Operations Manager, RAL

Nevertheless, the results coming out of the initiative continued to be encouraging in a number of ways. For instance, savings were being made on a monthly basis, and the margins were consequently improving, as evidenced by the following testimony from the period:

“It made £20,000 to £25,000 a month [of savings]... It started halfway through the year almost, so the saving this year is going to be £120,000 to the bottom line... [He calculates]... It’s probably like 0.7-0.8% margin improvement” -Operations Manager, RAL

Company directors and customers seemed to appreciate the waste reduction efforts, too. The RA board liked how the MRB area made the scrap more visible and helped to actively monitor waste, while customers appreciated being able to physically inspect whether their products were being scrapped following failures or other production issues. Consider the statement below.

“I think...we’ve had good feedback in customer visits and board visits... They [the RA board] really liked the idea of the concept. It has a visual impact on what’s actually going out of the factory, and they like that we’re sort of in control of our scrap and we’re actively monitoring it. Customers... very, very similar feedback, but I think they’re also probably interested when they go in there and see if any of

their components are in the bin, what we're scrapping, why we're scrapping it. So, it allows them [RAL customers], you know, when they come here, to see what's actually is happening with their products... Cause the more we scrap one of their products, the higher the risk of a defect leaving the factory and getting to them” -Operations Manager, RAL

Unexpectedly, the initiative had given Larkhall a feature of positive differentiation with other plants in the Group. Not only had it been identified as a best practice worthy of replication across the organisation, as referred to before, but it also gave the Scottish site a distinct and improved competitive position within the Group. This was because while Larkhall was operating with a targeted and actual scrap level of 1.5% of sales, at group level, the target for 2018 was set at 3%, which meant RAL had developed an internal cost advantage compared to other plants. The Operations Manager explains:

“Some of the other Rosti plants run at much higher scrap rates. So if we are costing scrap at say 3% [at group level], us [Rosti Larkhall] running at one and a half percent, we've got a much better margin than plants that are running higher [scrap], at a poorer margin...[...]... [RA site] Stanford Bridge is currently running at 3%, and [RA site] Pickering are running at 5%... of sales. Pickering in the last year have made improvements. They reduced their scrap from 8% to 5%, and Stanford have reduced theirs from three and a half down to 3 [percent scrap as a percentage of sales] ...[...]... I think it's probably given the board and the CEO a bit more confidence in the Larkhall site maybe over the other sites” -Operations Manager, RAL

Late into 2018, the layout of the MRB area continued to adjust as required. For instance, the MRB meetings held on November 8, 2018, found the scrap area slightly shrunk to provide additional space to the adjacent cell 2 in the mould shop, which needed a small area to lay down recently moulded products. Thus, the MRB area grew a little bit smaller and more tightly reorganised. It was no longer one single area with a succession of scrap bins, one after the other, forming a semicircle. Now, the bins

containing moulded production waste were grouped in one half of the space, while the bins for the painted scrap were grouped in the other half. The visual imagery below, in figure 6.27, depicts the changed layout of the MRB area.

Figure 6.27: The layout of the MRB area changes again, RAL, 8 November 2018



Source: Author. Images taken at RAL.

In the closing months of the year, the scrap reduction initiative continued to evolve, but the impetus it had created carved a space and mindset in the Larkhall shop floor where it could be firmed up as a daily occurring best practice.

The Scrap Reduction Initiative Process Complex

The beginning of the scrap reduction case study above shows how scrap concerns developed in fits and starts at Larkhall following owned and unowned processes of competing. For instance, at the start of 2018, RAL had already committed to an improved scrap reduction target of 1.5% of sales in the year's financial plan. This was a deliberate and conscious commitment the factory had agreed on in its operating strategy for the year, namely its budget, and it is shown in figure 6.28 below as part of the navigation threads in the top half of the figure, in the corresponding owned processes of competing orange frame. Around the same time, unowned processes of competing out with RAL's control were also unfolding, and these are shown as wayfinding threads in the bottom half of figure 6.28. More specifically, following JLR's production cuts and declining sales in January 2018 (see corresponding unowned processes of competing orange frame), RAL management starts considering scrap reduction as a practical way to combat its gloomy sales forecast (see corresponding unfolding organisational concerns amber frame in the bottom half of figure 6.28). Up to this point, these were the deliberate and unfolding concerns around scrap at the factory, but there was no scrap reduction initiative to speak of yet.

Sometime later, unowned processes of competing ensue when JLR unexpectedly announces job cuts in April 2018 and subsequently sends a revised operating strategy for the year to its suppliers with reduced orders. This sudden event marks the start of a wayfinding journey, denoted with an asterisk (see * in the corresponding unowned processes of competing orange frame in the bottom half of figure 6.28). Upon seeing the reduced orders from JLR, RAL suddenly and immediately realises it needs to cut costs. In the spur of the moment, RAL figures out it needs to do job cuts of its own as well as reduce scrap by £25,000 per month to

sustain the business (see corresponding unfolding organisational concerns amber frame). So right off the bat, JLR's troubles inadvertently and speedily impact operations at RAL, leaving the factory to figure out coping measures as best they can, extempore and on-the-spot, upon getting the news.

At this point, in trying to cope with the decision to substantially reduce scrap, a limited amount of space becomes available on the shopfloor, space deemed non-productive since it was not under the crane and thus machine tool changes could not be performed there. Intuitively inspired by manufacturing terminology, 'Material Review Board' (MRB) meetings start unfolding bi-daily in the newly available space (see corresponding everyday purposive practical coping yellow frame), where all the production waste of the factory started to be consolidated and discussed. Quite unexpectedly, and even after doubts had been expressed about the way the scrap reduction efforts were shaping up, the MRB meetings soon resulted in scrap levels dropping substantially (see corresponding unexpected outcomes and consequences light green frame). As the initiative gains momentum, synergies were generated, including advantages for RAL such as improved production efficiencies and renewed value to existing procedures (see corresponding extracting advantage green frames marked by purple arrows), as well as other unexpected consequences, such as the scrap reduction initiative being identified as a best practice (see corresponding unexpected outcomes and consequences light green frame marked by a purple arrow). As time went on, however, RAL was continuing to make small impromptu changes to the layout of the MRB area as well as in the way the meetings were run (see corresponding everyday purposive practical coping yellow frame marked with a purple arrow).

Interestingly, as some of the changes purposively discussed in the MRB meetings would not 'stick', the staff at Larkhall realised the thus far 'loose' coping efforts could use a dose of conscious analysis, and thus, plans started to develop to formalise the MRB area as its own unit, denoting a cross-over into a navigation journey in the top half of figure 6.28 (see corresponding deliberate organisational concerns amber frame). In the weeks that followed, the MRB meetings called for greater amounts of hard data to supplement the visual cues observable in the scrap area and support enhanced decision-making (see corresponding everyday purposeful doings in

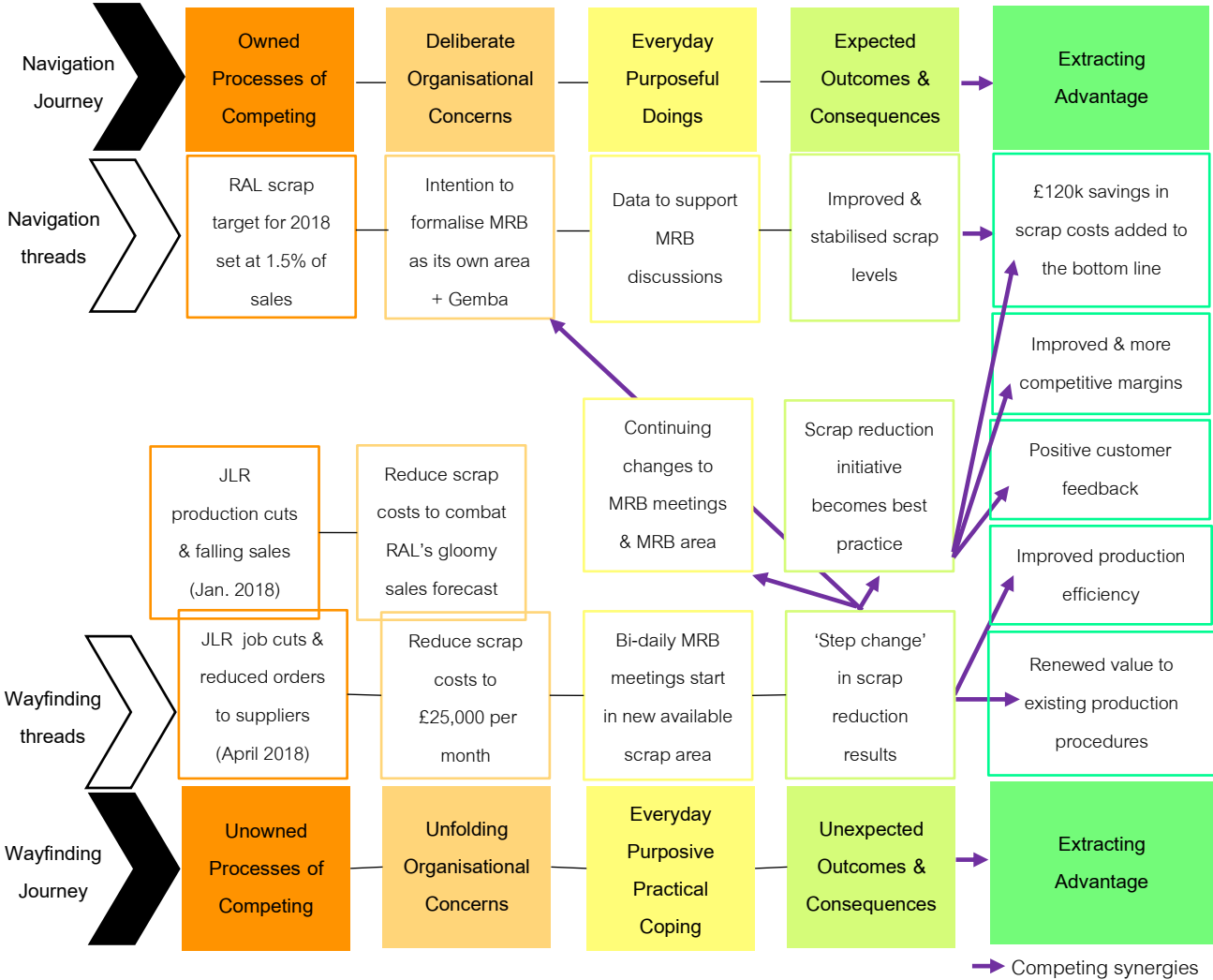
yellow frame). As a result, the improved scrap levels the factory was producing were stabilised at around 1.5% of sales, the target RAL had committed to in its budget (see corresponding expected outcomes and consequences light green frame).

Towards the end of the year, purposive and purposeful efforts of the kind described above continued unfolding concurrently, synergising into further advantages for RAL. These included: savings of £120,000 in scrap costs which were added to the bottom line; improved operating margins internally as well as at Group-level when compared to other RA sites; and positive customer feedback (see corresponding extracting advantage green frames marked by purple arrows).

Figure 6.28 below illustrates the process complex depicting the unfolding of RAL's scrap reduction initiative. Following the stream of data from the scrap reduction case study immediately preceding this section, this process complex elucidates how the initiative emerged at the Larkhall shopfloor in May 2018, how it shaped up in the months following, and how it firmed up as an established best practice towards the end of the year.

Figure 6.28:
Deliberate and
unfolding efforts
to reduce waste
at Larkhall give
rise to a scrap
reduction best
practice

Source: Author



6.4 Overall findings

Over the next few paragraphs, the findings that were presented and discussed in the four deep-dive case studies in section 6.3 are going to be collated and analysed further in order to make inferences as to their significance.

More precisely, a set of seven overall findings has been identified, with discussion of each following below. Table 6.5 provides an overview of the overall findings comprising the main offering of this section.

Table 6.5: Overall findings of the Research

Overall finding 1:	<i>The competing for advantage analytical scaffolding</i>
Overall finding 2:	<i>The process complexes of competing for advantage always start with the unfolding of a wayfinding journey</i>
Overall finding 3:	<i>Wayfinding is an intrinsic part of the strategy process</i>
Overall finding 4:	<i>Wayfinding journeys always feature purposive coping efforts</i>
Overall finding 5:	<i>When useful coping efforts are identified, they become deliberately leveraged for their strategic significance</i>
Overall finding 6:	<i>The confluence of navigation and wayfinding journeys lead to synergies and improved strategizing</i>
Overall finding 7:	<i>Process complexes interact by way of unexpected consequences impacting one process complex to another and/or the wider process field</i>

Source: Author

Overall finding 1: The competing for advantage analytical scaffolding

The first overall finding is the most basic in a sense, in that it refers to the analytical scaffolding that emerged as a result of the focus of this study. The research question aimed at understanding how firms compete for advantage over time, and in doing that, a particular interest in studying the processes by which firms compete, how they do it, and how the dynamics of competition change was at the centre of this investigation's efforts. In other words, the research question oriented the researcher towards carrying out process research, whose methods focus explicitly on understanding how unfolding processes and activities in motion develop.

More specifically, extrapolating Ingold's (2000) distinction between navigation and wayfinding into the strategy realm followed an interest in developing the thus-far understudied wayfinding perspective (Chia and Holt, 2009) in empirical terms. Correspondingly, a near-documentary research strategy was adopted, as per chapter 4, which resulted in the gathering of a vast amount of empirical material along the principal navigation/wayfinding distinction. As the study proceeded, the analytical scaffolding emerged, as explained in chapter 4, which enabled the examination of process complexes of competing for advantage. The analysis of the four deep-dive case studies presented and discussed in section 6.3 were supported by the use of this study's analytical scaffolding, which was specified in section 6.2. It could be said, then, that the evidence from the case studies as well as the overall findings that follow were facilitated by the analytical framework of the research.

Overall finding 2: The process complexes of competing for advantage always start with the unfolding of a wayfinding journey

As the case studies in the preceding section have shown, the process complexes of competing for advantage in this study always started with the unfolding of a wayfinding journey. In case study 1, it started with an unfolding organisational concern- the sudden need for space on the shopfloor. In case study 2, it started with the inadvertent emergence of customer complaints. In case study 3, it started with an

unowned process of competing- the sudden shutdown of the JLR Solihull plant, which RAL supplied into. Even in case study 4, where navigation and wayfinding unfolded practically concurrently, in the end, the journey which gave genesis to the scrap reduction area and the daily scrap review meetings, which were later on identified as a best practice, was a wayfinding one following an unowned process of competing- an unexpected reduction in orders from RAL's main customer at the time.

This is significant given that it indicates that wayfinding journeys seem to be the origin of dynamic processes of developing competitiveness. While navigation journeys were in motion daily on the Rosti shopfloor, they pertained to operational occurrences entailing pre-planned and/or deliberate activities. For instance, daily production plans indicated which moulding machines would run, for how long, by whom, and for which specific outcome. For instance, moulding machine 12 could work to produce black door bins for a production run of 16 hours, over 2 shifts and 2 specific operators, to make 75,000 units. While this activity can be seen as part of RAL's overall competing efforts, it does not denote an instance of extracting advantage as understood in this study. However, as referred to briefly in the preceding paragraph, in the wayfinding journey pertaining to case study 4, a sudden but significant reduction in orders by JLR put in motion an immediate organisational concern to reduce scrap, which in turn resulted in an impromptu implementation of purposive coping efforts in the form of daily scrap review meetings, which were ultimately adopted as a best practice for all RA sites. While a deliberate concern to reduce scrap had already been identified and committed to in the yearly budget at RAL, no specific plan or initiative to take this objective to fruition had been drawn up. In fact, it was not until the chance advent of an unowned process of competing, JLR's reduced orders, that finally put the wheels in motion in the form of an emergent scrap reduction initiative on the shopfloor.

Overall finding 3: Wayfinding is an intrinsic part of the strategy process

The second overall finding ascertained that the process complexes of competing for advantage in this study always started with the unfolding of a

wayfinding journey. If we consider the evidence from across the cases, we find that wayfinding journeys unfolded in every case study in this research. What's more, the wayfinding journeys put in motion a series of happenings leading to the confluence of wayfinding into navigation, after which strategic change was observed. In some cases, wayfinding started with an unowned process of competing, or external processes outside of the firm's plans or control. In other cases, it started with immediate concerns arising at the firm, which the study refers to as unfolding organisational concerns. The following examples can illustrate how wayfinding proceeded. Consider case study 1, where an unfolding organisational concern, an unexpected need for space, set in motion a wayfinding journey which ultimately led to the development of a new area of expertise involving Ceracon technology. Similarly, in case study 4, an unowned process of competing, —a sudden reduction in orders by one of RAL's main customers—, gave rise to a wayfinding journey where scrap reduction efforts started to emerge on the shopfloor and led to the identification of a new scrap reduction best practice.

Hence, evidence of wayfinding across the study in relation to processes of strategic change and instances of extracting advantage point towards wayfinding being an intrinsic part or aspect of the strategy process. This differs from the more conventional view of strategic management as a navigational process, where purpose-driven intention, deliberate action, and rational plans are believed to drive performance and the attainment of competitive advantage (e.g. Porter, 1980, 1985; Ansoff, 1965, 1991). Strategy's navigational process was in any case affirmed in this research, with plenty of evidence showing how RAL set deliberate intentions and pursued predetermined outcomes, such as in case study 3, where formal mitigation measures were adopted to contain the impact of the JLR Solihull shutdown. Yet, by providing evidence on strategy's wayfinding, —that “treats the agent as intimately immersed in and inextricable from contexts, and, as such, his or her actions emanate from within the constantly evolving circumstance” (Chia and Holt, 2009: 159)—, this research has shown the purposive, emergent and unintentional aspects of the strategy process. Going back to case study 3 involving the unforeseen JLR Solihull shutdown, an example of this was when RAL purposively tried coping measures, such as using downtime to fill backlogged orders, which later on were adopted as formal mitigation

measures by the entire factory. Here, as in the other case studies, wayfinding converged into navigation. All in all, the research uncovered evidence of wayfinding's inherent role in sustaining strategic change and extracting advantage.

Overall finding 4: Wayfinding journeys always feature purposive coping efforts

Everyday purposive, practical coping efforts are unique unfolding processes within wayfinding journeys. Navigation journeys feature similar processes of their own, in the form of everyday purposeful doings (please refer to the analytical framework in section 6.2 for a protracted elaboration of this). Yet, the difference between them is that only *in situ* and *sponte sua* coping efforts enable wayfinding in its literal sense. That is, a practical exploration of what's happening and how to cope with it. Or in the words of Chia and Holt (2009:159), "an incomplete but practically sufficient comprehension of the situation in order to effectively cope with it". While everyday purposeful doings are the processes that carry out deliberate organisational concerns or objectives, such as the production of a specific number of parts, coping efforts only come into play in the absence of an intended strategy as wayfinding emerges.

This matters since the case studies did not reveal a single instance when, faced with uncertainty of any kind, RAL staff went through a deliberate thought-to-action process. Rather, the data shows RAL staff engaged in emergent strategizing, "where strategy is continuously clarified through each iterative action and adjustment and not through any pre-determined agenda" (Chia and Holt: 2009: 159).

Overall finding 5: When useful purposive coping efforts are identified, they become deliberately leveraged for their strategic significance

All case studies featured a process when useful coping efforts and their correspondingly useful unexpected outcomes and consequences were intentionally leveraged into deliberate efforts. Analytically, this was seen when the wayfinding journeys involving the purposive coping efforts converged into navigation journeys in the process complexes in question, at which point the intent was to leverage their strategic promise, discovered in wayfinding, for improved purposeful outcomes and consequences. For instance, in case study 3, purposive coping efforts involved staff intuitively fulfilling backlogged orders and carrying out additional NPI trials during downtime following the sudden shutdown of the JLR Solihull plant. Not long after, these specific coping measures were turned into deliberate mitigation efforts aimed at containing the effects of the unprecedented shutdown as much as possible.

This is of consequence since it effectively shows the interaction and confluence observed between navigation and wayfinding, setting this research apart from previous studies approached unitarily from entitative or process (cf. Bouty, Gomez and Chia, 2019) worldviews, respectively.

Overall finding 6: The confluence of navigation and wayfinding journeys lead to synergies and improved strategizing

As was shown in the case studies in this investigation, the confluence of navigation and wayfinding led to the development of ‘competing synergies’ and instances of ‘extracting advantage’. Through the particulars of the interweaving navigation and wayfinding journeys in each process complex of competing for advantage, competing synergies emerged, facilitating the conflux of the journeys and enabling extracting advantage in ways that denoted improved competitiveness at RAL. For example, in case study 1, the competing synergies led not only to the creation of a specialist production unit and centre of excellence, but also to specific instances of RAL extracting advantage such as a newly developed capability in ‘Ceracon’ products, reduced WIP and labour, improved production efficiency, increased value per m² of shopfloor, and increased orders.

Improved strategizing as a result of the conflux of navigation and wayfinding is noteworthy since it indicates that the synergies are more substantial than the sum of its separate effects, e.g., navigation-only or wayfinding-only advantaging. As the instances of extracting advantage have shown, the firm is able to travel *along with* its changing circumstances and as a result, have a more authentic understanding of its journeying, uncovering hidden potentialities and building resilience in the process.

Overall finding 7: Process complexes interact by way of unexpected consequences impacting one process complex to another and/or the wider process field

A curious but telling overall finding constitute examples when interactions happened between process complexes. Two such types of interaction were found. One, where interactions happened between the process complexes of one case study and another. For instance, when the space made available by the improved Ceracon process in case study 1 facilitated the development of a scrap reduction best practice in case study 4. And two, where interactions happened between a case study's process complex and the broader process complex at RAL. An example of this was when as a result of the JLR Solihull shutdown in case study 3, the paint shop and assembly finishing area of the factory was able to fulfil all backlogged orders and get ahead on its work.

