University of Strathclyde
Department of Marketing
Glasgow

Joint Ventures in the People's Republic of China

VOLUME TWO

Ph.D. Marketing

Thesis

by

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Appendix One

The Data Matrix

The following are the Structural and Operational variables as they are numbered (C#) and encoded (eight letter abbreviated code) into the data matrix. The full data matrix is also included in this Appendix.

Structural Variables

C1	Size of Business (equity value US$/000)	JVequity
C2	Number of Employees	EmployNO
C3	Annual Turnover (US$/000)	AnnT/o96
C4	Age of JV (year established)	JVageYRS
C5	Contractual Period of JV (number of years)	JVperiod
C6	Type of JV :	
	Manufacturing = 1 Civils / Construction = 2 Retail = 3 Service = 4,	
	Infrastructural = 5 Other = 6.	TYPEofJV
C7	Foreign Partner Motive :	
	Global Strategy = 1, Regional Strategy = 2 Competitive Response = 3,	
	Market Entry = 4 Location Specific Advantage = 5	FPmotive
C8	Local Partner Motive :	
	Products / Technology = 1 Brands = 2 Management = 3	
	Investment = 4 Export Distribution Channels = 5.	LPmotive
C9	Stage of Development :	
	Establishment = 1 Growth = 2 Mature = 3.	STAGEdev
C10	JV viability :	
	Non-profitable = 1 Break even = 2 Profitable = 3	JVviable
C11	JV profit / loss (1996 +/- US$/000)	JV+/-96
C12	JV profit / loss (1995 +/- US$/000)	JV+/-95
C13	JV profit / loss (1994 +/- US$/000)	JV+/-94
C14	JV profit / loss (1993 +/- US$/000)	JV+/-93

C15	JV profit / loss (1992 +/- US$/000)	JV+/-92
C16	JV profit / loss (1991 +/- US$/000)	JV+/-91
C17	JV approval / establishment targets :	
	Met = 1 Not Met = 2 Exceeded = 3. None = 4	Targets1
C18	JV approval targets :	
	Unreasonable = 1 Reasonable = 2 None = 3	Targets2
C19	JV is under 'supervision by the Authorities :	
	Yes = 1 No = 0	S-vision
C20	JV performance ; expectations / results :	
	Low = 1 Medium = 2 High = 3	JVperfor
C21	JV ROI compared to other JV locations :	
	Low = 1 Similar = 2 High = 3	JVlocROI
C22	JV has raised developmental loan in China :	
	Yes = 1 No = 0	JVloan
C23	Number of Partners :	
	Foreign = *n*	NumFORp
C24	Number of Partners :	
	Local = *n*	NumLOCp
C25	Foreign partner's income / loss (1996 US$/000)	FP+/-96
C26	Foreign partner's income / loss (1995 US$/000)	FP+/-95
C27	Foreign partner's income / loss (1994 US$/000)	FP+/-94
C28	Foreign partner's income / loss (1993 US$/000)	FP+/-93
C29	Foreign partner's income / loss (1992 US$/000)	FP+/-92
C30	Foreign partner's income / loss (1991 US$/000)	FP+/-91
C31	Foreign partner's income derived from dividends :	
	Yes = 1 No = 0	Dividend
C32	Foreign partner's income derived from license fees :	
	Yes = 1 No = 0	LICfees
C33	Foreign partner's income derived from royalties :	
	Yes = 1 No = 0	Royalty
C34	Foreign partners of same nationality :	
	Yes = 1 No = 0	FPnation

C35 Local partner is :

SOE = 1 Prov. Govt. Co. = 2 Private = 3 Other = 4 LPtype

C36 Local partner's main business is :

Similar = 1 Different = 2 LPBusnes

C37 Foreign partner's proportion of total equity :

Minority = 1 Majority = 2 Equal = 3 FPpropEQ

C38 Foreign partner's contribution :

Finance = 1 Enabling inputs = 2 Both = 3 FPcont-n

C39 Local partner's contribution :

Site = 1 Facilities = 2 Labour = 3 Technology = 4

Finance = 5 LPcont-n

C40 Local partner has national market coverage / access :

Yes = 1 No = 0 LPaccess

C41 Local partner's business knowledge / experience :

Low = 1 Adequate = 2 High = 3 LPbusEXP

C42 JV is independent of local partner's business :

Yes = 1 No = 0 JVindep

C43 JV is separate legal entity :

Yes = 1 No = 0 JVentity

C44 JV is dependent upon local partner's main business for operational inputs :

Yes = 1 No = 0 JVdepend

C45 JV control / approval authority :

Central Govt. = 1 Local Govt. = 2 Special Authority = 3 CON/auth

C46 Production is subject to price / volume / distribution controls :

Yes = 1 No = 0 P/V/Dcon

C47 Management control : Shared equally = 1 Unequally = 2

Foreign partner = 3 Local partner = 4 MGT/cont

C48 Chairmanship held :

Locally = 1 Foreign = 2 Alternates = 3 Joint = 4 Chairman

C49 Technical management :

Foreign = 1 Local = 2 Joint = 3 TECH/mgt

C50 In-China sales and marketing management :

Foreign = 1 Local = 2 Joint = 3 S&M/mgt

C51 Production management :

Foreign = 1 Local = 2 Joint = 3 PROD/mgt

C52 Financial management and accounting :

Foreign = 1 Local = 2 Joint = 3 FIN/mgt

C53 JV export sales and marketing management :

Foreign = 1 Local = 2 Joint = 3 EXP/mgt

C54 Local internal / legal / infrastructural management :

Foreign = 1 Local = 2 Joint = 3 LEGALmgt

C55 Foreign expatriate presence in management hierarchy (%) Expats

C56 Local management transferees from local partner (%) LOCmngrs

C57 Efficiency compared to other units internationally :