This is of import because it evidences interactions between the myriad of processes unfolding daily at the firm.

6.5 Conclusion

The principal offering of this chapter was to present and discuss the findings arising from the research.

The chapter presented, in a series of case studies or data-laden thematic accounts of confluences of navigation and wayfinding process events, the empirical

findings of the investigation. Four different in-depth case studies were presented and analysed using the proposed framework. These had to do with new production processes that emerged at RAL, such as case studies 1 and 2, which detail how the ‘Ceracon’ production process came to be a specialised capability at Larkhall, deserving of its own ‘Ceracon Centre of Excellence’ for the whole RA group, or how new best practices emerged as a result of deliberate and unfolding intentions to reduce waste, as detailed in case study 4, or how outside unforeseen events, such as the shutdown of JLR’s Solihull plant, described in case study 3, impacted the day-to-day shopfloor operations at Larkhall.

Towards the end of the chapter, the author discussed the overall findings of the investigation. Crucially, making inferences on the basis of the evidence previously presented and discussed in the case studies, the author explained how navigation and wayfinding efforts interacted and entwined in the everyday competing efforts at RAL.

In the chapter that follows, an extended discussion of the research findings is developed. More specifically, the findings encompassing competitive advantage/navigation and competing for advantage/wayfinding are delved into deeper to uncover the most inherent ways of competing and their implications for theory and method, thus unearthing the principal contributions of this investigation.

VII Discussing *Competing* for Advantage

*“Others have seen what is and asked why. I
have seen what could be, and asked why not.”*

- Pablo Picasso

7.1 Introduction

*“Raise your words,
not your voice.
It is rain that
grows flowers,
not thunder”*
-Rumi

If there is one imagery that could capture the essence of this chapter, it would be that of a bridge. A bridge that will serve to connect our varied discussions in the preceding chapters, to what is to come in the closing segment of this thesis, the researcher’s concluding remarks.

Three important messages will be communicated over this next bundle of pages, and while these messages will be extensively examined in the sections and subsections that follow—as well as reflected upon in its concluding lines—the gist of these messages is as follows.

Wayfinding is the immanent, intrinsic, and inherent process of strategy. Because wayfinding is a movement, *an everlasting, ever-unfolding process*, and not a *thing*, wayfinding is the defining *shaping motion* of the practice of strategy, its *rhythm—and—beat*. In other words, *wayfinding is strategy*, and *strategy is wayfinding*.

This thesis, at its heart, is about competition. Not the entitative expression of it, i.e., competition as an entity, as a *noun*—something that is, exists, and takes up its own material space in this world. By extension, this thesis is not about competitive advantage either, another much-cherished noun-like concept in strategy. Instead, this thesis is about competition as process—*the process*, in fact, of strategy. It is about competition as a *verb*. Hence our constant reliance on the word ‘*competing*’ over the course of this manuscript, in the *gerund* form, to emphasize its focus on the unfolding process of *competing*. And because this thesis is about *competing*, these pages will take us all the way back to the 1400s, to the very origin of the verb ‘to compete’ in the English language—the premier tongue in which knowledge about competition is researched, published, debated, and communicated for teaching and training purposes. What this language-based expedition will reveal relates to the forgotten and lost *dual*

semantics of the verb ‘to compete’ in a landscape of meaning that is remarkably more nuanced than what meets the naked eye.

The third message is intimately connected to the second one. It will ponder what are the benefits—typically referred to as ‘contributions’ in *academese*—of resurfacing the dual meaning of the verb to compete for the theorisation and research of strategy.

The chapter is organised as follows. At the start, section 7.2 revisits the research question at the core of the investigation and evaluates to what extent it has been answered by pitting it against the overall findings presented and discussed in the preceding chapter. A section on the contributions of the research follows in section 7.3, where contributions of two types are discussed. First, theoretical contributions are explored in terms of their scholarly submissions to the field of strategic management. Given the interest of the research in the process strand of the field, i.e., how strategy develops and/or unfolds over time, considerable time will be spent elucidating contributions to the wayfinding framework (Chia and Holt, 2006, 2009) and their significance for ‘strategy as process’ in particular. Second, the methodological contributions are elaborated and reflected upon for their significance to process research generally, and to wayfinding empirical research more specifically. Considering the author has mobilised a novel ‘competing for advantage’ method, which has been developed and used analytically for the first time ever in the course of this investigation, the discussion here will address the resulting procedural implications in detail. The limitations of the investigation come next, and they will be covered in section 7.4. Section 7.5 will then bring the chapter to a close by offering concluding thoughts.

7.2 Revisiting and Rounding up the Research Question

“At the heart of science is an essential balance between two seemingly contradictory attitudes – an openness to new ideas, no matter how bizarre or counterintuitive they may be, and the most ruthless sceptical scrutiny of all ideas, old and new. This is how deep truths are winnowed from

deep nonsense.”

-Carl Sagan

The chief interest guiding this research has been to understand the process by which firms compete over time. The research question at its heart can be stated in simple terms: how do firms compete for advantage? Chapter 2 examined this question by reviewing relevant strategic management literature, quickly revealing that the inquiry is closely linked to the fulcrum of the field, which has been perennially preoccupied with competitive advantage and firm performance (Porter, 1980; Lippman and Rumelt, 1982; Ghemawat, 1986; Hansen and Wernerfelt, 1989; Barney, 1991; Peteraf, 1993).

Here, we are going to put the research question to the test by pitting it against the overall findings of the investigation. Table 7.1 below provides a recap of what these findings are.

Table 7.1: Summary of the Overall Findings of this Study

Overall finding 1:	<i>The competing for advantage analytical scaffolding</i>
Overall finding 2:	<i>The process complexes of competing for advantage always start with the unfolding of a wayfinding journey</i>
Overall finding 3:	<i>Wayfinding is an intrinsic part of the strategy process</i>
Overall finding 4:	<i>Wayfinding journeys always feature purposive coping efforts</i>
Overall finding 5:	<i>When useful coping efforts are identified, they become deliberately leveraged for their strategic significance</i>
Overall finding 6:	<i>The confluence of navigation and wayfinding journeys lead to synergies and improved strategizing</i>
Overall finding 7:	<i>Process complexes interact by way of unexpected consequences impacting one process complex to another and/or the wider process field</i>

Source: Author

The overall findings in the table above indicate how firms compete for advantage and the processes by which competition unfolds in daily organisational life. In the paragraphs that follow, each of these findings will be examined and expressed in terms of the research question at the centre of this investigation.

<i>Overall finding 1:</i>	<i>The competing for advantage analytical scaffolding</i>
<i>Insight on Research Question:</i>	<i>Firms compete for advantage by continuously embarking on navigation and wayfinding journeys</i>

The case studies in chapter 6 revealed the everyday processes by which firms compete for advantage in daily organisational life. More specifically, these everyday processes are referred to as episodes comprising bundles of chronologically-unfolding activities or incidents along the continuous flow of competition. The process events are journeys which happen in run-of-the-mill competition. Two types of journeys have been identified: navigation journeys, which are the deliberate, intentional, and planned processes of competition, and wayfinding journeys, which are the emergent, unintentional, and unplanned processes of competing. For instance, in the first case study, we were able to see how an unfolding organisational concern, -a sudden need for space-, put in motion an impromptu wayfinding journey that resulted in the creation of a new ‘Ceracon’ production process; whereas the fourth case study included a navigation journey that begun with an owned process of competing when staff at the Rosti Larkhall factory committed to a specific scrap target in the annual budget for 2018.

In a nutshell, this research revealed that navigation and wayfinding journeys constitute the everyday strategy processes by which firms compete for advantage.

Insight on Research Question: ***When specific navigation and wayfinding journeys confluence, a process complex of competing for advantage unfolds***

Navigation and wayfinding journeys are continuously unfolding in daily organisational life. In this sense, a firm can be seen as a bundle of journeys happening every day, all the time, in tandem, as a result of the owned and unowned processes (MacKay and Chia 2013) of competing the firm is involved in. The owned processes of competing are the planned and pre-conceived processes the firm purposefully engages in, whereas the unowned processes of competing are the external, contextual processes out with the firm's plans and/or control.

However, when particular navigation and wayfinding journeys converge, a process complex involving these two types of journey unfolds. In this sense, process complexes are confluences of navigation and wayfinding journeys, interacting dynamically, underpinning strategic transformation. For instance, the case studies presented in the preceding chapter detailed four different process complexes involving the convergence of specific navigation and wayfinding journeys, which entwined into processes of strategic change to develop specialised capabilities (case studies 1-2), improved day-to-day operations (case study 3), and new best practices (case study 4).

Hence, process complexes are confluences of navigation and wayfinding by which firms compete for advantage.

Overall finding 2: ***Process complexes of competing for advantage always start with the unfolding of a wayfinding journey***

Overall finding 3: ***Wayfinding is an intrinsic part of the strategy process***

Insight on Research Question: ***Wayfinding is an intrinsic part of the process of competing for advantage***

Following on from the previous insight on the research question, one might wonder how process complexes of competing for advantage come about. How do they unfold as navigation and wayfinding journeys entwine? The research found this process happens in a very specific manner. Across the four case studies of this study, we were able to see how the process complexes came about with the unfolding of a wayfinding journey. In every case, it was a specific wayfinding journey which set in motion a series of happenings leading to a convergence of wayfinding *into* navigation, after which strategic change was observed. In the cases relayed, this happened in one of two ways: wayfinding started by way of an unowned process of competing, or external, contextual processes out with the firm's plans and/or controls, or in other cases, wayfinding started with an unfolding organisational concern, which are emergent and/or immediate concerns arising at the firm. For instance, in the third case study, we were able to see how an unowned process of competing, -the shutdown of the JLR Solihull plant-, triggered the unfolding of a wayfinding journey which led to a series of purposive and purposeful improvements in the day-to-day running of Rosti Automotive Larkhall. Moreover, going back to the example recently mentioned, in the first case study it was an unfolding organisational concern, -a sudden need for space-, that which put in motion a wayfinding journey which led to the development of a new production process and centre of excellence.

A crucial insight into the research question is thus gained. The findings indicate that wayfinding is an intrinsic part of the process of competing for advantage. It is the process that sets in motion a process complex of competition, which underpins strategic change and enables extracting advantage.

Overall finding 4:

Wayfinding journeys always feature purposive coping efforts

Overall finding 5:

When the usefulness of a coping effort is identified, it becomes deliberately leveraged for its strategic significance

Insight on Research Question: Firms compete for advantage by deliberately leveraging useful coping efforts for strategic positioning

The research has shown how everyday, practical, purposive coping efforts come into play in the absence of an intended strategy as wayfinding emerges. Each of the case studies featured coping efforts of some sort when the firm was trying to find its way, or *wayfind*, through “an incomplete but practically sufficient comprehension of the situation in order to effectively cope with it” (Chia and Holt, 2009:159). When these coping efforts were identified to be useful, the firm made calculated efforts to leverage these to improve its strategic position. Hence, useful coping efforts were consciously leveraged for improved, purposeful outcomes and consequences. Recalling the third case study about the unsuspected shutdown of the JLR Solihull plant, the purposive coping efforts of using shopfloor downtime to fulfil backlogged orders and carry out additional NPI trials were spontaneously carried out by wayfinding and soon identified as useful. Not before long, they were deliberately adopted as purposeful mitigation measures for the whole Rosti Larkhall plant, leading to the containment of spill over effects of the JLR shutdown, as well as the discovery of hidden opportunities during an unprecedented situation. For instance, besides fulfilling late orders and intensifying product trials, the Larkhall factory was also able to cut costs by reducing orders for raw materials and suspending temporary workers.

Analytically, this was shown in the case studies when wayfinding journeys converged into navigation journeys and the interaction between navigation and wayfinding started. In the diagrams illustrating the process complexes of the different case studies, this was seen when the unfolding wayfinding journeys crossed over into navigation journeys. In the example just given about the JLR Solihull shutdown, this was observed when the purposive coping efforts in wayfinding converged into deliberate mitigation measures in navigation.

In terms of the research question concerning this study, we have learned that firms compete for advantage by intentionally leveraging useful coping efforts to underpin strategic change.

Overall finding 6:

The confluence of navigation and wayfinding journeys lead to synergies and improved strategizing

Insight on Research Question:

Process complexes of competing for advantage generate synergies which enable extracting advantage in significant ways

Through the interweaving of navigation and wayfinding journeys, synergies emerge in ways that denote improved instances of strategizing at the firm. Going back to its Greek roots, the word synergy means ‘working together’ (Oxford Dictionary of English, 2019; Merriam-Webster.com Dictionary, 2021), which adds further characterisation to the dynamics, uncovered in this study, of process complexes of competing for advantage. It specifically details what the interaction between navigation and wayfinding is like as it entails synergies that make navigation and wayfinding work together as they converge. This is significant since it indicates that the entwinement of navigation and wayfinding journeys into process complexes of competition creates advantages that are greater than the simple sum of its parts. That is, instances of extracting advantage created by the synergies of the process complexes are greater than the navigation-only advantages or wayfinding-only advantages. Briefly revisiting the fourth case study, we might recall how the interaction between navigation and wayfinding in Larkhall’s scrap reduction efforts led to the emergence of synergies involving the development of a new best practice in the form of the scrap review meetings. The meetings were continuously improved through practical coping efforts, such as making scrap centrally visible in the newly established scrap review area, as well as ongoing changes to its layout, and deliberate doings, such as supplementing hard data to support discussion and decision-making in the scrap review meetings. Over time, the synergies led to a series of instances of extracting advantage, such as reducing scrap costs, improving margins, generating positive customer feedback, and improving overall production efficiency.

A significant further insight into the research question has thus been established. That is, that the synergies emerging from the process complexes of competing for advantage enable extracting advantage in significant ways.

<i>Overall finding 7:</i>	<i>Process complexes interact by way of unexpected consequences with one process complex feeding into another and/or the wider process field</i>
<i>Insight on Research Question:</i>	<i>Firms compete for advantage through the interaction of its process complexes of competition</i>

Towards the end of the preceding chapter, examples where different process complexes interacted with one another and/or with the broader organisational field were pinpointed and discussed. The examples showed how sometimes unexpected consequences from one process complex impacted another; different process complex, or how they impacted other wider process complexes unfolding at the firm. For instance, the space made available by the improved Ceracon process in case study 1 unsuspectingly facilitated the development of a scrap reduction best practice in case study 4, or the paint shop and assembly finishing area of the factory was able to fulfil all backlogged orders and get ahead on its work as a result of the JLR Solihull shutdown in case study 3. These examples are significant since they provide an indication of how processes are interacting with one another all the time, giving way to further processes and process complexes of competing for advantage.

As for the research question at the centre of this study, we have learned that firms compete for advantage through the interaction of its process complexes of competition.

Table 7.2 below provides an overview of the knowledge insights on the research question that have been gained through this study.

**Table 7.2: How do firms compete for advantage? Research Question
Knowledge Insights Emanating from this Study**

<i>Knowledge Insight a</i>	<i>Firms compete for advantage by continuously embarking on navigation and wayfinding journeys</i>
<i>Knowledge Insight b</i>	<i>When specific navigation and wayfinding journeys confluence, a process complex of competing for advantage unfolds</i>
<i>Knowledge Insight c</i>	<i>Wayfinding is an intrinsic part of the process of competing for advantage</i>
<i>Knowledge Insight d</i>	<i>Firms compete for advantage by deliberately leveraging useful coping efforts for strategic change</i>
<i>Knowledge Insight e</i>	<i>Process complexes of competing for advantage generate synergies which enable extracting advantage in significant ways</i>
<i>Knowledge Insight f</i>	<i>Firms compete for advantage through the interaction of its process complexes of competition</i>

Source: Author

This section evaluated the overall findings of the study by examining them against the research question at the origin of the research project. In doing so, the scholarly knowledge on how firms compete for advantage has been extended and increased. We have in fact gained awareness of six different aspects of how organisations engage in competition in the everyday running of firms, with an overarching sense that it is processes that which are at the centre of organisational life. Fluctuating and continuously changing processes are the very nature of organisational unfolding, and in their relentless flow of transformation, these processes are forevermore becoming. In the section that follows, the specific contributions of this study will be elaborated.

7.3 Contributions

“Anything worth thinking about is worth singing about.”
-Bob Dylan, The Essential Interviews

This section builds on the discussion offered in the section immediately preceding, where six different knowledge insights on the research question concerning how firms compete for advantage were elaborated. Here, further consideration of the two key knowledge insights is entertained in order to spell out the contributions to theory and practice that this investigation offers. Two types of contributions are put forward. Firstly, theoretical and conceptual contributions to the body of knowledge of the field of strategic management are posited in subsection 7.3.1. Secondly, methodological contributions are exposed in subsection 7.3.2. While relevant limitations of the research are discussed where applicable throughout the section, this discussion is kept brief and explored in more detail in the subsequent segment of the thesis, section 7.4.

7.3.1 Theoretical Contributions

*“Paradox does more justice to the unknowable
than clarity does”*
-Carl Jung

At its genesis, this study set out to learn about how firms compete for advantage, putting an emphasis on the process of competition and more specifically, on the dynamics by which firms develop and/or change their competitiveness over time. The framing of the research question pinpoints to an interest in how-to knowledge focused on change and time, and this interest has guided the onset of the investigation.

The literature review in chapter 2 offered a way into the field of strategic management by way of a careful examination of its two main strands. The content strand, mainly concerned with knowledge around what strategy is, and in light of this study’s research question, what competitive advantage constitutes, and the process

strand, which is mainly preoccupied with understanding how strategy develops, or from this study's perspective, how competing for advantage unfolds over time. It is within this latter strand where the research is positioned. After uncovering that although much has been studied and formulated around the concept of competitive advantage (Furrer et al., 2008), much less knowledge has been formulated around the process by which firms compete for advantage (Pettigrew and Whipp 1991, Pettigrew and Fenton 2000). Seen from the process strand, the research takes a processual interest in change and temporality, as it seeks to elucidate the processes by which firms compete and engage in the everyday activity of competing for advantage.

Within the content strand of the field, knowledge around competitive advantage entails a given state, position or entity, e.g., a generic strategy, from a Porterian angle; an idiosyncratic resource base, from the resource based-view; a reconfiguring set of routines, from a dynamic capabilities perspective; or a particular tacit-and-explicit knowledge combination, from the knowledge based-view, to give a few examples (Porter, 1980, 1985; Barney, 1991; Teece et al, 1997; Grant, 1996, 1997).

Yet within the strategy process strand, we are still missing pieces of the puzzle around the 'black box' of competitive advantage (Chia and MacKay, 2007; Pettigrew, 2012), or a view into the dynamics of how competitiveness develops and changes, and how firms compete for advantage over time, in the everyday of organisational practice. It is here where this thesis aimed to fulfil its potential, offering new detailed insights into how this process unfolds, what the process entails, and what the everyday flow of competition looks like. The preceding section discussed this new knowledge in detail, and taken together, the insights gathered on how firms compete for advantage can be seen as a new approach to strategic thinking. The approach effectively rests on the analytical template that was mobilised in the research, an 'Ingoldian' anthropological transplantation into the strategy realm of the navigation and wayfinding constructs (Ingold, 2000). While Chia and Holt have been arguing for a wayfinding perspective in the field since 2006 (see Chia and Holt, 2006, 2009), it was not until this investigation that a particular Ingold-infused take on their wayfinding ontology was developed and used empirically.

Let us now explore and expand this new approach to strategic thinking, which is offered here as the main theoretical contribution of this investigation. Recapping, this thesis has linked the content strand of the field to an entitative perspective whose object of study is competitive advantage. It also links the process strand of the field to a process perspective whose object of study is competing for advantage. By mobilising Chia and Holt's (2009) approach to strategy, the specific process perspective espoused by this research is wayfinding. In the Heideggerian realm, the entitative and (wayfinding) process perspectives correspond to building and dwelling modes respectively (Heidegger, 1971). In the Ingoldian domain, these correspond to navigation and wayfinding, respectively (Ingold, 2000). Table 7.3 below illustrates these relationships.

Table 7.3: Specific Onto-Epistemological Lineage of this Research

Metaphysical Perspectives	Heideggerian Modes of Existence	Strategy Literature Orientation	Strategizing	Ingoldian Epistemology	Advantage
Entitative (being)	Building	Content	Planning	Navigation	Competitive Advantage
Process (becoming)	Dwelling	Process	Wayfinding	Wayfinding	Competing for Advantage

Source: Author, drawn and adapted from Rescher (1996, 2000); Chia (1996, 1997); Heidegger (1971); Ingold (2000).

As seen horizontally and read from left to right, Table 7.3 above shows the onto-epistemological lineage of this study, which effectively comprises the two threads running all along this thesis. Namely, it shows how the construct of

competitive advantage rests on navigation, content, building, and entitative antecedents, and how conversely, the construct of competing for advantage rests on wayfinding, dwelling, and process precursors.

In chapter 2, the literature review found competitive advantage to be a possession or feature of firms that have some sort of lead (advantage) *over* its rivals in the market. Indeed, in strategy scholarship, competitive advantage is often used to compare competing firms, or to explain and/or contrast performance over rival firms (Porter 1980, 1985). In fact, the connection between competitive advantage and performance in the content strand of the literature is pervasive (Porter, 1980; Lippman and Rumelt, 1982; Ghemawat, 1986; Hansen and Wernerfelt, 1989; Barney, 1991; Peteraf, 1993). Competing for advantage, however, is the processual expression of competition, and thus the gerund form is preferred (*competing*). While the ‘for advantage’ qualification of ‘competing for advantage’ still denotes a sense of competition for a purpose, to advance, this emphasis is less defined than in the preceding example, given that in competing for advantage firms can compete for as long and as hard as they want to, with a general wish to advance, but that does not guarantee that they will. Whereas in competitive advantage, it is assumed we are talking about a possession or attribute that the firm has already attained, and as with all things originated from an entitative perspective, it denotes a state or entity, a thing, effectively, that the firm is in possession of, indefinite in time. Hence, whereas competitive advantage reveals a comparative emphasis of competition attainment against rivals, in competing for advantage the emphasis is on the continuous process of competing as it unfolds in time.

A short etymological detour can serve us in delving deeper into the nuanced distinction between competitive advantage and competing for advantage as a new approach to strategic thinking. The etymology of the verb ‘to compete’ has its origin in the Latin term ‘*competere*’, made up of the prefix ‘*com-*’ meaning ‘together’ and the root ‘*petere*’ meaning ‘to aim or seek’. Taken together, the meaning of the verb to compete is normally defined as (the activity of) aiming or seeking something against others (Oxford Dictionary of English, 2019; Merriam-Webster.com Dictionary, n.d.). However, a curious thing happens when we consider how we refer to things related to the activity of competing in language. For instance, in business, if we were to think

of the way in which firms generically refer to their competitors in the market, the English expression ‘the competition’ comes to mind, which is rooted in the Latin *competere*. Yet, if we were to utter the same generic meaning in other languages, we get a similar meaning but rooted in a different Latin word. Consider the equivalents for ‘the competition’ in French, ‘la concurrence’, Italian, ‘la concorrenza’, German, ‘die Konkurrenz’, and Dutch, ‘de concurrentie’. These equivalents all trace back to the same Latin word, ‘*concurrere*’, which is made up of the prefix ‘*con-*’ ‘together with’ and the stem ‘*currere*’ ‘to run’, meaning to run along or together with¹ (Oxford Dictionary of English, 2019; Merriam-Webster.com Dictionary, n.d.; Oxford-Hachette French Dictionary, 2019; Oxford-Paravia Italian Dictionary, 2019; Oxford German Dictionary, 2019; Prisma Handwoordenboek Engels, 2013).

Although *competere* and *concurrere* share the same prefix, ‘*com-*’ and ‘*con-*’, respectively, equivalent to the Latin ‘*cum*’ meaning ‘together, with’, their respective roots are distinctive. As a result, their overall meanings slightly diverge. While ‘*petere*’ emphasizes the seeking or aiming towards a certain thing, e.g., a medal in the Olympics, an advantage in competitive strategy, ‘*currere*’ emphasizes the action of running, e.g., the process of competing in the Olympics, or in the market, as in the core matter of this investigation. Contrasting the roots further, ‘*petere*’ has a more deliberate or intentional sense than ‘*currere*’. The former accentuates the action of seeking or aiming, which signals a certain type of *directed* movement towards something which has been preconceived, while the latter underscores the action itself, running.

Further still, *competere* denotes a relational or contrasting sense of competition *against* competitors. There is a comparative emphasis on the strive or struggle for something *against* others, and consequently, there is a de-emphasis on the collective sense of the word denoted by the prefix ‘*com-*’. Contrariwise, *concurrere* indicates the action of competing *along* or *with* your competitors. It places an emphasis on the collective process of running (competing) *with* or *along* others in a way that denotes neither cooperation with nor opposition against, but rather, concurrency or simultaneity in time. In *concurrere*, there is an absence of the comparative sense of

¹ It should be noted, for fullness of explanation, that German and Dutch also present *competere*-based forms of ‘the competition’. Namely, ‘*der Wettbewerb*’, and ‘*de competitie*’, respectively.

the word that was observed in *competere*. Table 7.4 below illustrates the dual etymology of competition language as has been argued thus far.

Table 7.4: The dual etymology of competition uncovered through an example of competition language in use

	English Language	Selected Romance & Germanic Languages (French/Italian/German/Dutch)
Example	<i>'the competition'</i> (colloquial language referring generically to one's competitors in English)	<i>'la concurrence'</i> [French] <i>'la concorrenza'</i> [Italian] <i>'die Konkurrenz'</i> [German] <i>'de concurrentie'</i> [Dutch] (colloquial language referring generically to one's competitors in the languages above)
Etymology	Latin <i>competere</i> 'com' (together) + 'petere' (aim at, seek)	Latin <i>concurrere</i> 'con' (together with) + <i>currere</i> (to run)
Etymological meaning	to aim, seek, strive or contend for something against others	to run along or together with
Etymological sense	<i>Competere</i> indicates an intentional and contrasting sense of competition <i>against</i> your competitors. Loss of collective sense of the word rooted in the prefix 'com-' (together).	<i>Concurrere</i> indicates the contemporaneously collective action/process of competing <i>along</i> and/or <i>together with</i> your competitors. Absence of comparative sense of the word.
Etymological emphasis	Emphasis on the deliberate <i>strive/struggle against</i> others.	Emphasis on the concurrent and continuous action/process of <i>running</i> , particularly running with/along .
Ontological & Metaphysical Underpinnings	Building Being Substantialist/Entitative	Dwelling, <i>Being-in-the-world</i> Becoming Process, <i>Wayfinding</i>

Source: Author, drawn from Rescher (1996, 2000); Chia (1996, 1997); Heidegger (1971); Ingold (2000); Oxford Dictionary of English (2019); Merriam-Webster.com Dictionary (n.d.); Oxford-Hachette French Dictionary (2019); Oxford-Paravia Italian

Dictionary (2019); Oxford German Dictionary (2019); Prisma Handwoordenboek Engels (2013).

As the table above shows, the etymology of *concurrere* was absent in the example based on the phrase ‘the competition’ in the English language. However, evidence of *concurrere* can be traced back to late Middle English, when it developed to mean ‘to collide’ or ‘to act in combination’ in a way that is probably closer to ‘concurrent’ in contemporary English (Oxford Dictionary of English, 2019; Merriam-Webster.com Dictionary, n.d.). For instance, *concurrere* is used in English in cases where we wish to signal agreement with others and we say ‘I concur’. Here, the expression could be taken to mean ‘I agree *along/with* you’ in a sense that indicates my mind *is running along/with* yours. Further examples can be found in the adverb ‘concurrently’ and in the adjective ‘concurrent’, all rooted in *concurrere*, which signal things or events running *with/along* others in a simultaneous sense, i.e. at the same time, or in a way that denotes ‘concurrency’, yet another English word rooted in *concurrere*. Table 7.5 presents these examples of *concurrere* etymologies in the English language.

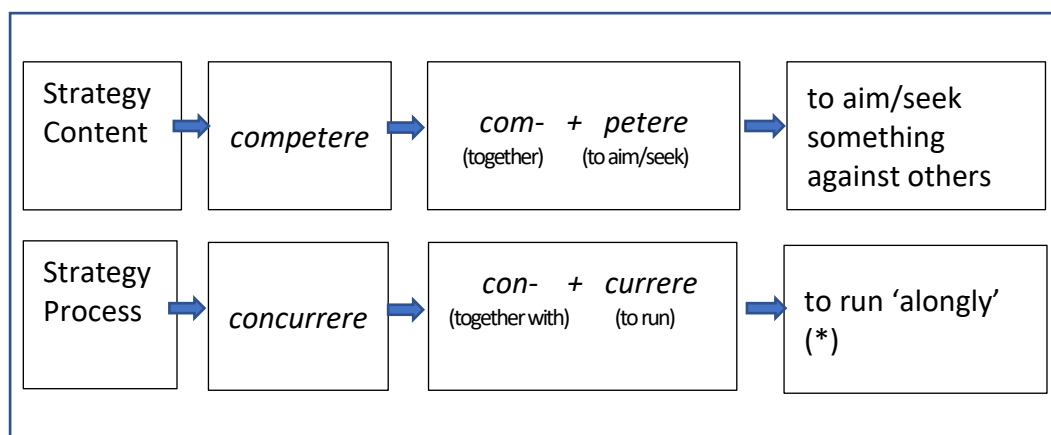
Table 7.5: *Concurrere* examples uncovered through English language in use

	English Verb	English adverb	English adjective
Example	<i>‘I concur’</i>	<i>‘concurrently’</i>	<i>‘concurrent’</i>
Meaning	I agree <i>along/with</i> you in a sense that indicates my mind <i>is running along/with</i> yours	<i>Running with/along</i> others in a simultaneous sense; happening at the same time	
Etymology	Latin <i>concurrere</i> ‘con-’ (together with) + <i>currere</i> (to run) to run along or together with		

Source: Author, drawn from Oxford Dictionary of English, 2019; Merriam-Webster.com Dictionary, n.d.

From the sets of examples above, we can see how competition actually presents a dual etymology. This is relevant, since *competere* and *concurrere* are types of movement, just like navigation and wayfinding, respectively. However, they refer specifically to the issue at the heart of this study, competition. Figure 7.1 summarizes the dual etymology at play in competition.

Figure 7.1: The Etymology of Competing: one verb, two meanings



Source: Author, drawn from Oxford Dictionary of English, 2019; Merriam-Webster.com Dictionary, n.d. (* see ²)

Further scratching underneath the surface of words can reveal even more treasures that are relevant to the inquiry of how firms compete for advantage. While the example in table 7.5 revealed the etymology of *concurrere* present in English, a careful consultation of Etymonline, the Online Etymology Dictionary, can reveal how *competere* is semantically linked to *concurrere* in a way that is similar to how the

² In a further parallel to an Ingoldian study on the anthropology of lines, lines are not straight, and they do not connect A to B as traditionally thought. Rather, lines are continuous, meandering, and wayfaring, in continuous movement. Thus, lines, like processes in continuous movement, move 'alongly' (see Ingold, 2016; cf. Ingold, 2011: 154).

terms were shown to be related in other tongues such as French and Italian, as per table 7.4.

According to this resource, the English verb to compete dates from the 1610s when it meant “to enter or to be put in rivalry with” (Harper, n.d.). The meaning traces back to the 14th century French ‘compéter’ ‘to be in *rivalry with*’ (Harper, n.d., my emphasis), to the late Latin ‘competere’ meaning to “strive *in common*, strive after something *in company with or together*”, and to the classical Latin sense “to meet or *come together; agree or coincide*” (Harper, n.d., my emphases). The italicised emphases in the 17th century definition of the term highlight where the etymologies are similar. Namely, around competition as an activity involving a collective sense of rivalry derived from commonality and concurrency. At the time, the verb to concur, indicative of the action of concurrency and commonality of opinion, was already in existence. Dating back to the early 15th century, to concur shifted little in meaning in the two hundred years prior to the emergence of to compete in the 17th centennial. Veritably, concur effloresced in the English language by the late 1500s, coming to mean what it still does today. Namely, a coincidence and/or simultaneity of opinion or events. Yet the aperçus is that in the early 1400s to concur was ‘to collide or clash in hostility’, thus emphasizing a collective sense of combat or struggle, similar to the 17th century meaning of to compete above (Harper, n.d.). Table 7.6 exposes the similar semantic origin of *competere* and *concurrere* in English.

Table 7.6: The kindred semantic genesis of *competere* and *concurrere* in English

English Verb	Centurial Origin	Etymology	Original Semantics
To concur	Early 15 th century	Latin <i>concurrere</i>	to collide or clash in hostility
To compete	Early 17 th century	Latin <i>competere</i>	to enter/be put in rivalry with

Source: Author, drawn from Etymonline (Harper, n.d.)

The respective roots of to compete and to concur are *de facto* where the historical entwinement between *competere* and *concurrere* resides. Consider how the Latin *competere*, ‘to strive after something in common, with or together’, which comes from ‘com’ ‘together, with’ and ‘petere’ ‘to strive, seek, fall upon, rush at, attack’, and stems from the Proto-Indo-European root ‘pet-’ ‘to rush, to fly’, is similar to the Latin *concurrere*, ‘to run together, assemble hurriedly, clash or fight’, which comes from ‘con’ ‘together, with’ and ‘currere’ ‘to run, move quickly’, and stems from the Proto-Indo-European root ‘kers-’ ‘to run’ (Harper, n.d.). *A fortiori*, the terms denote a shared semantic historicity around a hasty-cum-combative commonality of movement. In other words, a hurried coming together indicative of a collective clash, collision, attack, or rivalry. Table 7.7 illustrates the shared semantic historicity of *competere* and *concurrere* in English.

Table 7.7: The shared semantic historicity of *competere* and *concurrere* in English

English Verb	Centurial Origin	Etymology	Historical etymological meaning	Internal semantic structure	Proto-Indo-European Root
To concur	Early 15 th century	<i>concurrere</i>	‘to run together, assemble hurriedly, clash or fight’	<i>con</i> ‘together, with’ + <i>currere</i> ‘to run, move quickly’	‘kers-’ ‘to run’
To compete	Early 17 th century	<i>competere</i>	‘to strive after something in common, with or together’	<i>com</i> ‘together, with’ + <i>petere</i> ‘to strive, seek, fall upon, rush at, attack’	‘pet-’ ‘to rush, to fly’

Source: Author, drawn from Etymonline (Harper, n.d.)

We thus start to see how *competere* and *concurrere* are historically interlaced. While previously we had pointed out where the emphases of these two terms slightly diverged, as per table 7.4 above, a more in-depth consideration of how they originated and developed throughout time reveals a remarkably more nuanced landscape of meaning. In fact, Etymonline points out that the current market sense of the verb to compete is much more recent, dating back to the 1840s, revived from the “*rare*” 17th century meaning “to strive (alongside another) for the attainment of something” (Harper, n.d., emphasis in original). This meaning is closer to the meaning and emphasis pointed out in table 7.4; namely ‘to aim or seek something against others’. Hence, while in the 17th century the verb to compete had a sense of collective rivalry where one was striving for something in company with others, two centuries later, by the 19th centennial, the meaning had shifted to the market sense still in use today.

Table 7.8 summarizes the shifting semantic and etymological history of the verb to compete in English, while table 7.9 exposes the constant etymology of the verb to concur. Figure 7.2 maps the etymological journeying of these two terms along a single timeline.

Table 7.8: the fluctuating semantics and etymology of the verb ‘to compete’ in English

Appr. year, century	Emphasis	Meaning	Etymology
1610s, 17 th century	Collective rivalry	To enter or be put in rivalry with	<ul style="list-style-type: none"> ▪ French ‘compéter’ ‘to be in <i>rivalry with</i>’ ▪ Late Latin <i>competere</i> “strive in common, strive after something in company with or together” ▪ Classical Latin “to meet or come together; agree or coincide”
1840s, early 19 th century	Market sense	To strive (alongside another) for the attainment of something	Latin <i>competere</i> . Rare meaning, revived from late 18 th century, possibly from a Scottish or American word, or from a back-formation of competition
Currently, 21 st century	Market sense	To aim or seek something against others	Latin <i>competere</i>

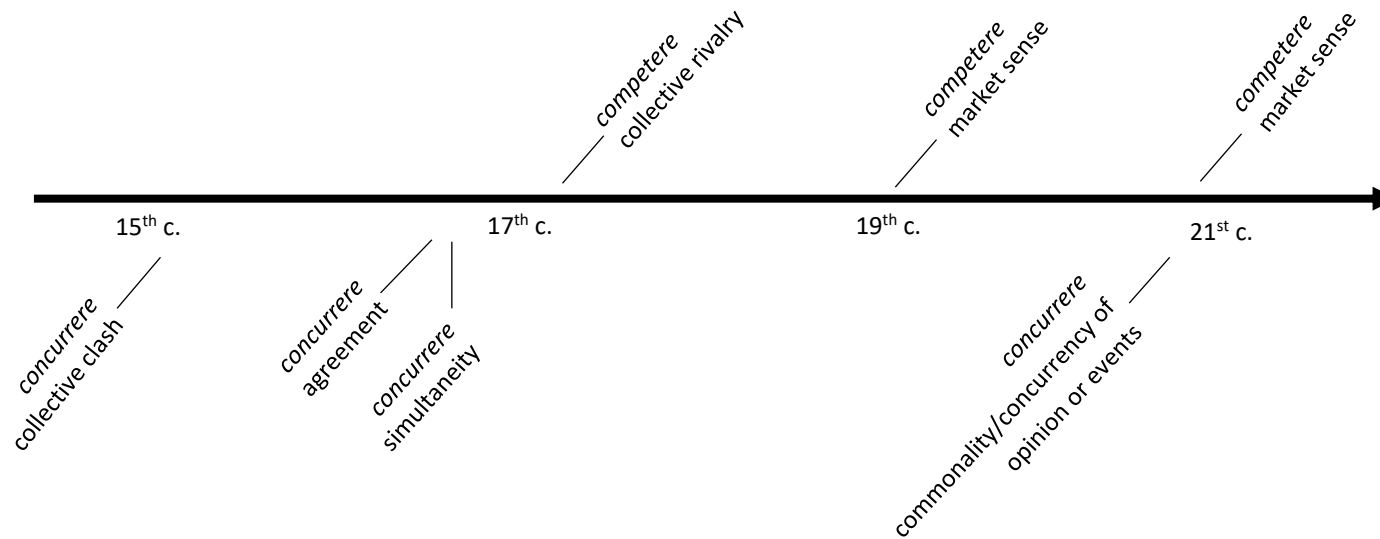
Source: Author, drawn from Etymonline (Harper, n.d.)

Table 7.9: the constant etymology of the verb ‘to concur’ in English

Appr. year, century	Emphasis	Meaning	Etymology
Early 15 th century	Collective clash	Collide, clash in hostility	Latin <i>concurrere</i> ‘to run together, assemble hurriedly; clash, fight’, and in transferred use, ‘to happen at the same time’
1580s, late 16 th century	Agreement	To agree in opinion	
1590s, late 16 th century	Simultaneity	To coincide, happen at the same time	
Currently, 21 st century	Commonality of opinions or events	To be in agreement or happen at the same time	

Source: Author, drawn from Etymonline (Harper, n.d.)

Figure 7.2: The etymological journeying of *competere* and *concurrere* in the English language, 15th century to date

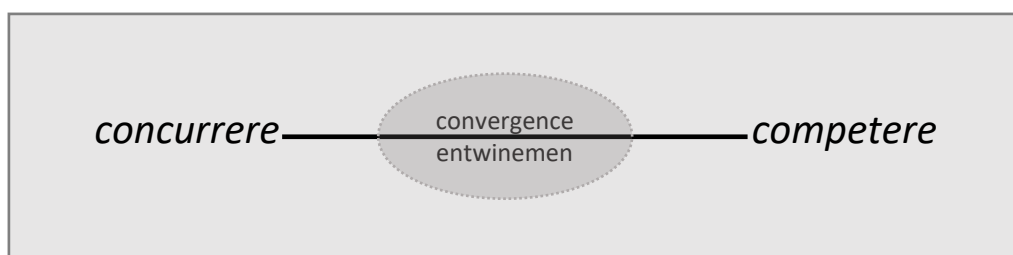


Source: Author, drawn from Etymonline (Harper, n.d.)

Figure 7.2 above shows how closely the semantic development of *competere* and *concurrere* unfolded, particularly between the 15th and 17^h centuries. As we can see in the timeline, *concurrere* emerged first in the form of the English verb to concur, subsequently influencing the etymological journeying of *competere* equivalent to the verb to compete in the Anglo-Saxon tongue.

The insights we thus gained from the present etymological analysis are twofold. First, it served to uncover the hidden dual etymology of the phenomenon of competition as two slightly divergent movements in a strikingly nuanced semantic landscape: one more deliberate and comparative, *competere*, and the other focused on the activity of competing per se, *concurrere*. Second, it revealed the terms are not defined by opposition, as in a dualism where the semantic boundaries circumscribe and demarcate, but rather by commonality, akin to a duality where the meanings find convergence along a common spectrum. In this case, the convergence is around the activity of competition. Seen dualistically, *competere* and *concurrere* are two ways of looking at the same phenomenon. Namely, two ways of engaging in the same activity, that of competition. Hence, they are not opposed, but one and the same. Figure 7.3 below illustrates the competition continuum uniting *competere* and *concurrere*, where the centre conceptually depicts where the constructs converge.

Figure 7.3: The competition continuum



Source: Author

The etymological detour performed in the last few pages served to reveal the realpolitik of competition. This matters since English remains the lingua franca of business in general and of strategic management in particular. In fact, all the major journals of the field are published in English (e.g. Academy of Management Journal, Strategic Management Journal, Strategic Organization) and many of its key texts, such as Porter (1980; 1985), are predominantly available in this language. Akin to the old adage ‘the words you speak become the house you live in’, over the years, knowledge around the phenomenon of competition has been trampled of depth and discoloured in nuance. *Concurrere* and competing for advantage have been significantly under considered, while *competere* and competitive advantage came to dominate the literature, seemingly in pursuit of the instrumental reasons identified in the literature itself (Herrmann, 2005; Ramos-Rodriguez and Ruiz-Navarro, 2004; Hoskisson et al. 1999; Mahoney and McGahan, 2007). That is, in the quest for ever-improving levels of performance driven by pre-conceived and carefully calculated strategic outcomes of a specific, ambitious, and discrete nature. A causal, goal-oriented, results-driven link between competitive advantage and performance has thus taken hold in much of the theorizing in strategy (Furrer et al., 2008) consequently towering over not only the research efforts in the field, but also the competitive strategy education imparted in business schools and managerial training programs around the world (Mahoney and McGahan, 2007; Chia and Holt, 2008; Chia, 1996). This deliberate leaning towards end-states has animated and fuelled key debates in the strategy domain since at least the 1960s, allowing scholars to make valuable contributions, often in the form of ever-refined conceptualisations, as well as progress towards continuously-parsed representations of important strategy knowledge building blocks (Schendel and Hofer, 1979; Chia and Nayak, 2017; Lewis, 2000). It has also proven to be of immense value to countless numbers of practitioners passing through strategy education programs and consulting grey literature published in highly successful, widely-read outlets and digital platforms, such as Harvard Business Review, Bloomberg Businessweek or the MIT Sloan Management Review. Yet, as this research has started to illuminate, rescuing the full nuance of competition, immersed in **both *competere and concurrere***, towards a more authentic redressing of the balance between deliberate and emergent strategy approaches has the potential to release a whole new current of strategic

insights that would not only reinvigorate the field, but also be of practical, everyday use for organisations, business professionals, and beyond. More on this in sections 8.2 and 8.3.