Low = 1 Medium = 2 High = 3 INTEReff

C58 Produced units costs compared to other units internationally (%) COSTcomp

C59 Proprietary knowledge has been transferred en-bloc :

Yes = 1 No = 0 PROPknow

C60 Technology transferred is the 'state of the art' :

Yes = 1 No = 0 TECstate

C61 Superior technology exists within the foreign partner :

Yes = 1 No = 0 SUPtechy

C62 Superior technology exists within foreign competitors :

Yes = 1 No = 0 COMPtech

C63 JV's products are the 'state of the art' in China :

Yes = 1 No = 0 PROstate

C64 Product adaptation for China :

None = 1 Some = 2 Extensive = 3 PROadap1

C65 Product adaptation for China :

Regional = 1 National = 2 PROadap2

C66 Product as adapted is unique within the foreign partner's range :

Yes = 1 No = 0 PROuniq

C67 Technology transfer has been contained within expatriate staff :

Yes = 1 No = 0 TECtran1

C68 Technology assimilation of partner :

Low = 1 Developable = 2 Independent = 3 TECassim

C69 Technology is embodied in production equipment supplied as equity :

Yes = 1 No = 0 TECequit

C70 Production is design / formulae dependent on foreign partner :

Yes = 1 No = 0 DES/form

C71 Formulated raw materials / components supplied by foreign partner :

Yes = 1 No = 0 MATSsupp

C72 Foreign partner's international brands attached to the JV's products :

Yes = 1 No = 0 FPbrands

C73 'New' brands have been created for the China JV :

Yes = 1 No = 0 JVbrands

C74 'New' brand products are exported to third markets by the JV through its own distribution channels : Yes = 1 No = 0 JVbraEXP

C75 'New' brand products are exported through the local partner's main business distribution channels : Yes = 1 No = 0 EXPchan1

C76 'New' brand products are incorporated into the foreign partner's international distribution channel system : Yes = 1 No = 0 EXPchan2

C77 Exports are of foreign partner's brand only :

Yes = 1 No = 0 FPexpBRA

C78 Local partner purchases some raw materials / components locally :

Yes = 1 No = 0 LOCmats1

C79 Local materials / components as a proportion of manufacturing cost : (%) LOCmats2

C80 JV has acquired international / industry standards e.g. ISO9000 :

Yes = 1 No = 0 Standard

C81 Foreign partner has input into QC :

Yes = 1 No = 0 QCinput

C82 JV's products meet international / industry standards :

Yes = 1 No = 0 PRODstan

C83 Production quotas in force :

Min = 1 Max = 2 None = 3 PRODquot

C84 Export / foreign exchange earnings targets :

Not met = 1 Met = 2 Exceeded = 3 None = 4 EXPforex

C85 Sales / turnover targets in force :

	Not met = 1 Met = 2 Exceeded = 3 None = 4	Targets3
C86	Production targets in force :	
	Not met = 1 Met = 2 Exceeded = 3 None = 4	Targets4
C87	Local suppliers pre-existed the JV :	
	Yes = 1 No = 0	LOCsupp
C88	Local supplier's technology was inferior :	
	Yes = 1 No = 0	LOCtech
C89	Local partner was a supplier with share of the domestic market :	
	(%)	LPmarkSH
C90	Size of JV production compared to local competitors :	
	Lesser = 1 Same = 2 Greater = 3	JVvsCOMP
C91	Market share (nationally) : (%)	MarkSHna
C92	Market share (regionally) : (%)	MarkSHre
C93	Market has product : Undersupply = 1 Oversupply = 2	ProdSUPP
C94	R & D is done overseas by : Foreign partner = 1 Jointly = 2	
	Local partner = 3	R&Doseas
C95	R & D is done in China by : Local partner = 1 Jointly = 2	
	Foreign partner = 3	R&Dchina
C96	Foreign partner purchases JV's production for other markets :	
	Yes = 1 No = 0	FPasCUST
C97	China JV production exported to third markets forms part of	
	foreign partner's total international sales : (%)	FPprodEX
C98	China JV's production provides cost advantage : (%)	COSTadv1
C99	China JV production cost advantage is derived from scale	
	economies : Yes = 1 No = 0	COSTadv2
C100	China JV production cost advantage results from low	
	labour and raw material costs : (%)	COSTadv3
C101	China JV production cost advantage is eroding in line with economic	
	development at an average annual rate (1991-1996) of : (%)	COSTadv4
C102	Foreign partner incorporates China JV products into his international	
	supply chain to maintain JV export levels and foreign exchange	
	liquidity, without clear price advantage : Yes = 1 No = 0	FPjvEXPS
C103	JV operates an independent export strategy : Yes = 1 No = 0	INDexpST

C104 Foreign partner has other JV interests in China :

Yes = 1 No = 0 FPchnJVs

C105 Local partner has other JV interests in China : Yes = 1 No = 0 LPchnJVs

Operational Variables

C106 Price sensitivity : Low = 1 Medium = 2 High = 3 $STIVITY

C107 Pricing policy : National = 1 Regional = 2 Case specific = 3 $policy1

C108 Price positioning : Bottom end = 1 Compliant = 2 Top end = 3 $positn

C109 Price shift over JV life : Increasing = 1 Decreasing = 2 $shift1

C110 Prices have changed in line with economic change :

Yes = 1 No = 0 $change

C111 Price shift : Costs driven = 1 Competition driven = 2 $shift2

C112 Pricing policy made by :

Local = 1 Foreign = 2 Jointly = 3 Controlled = 4 $policy2

C113 Sales turnover 1996 (US$/000) T/over96

C114 Sales turnover 1995 (US$/000) T/over95

C115 Sales turnover 1994 (US$/000) T/over94

C116 Sales turnover 1993 (US$/000) T/over93

C117 Sales turnover 1992 (US$/000) T/over92

C118 Sales turnover 1991 (US$/000) T/over91

C119 Sales change in line with market development and economic growth :