Mobilising these insights further into the strategy realm, *competere* and *concurrere* represent a new approach to competitive strategy that is particularly relevant in light of the research question guiding this investigation, how firms compete for advantage. Effectively, *competere* and *concurrere* make up the Competing For Advantage (CFA) framework, as it will be referred to from hereon.³ Two particular insights uncovered in this study are of particular relevance here. First, the insight that firms compete for advantage by continuously embarking on navigation and wayfinding journeys. And second, that wayfinding is an intrinsic part of the process of competing for advantage. We will examine each of these in the face of the CFA framework that is being proposed. See table 7.10 for an illustration of the dual lenses of the framework, *competere* and *concurrere*, which builds on the discussion around the preceding tables and figures of this subsection, specifically, tables 7.3-7.5 and figure 7.1.

³ The CFA framework is being proposed here as a new approach to thinking about competitive strategy. Hence, the term ‘framework’ is preferred over ‘model’. To denote it a model would indicate a conceptual ‘firming up’ of the way *competere* and *concurrere* unfold in practice. However, as the findings chapter revealed, the entwinement of these two modes of competing in the data was not firm nor linear, but rather meandering, flexuous, and convoluted.

Table 7.10: *Competere* and *concurrere*, dual lenses for competitive strategy

Entitative/ being/ building perspective	Strategy Content	Navigation	competitive advantage		<i>competere</i>	<i>com-</i> + <i>petere</i>	to aim/seek something against others
Process/ becoming/ dwelling perspective	Strategy Process	Wayfinding	competing for advantage		<i>concurrere</i>	<i>con-</i> + <i>currere</i>	to run ‘alongly’

Source: Author, drawn from Rescher (1996, 2000); Chia (1996, 1997); Heidegger (1971); Ingold (2000); Oxford Dictionary of English (2019); Merriam-Webster (n.d.).

As was established in sections 6.8 and 7.2, navigation and wayfinding comprise the basic process complexes by which firms compete for advantage. In the CFA framework being proposed here, these terms correspond to *competere* and *concurrere*, respectively. We can thus establish that *competere* and *concurrere* constitute the basic strategy processes by which firms compete for advantage. However, as was also established in the same aforementioned sections, wayfinding is an intrinsic part of the strategy process given that it is wayfinding that which sets in motion a process complex of competition underpinning strategic change and enabling extracting advantage. This is in line with the etymology of *concurrere* as it was just discussed. By remaining focused on the continuous movement or activity of competition in its meaning and usage, -as opposed to *competere*'s more deliberate and comparative focus-, *concurrere*, to run along/together with, reveals itself as the most inherent way or mode of competition in the framework. This has parallels in Heideggerian and Ingoldian thinking where dwelling and wayfinding precede building and navigation, respectively (Heidegger, 1971; Ingold, 2000). Heidegger's (1971) reasoning was that one can only build if one has first dwelled, a primary form of existence he referred to as 'being-in-the-world'. Similarly, Ingold (2000) proposes one can navigate only after one has 'wayfound', or in the specific Ingoldian cartographic example, one can engage in the deliberate activity of map-using (or navigation) only after one has engaged in emergent activity of mapping, which happens through wayfinding. As per Ingold (2000), wayfinding cues an unknown, always emerging type of journeying where no map exists. This is because, in his view, "we know as we go, not before we go" (Ingold, 2000: 230) and hence "the traveller or storyteller who knows as he goes is neither making a map nor using one. He is, quite simply, mapping" (Ingold, 2000: 230-231). In both Heideggerian and Ingoldian thinking, dwelling and wayfinding denote the most primary and emergent types of movement. From this logic, they precede building and navigation, which are more deliberate (Heidegger, 1971; Ingold, 2000). What this implies is that the most inherent forms contain the more deliberate ones. Ergo, wayfinding embeds navigation, just like dwelling encompasses building.

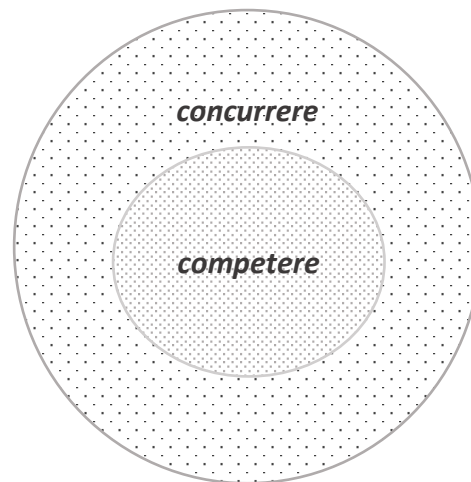
Transcribing to the CFA framework being proposed, *concurrere*, or the emergent activity of competing along with other firms, precedes *competere*, or the more deliberate activity of competing against rival firms. In other words, one cannot know how to compete before one has engaged in the activity of competing per se; effectively, before one has ‘found its way’ in competition. Following Ingold (2000: 230), one knows as one competes, not before one competes. Extending the examples just given and relaying them to competitive strategy, one can develop or build competitive advantage (*competere*) only after one has engaged or dwelled in competing (*concurrere*); or put slightly differently, only after engaging in the everyday continuous ‘running’ of competition, firms can purposefully compete against others and develop competitive advantage. By competing for advantage along other firms, firms learn how to develop competitive advantage(s) over rival organisations. Hence, *concurrere* encompasses *competere*. Table 7.11 posits the main theoretical contributions of the CFA framework as they have just been discussed, while figure 7.4 immediately below illustrates the framework conceptually.

Table 7.11: Key theoretical insights of the Competing for Advantage framework

<ul style="list-style-type: none"> ☑ <i>competere and concurrere constitute the basic strategy processes by which firms compete for advantage</i> ☑ <i>concurrere is the most inherent, intrinsic form of competition</i> ☑ <i>concurrere embeds competere</i>

Source: Author

Figure 7.4: The Competing for Advantage Conceptual framework



Source: Author

The insights coming out of the CFA framework add to and extend the wayfinding literature pioneered in strategy by Chia and Holt (2006, 2009) and developed further by Chia (2017) and Bouty, Gomez and Chia (2019). The CFA framework validates wayfinding as a useful perspective in strategic management, particularly valuable as an approach to strategy process and/or strategy emergence.

Crucially, *concurrere* contributes a way into the dynamics of competition in relation to strategic change and performance. However, while *concurrere* and wayfinding are similar constructs, they are not entirely the same. They are similar in that both have been argued to be immanent and processional. Immanent because they are the most inherent in strategy, and processional because they unfold in the relentless procession of a process (cf. section 6.4; MacKay, Chia and Nair, 2021). Yet while MacKay, Chia and Nair (2021) would argue wayfinding as a recurrent process/practice, *concurrere* has been argued here to be a concurrent one. This is where the author's view of wayfinding departs slightly from that which has been argued in the literature to date. Recurrent, based on the Latin 'recurrere', means to run back or again, or as per MacKay, Chia and Nair (2021: 1348) 'a development of the

one before and a preparation of the one that follows'. Concurrent, based on the Latin '*concurrere*', means happening or existing at the same time, which if traced back etymologically to '*concurrere*', to run along or together with, reveals itself as the most inherent form. Hence, from this study's perspective, wayfinding and *concurrere* are found to be immanent, processional and concurrent, as opposed to immanent, processional and recurrent as per MacKay, Chia and Nair (2021).

Up to now, all contributions on the wayfinding perspective, which have been theoretical for the most part, have argued to varying rhetorical degrees that the process ontology is more immanent than the entitative one, and hence, more primary and defining of the nature of reality itself (MacKay, Chia and Nair, 2021; Chia and Nayak, 2017; Chia and Holt, 2006, 2009; Chia and King, 1998; Chia, 1996, 1997)⁴. From a process becoming perspective, process, flow, and change are the defining tenets of a world where change is nature's essential feature (Rescher, 1996, 2000). While the intellectual mavericks at the forefront of process philosophy have gone to impressive lengths in effectively arguing process as the primary feature of the world (cf. James, 1911/96; Bergson, 1913; Whitehead, 1926/85, 1929; among others), in strategy, process becoming perspectives, such as wayfinding, have been seldomly tinkered with, much less tested in empirical settings. Consequently, although these process-philosophical articles have made significant headway in advancing theoretical insights valuable for a renewed understanding and practice of strategy, the continued lack of empirical attention somewhat draws away from these efforts. In this scholarly landscape, what this study offers is a view of strategy that gives prominent empirical attention to the wayfinding process perspective while sustaining attention towards the more extensively used entitative perspective. While a vast array of entitative-driven empirical research has been published to date (cf. Herrmann, 2005), as well as a couple of wayfinding-inspired empirical articles (cf. Bouty, Gomez and Chia, 2019; MacKay

⁴ To date, contributions on the wayfinding perspective have been largely theoretical. A relevant primer includes the trio Chia and Holt (2006), Chia and Holt (2009), and Chia (2017). Apart from the scant published literature on it, more telling is the fact that wayfinding constitutes a scarcely talked about, sparingly visited corner of strategy meta-theory, curiously distanced, -philosophically and practically-, from the perspectives at the mainstream centre of the field, such as competitive advantage, the resource based-view, dynamic capabilities, and others. Only one wayfinding-specific empirical contribution has been published to date, Bouty, Gomez and Chia (2019). In addition, one could consider the empirical article MacKay and Chia (2013), that although does not invoke wayfinding explicitly, draws on empirical elements that the more recent Bouty, Gomez and Chia (2019) used. More on these empirical contributions in section 7.3.2.

and Chia, 2013), this research encompasses both the entitative and wayfinding process perspectives analytically. This has proven to be momentous, as per the findings and contributions previously recounted, because we now have data to show for it. Data that elucidates how these perspectives entwine in empirical settings, how this interaction unfolds and what that looks like, and crucially, the strategic knowledge insights that synergise from such a dual research inclination. While researchers have previously pointed out scholarship might be reaching the limits of ‘either/or’ thinking (Smith and Lewis, 2011), this manuscript offers proof of the potential of a ‘*both/and*’ analytical orientation. Specifically, in this case, the potential of embracing *both* competitive advantage *and* competing for advantage, *both* navigation *and* wayfinding, and crucially, as we have discovered, *both competere and concurrere*.

The ensuing section will build on this discussion further by elaborating the methodological contributions of the research.

7.3.2 Methodological Contributions

“A Russian is self-assured simply because he knows nothing and does not want to know anything, since he does not believe in the possibility of knowing anything fully.”

–Tolstoy

The theoretical contributions that have been discussed in the preceding subsection relate closely to the methodological contributions that are going to be presented here. Namely, how the competing for advantage (cfa)⁵ analytical

⁵ The acronym ‘cfa’ refers to the label of the author’s methodology. That is to say, the competing for advantage methodology. A non-capitalised name of the methodology follows the usage of an equally non-capitalised acronym to remain faithful in discourse, to the extent possible, to the way in which the research unfolded—as a constantly-swerving, abductive scholarly inquiry, and a ‘processual’ scholarly inquiry at that, akin to an ever winding stream of perpetual flow which, following Heraclitan tradition (Kahn, 1981), is never the same and thus cannot be stepped into twice. Capitalization could indicate a more final characterisation or ‘firming up’ of the methodology. But in the researcher’s inquiry process, a finality or irreversibility of experience has not been the case. Instead, she experienced constant iteration in the meandering conversation between her ideas, underlying theories, data points, inspirations, ‘leaps of faith’ in Langley-parlance (Klag and Langley, 2013; Langley, 1999) and her sinuous, oscillating, and serpentine chronicling of it. Further, the author hopes this specific discourse, i.e., this manuscript, shall be digested by attempting to remain etymologically faithful to the term.

scaffolding and methodology mobilised in this study contribute to process research generally, and to wayfinding research more specifically.

Primarily, the cfa analytical scaffolding of this investigation is born out of a novel process research methodology able to capture the most basic processes in strategy practice, and crucially, how the deliberate entwines with the emergent in the everyday of organisational life. In addition, the analytical scaffolding represents an effective methodology to explore change around the central strategy notion of competitive advantage, as it was pursued in this study. The dual lenses of the scaffolding⁶, its methodological elements, and its processual considerations comprise a valid method that can be used by researchers in strategy, the social sciences, and beyond, in research projects where the interest lies in accounting for deliberate and emergent action, elucidating the dynamics of how these unfold and interrelate, and explaining how they underpin change.

Importantly, the cfa methodology has been developed and deployed in strategic management for the first time in the course of this investigation. To the author's knowledge, the specific Ingoldian transplantation of the navigation and wayfinding constructs (Ingold, 2000) is an original methodological contribution not only to strategy literature, but also to process research more specifically.

While to date there is only one empirical study that uses the wayfinding construct in strategy (cf. Bouty, Gomez and Chia, 2019), the wayfinding analytical frame developed and implemented here represents a fresh take on the nascent strategy application of it, based on its own onto-epistemological and methodological considerations. While Bouty, Gomez and Chia (2019) focus exclusively on wayfinding as a method to capture strategy emergence, the study here is broader in the

Discourse, after all, is rooted in the Latin '*discursus*' meaning 'running to and fro', which cues the process of human argumentation and/or reasoning signalled by its origin verb, the Latin '*discurrere*', '*dis-*' 'away' and '*currere*' '*to run*', meaning 'to run away' by way of argument, as is often the nature of scholarly debate. In a similar fashion, the terminology 'competing for advantage analytical scaffolding' follows the same spirit. Scaffolding is a temporary structure used in construction (Oxford Dictionary of English, 2019). An analytical scaffolding, then, serves, methodologically-speaking, as a temporary arrangement (or mould, much like the moulds produced at the research site, which happened to be an automotive plastic injection *moulder*), to perform process-type research where the phenomena under study is dynamic in nature, i.e. relentlessly moving and changing. Thus, the processes and events observed are artificially and temporarily stabilised, strictly for scholarly purposes, to facilitate the rhetoric of the research project to relevant and interested academic communities.

⁶ The cfa analytical scaffolding is comprised of two analytical frames or lenses: navigation and wayfinding. Please consult sections 6.3 to 6.6 and chapter 4 and for full details.

sense that it focuses on how *both* deliberate *and* emergent strategy unfold and interact. In the former, the key analytical operationalisation is Bourdieu’s (1990) habitus, understood as the essential practices that allow “to steer a middle way between construing actions as the making of deliberate free choices or as inevitably determined by underlying structures and/or universal logic” (Bouty, Gomez and Chia, 2019: 443). In the latter, the key analytical operationalisations are the Ingoldian constructs of navigation and wayfinding (Ingold, 2000), which represent, respectively, deliberate and emergent types of movement and/or modes of travel. Hence, while Bouty, Gomez and Chia (2019) mobilise habitus (Bourdieu, 1990) to explain strategy emergence, this study mobilises navigation and wayfinding (Ingold, 2000) to explain strategic change generally, and competing for advantage specifically. Table 7.12 compares this investigation’s object of study, denoted as Corvalán (2022), to that of Bouty, Gomez and Chia (2019).

Table 7.12: Key analytical operationalisations in empirical wayfinding strategy research to date

Study Author(s), Year	Key analytical element(s) mobilised	Analytical Frame(s)	Object of Study
Bouty, Gomez and Chia (2019)	Habitus	Wayfinding	Strategy Emergence
Corvalán (2022) [this study]	Navigation journeys Wayfinding journeys	Navigation Wayfinding	Competing for advantage

Source: Author (cf. Bouty, Gomez and Chia, 2019)

Significantly, this research takes *both* deliberate *and* emergent perspectives into account, offering pioneering knowledge on how these lenses come into contact in the everyday practice of strategy in organisational settings. Yet even more significantly, the study’s primary orientation, that of process, enables distinguishing wayfinding from navigation, and *concurrere* from *competere*, as the essential, immanent process

underpinning strategic change. Effectively, it allows explaining how a workable strategy emerges in everyday practice as a “coherent pattern in a stream of activity” (Mintzberg and Waters, 1985: 257). In this way, the study’s primary processual orientation aligns with that of Bouty, Gomez and Chia (2019), yet while the aforementioned authors focused only on wayfinding for data collection purposes, this study has collected, presented, and explained data *both* on navigation *and* wayfinding, their interactions, and how their entwinement underpins change. The table below contrasts this study, Corvalán (2022), and Bouty, Gomez and Chia (2019), in terms of data collection focus.

Table 7.13: Data collection focus in empirical wayfinding strategy research to date

Study Author(s), Year	Data Collection Focus
Bouty, Gomez and Chia (2019)	Wayfinding
Corvalán (2022) [this study]	Navigation-cum-Wayfinding

Source: Author (cf. Bouty, Gomez and Chia, 2019)

Further, in a most noteworthy turn of events, the methodology enabled uncovering how wayfinding embeds navigation. As was observed in the data and discussed in the findings, along a wayfinding journey one engages *both* with the emergent *and* the deliberate processes that unfold in everyday strategy practice. Yet the other way around was not observed in the data. That is, along a navigation journey one engages with the deliberate processes *only*, completely bypassing the emergent ones.⁷ This

⁷ The empirics of this study showed how processes of strategic change and instances of extracting advantage all proceeded with the unfolding of wayfinding journeys, which eventually converged into navigation ones. No processes of strategic change nor instances of extracting advantage were observed where the genesis was a navigation journey. Hence, along a wayfinding journey one can engage in emergent strategy processes typical of the wayfinding lens. However, as was seen in the data, when wayfinding converges into navigation, one can engage with deliberate strategy processes, also. Yet, the empirics did not feature the other way around. That is, there was no empirical instance where a navigation journey converged into wayfinding to underpin strategic change and extract advantage. In all cases, strategic change had wayfinding origins. For a full explanation, please refer to sections 6.8 and 7.2.

matters because it is wayfinding that which sets in motion the processes by which viable strategy *inadvertently* unfolds. In a similar analogy, while from a three-dimensional drawing one can (visually) access three different dimensions, length, width, and depth, the other way around is not true. That is, from a two-dimensional drawing, one only accesses two dimensions, length and width, and the third dimension, depth, remains *entirely* out of reach. Hence, from a wayfinding frame, one accesses *both* wayfinding *and* navigation. Yet from a navigation frame, one *only* accesses navigation and *completely bypasses* wayfinding. Table 7.14 summarizes the empirical access facilitated by the frames discussed.

Table 7.14: Empirical access facilitated by pertinent analytical frames in wayfinding strategy research

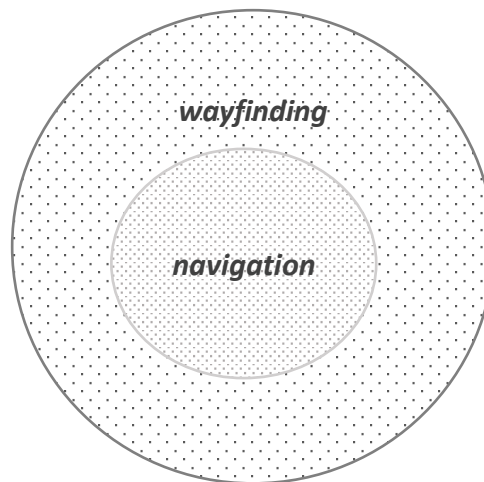
Analytical Frame	Empirical access
Navigation	Navigation data
Wayfinding	<i>Both</i> Navigation <i>and</i> Wayfinding data

Source: Author (cf. Bouty, Gomez and Chia, 2019)

The preceding paragraph uncovers a most staggering insight, worthy of a slight reflective overindulgence. In a way that is seemingly prophetic of the old proverbial saying ‘one cannot see the forest for the trees’, the observation just made means that wayfinding is an entirely different dimension and thus unreachable from a navigation lens. Just like depth is a whole different dimension completely inaccessible from a two-dimensional drawing, so is wayfinding from a navigation lens. Ergo, from a navigational angle, wayfinding is beyond navigation. Yet from a wayfinding angle, *both* wayfinding *and* navigation are reachable, akin to a three-dimensional drawing where length, width, and depth are observable. In a similar fashion, from an earthly dimension, only planet Earth is knowable and accessible; the rest of the universe

remains *beyond* reach, unknowable. Yet from a universal dimension, the whole of the universe, including the Earth, all the other planets, and everything else in it are *within* reach, knowable and accessible. Figure 7.5 below depicts this insight, which is in full alignment with the key theoretical contribution exposed in 7.3.1 and its corresponding illustration, figure 7.4.

Figure 7.5: Wayfinding encompasses navigation



Source: Author

Analytically, the cfa methodology builds on and expands previous empirical work by Chia and collaborators where a similar processual stance was adopted. Chia's two empirical pieces are of particular relevance here, MacKay and Chia (2013) and Bouty, Gomez and Chia (2019). It should be noted that these are the only two empirical articles that bear any resemblance and/or connection to this study in the literature to date. Effectively, these studies represent the wayfinding *state of the art*, from an empirical standpoint, in the way they argued and mobilised analytical components related to the wayfinding process.⁸ This research has resorted to similar constructs

⁸ To date, the wayfinding empirical state of the art comprises the pair MacKay and Chia (2013) and Bouty, Gomez and Chia (2019). While MacKay and Chia (2013) do not invoke wayfinding specifically,

previously used by MacKay and Chia (2013) and Bouty, Gomez and Chia (2019). In the former, similar elements include: (i) unowned processes, or the processes out with anyone's control; (ii) unintended consequences, or the outcomes and ramifications that are neither expected nor intended; and (iii) process complexes, or the confluences of processes that interact dynamically (cf. MacKay and Chia, 2013). In the latter, related constructs include: (a) immediate concerns, or the emergent and/or unfolding concerns that are arising or have arisen; (b) purposive practical coping, or spontaneous and unintentional actions pursued as coping efforts; (c) unintended consequences, like in (ii) immediately above; and (d) synergies, or interacting compounding effects leading to change (cf. Bouty, Gomez and Chia, 2019).⁹ Please see tables 7.15 and 7.16 below for a summary of similar analytical elements between this study, —denoted in the tables as Corvalán (2022)—, and MacKay and Chia (2013), and Bouty, Gomez and Chia (2019), respectively.

they draw upon similar analytical elements found in the more recent Bouty, Gomez and Chia (2019). To this duo, Chia (2017) added a theoretical contribution on wayfinding as organisational learning. While Chia sparingly refers to wayfinding in other theoretical contributions he has made throughout his prolific academic musings, such as in Chia and Holt (2006, 2009), his 2017 article is the only instance where he specifically focuses on the wayfinding concept to theoretically explain organisational phenomena.

⁹ In Bouty, Gomez and Chia (2019), the authors develop a model of strategy emergence as wayfinding with the analytical elements discussed above. Scilicet, immediate concerns, habitus, purposive practical coping, unexpected outcomes, and synergies. However, they enclose these elements and relationships in what they term the 'field' of haute cuisine, which refers to the empirical research context of the study. Although the research context does not constitute an analytical element in and of itself, it cues the broader setting of an empirical investigation, which typically is a matter addressed within or around the methodological considerations. The authors establish that the field of haute cuisine is a highly structured one, meticulous in its operations, painstakingly monitored via the closely guarded ratings of the Michelin guide, and extremely competitive. This has parallels to this study, Corvalán (2022), which involved another highly structured sector, the automotive industry. Similar to haute cuisine, the automotive industry is known to be tightly operated, heavily regulated via highly demanding and often punitive sector-specific standards and practices, extensively contractualised, and excruciatingly competitive (Holweg, 2008; Carr, 1993).

One should not conflate the field or research context in Bouty, Gomez and Chia (2019) with the process complexes, as in this study and in MacKay and Chia (2013), which are processual phenomena involving confluences of processes. Hence, while process complexes are analytical elements, the research context we have already established is not, or at least it was not in any of the aforementioned studies. In process research, process complexes usually comprise phenomena amenable to observation/study. Further, it should be noted that process research with underlying 'becoming' ontologies do not normally involve levels of research common in other type of process and non-process, cross-sectional studies with underlying 'being' (entitative) ontologies, typically delineated as micro, meso, and macro levels of analysis. Given that becoming-evoked process research efforts attempt to temporarily stabilise events in motion purely for scientific and analytical interpretation purposes, such investigations normally feature processes, events, and activities that are not as amenable to level-type categorization.

Table 7.15: Analytical Correspondence between MacKay and Chia (2013) and Corvalán (2022)

Correlated Analytical Elements			Analytical Frame
	MacKay and Chia (2013)	Corvalán (2022) [this study]	
1	Unowned processes	Unowned processes of competing	Wayfinding
2	Unintended consequences	Unintended outcomes & consequences	Wayfinding
3	Process complexes	Process complexes of competing for advantage	Wayfinding

Source: Author; MacKay and Chia (2013)

Table 7.16: Analytical Correspondence between Bouty, Gomez and Chia (2019) and Corvalán (2022)

Correlated Analytical Elements			Analytical Frame
	Bouty, Gomez and Chia (2019)	Corvalán (2022) [this study]	
1	Immediate concerns	Unfolding organisational concerns	Wayfinding
2	Purposive practical coping	Everyday purposive practical coping	Wayfinding
3	Unintended consequences	Unintended outcomes & consequences	Wayfinding
4	Synergies	Competing Synergies	Wayfinding

Source: Author; Bouty, Gomez and Chia (2019)

Moreover, this research expands and builds on previous wayfinding empirical efforts in various ways. For one, it shows how synergies impact not only the wayfinding processes, but the navigation ones too. While in Bouty, Gomez and Chia (2019) synergies are the interaction between practical coping efforts and unintended consequences, in this study, synergies entail the entwinement of navigation and wayfinding in processes of strategic change leading to instances of extracting advantage. Selected examples from each study can illustrate the difference in greater detail. In Bouty, Gomez and Chia (2019), purposive coping efforts in the restaurant at the centre of the research included using Champagne as a drink to pair with the dishes, instead of cooking with it, which resulted in unintended consequences such as (i) moving away from the previous head chef's style, (ii) an increased number of possible taste associations, and (iii) more innovative dishes, all inadvertently helping to restore creativity in the kitchen, yet another unintended consequence identified in the study. In this investigation, the interaction between navigation and wayfinding in Larkhall's scrap reduction efforts, as per the fourth case study of the research, led to the emergence of synergies involving the development of a new best practice in the form of the scrap review meetings. The meetings were continuously improved through practical coping efforts, such as making scrap centrally visible in the newly established scrap review area, and deliberate doings, such as supplementing hard data to support discussion and decision-making in the meetings. Over time, these synergies led to a series of instances of extracting advantage, such as reducing scrap costs and improving margins. The difference between these two examples is that while in the former synergies serve to explain the interweaving of coping actions and unintended consequences, in the latter, the synergies serve to elucidate the entwinement of the emergent with the deliberate, and to explain how processes of strategic change and extracting advantage come about. Synergies, it should be noted, were not part of the original wayfinding framework as proposed by Chia and Holt (2006, 2009). While they were operationalised by Bouty, Gomez and Chia (2019) in the manner explained above, this study takes the construct one step further, connecting it not only to unintended consequences that are part of emergent strategy processes, but also to

deliberate organisational concerns and expected outcomes and consequences that are part of deliberate processes. In doing so, the synergizing in this study was shown to explain processes of strategic transformation and competing for advantage. In the former, synergies explain the unfolding of unintended consequences, but do not explicitly explain strategic change.

Further, this research relates the wayfinding elements to corresponding and newly-developed navigation elements, thus expanding the overall analytical template into the here-proposed cfa methodology and its related CFA framework. The turnkey analytical elements that this study has developed are five: (i) owned processes of competing, which are planned and/or pre-conceived processes; (ii) deliberate organisational concerns, which are predetermined objectives; (iii) everyday purposeful doings, which are quotidian, commonplace planned activities; (iv) expected outcomes and consequences, which are outcomes and consequences that can be anticipated and/or foreseen; and (v) extracting advantage, which are instances when an advantage is attained or realised. While all the elements discussed up to now referred entirely to the wayfinding analytical frame, the new elements discussed here were developed in correspondence with the respective wayfinding elements previously discussed, yet from a navigation analytical frame. The only element that refers to both frames is extracting advantage, since it comes about as the result of the convergence of navigation and wayfinding, as discussed above and elaborated in sections 6.6, 6.8, and 7.2. Table 7.17 lists the analytical elements contributed by this study, Corvalán (2022).

Table 7.17: New Analytical Elements mobilised by Corvalán (2022) [this study]

	Newly-Mobilised Analytical Element	Analytical Frame
1	Owned processes of competing	Navigation
2	Deliberate organisational concerns	Navigation
3	Everyday purposeful doings	Navigation
4	Expected outcomes and consequences	Navigation
5	Extracting advantage	Navigation-cum-Wayfinding

Source: Author (cf. MacKay and Chia, 2013; Bouty, Gomez and Chia, 2019).

Further still, extracting advantage constitutes an original analytical contribution which adds to and expands the incipient wayfinding methodology. It represents a novel analytical construct, derived empirically in this investigation, ready to be of further use to researchers in strategy. Extracting advantage thus joins two other original analytical contributions to the extant wayfinding methodology in the strategic management literature specifically. First, MacKay and Chia (2013) operationalised the construct of choices, proposing it as decisions taken by a top management team (TMT)¹⁰. More recently, Bouty, Gomez and Chia (2019) used habitus as an empirical construct in a view of strategy as emergence which, as was referred to before, they propose as the practices that shape practical coping efforts and underpin purposive changes in emergent strategy. Hence, choices, habitus, and extracting advantage are analytical contributions in the sense that they were operationalised empirically in the said studies for the first time in research contexts with specific interest in the wayfinding approach in strategy. Yet, while choices and habitus relate to the wayfinding analytical lens exclusively, extracting advantage, as argued above, relates to *both* navigation *and* wayfinding analytical frames since it is born out of the convergence of deliberate and emergent strategy processes. Table 7.18

¹⁰ In Mackay and Chia (2013: 213), the construct of ‘choices’ is defined as “decisions taken, however partial, by members of the TMT”. Put like that, one could argue to what extent choices is a construct that would naturally find its place in a wayfinding study (see also Mintzberg et al, 1990). The definition speaks of decisions, partial or impartial, in a way that could signal conscious, deliberate commitments, particularly when these relate to decisions taken by the TMT, as indicated in the authors’ definition. Compare that to the ‘unfolding organisational concerns’ construct in Corvalán (2022), and the ‘immediate concerns’ construct in Bouty, Gomez and Chia (2019), both defined as emergent concerns in the process of arising within the research context. In the comparison, choices stand out as a construct with a more purposeful nature. Even more so when, although defined as ‘however partial’ as per the quoted definition above, MacKay and Chia (2013) do not proceed to distinguish between partial and impartial choices taken by the TMT in the empirics of the study. Further, while MacKay and Chia (2013) speak of choices as decisions taken within the centre of the organization (Regner, 2003), the TMT, the two other studies mobilise unfolding and immediate organisational concerns, respectively, within the periphery of the organisation (Regner, 2003). That is, the concerns identified in the data were situated not within the TMT, but in the shopfloor of the Rosti Larkhall manufacturing facility in Corvalán (2022), and in the Champagne Gourmet Restaurant kitchen in Bouty, Gomez and Chia (2019). For instance, while choices in MacKay and Chia (2013) refer to decisions such as management restructuring, downsizing, and formulating an entrepreneurial strategy of innovation, unfolding organisational concerns in Corvalán (2022) refer to issues like a sudden need for space or unexpected customer complaints, while immediate concerns in Bouty, Gomez and Chia (2019) refer to matters such as sustaining concentration or maintaining operational flow in the kitchen.

summarises the original analytical elements mobilised in wayfinding empirical research to date.

Table 7.18: Original analytical elements mobilised in wayfinding empirical research to date

	Original Analytical Element	Analytical Frame	Author(s) & Year
1	Choices	Wayfinding	MacKay and Chia (2013)
2	Habitus	Wayfinding	Bouty, Gomez and Chia (2019)
3	Extracting Advantage	Navigation-cum-Wayfinding	Corvalán (2022) [this study]

Source: Author (cf. MacKay and Chia, 2013; Bouty, Gomez and Chia, 2019).

The specific wayfinding processual orientation and the dual lenses of the cfa methodology allowed to carry out research at the periphery of the organisation, as per Regner (2003) and Chia and MacKay (2007). The periphery is closer to the daily operations of the firm than to the corporate and/or top management executive functions, which is the centre of the organisation. In this way, the research has heeded the specific aforementioned calls in the literature for studies with a greater focus on the everyday strategy processes, thus charting the until-now-uncharted terrain and elucidating the “spontaneous, heuristic and exploratory” processes of competing for advantage (Chia and MacKay, 2007: 235), as per sections 6.3, 6.4, and 7.2 of this manuscript. This was possible, to a large extent, due to the author’s nurtured sensitivity towards “peripheral awareness and attention to seemingly insignificant details and events” (Chia and MacKay, 2007: 237), hence uncovering the rich potential of such a research disposition. It is also due to the study’s systemic methodological approach (Bateson, 2000; Chia and Holt, 2009) focused not on individuals, the firm,

and its activities, but rather, on the activities themselves, -the navigation and wayfinding process events-, happening in the periphery of the research site, the manufacturing shopfloor.¹¹ A key distinction here relates to the concept of strategy-making. While in Regner (2003), -also mentioned in Chia and MacKay (2007)-, strategy-making can proceed from the periphery *or* the centre of the organisation, this study follows Ingold (2000), where wayfinding refers to *mapping*, while navigation refers to *map-using*. In the former, mapping is an immanent way of travel, whereas in the latter, map-using is the activity where a map is already in existence through *map-making*, the cartographic process of pre-emptively drawing a map after the journey has been purposively mapped for the first time through wayfinding. Hence, mapping is to strategizing and competing what map-using is to following a pre-determined strategy, most often, a strategic plan, and/or deliberately exploiting a competitive advantage.

Lastly, while Chia and MacKay (2007) recognise that deliberate strategy-making may occur when breakdowns happen or when routines have been established, this investigation found the latter to be true, but not the former. As was attested to in sections 6.8 and 7.2, when wayfinding converges into navigation following useful coping efforts that are purposefully leveraged for their strategic promise, these could be considered instances akin to establishing routines, which are then deliberately acted upon. As regards breakdowns resolved via deliberate strategy-making, while this research cannot negate this possibility, further research is called for, as this investigation's focus was not on explaining breakdowns, but on explicating competing for advantage.

Taking the preceding paragraphs together, this section has dissected the methodological contributions of the cfa method and analytical scaffolding. In doing so, a new state of the art in wayfinding empirical research has been established, one

¹¹ Regner (2003), drawing on Pettigrew (1987), generally equates the centre of the organisation to the power centre of the firm, namely the top management and/or board, who employs a more deductive and exploitative approach to strategy. In strategic management, much research is focused in this space (Furrer et al., 2008). The periphery, on the other hand, refers to the externally-oriented activities with an inductive and exploratory approach, such as middle management and operations. Yet, in a study like this one, where the focus is on explaining how firms compete for advantage *over time* and in the *everyday* of strategy practice, one could argue that the centre of the organisation is actually where the daily practice of strategy is realised. Hence, for the purposes of this study, the operational centre of the organisation was the focus, i.e. the manufacturing shopfloor of Rosti Automotive Larkhall (RAL).

with an expanded analytical template and original, novel analytical elements. The section that ensues will focus on the limitations of the research.

7.4 Limitations

“And what is the greatest number? Number one.”

–David Hume

Three research limitations are addressed in this section. The limitations have to do with the particular set of compromises the researcher encountered and subsequently coped with while ensuring a ‘workable level of certainty’ (Weick, 1979: 4-6). As with every process of inquiry, resources and interests had to be matched within a finite method of scientific endeavour. Accordingly, the researcher swerved and served (Browning, 1895/2016: 255) as best she could.

The first compromise had to do with the usual limitations of swerving and serving qualitative research carried out in a single context. A case study methodology was preferred in order to demonstrate internal consistency with proven empirical richness and explanatory power (Van de Ven, 1992; Yin, 1994; Lovas and Ghoshal, 2000). In a project interested in gaining insights into the processual nature of competition, such a methodology puts aside concerns for external validity as typically approached from positivist or neo-positivist worldviews (Eisenhardt, 1989) to focus on understanding how the richness and complexity of the case develops (Strauss, 1987; Van Maanen, 1988). As per Ingold (2011: 233), this project seeks “the general in the particular” in a way that differs from mainstream single or multiple case study research (Corley & Gioia, 2004; Eisenhardt & Graebner, 2007) trying to “generalise from the particular”.

The second compromise was linked to the natural constraints of a process research methodology taken up by a single researcher. Namely, the impossibility of being everywhere, at all times, continuously capturing data in the midst of a busy manufacturing shopfloor operating 24 hours a day, seven days a week. Still, the researcher’s empirical coping efforts encompassed different primary and secondary

sources in support of the overall reliability of the data within a process philosophical-cum-methodological research set up (Denzin, 1978). Part of the swerving and serving here had to do with the crucial activity of note-making, along with an improvised, intuitive *reflecting-in-action*, to amass comprehensive fieldnotes. In the immersive experience of the everyday *competing* for advantage at Rosti Automotive Larkhall (RAL), note-making was key due to the sheer swiftness and volume of activities, as well as the overall noise levels in a swarming factory that made audio recording a practical impossibility. Several hundreds of A4-sized pages of fieldnotes attest to this, covering action-packed daily operations, lightning-brisk production meetings, and animated off-the-cuff conversations held ‘live’ on the shopfloor with a diverse group of vivacious RAL staff. Capturing minuscule photographic and intricately detailed written accounts on the shopfloor by observing activities or attending whirlwind production gatherings enabled a nurtured empirical sensitivity (Chia and Holt, 2009) towards environmental excitations possible through the discriminative attunement (Dreyfus, 2002) of an expanded gaze (Bryson 1988: 97). In such a philosophically-engaged process of inquiry, the temporary anchorings—or ‘optic invariants’ in James Gibson’s (1963) ecology of visual perception—captured *both* expected *and* unexpected issues, in addition to *purposeful* and *purposive* coping efforts, typical of fast-paced, highly structured, and piercingly-competitive production environments, such as the extensively industrialised automotive sector (Holweg, 2008; Carr, 1993; MacKay and Chia, 2013).

The third compromise relates to the limits of representation. And the swerving and serving here had to do with the researcher’s linguistic—almost lyrical—*wayfinding* towards an academic discourse worthy of a wayfinding-inspired research inquiry. Because this is a process-philosophical inquiry into *competing* for advantage, and at that, the first one of its kind, the researcher had to find her way to a processual language—inexistent at the time— evocative of the movement of the inquiry process itself. That is, the endlessly meandering, itinerant, convoluted, and sinuous drift of the wayfinding process disposition (Chia and Holt, 2009), including the affordances (Gibson, 1979) and skilled know-how (Dreyfus, 2002) such a disposition effloresces. Because our entire education system revolves on a being-logic of representation—and by the same token, not on a becoming-logic of exemplification (Chia and Holt, 2008)

that is closer to ‘walking the walk’ of wayfinding’s *wayfinding*—this process was particularly hard to *wayfind*. Veritably, it took time before the researcher was able to feel more comfortable in this new dimension of research, and even more time before she could *wayfind* the right language to communicate the project, as best she could, in a way that stayed true—to whatever extent possible—to the actual winding nature of the research. Effectively, she had to *re-join* and *re-verse* Woolgar’s (1988: 68-69) astute observation of the split and inversion model so widespread in academia. This was laborious work that the researcher had to cope with. It involved developing not only a *navigation-cum-wayfinding* lingo, but equally, a *competere-cum-concurrere* one. Crucially, it meant striving to develop wording in this manuscript in line with its wayfinding process ontology, relying on gerunds, such as ‘competing’, ‘competing as concurring’, and ‘coping’, and using language such as ‘process of competing’, ‘dynamics’, ‘flow’, ‘unfolding’, ‘continuous’, ‘continuing’, ‘immediate’, ‘unintended’, ‘unexpected’, and ‘unowned’, among many others. As Abdallah et al. (2019: 103) observe, “the use of gerunds in concept development is ubiquitous to provide the sense of a permanent state of becoming assumed by this type of research”. To be sure, through language, the researcher has sought to recreate the movement she observed in the research setting in these these pages, the effectiveness of which only the reader will be able to determine.

By the end, the immersive experience of the raw wayfinding process-philosophical research disposition left her feeling much like what Arcade Fire expresses in its upbeat indie rock tune ‘Everything Now’, an excerpt of which is included below.

“Every inch of space in your head
is filled up with the things that you read
I guess you've got everything now

And every film that you've ever seen
fills the spaces up in your dreams
that reminds me

Every inch of road's got a sign
and every boy uses the same line
I pledge allegiance to everything now

*Every song that I've ever heard
is playing at the same time, it's absurd
And it reminds me, we've got everything now"*
(drawn from 'Everything Now' by Arcade Fire; Butler et al, 2017; my
emphasis).

Overall, this study clears the ground for more extended, engaged applications of wayfinding and other process-based research philosophies, making way for further processual inquiries in organization and management. Future research avenues are taken up in section 8.4.

7.5 Conclusion

*"The more precisely the position is determined,
the less precisely the momentum is known,
and vice-versa"*
[drawn from Heisenberg's Uncertainty Principle
on the nature of sub-atomic particles,
Werner Heisenberg, Nobel Physics Prize 1932]

The core aim of this chapter has been to wind down the meandering, excursive discussion entertained in this manuscript thus far. The research question was revisited and answered, while the contributions to theory and method have been explicitly and comprehensively formulated. The limitations of the project followed, to finish here with the three ensuing closing thoughts.

One. Wayfinding is the immanent *movement* of strategy; its 'zero degree of organisation' (Cooper 1986: 321). The action and activity of competition—*competing*—is therefore primarily wayfinding-based. In James' (1911/1996:50) argot, *competing* would be described as a 'blooming, buzzing' *wayfinding*. A 'silent transformation' (Jullien, 2011) as in a continuously unfolding, *inadvertent metamorphosis* that attests of strategic change not as dazzling fireworks, euphoric conquests, or splendid culminations. But rather relentlessly occurring in the absence

of the ‘in-one-anotherness’ nature of everyday, run-of-the-mill competition (Chia and Nayak, 2017).

Two. Through a journey into lexical semantics, the lost dual etymology of the verb to compete has been resurfaced in these pages—thus restoring the colourful nuance of the phenomenon of competition as it is actually encountered in the ‘aboriginal sensible muchness’ (James, 1996:50) of the raw experience of *competing*. Or, as we have seen in the empirics of this investigation, in the raw dwelling (Heidegger, 1971) of *concurrere*—the quotidian ‘running along or together with’ that firms are continuously immersed in, consciously or unconsciously. By embracing *both/and* thinking in strategy—it has been suggested—we can rescue, recover, and restore the full lived experience of *competing*, as curiously shown by the data. Paradoxically, even in the midst of laser-focus attention to punctilious outcomes and exacting business objectives—inch-perfect goals often expressed in terms of key performance indicators (KPIs) in countless businesses, including the business at the heart of this expedition, Rosti Automotive Larkhall (RAL)—firms are immersed in wayfinding in their everyday coping efforts. There is a hidden treasure, it follows, in embracing *both competere and concurrere, both deliberate and emergent, both navigation and wayfinding*, in the daily grind of competition, in a process with striking parallels to the evocative poetics of ‘otherness’ by David Whyte and Antonio Machado. Consider the fragments that follow.