Lower = 1 Higher = 2 Sls:ECON

C120 Sales staff transferred from local partner : (%) LOCstaff

C121 Sales staff hired by JV : (%) SALEstaf

C122 Sales staff are trained by : Foreign partner = 1 Local partner = 2 SstfTRND

C123 Sales staff are regionally located : Yes = 1 No = 0 SstfLOCD

C124 Sales staff turnover is : Low = 1 High = 2 SstfT/OV

C125 Sales targets are imposed by the authorities :

None = 1 Reduced = 2 Same = 3 Increased = 4 Targets5

C126 Sales targets are imposed on staff : Penalised = 1 Rewarded = 2

None = 3 SstfTARG

C127 Sales are conducted from : Regional offices = 1 Head office = 2 SalesOFF

C128 Sales staff handle :

JV's products only = 1 Also partner's products = 2 Other = 3 SstfPROD

C129 Sales tactics are nationally coordinated : Yes = 1 No = 0 Stactics

C130 Sales efforts are promoted by regional promotional activities :

Yes = 1 No = 0 SsPromos

C131 Sales staff sell from :

Local stocks = 1 Bespoke = 2 Central stocks = 3 SellSTOK

C132 Sales made through commission agent : Yes = 1 No = 0 C/agent

C133 Sales made on an *'on consignment'* basis : Yes = 1 No = 0 OnConsig

C134 Service centre importance for maintenance / repair / training :

Low = 1 Medium = 2 High = 3 SERVcent

C135 Costs have changed in line with economic change :

Yes = 1 No = 0 COSTecon

C136 JV foreign costs as % of total costs (imports, license fees etc.) (%) FORcosts

C137 Extended credit terms importance within channel :

Low = 1 Medium = 2 High = 3 CREDIT

C138 Sales made through local partner's regional operations :

Yes = 1 No = 0 LPregio1

C139 Sales made through local partner's regional operations : (%) LPregio2

C140 Market accessed is :

HQ province = 1 Nearby province = 2 Widespread = 3 MktAXES1

C141 Local partner's influence and 'connections' are :

Ineffective = 1 Effective = 2 LPstroke

C142 Sales are to : End user = 1 Wholesaler = 2 Distributor = 3

Retailer = 4 OEM = 5 Contractor = 6 SALESto

C143 Distribution channel access :

Inherited = 1 Existing = 2 Developed = 3 DISTchan

C144 Cost in accessing distant regions limits market access :

Yes = 1 No = 0 $access

C145 Distance cost burden is aggregated on national price structure :

Yes = 1 No = 0 PxsDIST

C146 Communications / transportation limits market access :

Yes = 1 No = 0 MktAXES2

C147 Distribution strategy compared to competitors :

Similar = 1 Different = 2 DISTstrt

C148 Provincialism / protectionism limits market access :

Yes = 1 No = 0 MktAXES3

C149 Provincial govt. patronage with no local competitor :

Low = 1 Medium = 2 High = 3 Patron1

C150 Provincial govt. patronage with local competitor :

Low = 1 Medium = 2 High = 3 Patron2

C151 Provincial govt. patronage where raw materials and components sourced locally : Low = 1 Medium = 2 High = 3 Patron3

C152 Advertising is : Regional = 1 National = 2 Advtsng1

C153 Advertising is : Introductory = 1 Competitive = 2 Advtsng2

C154 Advertising features :

Quality = 1 Foreign brand = 2 Product utility = 3 Advtsng3

C155 Advertising has been a : Success = 1 Failure = 2 Advtsng4

C156 Advertising is prevalent in the industry / market strategy :

Yes = 1 No = 0 Advtsng5

C157 Advertising has been :

Hoarding = 1 Press = 2 Journal = 3 TV = 4 Other = 5 Advtsng6

C158 Advertising has been coupled with other promotional activity :

Yes = 1 No = 0 Advtsng7

C159 JV's advertising strategy : Leads = 1 Follows = 2 Advtsng8

C160 Total promotional spend 1996 (US$/000) $promo96

C161 Total promotional spend 1995 (US$/000) $promo95

C162 Total promotional spend 1994 (US$/000) $promo94

C163 Total promotional spend 1993 (US$/000) $promo93

C164 Total promotional spend 1992 (US$/000) $promo92

C165 Total promotional spend 1991 (US$/000) $promo91

C166 Promotional spend has been : Ineffective = 1 Effective = 2 PROMspnd

C167 Level of conflict : Low = 1 Medium = 2 High = 3 CONFlevl

C168 Conflict phase : Establishment = 1 Growth = 2 Mature = 3 CONFwhen

C169 Area of conflict : Finance = 1 Management = 2

Tech. transfer = 3 Tactics = 4 Strategy = 5 CONFarea

C170	Conflict coincided with times of : Success = 1 Failure = 2	CONFstag
C171	Conflict resulted from cultural issues / differences : Yes = 1 No = 0	CONFcult
C172	Conflict was caused by level of shareholding : Yes = 1 No = 0	CONFshar