“what disturbs
and then nourishes
has everything
we need.
[...]
what is true to the pattern
does not need to be explained.
[...]
All those years
forgetting
how easily
you can belong
to everything
simply by listening.

And the slow

difficulty
of remembering
*how everything
is born from
an opposite
and miraculous
otherness*”
(Whyte, 2020: 22, my emphasis).

“Wayfinder, it is your traces,
the way, and nothing more.
Wayfinder, there is no way,
you find your way as you *wayfind*.
As you *wayfind*, you find your way,
and when you look back
you see the trail
you will never trail again.
Wayfinder, there is no way,
but wake-trails (oscillating) at sea”
(original translation from the Spanish by the author and researcher; my
emphasis, drawn from Machado, 1949: 140-141)

Like in the stanzas above, the logic of otherness embraced by the process-philosophical disposition of this investigation enabled an awakened awareness of the absent—that which is hidden, covert, and/or unspoken—in competition practice and performativity (Chia and Nayak, 2017). The ecologically-informed epistemology of the inquiry facilitated not only research at the periphery of RAL (Regner, 2003), but also practically sufficient peripheral vision to shift from the ‘aboutness-thinking’ of competitive advantage to the ‘withness-thinking’ of the process of *competing* (Chia and Holt, 2009; MacKay and Chia, 2007; Shoter, 2006). In that otherness, it turns out, the *competere* and *concurrere* of *competing* for advantage are one-and-the-same.

Three. The benefits of embracing *competere-and-concurrere, and navigation-cum-wayfinding*, have been formulated in these pages in terms of the theoretical and methodological contributions of this inquiry. Yet this discussion was merely intended to open the portal to the conversation that follows in the manuscript’s concluding pages. For in the conclusion, the *wayfinding oeuvre* will be explored in terms of the implications for practice and applications-in-practice of such a process-philosophical

disposition to strategy. Equally important, future research trajectories will be sketched out.

VIII Concluding Remarks

*“This shaking keeps me steady. I should know.
What falls away is always. And is near.
I wake to sleep, and take my waking slow.
I learn by going where I have to go.”*

(Drawn from "The Waking", poem
written by Pulitzer Prize Theodore
Roethke in 1953 Source: The Collected
Poems of Theodore Roethke,
Doubleday, 1961)

8.1 Introduction

“I was very timid because when I was young, I thought of myself as a poet. So, I thought, ‘if I write a story, everybody will know I’m an outsider, that I am intruding in forbidden ground”

Jorge Luis Borges, 1967, drawn from the Art of Fiction interview, The Paris Review

This introduction opens the final segment of the conversation this thesis is to entertain on the important question of how firms compete for advantage. Preceding chapters, sections, and subsections have critically examined the diverse facets and uneven surfaces of this question, and now the researcher is to bring the discussion to a close by offering her concluding remarks and a sneak peek into the two resulting bodies of work that come out of this investigation. These bodies of work are (i) ‘wayfinding’ and its potential as a process-philosophical perspective for *both* theoretical *and* empirical research in strategy and the social sciences more broadly, and (ii) ‘competing as concurring’ as an exciting new research trajectory in strategic management, with vast potential applications within competitive strategy but also within the varied performance sciences in the vast ocean of human knowledge.

Two key messages will be communicated over the next bundle of pages. The first message is intimately connected to the discussion on the conceptual and methodological contributions of this research, which was entertained in the previous chapter in section 7.3. The message explores what the resurfacing of the dual meaning of competition, which was uncovered and exposed in subsection 7.3.1 as the duality comprising competing and concurring, might mean for the practice of strategy by practitioners in all sorts of organisations. While subsections 7.3.1 and 7.3.2 explored the implications of the dual nature of competing from theoretical and methodological standpoints, respectively, the discussion here will focus on the resulting implications of the rebalancing of competing towards *both* competing *and* concurring, and what this reconceptualization might confer to strategy practitioners from all walks of life. Crucially, the second message builds on the first one, opening the portal towards a view of strategy that circumvents the previously discussed limits of either/or thinking in strategic management, to consider the limitless potential of a both/and perspective.

In particular, the conversation around this message will focus on the exciting and diverse number of adjacent possibles (Johnson, 2011) that would become available—as *both* potentialities *and* knowledge insights—in strategy and beyond. The discussion here explores a dual set of future research trajectories linked to the ‘wayfinding’ process philosophy and the ‘competing as concurring’ view of competition. To do so, the narrative around these messages will build on the discussion in section 7.3, which revealed the somewhat narrow, often binary, and sometimes discoloured aspects of the competition construct in extant strategic management literature in favour of an all-encompassing view that looks at strategy not as deliberate or emergent, but as deliberate and emergent, one-and-the-same, and effectively imagines the potentialities of doing away with the content/process divide in the field.

This concluding chapter is organised as follows. Section 8.2 goes into the resulting implications of the study for practice and practitioners. This section builds on the preceding chapter which distilled the theoretical and methodological contributions of the investigation in section 7.3, while accounting for its limitations, which were discussed in section 7.4. Section 8.3 ensues, transitioning the conversation towards the future research trajectories that could follow this investigation. Here, two potential bodies of work will be sketched out. A ‘wayfinding’ line of research, which will touch on ‘strategy as wayfinding’, but also on wayfinding more broadly as *both* a process-philosophical lens *and* a process-philosophical methodology. Equally important, a ‘competing as concurring’ research stream will be explored for its potential value to the field of strategic management in general, and to competitive strategy specifically. Section 8.4 synthesizes the seven key moments of understanding that this thesis has aimed to bring to the fore, communicate, and discuss. These seven messages will be explored in relation to the research question concerning how firms compete for advantage to facilitate the discursive closure of this manuscript, including a few concluding thoughts by the researcher upon culmination of her doctoral research project. Lastly, Section 8.5 wraps up the chapter with a brief overview of what was covered.

8.2 Implications for Practice and Practitioners

*“man cannot discover new oceans unless he has
the courage to lose sight of the shore”*

Andre Gide

This research has reframed one of the central questions in the field of strategic management away from what is competition, and particularly, what is competitive advantage, towards an interest in understanding how competition develops and changes over time (Langley et al, 2009). Effectively, towards an interest in how competition happens. In this way, the core question guiding this study has been proposed as an inquiry into how firms compete for advantage, and through this question, the chief interest has remained one of exploring how the continuous process of competing unfolds in organisations.

In pursuing this question, the researcher has attempted to elucidate the everyday dynamics of the process of competing, arriving, —by way of an engaged process-philosophical methodology centred on the wayfinding approach in strategy (Chia and Holt, 2009)—, at the empirical realisation that firms compete by engaging in both deliberate and emergent processes of competing. These processes, as sections 6.3, 6.4, 7.2, and 7.3 recount, constitute unfolding courses of navigation and wayfinding, following Ingold (2000), and competing and concurring, following the Competing for Advantage framework offered in this study. Importantly, the study found evidence of how the processes of navigation and wayfinding were occurring, but also of how they were interacting with one another, entwining into instances of advantage extracted by the firm at the centre of the research, Rosti Automotive Larkhall (RAL).

By following the everyday competing efforts at Rosti, the study found evidence for the myriad ways in which this particular automotive supplier and manufacturer was deliberately planning to extract advantage by consciously engaging with processes of competing under its purview and control. Yet, perhaps more interestingly, the research also found evidence of the intricate ways in which it was purposively and spontaneously engaging in wayfinding efforts as a way to cope with unfolding

processes of competing for which it had no control over, nor any contingencies given their unexpected nature.

Rooted in the empirics of the study, then, a view of competition encompassed in navigation and *wayfinding*, and in *competing* and *concurring*, reflects a both/and perspective with implications for practice. At a most basic level, this both/and perspective reaffirms the value of deliberate and emergent strategy in general, and of navigation and wayfinding, and competing and concurring, in competitive strategy in particular. It places value on both approaches, as opposed to pursuing one type of strategic approach over the other, or overemphasizing one and de-emphasizing the other.

As the literature review uncovered in chapter 2 and the discussion in section 7.3.1 further highlighted, an either/or perspective has resulted in knowledge in the strategy field, and competition knowledge in particular, that advocates mostly deliberate models of competitive strategy focusing on strategic outcomes over knowledge that prioritizes the process of competing and tries to understand how its dynamics unfold. A both/and perspective could then reinvigorate the strategy education imparted in business schools and executive education programs the world over, stressing the importance of understanding not only what competitiveness is, but crucially, how competition unfolds, and specifically, how it unfolds in practice. It follows, then, that a both/and perspective around the question of how firms compete for advantage complements extant strategy models with knowledge around how to compete. That is, with an understanding of how this practice develops and changes, how to manage the process of competition, and how to cope when confronted with situations of volatility, uncertainty, complexity, and ambiguity (VUCA), which inevitably always arise, as the evidence in this research has exposed.

A focus on both the ‘what’ and the ‘how’ of strategy can offer practitioners a fuller picture of the practice of competing as it actually unfolds in organisational life and as it is experienced in firms that constitute a going concern. This, in turn, can render a more nuanced understanding of this key managerial activity, equipping practitioners with useful tools and plans that can provide clarity and intention towards outcomes, but also focus towards the actual practice of competing as it happens, as it proceeds in the everyday, alerting them of the infinite possibilities for ‘otherness’

when coping with the unexpected, and learning to recognise the potential for strategy even within the minutia of everyday practice.

Further, a both/and perspective that embraces the deliberate and the emergent could go a long way towards recognising wayfinding as a natural part of the strategy process. One that spontaneously happens, as the evidence in this study has shown, and one where practitioners are already immersed in, however aware they might be of it, as was the case at RAL. In this way, wayfinding is to be understood as the inherent process of competing, not to be bypassed, feared, avoided, or equated with impending breakdowns, but one where much value could be potentially extracted if we remain open to the possibilities and hidden potentialities of VUCA.

For practitioners immersed in the everyday of strategy practice, understanding wayfinding as a natural, intrinsically unfolding part of the strategy process has important real-life implications. First and foremost, it means wayfinding could be embraced as a journey of learning and discovery in the midst of unforeseen events and unexpected consequences. Second, wayfinding could be seen as a process by which organisations can cope with unfolding organisational concerns that are always arising on the unrelenting wheels of change. Third and most significantly, wayfinding could be a way for practitioners to stay rooted and grounded in the here-and-now of strategy and remain open to its otherness, actively exploring the value of its myriad possibilities. In a world where practitioners are taught to adopt a navigational mode of strategizing (and competing), where deliberate planning and rational scheming are seen as capable of submitting VUCA into stability, certainty, simplicity and clarity, wayfinding embraces VUCA head on as a space for possibility, resourcefulness, and resilience beyond the options conferred by strict rationality and Cartesian thinking. What is even more, practitioners can learn to recognise the difference between navigation and wayfinding in their own practice. If focused on outcomes, results, and future performance, navigation is being practised and future-oriented end-states are trying to be deliberately controlled. If focused on coping with whatever is unfolding in the present, in the way it is unfolding, wayfinding is in the midst of its becoming, and the orientation is the here-and-now in its unrefined and untethered unfurling. And this is a difference that matters because, as this study has shown, while wayfinding

proceeds from uncertainty and tries to deal with it, navigation assumes certainty and plans for control.

Moreover, the underlying philosophy of ‘wayfinding’, marked by constant change, aligns well with the ‘continuous improvement’ mantra of Japanese production methods so extensively ingrained in manufacturing settings such as the automotive supply chain featured in this study. At the height of uncertainty, with impending restructuring, a Diesel crisis and Brexit looming, ‘wayfinding’ was found to provide a more authentic approach to effectively deal with the continuing challenges of performance and competition within automotive, and might translate well to other fast-paced sectors.

Even in the absence of formal strategy, ‘wayfinding’ was found at work at the centre of the production activities at RAL when everyday coping initiatives on the shopfloor were spontaneously trialled, improved upon, and enacted into best practices. Over time, these translated into advantage for the firm, improving its bottom-line and overall performance, and leading to resilience, inventiveness, and an opportunity-seeking, uncertainty-handling orientation. This matters, since firms do not always have a formal, explicit or ‘updated’ strategy at all times, as was the case at RAL. In contexts where formal strategy is lacking or simply absent, wayfinding can offer a legitimate strategic approach to handle effective strategizing in the everyday.

Importantly, the ‘wayfinding’ view offered here acknowledges the cumulative significance of everyday coping activities in the continuous quest for advantage. In a notoriously punitive, highly volatile, and integrated sector such as automotive, ‘wayfinding’ unfolded in the everyday of manufacturing grind. It conferred value to the periphery of the organisation as a place where competition and the strategic spontaneously unfold on an ongoing basis, where competitiveness is developed, and where the ever-present potential of otherness resides.

Overall, the implications of the both/and perspective discussed here contribute insights that facilitate a reframing of the ensuing debate between content and process perspectives in strategic management. This study contributes a fresh example on the value of philosophical ideas to redirect organizational research and inform contemporary business and societal challenges. Lastly, this research clears the ground for more extended, engaged applications of ‘wayfinding’ and other process-based

philosophies, making way for further processual inquiries in organization and management.

8.3 Future Research Trajectories

“Every novel says to the reader, “things are not as simple as they seem”. That’s the novel’s eternal truth, but it grows steadily harder to hear amid the din of easy, quick answers that come faster than the question and block it off.”

Milan Kundera

Following the implications for practice discussed in the preceding section, here we will explore opportunities for further research coming out of this study. These will be organised in two bodies of work that have been identified as a result of this inquiry. Section 8.3.1 will look into ‘wayfinding’ and its potential as a process-philosophical perspective for both theoretical and empirical research in strategy and the social sciences more broadly. By briefly recollecting the wayfinding state of the art previously covered in section 7.3, section 8.3.1 will explore what further studies anchored in wayfinding might offer to business and management studies. Section 8.3.2 will elaborate on ‘competing as concurring’¹² as a potential research trajectory within competitive strategy in particular. Following this study’s identification of the dual etymology of competition, namely competing and concurring, this section will focus on concurring as an exciting new research subject in strategy and its potential applications in research efforts tied to competition but also to varied performance sciences. A look into the wayfinding body of work follows.

¹² ‘Concurring’ refers to one of the two most basic motions of the process of competition, as elaborated in section 7.3, where the two analytical frames mobilised in this study, navigation and wayfinding, were linked by way of etymological analysis to competing and concurring, respectively. Competing, from the verb to compete, comes from the Latin ‘competere’ meaning to aim or seek something against others. Concurring, from the verb to concur, comes from the Latin ‘concurrere’ meaning to run along or together with. While competere-based research has taken up interest in the strategy literature, particularly around the notion of competitive advantage, concurrere-based studies drawing on competing as concurring are far less common. Hence the suggestion here of ‘competing as concurring’ as a noteworthy research trajectory.

8.3.1 Wayfinding Body of Work

“In anything at all, perfection is finally attained not when there is no longer anything to add, but when there is no longer anything to take away, when a body has been stripped down to its nakedness”

Antoine De Saint-Exupery

Section 7.3 elaborated the wayfinding state of the art, discussing how this inquiry into the question of how firms compete for advantage compares and contrasts with previous theoretical and empirical research efforts associated with the wayfinding approach. The discussion established wayfinding as an incipient research stream in strategy and highlighted how this particular study rests on its own ontological and methodological considerations which differ from previous inquiries into wayfinding. As a result of mobilising an Ingoldian analytical distinction between navigation and wayfinding (Ingold, 2000), underpinned by a dual interest in deliberate and emergent worldviews, this study has offered a fresh set of knowledge insights, as per sections 6.8 and 7.2, on how these ontological and analytical lenses come into contact in the everyday practice of strategy in organisational settings. Significantly, the study’s primary wayfinding process-philosophical orientation enabled distinguishing wayfinding from navigation, and concurring from competing, as the immanent process underpinning strategic change.

The existing empirical wayfinding research to date comprises studies across two highly structured sectors, as per section 7.3.2. The automotive sector, as per this study and MacKay and Chia (2013), and haute cuisine, as per Bouty, Gomez and Chia (2019). Following this thread, further research exploring the nuances of competitive strategy in the automotive industry could contribute to augment our understanding of how the wayfinding approach proceeds in practice. Since the two existing studies looked at single automotive suppliers in detail, NorthCo in MacKay and Chia (2013) and Rosti Automotive in this research, future inquiries into the wayfinding approach could consider research across several automotive companies in different parts of the supply chain and/or with varying degrees of competitive intensity. Studies combining research into automotive OEMs and automotive suppliers, for instance, could shed light into how navigation and wayfinding interact not only within companies, as in this

research, but also across the automotive ecosystem. Further inquiries into haute cuisine could also point to new evidence as to these interactions, and of course, new sectors outside of haute cuisine and automotive could contribute new knowledge on the idiosyncrasies of wayfinding in other areas of business activity and human endeavour.

Embodied wayfinding research that is practice-led and performative in nature could additionally be pursued. Since the very nature of wayfinding is not set nor fixed, but rather, as this research exemplified, a continuous journey into finding a way through the course of events and change processes, research into the arts, where sensibilities and inspirations of disparate nature are usually encouraged and often pursued, could perhaps illuminate in new ways how wayfinding unfolds. The arts could serve as a fertile medium through which to explore the emergence of change from seemingly minute happenings in the periphery by means of an awakened awareness towards otherness and that which is absent, hidden, covert, and/or unspoken.

Importantly, every time new empirical research is pursued involving wayfinding, the nascent methodological practice around this strategy approach would be enriched. The very nature of wayfinding is to engage in a moving journey that tries to embrace and cope with uncertainty and the unexpected. From this standpoint, no fixed or single wayfinding methodology is attainable. Yet, further empirical efforts could provide additional templates that could do much to complement our existing understanding of how to pursue, analyse, and interpret wayfinding research, and as a result, our understanding of wayfinding as a valid approach to strategy.

Lastly, further wayfinding theoretical research could contribute additional insights into the value of wayfinding as a worldview with important implications for the practice of strategy. Wayfinding has thus far explored significant topics such as the process of competition, as in this research, and strategy emergence, as in Bouty, Gomez and Chia (2019). In theoretical-only contributions, Chia (2017) proposed wayfinding as organisational learning¹³ following offerings of wayfinding as

¹³ In Chia (2017), organisational learning is conceived from a 'becoming' process-philosophical worldview (Tsoukas and Chia, 2002) as a process of everyday practical coping based on habitus (Bourdieu, 1990). The author contrasts his non-cognitivist, practice-based approach to learning to

organisational coping and as a strategy approach in Chia and Holt (2006) and Chia and Holt (2009), respectively¹⁴. Yet there are infinite other interesting topics that could be explored from a wayfinding perspective. How wayfinding connects with areas such as contingency theory, scenario analysis, and risk management come to mind. Equally, wayfinding projects into improvisation, organising, innovation, and the study of breakdowns in managerial activity could be pursued with potentially fascinating results. While each of these areas and topics correspond to vast areas of research and scholarly discussion, approaching them from a wayfinding process-philosophical perspective specifically could contribute new knowledge insights that would contrast notions arrived at from substantialist or entitative philosophies frequently drawn upon in business and management studies. For instance, a wayfinding study into innovation would move away from innovation-as-output conceptions centred on ‘what’ type of knowledge (e.g. Crossan & Apaydin, 2010; Ahuja, et al., 2008; Keupp, et al., 2012) towards a wayfinding how-to approach interested in the dynamics and change of the process of innovating. Similarly, studies that take a wayfinding approach to open strategy, paradox theory and work practice could render potentially fruitful insights and novel perspectives.

Considering the embryonic state of wayfinding research, this constitutes an area ripe for further exploration for valuable insights into strategy and the social sciences more broadly.

8.3.2 ‘Competing as Concurring’ Body of Work

“A soul that longs for peace out of the world’s unrest and has itself already tasted peace allows others to share its

extant cognitivist (e.g. Argyris and Schon, 1978) and behaviouralist (e.g. Cyert and March, 1963) approaches. In wayfinding as organisational learning, cognition comes second to unconscious, adaptive improvisation based on internalised social practices developed over time.

¹⁴ What differentiates Chia (2017) and Chia and Holt (2006, 2009) is the pitying of the process (also referred to as ‘becoming’) worldview against the substantialist (also referred to as entitative or ‘being’) perspective that dominates much of Western thought to this day. By drawing on process philosophy (Rescher, 1996, 2000), they make a distinction between their wayfinding process approach, marked by constant change, and the specific literatures addressed in these works, where conversely notions are marked by stability and permanence.

*experience in this music... Bach is thus a terminal point.
Nothing comes from him; everything merely leads up to
him... This genius was not an individual, but a collective
soul”*

Albert Schweitzer, Nobel Peace Prize 1952

Section 7.3.1 uncovered the lost dual etymology of competition concerning competing, linked to the Latin ‘competere’, and concurring, linked to the Latin ‘concurrere’. By collating the findings of this study in combination with extensive semantic and etymological analysis, it was established that while competere-based research has been pursued in strategic management by means of research into competitive advantage and related notions, competing as concurring has been overlooked and underexplored. This section will enumerate opportunities for further research in restoring the full meaning of competition, based on both ‘competere’ and ‘concurrere’, by delving into potential future research trajectories into competing as concurring and its possible applications.

Concurring¹⁵, or the continuous process of competing, has been shown to have potential as a novel knowledge insight in understanding how competition unfolds in daily organisational life. By showing how emergent concurring efforts come about in the everyday process of competing, and how they interact with deliberate competing efforts, concurring holds promise to reframe our understanding of the phenomenon of competition as something that impacts not only the outcomes of the process of competing, but also as a vehicle for coping with the unexpected twists and turns that an unfolding process of competition brings about. The specific knowledge insights on the issue of how firms compete for advantage arising out of this dual approach were covered in section 7.2, while sections 7.3 and 8.2 covered the benefits that this binary etymology, based on competing and concurring, can offer the theory and practice of strategic management.