	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11
	JVequity	EmployNO	AnnT/o96	JVageYRS	JVperiod	TYPEofJV	FPmotive	LPmotive	STAGEdev	JVviable	JV+/-96
1	300	120	5900	10	15	1	4	1	3	3	295
2	500	80	1300	7	30	1	4	1	3	2	169
3	6250	180	40000	8	25	1	1	1	3	3	2500
4	5000	60	5150	6	30	1	4	1	2	2	515
5	3400	96	800	4	50	1	4	*	2	3	1800
6	4100	45	1100	3	10	1	4	1	2	2	105
7	1000	5	310	1	50	1	1	1	1	1	*
8	700	5	1240	1	50	1	1	*	1	1	1240
9	350	*	4570	3	3	1	5	5	1	3	0
10	3800	320	22000	8	50	6	4	4	2	3	2450
11	2730	800	38000	8	40	1	2	1	2	3	2300
12	500	60	3000	3	50	1	2	4	1	3	240
13	10800	3500	*	10	50	1	2	1	1	2	*
14	25000	1350	50000	10	30	1	4	1	2	2	*
15	7600	60	*	6	30	1	4	1	3	1	0
16	1400	31	*	4	50	1	4	1	3	3	0
17	1000	75	4000	7	11	1	1	1	3	3	1000
18	8400	300	*	11	13	1	4	1	3	3	
19	55000	1325	28000	10	50	1	1	4	3	3	
20	19000	120	*	4	50	1	4	1	2	3	
21	10000	150	*	3	50	1	4	1	1	3	
22	150000	3000	*	14	50	1	4	4	3	3	
23	500	180	*	7	15	4	4	3	2	3	
24	500	41	800	10	30	1	5	1	3	2	

	C12	C13	C14	C15	C16	C17	C18	C19	C20	C21	C22
	JV+/-95	JV+/-94	JV+/-93	JV+/-92	JV+/-91	Targets1	Targets2	S-vision	JVperfor	JVlocROI	JVloan
1	184	32	35	15	20	1	2	0	2	1	1
2	117	156	107	57	52	2	1	1	1	1	1
3	2100	2000	1400	980	710	1	2	0	3	3	0
4	471	440	320	180	110	1	2	0	2	2	0
5	1310	1098	*	*	*	1	2	0	3	3	0
6	*	*	*	*	*	1	2	0	2	1	0
7	*	*	*	*	*	4	2	0	2	1	0
8	710	*	*	*	*	2	2	0	2	1	0
9	0	*	*	*	*	3	2	0	2	3	0
10	1800	1450	1100	770	264	3	2	0	3	1	1
11	1980	1570	1200	540	340	3	2	0	3	3	0
12	120	*	*	*	*	1	2	0	3	3	0
13	*	*	*	*	*	1	1	0	1	1	0
14	*	*	*	*	*	1	2	0	2	2	0
15	0	0	0	0	0	2	2	0	2	1	1
16	0	0	0	0	0	2	2	0	3	2	1
17	890	715	550	250	125	3	2	0	3	3	1
18						3	2	0	2	2	1
19						3	2	0	3	2	1
20						1	2	0	1	1	0
21						1	2	0	1	2	0
22						1	1	0	3	2	1
23						3	2	0	2	2	0
24						1	2	0	1	1	0

	C23	C24	C25	C26	C27	C28	C29	C30	C31	C32	C33
	NumFORp	NumLOCp	FP+/-96	FP+/-95	FP+/-94	FP+/-93	FP+/-92	FP+/-91	Dividend	LICfees	Royalty
1	4	1	37.0	23.00	4	4	3.75	2.5	1	0	0
2	1	1	93.0	64.00	86	59	31.00	29.0	1	1	0
3	1	3	1350.0	1134.00	1080	756	500.00	383.4	1	0	1
4	1	1	258.0	236.00	220	160	90.00	55.0	1	0	1
5	2	0	900.0	650.00	549	*	*	*	1	0	1
6	1	2	100.0	55.00	*	*	*	*	1	0	1
7	2	0	0.0	0.00	0	0	0.00	0.0	1	0	1
8	1	0	186.0	78.00	*	*	*	*	1	0	1
9	1	9	228.5	114.05	*	*	*	*	0	0	0
10	1	1	1470.0	1080.00	870	660	462.00	158.4	1	0	0
11	1	1	1380.0	1188.00	942	720	324.00	204.0	1	0	1
12	1	3	120.0	60.00	*	*	*	*	1	1	0
13	1	15	*	*	*	*	*	*	1	0	0
14	1	1	*	*	*	*	*	*	1	0	1
15	1	2	0.0	0.00	0	0	0.00	0.0	1	1	0
16	1	0	0.0	0.00	0	0	0.00	0.0	1	1	1
17	1	3	700.0	623.00	501	385	175.00	88.0	1	1	1
18	1	2							1	1	0
19	1	5							1	1	0
20	1	1							1	1	0
21	1	1							1	1	0
22	1	12							1	1	1
23	1	1							1	0	0
24	1	1							1	1	0

	C34	C35	C36	C37	C38	C39	C40	C41	C42	C43	C44
	FPnation	LPtype	LPbusnes	FPpropEQ	FPcont-n	LPcont-n	LPaccess	LPbusEXP	JVindep	JVentity	JVdepend
1	0	2	1	1	2	2	1	2	0	1	1
2	1	1	1	2	3	2	1	2	1	1	0
3	1	1	1	2	3	1	0	2	1	1	0
4	1	1	1	2	3	1	0	2	1	1	0
5	0	*	*	2	3	*	*	*	1	1	0
6	1	4	2	2	3	1	0	3	1	1	0
7	0	*	*	2	3	*	*	*	1	1	0
8	1	*	*	2	3	*	*	*	1	1	0
9	0	1	1	1	3	2	*	3	0	0	1
10	1	1	2	2	3	5	0	3	1	1	0
11	1	1	1	2	3	2	1	1	1	1	0
12	1	3	1	2	3	2	1	2	0	1	1
13	1	1	1	2	3	2	0	1	1	1	1
14	1	2	2	2	3	1	0	1	1	1	0
15	1	2	1	2	3	1	1	1	1	1	0
16	1	*	*	2	3	3	*	*	1	1	0
17	1	1	1	2	1	2	1	2	0	1	1
18	1	1	1	2	3	2	1	2	1	1	0
19	1	1	1	2	3	1	1	2	1	1	0
20	1	2	1	2	3	2	1	3	1	1	0
21	1	2	1	2	3	1	0	2	1	1	0
22	1	2	1	2	3	1	0	2	1	1	0
23	1	2	1	2	3	3	0	1	1	1	0
24	1	2	1	2	3	1	1	2	1	1	0

	C45	C46	C47	C48	C49	C50	C51	C52	C53	C54	C55
	CON/auth	P/V/Dcon	MGT/cont	Chairman	TECH/mgt	S&M/mgt	PROD/mgt	FIN/mgt	EXP/mgt	LEGALmgt	Expats
1	1	1	4	1	3	2	2	2	2	2	0
2	2	1	2	1	1	3	2	1	1	3	30
3	2	0	3	1	1	2	2	1	2	2	50
4	2	0	3	2	1	1	2	1	1	2	60
5	2	0	3	2	1	1	1	1	1	2	80
6	2	0	3	2	1	1	1	2	2	2	50
7	3	0	3	2	1	1	1	1	1	2	90
8	3	0	3	2	1	1	2	1	1	2	80
9	1	1	4	1	1	2	2	2	1	2	0
10	2	1	3	1	1	1	1	1	1	3	80
11	2	1	3	2	1	3	1	3	1	2	20
12	2	0	3	2	3	2	2	1	1	2	20
13	1	0	3	1	1	1	2	1	1	1	5
14	2	0	3	2	1	1	1	1	1	1	60
15	2	0	3	1	1	1	3	2	1	3	25
16	2	0	3	2	1	1	1	1	1	1	100
17	2	0	3	1	1	3	1	3	1	2	10
18	2	1	3	1	1	3	1	1	1	3	60
19	3	0	3	1	1	3	3	1	1	3	60
20	2	0	3	1	1	2	2	1	1	2	50
21	2	0	3	1	1	2	3	2	1	2	30
22	1	1	3	1	1	3	1	1	1	3	80
23	2	0	3	1	1	1	1	3	1	3	80
24	2	0	3	2	1	2	2	3	1	2	0

	C56	C57	C58	C59	C60	C61	C62	C63	C64	C65	C66
	LOCmngrs	INTEReff	COSTcomp	PROPknow	TECstate	SUPtechy	COMPtech	PROstate	PROadap1	PROadap2	PROuniq
1	100	1	65	1	1	1	1	1	2	2	0
2	70	2	75	0	1	0	0	1	1	2	0
3	30	2	80	1	0	1	0	1	2	2	0
4	20	3	80	1	0	1	0	1	2	2	0
5	10	3	60	1	0	1	0	1	2	1	0
6	30	2	50	1	0	0	0	1	1	1	0
7	0	3	60	1	0	1	0	1	2	1	0
8	0	1	70	1	0	1	0	0	2	2	0
9	100	2	80	1	0	0	1	1	1	*	*
10	20	2	72	1	1	0	0	1	2	2	0
11	10	3	80	1	1	1	1	1	2	1	0
12	80	2	80	1	1	0	0	1	1	*	*
13	65	1	90	1	1	0	1	1	2	2	0
14	0	2	70	1	1	1	1	1	3	2	1
15	75	2	70	1	1	0	0	1	2	2	0
16	0	2	70	0	1	1	1	1	3	2	0
17	90	2	*	0	1	0	0	1	1	*	0
18	40	2	*	0	1	0	0	1	1	*	0
19	40	3	70	1	1	0	0	1	1	*	0
20	50	2	80	0	1	0	0	1	1	*	0
21	70	2	70	1	1	0	0	1	1	*	0
22	20	2	90	0	1	0	0	1	2	2	0
23	20	1	50	1	1	0	0	1	3	2	1
24	100	1	70	1	1	1	0	1	1		0

	C67	C68	C69	C70	C71	C72	C73	C74	C75	C76	C77
	TECtran1	TECassim	TECequit	DES/form	MATSsupp	FPbrands	JVbrands	JVbraEXP	EXPchan1	EXPchan2	FPexpBRA
1	0	3	0	0	0	1	1	1	1	0	0
2	0	3	1	0	1	1	1	0	0	1	1
3	0	3	0	1	0	1	0	0	0	0	1
4	1	3	0	1	1	1	0	0	0	0	0
5	1	1	0	1	1	1	0	0	0	0	1
6	1	3	0	1	0	1	0	0	0	0	1
7	1	1	0	1	1	1	0	0	0	0	1
8	1	3	0	1	0	1	0	0	0	0	1
9	0	3	0	1	0	1	0	0	0	0	1
10	0	1	1	0	0	1	0	0	0	0	1
11	1	2	0	1	0	1	0	0	0	0	0
12	0	2	1	1	0	1	1	0	0	0	1
13	0	2	1	0	0	0	0	0	0	0	0
14	0	1	0	1	1	1	0	0	0	1	1
15	1	1	1	0	0	1	0	0	0	0	1
16	0	3	1	1	0	1	0	0	0	0	1
17	1	1	0	1	1	1	0	0	0	0	1
18	1	2	1	1	1	1	0	0	0	0	1
19	0	2	1	0	1	1	1	0	0	0	1
20	0	2	1	1	1	1	0	0	0	0	1
21	0	2	1	0	0	1	0	0	0	0	1
22	1	2	1	1	1	1	1	0	0	0	1
23	1	2	0	0	0	1	0	0	0	0	1
24	0	3	1	1	1	1	0	0	0	1	1