¹⁵ The use of concurring here is based on the etymological and semantic analysis performed in subsection 7.3.1. The term, based on the Latin ‘concurrere’, indicates the contemporaneously collective action or process of competing along and/or together with your competitors, where the emphasis in meaning is on the continuous process of competing. In contrast, competing, based on the Latin ‘competere’, indicates an intentional and contrasting sense of competition against your competitors, where the emphasis in meaning is on the deliberate struggle against others.

Here, potential further applications of concurring beyond strictly business settings could be considered. Crucially, concurring, or the process of competing with or together with others, has relevance for processes of competition past contexts of corporate change. Arguably, competing as concurring has implications for any process of competition involving firms, groups, teams, or organisations. In this regard, competing as concurring could be explored further in research settings involving diverse human endeavours. It has significance in contexts involving myriad performance efforts, such as in studies concerning organisational psychology, sports psychology, business, music, arts, and beyond. What can we learn by competing as concurring? Are there potential benefits and applications of considering not only the result of a particular performance, in business or elsewhere, but also the process of competing, —concurring—, per se? If concurring involves the continuous process of competing in the everyday, what could we learn by studying the daily minutia of this process in diverse settings? How does the process of concurring, for instance, differ and contribute to the outcomes of a particular performance? In a sports context, to name but one example, concurring would involve every instance of competing, covering both training and formal competition efforts. In a musical performance, the process of concurring together with the rest of an ensemble, for instance, as well as in contact with the audience, could offer new insights into how we approach and experience competition from a processual standpoint that takes an interest in the performativity of the ongoing process of competing.

Significantly, from a strictly processual perspective where reality is marked by ongoing change (Rescher, 1996, 2000), competing as concurring, understood as the continuous process of competing (i.e. *concurrere*), is all there is. There is no attainable fixed state of competition, as in competitive advantage in strategic management where competition, based on *competere*, is a deliberate struggle for something against others defined by specific intention around outcomes and end results. Hence, from a concurring perspective, the focus of competition shifts away from the outcome(s) of the performance to the process of competing per se. And since we are continuously competing in contexts where change is the only constant, engagement with this ongoing process could render insights into how we are actually competing: what we are doing, what we could do different, what we are learning in the process, and how

we are coping when the unexpected comes up. In other words, by maintaining our attention towards our ongoing concurring efforts, opportunities for improvement and the discovery of hidden potentialities could be identified.

This section delved into ‘competing as concurring’, proposing it as a future research stream with the potential to uncover new knowledge into the process of competing. These insights, coupled with extant insights into competere/outcomes-based competition, could augment our understanding of the human and organisational phenomenon of competing.

8.4 Researcher’s concluding remarks

“To the mind there is such a thing as news, whereas
to the inner knowing, it is all in the middle of its
happening.”
Rumi, *The Mystery of the Moment* [poem]

Seven central messages have been communicated over the course of this thesis. These messages were transmitted through so-called ‘moments of understanding’, which sought to bring progressive and increasing clarity to the important question of how firms compete for advantage, the guiding inquiry of this research. This section will recollect these messages in a single segment and re-evaluate them for additional value towards the said research question. Each moment of understanding will be recalled below and critically scrutinised around the issue of how firms compete and how the process of developing competitiveness unfolds over time.

The first moment of understanding (MoU1) came at the end of the second chapter of the thesis, which explored the strategic management literature for *both* content *and* process knowledge insights on the issue of competition. The chapter, we might recall, critically analysed extant strategy literature around two constructs: competitive advantage, as proposed by strategy’s content research stream, and competing for advantage, as thought of from the strategy process research stream. What chapter two revealed is that to this day there is substantial research evidence pointing towards a view of competition as a performance-based, outcomes-driven, results-focused, end states-oriented construct. Crucially, this view is closely linked to

strategy's intellectual forebearers, the field of economics, which has been proposing very specific ideas around competition and competitiveness since the 18th century. Hence, from the dawn of the industrial revolution, in the midst of the Scottish Enlightenment, one could draw a conceptual link from Adam Smith's (1776) theory of absolute advantage, to Ricardo's (1817) notion of comparative advantage, via Porter's (1980, 1985) concept of competitive advantage, all the way to the more recent construct of transient advantage by Gunter McGrath (2013). Within the strategy field specifically, a host of constructs followed Porter's (1980, 1985) proposition of competitive advantage. These included some much debated and researched notions such as sustainable competitive advantage (cf. Wernerfelt, 1984; Barney, 1991, within the resource-based view of strategy; Grant, 1996, 1997, within the knowledge-based view of strategy), and temporary competitive advantage, inspired by the dynamic capabilities notion (cf. Teece et al, 1997; Eisenhardt and Martin, 2000). The review carried out in chapter two highlighted a preference towards a deliberate, 'competere'-based view of competition as something that firms can attain against others in the midst of a market struggle. This deliberate and comparative orientation influenced the language around competition, as was shown in section 7.3.1, and crucially, the development of the field of strategy, where notions around competition mostly centred around an interest in 'competitive advantage' and other related key notions, as recounted above, all underpinned by a being ontology where static end-states and fixed entities are preferred over moving processes. Hence, ideologically, historically, conceptually, and semantically, the question of how firms compete has been slanted theoretically and empirically towards the rational, Cartesian, deliberate notion of competitive advantage, where competitiveness is something that can be attained, rather than towards the process of competing for advantage, where competition is an activity firms are continuously immersed in.

The second moment of understanding (MoU2) came in the third chapter, which exposed the deterministic quest for 'competere'-based notions of competition by encapsulating the underlying assumptions of the main constructs reviewed in the preceding chapter. The analysis at the forefront of chapter three thus uncovered that while there have been some attempts to 'processualize' the construct of competition by researchers and scholars in both strands of the field, these attempts have been

limited in that they share a subscription towards entitative, being ontologies where competitiveness is a state a firm can attain or a possession a firm can have. An alternative, process-based view was developed towards the end of chapter three, which singled-out 'wayfinding' as a becoming perspective with the potential to decipher the process by which firms compete. This wayfinding process-philosophical perspective was then developed methodologically in chapter four based on an Ingoldian (2000) analytical distinction between (deliberate) navigation and (emergent) wayfinding. Hence, MoU2 distilled the beginnings of a 'concurrere'-based perspective focused on the process of competition, rather than on its outcomes, with the potential to counter the enduring deterministic notions of competition at the centre of the field.

The third moment of understanding (MoU3) was argued towards the end of chapter six, which presented the findings of the study, highlighting wayfinding as the intrinsic process of competing. On the basis of fine-grained data coming out of the four deep-dive case studies presented in the chapter, wayfinding was revealed as the inherent process of competition that firms are continuously involved in, and which develops competitiveness and serves to extract advantage over time. Hence, MoU3 distilled wayfinding as the essential process by which firms compete for advantage, proposing it as strategy's vital *traversing*.

The fourth moment of understanding (MoU4) was covered in chapter seven, which discussed the theoretical and methodological contributions of the research. By linking the findings of the study with extensive semantic analysis concerning how meaning around competition language developed, MoU4 resurfaced the lost and hidden dual etymology of competition. Namely, 'competere' and 'concurrere', where the former has links to competitive advantage, a navigation epistemology, and a being ontology, while the latter is underpinned by a wayfinding becoming processual view of competition expressed as competing, or the continued process of competition. Hence, MoU4 established 'competere' and 'concurrere' as the two basic motions by which firms compete for advantage.

The fifth moment of understanding (MoU5), also covered in chapter seven, explored the resulting implications of understanding competition as 'competere' and 'concurrere' by formulating the main theoretical and methodological contributions of the study. Crucially, MoU5 highlighted that a competere-based understanding of

competition took hold over much of the research around competitive advantage, thus leaving the concurrence-based, processual understanding of how firms compete underexplored and underdeveloped. In a nutshell, MoU5 argued for a reconceptualization of the concept of competition towards the duality comprising ‘competere’ and ‘concurrere’. Hence, firms compete for advantage by both *competing* and *concurring*.

The sixth moment of understanding (MoU6) refers to what the resurfacing of the dual meaning of competition, based on *competing* and *concurring*, might mean for the practice of strategy. This was covered in the preceding section 8.2, where the conversation centred on the practicalities of going beyond dualistic thinking in strategy to take a more comprehensive view. Hence, MoU6 argued for an all-encompassing perspective that looks at strategy not as deliberate or emergent, but as deliberate and emergent, one-and-the-same, and re-imagines the potentialities of doing away with the content/process divide in the field.

The seventh and final moment of understanding (MoU7) builds on the previous one, opening the portal towards a view of strategy that circumvents the limits of either/or thinking in strategic management, previously recollected in section 7.3, to consider the limitless potential of a both/and perspective. Here, the conversation centred around the exciting and varied number of adjacent possibles (Johnson, 2011) that would become available as both potentialities and knowledge insights in strategy and beyond. A dual set of future research trajectories was crystallised, as per section 8.3, sketching the possibilities to further a ‘wayfinding’ body or work, as well as a ‘competing as concurring’ research avenue. Effectively, MoU7 argued the implications of adopting a both/and perspective in strategy, and how these might impact how we practice, research, and think about strategy in general, and competing for advantage in particular.

The preceding discussion has served to recapitulate the seven central messages or moments of understanding that this thesis has communicated. While all these messages relate to the question at the heart of this thesis, the matter of how firms compete for advantage, what they highlight is how and why certain perspectives on this important question developed with more vigour than others. By tracing the development of the field of strategy and its main theoretical notions around

competition and connecting these observations with how competition terminology and semantics developed in language, these messages highlight a historical preference towards deliberate, ‘competere’-based understandings of competition. Yet crucially, they also uncovered the potential of ‘concurrere’-based views of the phenomenon as a way to explicate the unfolding process of competition over time. More than anything, the messages re-imagine the field of strategic management away from its content/process divide towards a both/and perspective that understands strategy as deliberate and emergent, and competition as both *competing* and *concurring*.

Over the course of this manuscript, an inquiry into how firms compete for advantage unfolded. At its outset, a literature review served to frame the question in relation to the extant strategic management literature to which it connects, studying the matter for knowledge insights from the content and process strands of the field (chapter 2). An alternative wayfinding process-philosophical perspective was then elaborated theoretically (chapter 3) and methodologically (chapter 4). The empirical research setting of the study was then offered in chapter 5, which recounted the key aspects of Rosti Automotive (RA), a plastic injection moulder transitioning into the automotive sector in the years 2016-2018. Particular attention was paid to the specific RA site where the empirics were gathered, namely, Rosti Automotive Larkhall (RAL). The findings of the research were presented in chapter 6, whereas chapter 7 discussed those findings for new knowledge insights into the matter of how firms compete for advantage. In the same chapter, the contributions to theory and method were elaborated, and the limitations of the study considered. Chapter 8 then proceeded to elaborate the implications for practice of the study, concluding with the future research trajectories this inquiry suggests.

Overarchingly, this manuscript matures a triple-win of exciting possibilities for the field of strategic management and the social sciences more broadly. Namely, (i) a tested wayfinding-process philosophical-methodology focused on explicating the dynamics of processes-*in-motion*; (ii) a fresh *reconceptualization* of a central construct—the central construct, perhaps—of the strategy field, competitive advantage, towards a *forever-becoming*-idea—the primordial wayfaring of strategy—*competing* for advantage; and (iii) this new conceptualisation is born out of the two most basic motions of the processual flow of competition: *competere* and *concurrere*,

from which *concurrere* emerges as the vital *traversing* of strategy, its *wayfinding* and zero-degree of organisation (Chia and Holt, 2009; Cooper 1986: 321).

8.5 Wrapping up the Research

“Never assume that loud is strong and quiet is weak. The fiercest storms rise from the calmest seas.”

Thomas Shelby.

This chapter pulled the research together with an aim towards bringing the discussion that has been entertained in this manuscript to a close. The research question was revisited and paired with the key moments of understanding this study has offered. The practical implications of the inquiry were formulated, and future research avenues were likewise explored. Concluding remarks then served to provide the final thoughts of the investigation upon its culminating point.

Epilogue

*“To make an end is to make a beginning.
The end is where we start from.”*

- T.S. Eliot

A central question has concerned this manuscript—the matter of how firms compete for advantage and how the dynamics of competition unfold. Its research context corresponds to events surrounding the activities of competition as they occur, and since this context denotes an interest in processes in motion, the gerund form ‘*competing*’ has been used extensively. In a nutshell, the chief interest of this inquiry has been the continuous process of *competing*.

Empirically, the research setting of this study corresponds to events unfolding at Rosti Automotive (RA), a UK manufacturing group, in the period between 2016 and 2018, when the organisation was transitioning from being a general plastic injection moulder to a specialised automotive supplier of plastic parts and components. A high-level overview of this transition and the organisation was supplied in chapter 5. Chapter 6, in turn, covered four deep-dive case studies focusing specifically on events unfolding at the Scottish site of the RA group, Rosti Automotive Larkhall (RAL), where the researcher had wide access and was immersed for data gathering purposes in 2018. The resulting case studies assembled fine-grained data on activities and processes of competing for advantage happening on the shopfloor of RAL during most of that year.

Here, an empirical account will be briefly resumed to connect the events happening between 2016 and 2018, to a general view of the research setting towards the end of 2021. In conversation with the Larkhall Plant Manager in October 2021, he attested to several events that impacted operations since 2018 not only at Larkhall but industry-wide. Key among them were Brexit, the Covid-19 pandemic, and a global shortage of semiconductors. While Brexit was a known event on the horizon in the aftermath of the UK 2016 referendum, the other two events were unexpected and continuing to cause disruption at the close of this study. A short account of how they unfolded is provided below.

Wayfinding continues at Larkhall



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At the end of 2018, the Larkhall factory was part of the Rosti Automotive (RA) UK automotive group. This continued into 2019. Yet, in an interesting turn of events, on 31 January 2020, as the UK was formally leaving the European Union (EU), RA was acquired by a larger automotive group with headquarters in Germany and operations in Germany, the Czech Republic, China, and the UK. When this happened, RA went from being a UK automotive supplier with a workforce of circa 1200 employees, to a group with a bigger international footprint and close to 2500 staff.

Less than two months after the acquisition and Brexit, British homes found themselves glued to television sets when on the night of 23 March 2020, the Prime Minister announced a UK-wide lockdown due to the Covid-19 pandemic, a far-reaching health crisis that had first broke out in China in November of 2019 and was now causing serious turmoil in Britain and around the world. The morning after, on 24 March 2020, the Larkhall site joined an industry-wide shut down and closed indefinitely, with 100% of its staff being put on the furlough scheme backed by the UK government. Around the time, the headlines read:

“Fears UK car industry may never recover as production lines close”

(The Guardian, 18 March 2020)

“Coronavirus: BMW, Honda and Toyota suspend UK car production”

(BBC news, 18 March 2020)

“Every major UK and European carmaker to stop or cut production”

(The Guardian, 20 March 2020)

“Johnson forced to close Britain in bid to halt rapid virus spread”

(Financial Times, 24 March 2020)

“You must stay at home: PM declares national emergency” (The

Times, 24 March 2020).

The Covid-19 national emergency in the UK meant that the Larkhall site ended up completely stopping operations for a period of 4.5 months. So, when it reopened in August of 2020, the main aim was to make up for lost time, as was the general feeling industry-wide. As the end of the Brexit transition period was fast approaching, Covid-19 was still causing disturbances and a no-deal Brexit scenario was feared. This meant automakers across Britain were operating in difficult conditions. Around the time, the media reported on the difficulties:

“UK car production slumps to lowest level since 1954” (BBC news, 30 July 2020)

“No-deal Brexit and Covid threaten 'double whammy' for car industry”

(BBC news, 14 September 2020)

Adding complexity to the worrisome context of the automotive industry, a worldwide bottleneck in the supply of semiconductors soon became imminent towards the end of 2020, making the recovery post-Brexit and through Covid-19 troublesome for players all along the automotive supply chain. This was because semiconductors are increasingly required in modern vehicles equipped with touchscreen interior displays and computer-run systems.

Into 2021, the continuing disturbances of Covid-19 and the semiconductor crisis created a double-whammy not unlike the one Larkhall experienced in 2018, when the chaotic Brexit negotiations and the fear of a no-deal Brexit, together with the Diesel crisis in the UK, were clouding the environment of the auto industry. The headlines in the second half of 2021 were quite telling:

“When the chips are down: global shortage to keep crimping carmakers” (Reuters, 3 August 2021)

“Computer chip shortage stalls UK car industry production” (The Guardian, 30 September 2021)

“Jaguar Land Rover pauses Halewood car production amid chip shortage” (The Guardian, 22 October 2021)

“UK car output suffers worst October for 65 years” (BBC news, 26 November 2021)

In this scenario, the Larkhall site did not remain unchanged. In fact, after the unprecedented Solihull shutdown experienced in 2018, as recounted in section 6.3.3, the Larkhall factory had to cope with no less than 20 unplanned shutdowns between the start of the first Covid-19 lockdown in March 2020 and October 2021. Sales took a downward trend from slightly over £2 million per month at the start of 2019, to just at £2 million at the beginning of 2020, to the levels at the close of this study at around £1.3 million monthly.

Noticeably, in the period following Brexit, costs went up for Larkhall, while the contribution margin shrunk. The drop in sales was a key factor in this process, which affected the factory’s outgoings significantly. Namely, labour increased from 12% to 15% of sales, while materials went up from 40% to 45%, and energy costs

from 3.5% to 5% of sales, respectively. In addition, the lead time for the import of materials and inputs increased threefold from 8 to 24 weeks, and the hiring of a full-time imports clerk was necessary to deal with the additional paperwork after Brexit. This meant that while costs went up roughly 10 points from 55% to 65%, the contribution margin decreased by the same amount, dropping from 45% to 35% before and after Brexit, respectively.

Notwithstanding, the factory managed to carry on with its activities, coping with events as they unfolded and making small gains where possible. For instance, the level of scrap produced on the shopfloor remained constant at around £20,000-25,000 per month in spite of sales going down, which is the same amount towards the end of 2018 when the scrap initiative described in section 6.3.4 ensued. This is significant, since the events in 2020 and 2021 described above largely meant less product was being produced in short runs with a high mix of parts, organised in small batches, and with higher start-up costs. An action board features the scrap area at the close of this study, which includes hard data for the top scrapped parts in the last 24 hours to complement the discussions and inspections that occur in the daily Material Review Board meetings, which are still happening regularly.

All along, the Larkhall factory has remained a going concern pre and post Brexit, and before and during the Covid-19 pandemic. Even when operations were temporarily stopped, unfolding events out of its control continued to impact its competing efforts in unexpected ways. Hence, just as Larkhall engaged in wayfinding through unanticipated events and circumstances during its transition period into the automotive sector between 2016 and 2018, as detailed in section 6.3, the factory continued to wayfind in the more recent period covering 2020-2021, as briefly recounted here.

Postscript

Water floats hazily through all the regions of heaven;
It writhes and flutters and rolls before the wind.
It bursts from the earth in springs, it spreads in lakes and
marshes;
It is unconfined.

Strike it, it does not break; cut it, it does not alter;
Throw torches upon it, it yet consumes the flame.
Pen it with mighty rocks, it rises even higher;
To it mere sand or granite are the same.

From 'At the Turn of the Year', a poem
by John Gould Fletcher, 1919

Acknowledgements



"Which is more important," asked Big Panda, "the journey or the destination?"

"The company," said Tiny Dragon.

Illustration by @bigpandaandtinydragon

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It would be impossible to close this manuscript without expressing my deep and enduring gratitude to the human beings, in the UK and abroad, who accompanied me throughout my meandering, twisty, and zig-zaggy doctoral wayfinding journey.

First and foremost, to my supervisors, Harry Sminia and Steve Paton at Strathclyde Business School, who stayed the course with me and offered encouragement all along. Harry, the wayfaring nature of our conversations over the years have certainly stayed with me and always will. I am profoundly grateful to you for your unwavering support and for showing me the power of process research.

To Robert Chia, who's mind forever altered the course of my life journey through the wayfinding idea. Your writings on process philosophy had a profound impact not only on my research, but also more importantly, on my *life-flow*. To you,

Professor, I say—my wayfinding continues, and I shall always remain in the midst of my becoming.

To my parents, siblings, nieces, nephews, extended family, and friends at home in Paraguay, I hope the *tapepo*'s of our ongoing wayfaring continue to unite us in ever-changing and refreshing ways—*a toditos y cada uno de ustedes, un feroz y enorme gracias*.

To Lisa, Ale, and Tarun, each of you, in your own special way, has brought me (sometimes carried me!) to this moment—no words of thanks can do justice to what you have gifted me; most notably, your time, patience, and listening ear.

To my colleagues and collaborators at Fundacion Paraguaya, my forever school of life of choice, and to Martin and Luis Fernando in particular, *aguije, asante sana, ikatu!*

To friends, colleagues, and students in the UK, in particular to everyone at Strathclyde Business School at the University of Strathclyde, aptly named 'the place of useful learning'.

To the cities of Edinburgh and Glasgow, for providing a potent complementary terrain for my wayfinding voyage, and crucially, a home away from home.

Lastly, to Chris Clark and the team of wonderful humans at Rosti Automotive Larkhall, for sharing so much and so generously, and for taking me along on your journey, I am forever in your debt.



DEPARTMENT OF STRATEGY & ORGANISATION

Competing for Advantage in Manufacturing Firms

PhD Research Brief

In a changing manufacturing landscape, competitive advantage and firm performance are continuing concerns for manufacturing organisations. This research recognizes the non-static nature of competition and competitiveness which organisations experience, and aims to develop an understanding of the key processes by which manufacturing companies compete for advantage.