	C78	C79	C80	C81	C82	C83	C84	C85	C86	C87	C88
	LOCmats1	LOCmats2	Standard	QCinput	PRODstan	PRODquot	EXPforex	Targets3	Targets4	LOCsupp	LOCtech
1	1	95	1	0	1	1	2	2	2	1	1
2	1	85	1	1	0	1	1	1	2	0	1
3	0	60	0	1	1	3	3	3	3	1	1
4	0	50	0	1	1	3	4	2	2	1	1
5	1	50	0	1	1	3	2	3	3	1	1
6	0	20	0	1	1	3	1	2	2	0	1
7	1	50	0	1	1	3	4	4	4	1	0
8	0	60	0	1	1	3	4	1	1	1	1
9	1	98	1	1	1	3	4	3	3	1	1
10	1	99	1	1	1	1	3	3	3	1	0
11	1	70	1	1	1	2	2	2	2	1	1
12	1	99	1	1	1	3	2	4	4	1	1
13	1	15	1	1	1	3	4	1	1	1	1
14	0	90	0	1	1	3	1	2	2	0	1
15	1	95	1	1	1	1	1	1	1	1	1
16	1	95	1	1	1	1	1	2	2	1	1
17	1	90	1	1	1	3	1	2	2	1	1
18	1	90	1	1	1	1	1	2	3	1	1
19	1	95	1	1	1	1	2	2	3	1	1
20	1	90	1	1	1	1	4	2	2	1	1
21	1	95	1	1	1	3	4	4	4	1	1
22	1	80	1	1	1	2	2	3	2	1	1
23	1	60	1	1	1	3	1	2	2	1	1
24	0	95	1	1	1	3	2	2	4	1	1

	C89	C90	C91	C92	C93	C94	C95	C96	C97	C98	C99
	LPmarkSH	JVvsCOMP	MarkSHna	MarkSHre	ProdSUPP	R&Doseas	R&Dchina	FPasCUST	FPprodEX	COSTadv1	COSTadv2
1	25.0	1	5.0	26.0	2	1	1	1	5	35	0
2	20.0	2	5.0	28.0	2	1	2	0	0	30	0
3	30.0	3	45.0	50.0	2	1	2	1	2	35	1
4	40.0	2	30.0	30.0	2	1	2	0	4	30	1
5	*	2	10.0	25.0	1	1	2	1	2	35	0
6	3.0	1	10.0	20.0	1	1	3	1	0	35	1
7	*	2	10.0	10.0	1	1	3	0	0	35	0
8	*	3	15.0	15.0	2	1	3	0	1	30	0
9	70.0	1	0.0	0.0	2	1	1	1	100	20	0
10	0.0	2	2.2	27.0	2	1	2	1	7	28	1
11	0.5	2	1.0	1.0	2	1	2	0	1	50	0
12	10.0	2	0.0	10.0	2	1	2	1	12	20	0
13	10.0	1	4.0	15.0	2	1	3	0	0	12	1
14	0.0	3	6.0	45.0	2	1	3	1	15	38	0
15	5.0	2	5.0	30.0	2	2	2	1	1	30	0
16	0.0	2	5.0	20.0	2	1	3	1	10	30	0
17	30.0	3	30.0	50.0	2	1	2	1	2	25	0
18	10.0	3	50.0	85.0	2	1	3	1	1	30	0
19	13.0	2	5.0	20.0	2	1	2	1	4	10	0
20	15.0	2	15.0	40.0	1	1	2	0	0	20	0
21	10.0	3	10.0	40.0	2	1	2	0	0	25	0
22	8.0	3	21.0	45.0	2	1	3	0	0	20	0
23	5.0	3	12.0	25.0	1	1	2	0	0	35	0
24	1.0	2	2.5	4.5	2	1	2	1	10	30	0

	C100	C101	C102	C103	C104	C105	C106	C107	C108	C109	C110
	COSTadv3	COSTadv4	FPjvEXPS	INDexpST	FPchnJVs	LPchnJVs	$STIVITY	$policy	$positn	$shift1	$change
1	20	8	0	1	1	1	3	1	3	1	1
2	20	12	0	1	1	1	3	1	2	2	1
3	20	10	0	0	1	1	3	3	2	2	1
4	25	3	0	1	1	0	3	3	2	2	1
5	25	10	0	0	1	*	3	3	1	2	1
6	25	5	0	0	1	0	2	3	2	2	1
7	22	10	0	1	1	0	3	3	2	2	1
8	25	4	0	0	1	*	3	3	2	2	1
9	20	6	0	1	0	1	1	3	1	1	1
10	25	0	0	0	1	1	3	1	1	1	1
11	50	0	0	1	1	1	2	1	3	1	0
12	8	2	0	0	0	0	3	3	2	1	1
13	7	3	0	0	1	1	3	3	1	2	0
14	30	6	1	0	0	1	2	1	2	2	0
15	30	5	0	1	1	0	3	3	3	2	1
16	30	5	0	0	0	*	3	3	3	2	1
17	25	6	0	0	1	1	1	1	3	1	1
18	30	7	0	0	1	0	3	1	3	1	1
19	10	0	1	0	0	1	3	1	3	1	1
20	20	0	0	0	1	1	3	1	3	2	0
21	25	5	0	0	1	0	3	1	3	1	1
22	5	0	0	0	1	1	1	2	3	1	1
23	35	0	0	0	0	1	3	2	3	1	1
24	30	5	0	0	0	1	3	3	2	2	0

	C111	C112	C113	C114	C115	C116	C117	C118	C119	C120	C121
	$shift2	$policy2	T/Over96	T/over95	T/over94	T/over93	T/over92	T/over91	Sls:ECON	LOCstaff	SALEstaf
1	1	1	4200	5900	5310	4779	4301	3870	1	100	0
2	2	3	1300	900	1200	820	440	400	1	50	50
3	2	2	40000	12600	12000	8400	5800	4260	2	10	90
4	2	2	5150	4710	4400	3200	1800	1100	2	10	90
5	2	2	14000	11310	5098	*	*	*	2	0	100
6	2	2	1100	55	*	*	*	*	2	0	100
7	2	2	310	*	*	*	*	*	1	0	100
8	2	2	1240	710	*	*	*	*	2	0	100
9	1	1	4570	2281	*	*	*	*	1	0	*
10	1	4	22000	16173	13028	9883	6918	2400	2	5	95
11	2	3	25000	20000	15000	13000	12000	2000	2	10	90
12	2	3	3000	1500	410	304	*	*	2	80	20
13	2	3	*	*	*	*	*	*	2	80	20
14	2	2	50000	*	*	*	*	*	1	0	100
15	2	2	*	*	*	*	*	*	1	100	0
16	2	2	*	*	*	*	*	*	1	0	100
17	1	3	4000	3560	2860	2200	1000	500	2	90	10
18	1	4							2	90	10
19	1	3							2	90	10
20	2	3							1	90	10
21	1	2							1	100	0
22	2	3							2	90	10
23	2	3							2	95	5
24	2	2							1	100	0

	C122	C123	C124	C125	C126	C127	C128	C129	C130	C131	C132
	SstfTRND	SstfLOCD	SstfT/OV	Targets5	SstfTARG	SalesOFF	SstfPROD	Stactics	SsPromos	SellSTOK	C/agent
1	2	0	1	1	3	2	2	1	0	3	0
2	1	1	2	4	2	1	2	1	0	3	0
3	1	1	1	1	2	1	1	1	0	1	1
4	1	0	1	1	2	2	1	1	0	3	1
5	1	1	1	1	2	1	1	0	1	1	0
6	1	1	1	1	2	1	1	0	0	2	0
7	1	1	1	1	2	1	1	0	1	1	0
8	1	0	1	1	2	1	1	1	1	3	0
9	1	1	1	3	*	1	3	1	1	2	1
10	1	1	2	3	2	2	2	1	1	3	1
11	1	1	1	1	2	1	1	1	1	1	0
12	2	0	1	1	3	2	2	1	0	3	1
13	1	1	1	1	3	1	1	0	1	1	0
14	1	1	1	1	2	1	1	1	1	1	0
15	1	0	1	2	3	2	1	1	0	2	0
16	1	1	1	2	2	2	1	1	0	2	0
17	1	1	1	3	3	1	2	1	0	3	1
18	1	1	1	4	2	1	2	1	1	1	0
19	1	1	1	1	3	2	1	1	0	3	1
20	1	1	1	3	3	2	1	1	0	3	0
21	1	0	1	1	3	2	1	1	0	3	0
22	1	1	1	4	2	1	1	1	1	1	1
23	1	1	1	3	3	1	1	0	1	2	0
24	2	1	1	1	2	2	1	1	0	2	1

	C133	C134	C135	C136	C137	C138	C139	C140	C141	C142	C143
	OnConsig	SERVcent	COSTecon	FORcosts	CREDIT	LPregio1	LPregio2	MktAXES1	LPstroke	SALESto	DISTchan
1	0	1	1	5	3	1	10	2	2	1	1
2	0	1	1	5	3	1	10	2	1	6	2
3	0	1	1	50	2	0	0	3	2	6	3
4	0	1	1	60	2	0	0	3	1	1	3
5	0	1	1	65	2	0	0	2	1	5	3
6	0	1	1	90	2	0	0	2	1	1	3
7	0	1	1	65	2	0	0	2	1	1	3
8	0	1	1	65	2	0	0	3	1	6	3
9	1	2	1	12	1	0	0	*	*	1	2
10	0	1	1	1	3	0	0	1	2	2	2
11	0	1	1	2	2	1	25	1	2	2	3
12	0	3	1	15	2	1	35	1	2	1	1
13	0	1	0	14	2	0	0	3	1	2	3
14	0	3	1	10	3	0	0	3	1	2	3
15	0	2	1	22	1	0	0	3	1	1	3
16	0	1	1	20	3	0	0	3	1	5	3
17	1	3	1	15	3	1	30	3	2	3	2
18	0	3	1	20	2	1	20	3	1	4	3
19	1	1	1	20	3	1	20	3	2	5	1
20	0	2	1	20	3	1	15	2	2	1	1
21	0	1	1	20	3	1	25	2	1	5	3
22	0	2	1	20	3	1	10	2	2	4	3
23	0	1	1	25	3	1	10	3	1	1	3
24	0	2	1	25	3	0	0	3	2	1	2

	C144	C145	C146	C147	C148	C149	C150	C151	C152	C153	C154
	$access	PxsDIST	MktAXES2	DISTstrt	MktAXES3	Patron1	Patron2	Patron3	Advtsng1	Advtsng2	Advtsng3
1	0	1	0	1	1	3	1	3	1	2	1
2	1	1	1	1	1	2	1	1	2	1	3
3	0	1	0	1	0	1	1	1	2	2	2
4	0	1	0	1	0	2	2	2	*	*	*
5	1	1	1	1	0	1	1	1	*	*	*
6	1	0	1	1	0	1	1	1	2	1	3
7	1	1	1	1	0	2	2	2	*	*	*
8	0	1	0	1	0	1	1	1	2	1	1
9	1	*	*	2	0	1	1	3	*	*	*
10	1	1	1	1	1	2	1	3	2	2	1
11	1	0	0	1	0	2	2	3	2	2	1
12	1	1	0	1	1	3	1	2	1	1	1
13	1	0	1	1	1	1	1	1	1	1	1
14	1	1	0	2	0	2	2	2	1	1	2
15	0	0	0	2	0	1	1	2	2	1	1
16	1	1	0	1	0	1	1	1	2	2	3
17	1	1	0	1	0	1	1	1	2	2	2
18	0	1	0	2	0	1	1	1	2	1	2
19	0	1	0	1	1	2	1	2	2	2	3
20	0	1	0	1	1	2	1	2	2	1	1
21	0	1	0	1	0	1	1	1	2	1	3
22	1	0	1	2	1	3	2	2	1	1	2
23	0	1	0	2	1	3	1	3	1	1	1
24	0	0	0	1	0	1	1	1	2	2	3