Aims of the Research

- To investigate how manufacturing firms develop their competitive advantage over time
- To understand the strategic processes by which firms compete for advantage

Background and Context

In the current operating environment, British manufacturing firms are facing tough competition from industry peer firms in developed and emerging economies. Industry talk is around the need for strategic change, and the future of the sector has been suggested as high value activity. In the UK, the emerging phenomenon of High Value Manufacturing (HVM) has been recently proposed as a way to stay competitive in the market and seek out the growth and innovation opportunities afforded by the unfolding fourth industrial revolution.

A Case Study Methodology

The research methodology involves developing a case study based on a manufacturing organisation in the midst of coping with the evolving High Value Manufacturing/Industry 4.0 operating background in Scotland/UK.

Value of the Research

The findings of the research can help manufacturing organisations develop a deeper understanding of how they currently manage/maintain/transform competitiveness. By generating knowledge on how competitive advantage develops, changes and evolves, manufacturing firms can attain practical insights on how to continuously rethink the basis of the organization's performance and success. Crucially, the research findings will be of guidance to practicing managers confronted with unremitting reassessments of their firms' competitive advantage, as well as to UK and Scottish government economic policy.

Proposed Research Collaboration

The study will be built using data concerning the strategic processes by which the case study organisation competes for advantage. Corporate information will be supplemented by interviews with a limited number of selected company representatives. In doing this, the researcher seeks support to facilitate introductions and provide general guidance on how best to navigate the organization. However, the researcher will manage the overall research project and remain responsible for organising, conducting and analysing interviews and other data sources, and communicating research outputs in accordance with the Data Protection Act (1998).

About the Researcher

The study is led by Julia Corvalan, a PhD candidate in Strategic Management at Strathclyde Business School. Julia holds an MBA (distinction) and a Postgraduate Certificate in Research Methodology (Distinction) from Strathclyde. With prior research experience in both academic and professional settings, she embarked on her doctorate after 10+ years of cross-sector strategy/operations experience (corporates, hybrids, social enterprise) across the Americas, Europe, and Africa.

The place of useful learning

The University of Strathclyde is a charitable body, registered in Scotland, number SC015263



Appendix b — Research Participant Information Sheet
(3-page document)



Participant Information Sheet

Name of department: *Department of Strategy, Strathclyde Business School*

Title of the study: *Competing for Advantage: Working towards a Processual Theory of Competitive Advantage*

Introduction

This study is a doctoral research project being carried out by a researcher from the University of Strathclyde. The researcher's contact details are included below.

Researcher Details

Name: Julia Corvalan

University: Strathclyde Business School, University of Strathclyde

Job Title: PhD Researcher

Email: julia.corvalan@strath.ac.uk

What is the purpose of this investigation?

The purpose of the investigation is:

- To investigate how manufacturing firms develop their competitive advantage over time;
- To understand the process/processes by which firms compete for advantage.

The research focuses on explicating the unfolding process of competitive advantage. In a context where British and European manufacturing firms are facing tough competition from low-cost economies, the emerging phenomenon of High Value Manufacturing (HVM) has been proposed as a way to stay competitive in the market. The study aims to elaborate a processual understanding of competitive advantage, referred to here as 'competing for advantage', by tracking its emergence over time. Undertaking research on competing for advantage from a processual perspective requires the design of a methodology that incorporates process and change as features of reality. Such a methodology is deployed in a longitudinal, in-depth/immersive case study involving a manufacturer based in/around Glasgow, UK, in the midst of coping with the evolving High Value Manufacturing/Industry 4.0 operating background.

Working in collaboration with Rosti Automotive, the research aims to investigate how the process of competing for advantage unfolds currently and in the recent period. The research aims to contribute to an understanding of how manufacturing firms compete for advantage in the context of High Value Manufacturing and Industry 4.0. Lastly, the research also proposes to contribute to literature on strategic management, operations, management, and organisation studies.

Do you have to take part?

Participation in this doctoral research project is voluntary. The participant has the right to withdraw or refuse participation without giving any reason and without detriment.

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What will you do in the project?

Interviews, conversations or email messages will take the form of guided conversations in order that the researcher can deepen her understanding of Rosti Automotive's competitive advantage, particularly around how the firm develops its advantage and how it competes over time. Conversations are likely to take around 1 hour and will take place at a mutually agreed location.

In some cases, and with prior consent, conversations may be recorded but otherwise notes will be taken. The interviewee will be invited to inform the researcher if they wish any information to be off the record and either the recorder will be turned off or a note taken that information is off the record.

Why have you been invited to take part?

You have been selected based on your knowledge and expertise of a particular area which the researcher feels will contribute to a deeper understanding of the research environment.

What are the potential risks to you in taking part?

The researcher is not aware of any risks out with the participant's normal working environment.

What happens to the information in the project?

The University of Strathclyde has academic ownership of the data which will be stored by the researcher. The research will be gathered for the purposes of completing the PhD thesis.

All raw data will be stored on the researcher's personal drive within the University of Strathclyde server. All raw data will be pseudo-anonymised for confidentiality, given a code name with the key for the codes being stored in a separate location.

The University of Strathclyde is registered with the Information Commissioner's Office who implements the Data Protection Act 1998. All personal data on participants will be processed in accordance with the provisions of the Data Protection Act 1998.

Thank you for reading this information – please ask any questions if you are unsure about what is written here.

What happens next?

If you are happy to be involved in the project, please reply to this email to confirm this or sign if handed over in person.

If you do not want to be involved in the project, thank you for your attention.

If recorded, the interview will be transcribed and sent to you for review where you will be given the opportunity to provide feedback. If not recorded, notes of the conversation will be sent for your perusal.

Participants will be invited to attend a presentation, or to read the finished thesis, where the researcher will present the findings.

Publication of findings will be sought with the aim to present at academic conferences.

Researcher contact details:

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This investigation was granted ethical approval by the University of Strathclyde Ethics Committee.

If you have any questions/concerns, during or after the investigation, or wish to contact an independent person to whom any questions may be directed or further information may be sought from, please contact:

Secretary to the University Ethics Committee
Research & Knowledge Exchange Services
University of Strathclyde
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Participant Consent Form

Name of department: *Department of Strategy, Strathclyde Business School*

Title of the study: *Competing for Advantage: Working towards a Processual Theory of Competitive Advantage*

- I confirm that I have read and understood the information sheet for the above project and the researcher has answered any queries to my satisfaction.
- I understand that my participation is voluntary and that I am free to withdraw from the project at any time, up to the point of completion, without having to give a reason and without any consequences. If I exercise my right to withdraw and I don't want my data to be used, any data which have been collected from me will be destroyed.
- I understand that I can withdraw from the study any personal data (i.e. data which identify me personally) at any time.
- I understand that anonymised data (i.e. data which do not identify me personally) cannot be withdrawn once they have been included in the study.
- I understand that any information recorded in the investigation will remain confidential and no information that identifies me will be made publicly available.
- I consent to being a participant in the project
- I consent to being audio and/or video recorded as part of the project

(PRINT NAME)

Signature of Participant:

Date:

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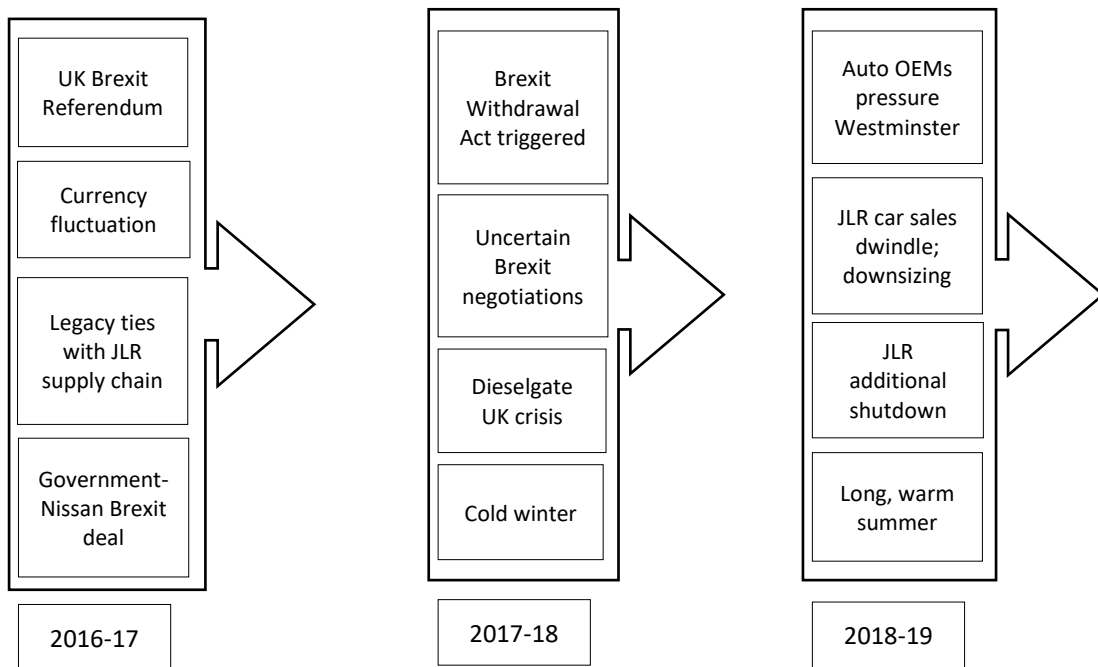
The University of Strathclyde is a charitable body, registered in Scotland, number SC015263

Appendix d — Rosti Automotive Larkhall Case-flow Chronology

2016	2017	2018
Part of ROSTI Plastics Group with presence in Europe and Asia	Part of newly created 'ROSTI Automotive' Group, with 3 other sister plants in the UK	Still operating as part of Rosti Automotive Group (UK)
'Heritage' injection moulding plant design serves increasing automotive work	Plant gradually transitions to mainly automotive work	Plant reorganised to specialise in automotive work
Shopfloor organised in three main areas: mould shop, paint shop, and warehouse	Shopfloor organised in two main areas: mould shop and paint shop	Shopfloor organised in two main areas: mould shop, and paint shop & finishing
Mould shop consists of large mould shop area	Mould shop consists of one large mould shop area	Mould shop subdivided into 3 production cells organised by machine size and type
Paint shop equipped with 2 paint plants	Paint shop equipped with 2 paint plants; additional paint plant being set up	Paint shop and finishing area equipped with 3 paint plants and a finishing area
Warehouse contained within main shopfloor area	Warehouse transitions outside of shopfloor area	Small warehouse 2 added for raw materials inbound to shopfloor, and main warehouse 1 located outside shopfloor
Capabilities include moulding, painting of interior parts, and assembly of non-automotive and (tier 2) automotive parts	Capabilities include moulding, painting of interior parts, and assembly of mostly tier 2 automotive parts	Capabilities include moulding, Ceracon foam sealing, painting of interior and exterior parts, and assembly of tier 1 and tier 2 automotive parts and components
Under 400 personnel	Under 300 personnel	Under 250 personnel Scrap review area and 1 st cobot introduced on shopfloor; 'Ceracon Centre of Excellence' established

Source: Author

Appendix e — Rosti Automotive Larkhall Case-flow Timeline of Unowned Processes



Source: Author, drawn and adapted from Chia and MacKay (2013)

Appendix f— Glossary of Terms

The following glossary contains vocabularies developed, mobilised, or reconceptualised by the author in the context of her PhD research on competing for advantage. Where the terms have been mobilised from other authors to support the discourse of the research, the author indicates this below by including the relevant sources. Where the terms relate to the author's analytical scaffolding and methodology, the definitions include references to the author's principal research site, the Rosti Automotive Larkhall (RAL) automotive manufacturing factory in Larkhall, Scotland, UK, which was part of the UK automotive group Rosti Automotive (RA), headquartered in Leamington Spa, England, UK, at the time of the study.

<i>Term</i>	<i>Definition</i>
Annotated information	For the most part, marginalia written on secondary information entailing company records of diverse kind provided to the researcher by RAL staff. Examples of company records include production reports, company newsletters, manufacturing attribute charts, among other things. The information annotated served to provide context on the records at the time they were given to the researcher.
Both/and	Perspective which considers and examines both sides of a duality. For instance, in strategy, a both/and perspective might consider both the content and the process strand of literature, regarding each as part of the same literature. In this research, the author considers both competing and concurring as the two basic motions of the same phenomenon, that of competition.
Case-stream	Process research case study, where 'stream' is used to denote the processual nature of the case where processes are dynamic, moving occurrences, activities, events, and/or episodes unfolding within a research setting.

<i>Term</i>	<i>Definition</i>
Coming-together gatherings	Impromptu, informal, non-previously fixed or scheduled meetings normally held and dissolved after a few minutes on the shopfloor of RAL to have a ‘quick word’ regarding emerging and/or ongoing happenings in the factory.
Competere	Latin voice and verb denoting the activity of aiming or seeking something against others.
Competing	Gerund form of the verb to compete in the English language. The ongoing action of competition.
Competing for advantage	Gerund form derived by the author to refer to the strategy construct of ‘competitive advantage’, used to denote competition that is in the midst of unfolding, i.e. not realised, but ongoing.
competing for advantage (cfa) analytical scaffolding	Denotes the name of the author’s analytical template. The term ‘scaffolding’ is used to signal the finite temporality of the analysis of processual data, which is dynamic in nature and thus temporarily and artificially arrested to facilitate consideration for scholarly purposes. For full details, please consult chapter 4 and sections 6.6 and 7.3.2. Non-capitalised denomination used on purpose.

<i>Term</i>	<i>Definition</i>
Competing For Advantage (CFA) Strategizing Framework	Denotes the name of the author’s proposed approach to strategy thinking, developed around competitive strategy in particular. In the context of the research, CFA is offered as a strategizing framework encompassing the two most basic motions—or ‘currents’, following this manuscript’s particular processual language—of competition that have been identified in the research. In gerund form, namely, <i>competing</i> (also referred to in the Latin verb form ‘competere’), and <i>concurring</i> (or its Latin verb form equivalent, ‘concurrere’). These terms follow, respectively, the strategic management construct of ‘competitive advantage’, and the author’s proposed equivalent in gerund form, ‘ <i>competing for advantage</i> ’. Analytically, they correspond to the mobilised constructs of ‘navigation’ and ‘wayfinding’, respectively. CFA encompasses <i>competing</i> and <i>concurring</i> in a single framework. For more details, please consult section 7.3.1.
Competing synergies	The interacting processes emanating from the confluence of different navigation and wayfinding journeys, and detailing the ways in which navigation and wayfinding entwine to extract advantage. These are referred to as ‘competing synergies’ in the analytical scaffolding since they are the result of the convergence of deliberate and emergent competition efforts at the case study firm. To signal that these synergies unfold as navigation and wayfinding conflux, i.e. flow together, they are referred to as ‘ <i>competing synergies</i> ’, in the gerund form, rather than as competition synergies, which would denote a more static, finished occurrence.

<i>Term</i>	<i>Definition</i>
Competitive advantage	Central strategic management construct indicative of a given lead or advantage a firm is said to possess, indefinite in time, over rival firms with whom it is competing in the market. The advantage can refer to knowledge, capability, technology, etc. that puts the firm in a leading position over competitors.
Concurrere	Latin voice and verb indicative of the activity of running along or together with others.
Concurring	Gerund form of the verb to concur in the English language. The ongoing action of concurrence.
<i>Data-points</i>	Static pieces of evidence that represent what occurred at specific, discrete points in time realised in the past.
<i>Data-streams</i>	Flow-based, dynamic, and pluralistic streams of data denoting the unfolding of processes and events spanning periods of time.
Deliberate organisational concerns	Planned, intentional, and calculated objectives formulated in a predetermined way by the firm at the centre of the research study.

<i>Term</i>	<i>Definition</i>
Either/or	Perspective which considers and examines a particular side of a dualism, where each side is separate and defined in opposition to the other side. For instance, in strategy, an either/or perspective might consider either the content or the process strand of literature, but not both strands.
Everyday purposeful doings	Everyday planned activities at the case study organisation.
Everyday purposive practical coping	Spontaneous, impromptu doings unfolding in the everyday as coping efforts at the case study firm.
Expected outcomes and consequences	Anticipated, foreseen outcomes and consequences at the case study organisation.
Extracting advantage	Instances where the case study firm was seen to realise an advantage following the synergies arising from the confluence of navigation and wayfinding journeys in the different process complexes/case studies comprising the research. See related entries in the glossary for further details.
Field note-makings	The researcher's practice of making fieldwork annotations while immersed in the daily manufacturing activities at RAL. Effectively, events and happenings observed while at the research site were captured by making a handwritten note of them for research purposes in designated fieldwork notebooks.

<i>Term</i>	<i>Definition</i>
Formal meetings	Fixed and/or regularly scheduled meetings normally held and dissolved after a few minutes on the shopfloor of RAL to discuss production management matters in the factory.
Insights on research question	Indicative of key pieces of knowledge that were gained through awareness, discernment, and understanding, following the overall research findings when pitted against the research question guiding this investigation. More specifically, the insights represent knowledge emanating from the author's research project on the matter of how firms compete for advantage. Six such knowledge insights have been formulated and then critically considered to discuss the contributions of the study. For full details, please consult section 7.2.
Live off-the-cuff conversations	Casual conversations held <i>in situ</i> , in the spur of the moment, on the RAL shopfloor with diverse members of staff (operators, team leaders, managers, etc.) while manufacturing activities ensued.
Navigation	Following Ingold (2000), navigation is generally seen as a type of movement where one knows in advance where one is going. It is a deliberate and intentional type of travel. For further details, please see sections 6.4 and 6.5.
Navigation journeys	Deliberate, intentional, and planned processes of competition detailed in the case studies of this investigation. Navigation journeys comprise deliberate (as opposed to emergent) process threads or activities.

<i>Term</i>	<i>Definition</i>
Near-documentary	The particular processual style of inquiry developed empirically for the first time by the author in the course of this investigation, following Chia and Holt (2009). Since the research did not involve the use of filming like in traditional documentary projects, the inquiry is qualified as near-documentary to remark the quasi-film nature of the documenting efforts of the researcher, which were based on comprehensive, in-depth, and broad-ranging fieldnotes, secondary data, annotated information, and photographic animations. See related entries for further details.
Nurtured empirical sensitivity	Following Chia and Holt (2009) and Chia (2017), the term denotes a refined attunement and consideration of minuscule, quotidian happenings unfolding in everyday organisational life and collected as data in a processual ‘near-documentary’ style of inquiry. See related entries for further details.
Overall findings	Designates the principal research findings stemming from across the case studies contained in this manuscript. Seven such findings were identified in this research. For full details, please consult sections 6.8 and 7.2.
Owned processes of competing	Planned and pre-conceived processes at the case study firm.
Photographic animations	Minuscule photographic accounts captured by the researcher on the RAL shopfloor while observing activities and/or attending production meetings.

<i>Term</i>	<i>Definition</i>
Process complexes	Confluences of navigation and wayfinding journeys or process events.
Process events	Everyday processes comprising bundles of chronologically-unfolding activities or incidents along the continuous flow of competition. In the researcher's lingo, the process events are journeys which happen in run-of-the-mill competition. Two types of journeys have been identified: navigation journeys and wayfinding journeys, and these constitute the everyday strategy processes by which firms compete for advantage in daily organisational life. See related glossary entries.
Process threads	Chronological data points, specific activities, happenings or occurrences empirically observed in the research setting.
<i>Reflecting-in-action</i>	A reflection practice embedded in the fieldwork activities of the researcher, where fieldnotes, particularly during instances of observation, were supplemented by short reflection passages developed <i>in situ</i> and <i>sponte sua</i> .
River-flow	The processual unfolding motion of the case studies featured in this investigation, where 'flow' is used to denote the uninterrupted movement in which the activities were seen to dynamically proceed within the research setting.

<i>Term</i>	<i>Definition</i>
Secondary data	News articles available in the public domain and company records provided by RAL.
Semi-formal interviews	A face-to-face consultation in the form of a conversation comprising open-ended questions and answers, supplemented by follow-up prompts, as necessary, between the researcher and research participants at the research site.
Senderellando	Wayfinding in Spanish as per the researcher's theorisation. Portmanteau coined by the author, equal-parts 'sendero' (Spanish for 'way, path') and 'hallando' (Spanish gerund for 'finding'), ergo, wayfinding.
Shadowing-in-observation	The researcher's shadowing activities following processes and/or research participants at the research site while observing and note-making.
Tapepo'í	Aboriginal term of the <i>Guaraní</i> language of Paraguay, pronounced /ta:'p3-po'í/, evocative of paths without direction, of instinctively following narrow trails along the fading footprints of previous wayfarers.
Temporary anchorings	Refers to the temporal arrestation of data by the researcher for analytical purposes. The term data here refers of processual data, such as events and processes which unfold in an uninterrupted and dynamic fashion. In Gibson's (1963) ecology of visual perception, these are referred to as 'optic invariants'.

<i>Term</i>	<i>Definition</i>
Unexpected outcomes and consequences	Unanticipated, unforeseen, fortuitous, and/or inadvertent outcomes and consequences within the research setting.
Unfolding organisational concerns	Emergent and/or immediate concerns arising at the case study firm.
Unowned processes of competing	External, contextual processes out with the case study firm's plans and/or control.
Wayfinding	Following Ingold (2000), wayfinding or wayfaring is generally seen as a type of movement where one is finding one's way as one goes, without knowing in advance where one is going or how to get there. It is a unintentional and emergent type of travel. For further details, please see sections 6.4 and 6.5.
Wayfinding journeys	Emergent, unintentional, and unplanned processes of competition detailed in the case studies of this investigation. Wayfinding journeys comprise emergent (as opposed to deliberate) process threads or activities.
Wayfinding process philosophical methodology	Indicative of the nature of the particular system of methods used in this study, which focuses on explicating the dynamics of processes-in-motion as influenced by the wayfinding ontology proposed in strategy by Chia and Holt (2009). For full details, please see chapter 4 and sections 6.2-6.5, 7.3.

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