	C155	C156	C157	C158	C159	C160	C161	C162	C163	C164	C165
	Advtsng4	Advtsng5	Advtsng6	Advtsng7	Advtsng8	$promo96	$promo95	$promo94	$promo93	$promo92	$promo91
1	2	0	5	1	2	20	15	10	10	10	10
2	1	0	3	0	1	10	5	8	3	6	8
3	1	0	5	1	1	80	82	74	70	80	75
4	*	0	*	*	*	0	0	0	0	0	0
5	*	0	*	0	*	0	0	0	0	0	0
6	1	0	3	0	2	25	20	20	15	15	10
7	*	0	*	0	*	0	0	0	0	0	0
8	1	0	3	0	2	10	10	*	*	*	*
9	*	*	*	*	*	0	0	0	0	0	0
10	1	1	1	1	2	65	65	60	60	50	60
11	1	1	3	1	2	80	80	75	75	60	50
12	1	0	2	0	2	10	5				
13	2	0	5	1	1						
14	1	1	4	1	1						
15	1	0	3	0	1						
16	1	0	3	0	1						
17	1	1	3	1	2						
18	1	1	3	0	1						
19	1	1	3	0	2						
20	2	0	3	0	1						
21	1	0	3	0	1						
22	1	1	4	1	1						
23	1	1	3	1	1						
24	2	0	3	1	2						

	C166	C167	C168	C169	C170	C171	C172	C173	C174	C175
	PROMspnd	CONFlevl	CONFwhen	CONFarea	CONFstag	CONFcult	CONFshar	JVageII	JVperII	
1	1	3	2	1	1	0	1	3	2	300
2	1	3	2	3	2	0	0	2	3	500
3	2	2	2	5	1	0	0	2	3	6250
4	*	*	*	*	*	*	*	2	3	5000
5	*	*	*	*	*	*	*	1	4	3400
6	2	*	*	*	*	*	*	1	1	4100
7	*	*	*	*	*	*	*	1	4	1000
8	2	*	*	*	*	*	*	1	4	700
9	*	3	2	4	1	0	1	1	1	350
10	2	1	1	1	2	0	1	2	4	3800
11	2	2	2	2	1	0	0	2	4	2730
12	2	2	1	4	1	0	0	1	4	500
13	1	2	1	5	1	0	0	3	4	10800
14	2	1	2	1	1	0	0	3	3	*
15	1	2	2	2	1	1	0	2	3	7600
16	2	1	1	1	2	0	0	1	4	1400
17	2	1	1	5	1	0	0	2	1	1000
18	2	1	2	5	1	0	0	3	2	8400
19	2	1	1	1	1	0	0	3	4	*
20	1	1	2	4	2	0	0	1	4	*
21	2	1	1	5	1	0	0	1	4	10000
22	2	1	1	4	1	0	0	4	4	*
23	2	1	1	2	1	0	0	2	2	500
24	1	1	1	2	2	0	0	3	3	500

Appendix Two

The following are the tables and analyses referred to in Chapter Seven *The Testing of the Hypotheses*. Tables 1.1 to 1.13 (pages 384 to 389) relate to the validation of the sample carried out in Chapter Seven. Tables H 1(a) to Table H 21(e) (Pages 389 to 488) relate to the testing of the hypotheses, with the 'H 1' to 'H 21' references indicating the hypothesis to which the analyses refer.

Table 1.1

The following Stem-and-Leaf analysis collates the incidence of the sample JVs according to their equity JV size to identify outliers within the sample. 3 high level outliers are identified : Data Matrix Code number 14 @ US$25 million ; number 19 @ US$ 55 million ; and number 22 @ US$150 million :-

Character Stem-and-Leaf Display

Stem-and-Leaf of JVEquity N = 24

Leaf Unit = 100

```
      7      0  3355557
     10      1  004
     11      2  7
     (2)     3  48
     11      4  1
     10      5  0
      9      6  2
      8      7  6
      7      8  4
      6      9
      6     10  08
      4     11
      4     12
      4     13
      4     14
      4     15
      4     16
      4     17
      4     18
      4     19  0
            HI      250,    550,    1500,
```

Character Boxplot

This chart shows the range of the data samples with the bottom of the box representing the midpoint of the first quartile of the sample, and the top being the 3rd quartile. The mean point of 3442 is also shown, but most importantly from this analysis a further outlier has been identified i.e. Data Matrix Code number 20 @ US$ 19 million, which is signified by an asterisk. Further analysis has revealed no further outliers suggesting that the 20 remaining cases form a balanced sample.

Table 1.2

This table describes the full sample including outliers.

Descriptive Statistics

Variable	N	Mean	Median	TrMean	StDev	SEMean
JVEquity	24	13243	3600	7615	31462	6422

Variable	Min	Max	Q1	Q3
JVEquity	300	150000	550	9600

Table 1.3

The following table provides statistics describing the size of JVs in China, based upon the sample data, as discussed in Section 1 (a) of Chapter Seven, excluding outliers as discussed above. These indicate by way of the *Min* and *Max* incidences and the *mean* and *standard deviation* that there are both small and relatively large JVs in China, although there is a wide range in size :-

Descriptive Statistics

Variable	N	N*	Mean	Median	TrMean	StDev	SEMean
JVequity	20	4	3442	2065	3207	3465	775

Variable	Min	Max	Q1	Q3
JVequity	300	10800	500	5937

Table 1.4

This Table provides an insight into the variable C4 'the *age of the sample JVs*'. It is clear from this data, as shown in Table 7.3, that the sample cases are significantly spread out over the critical JV evolutionary period between the early 1980s and the late 1990s, when the majority of JVs were established (see Chapter Three and Chapter Four), and that the age of the sample cases covers a wide age range i.e. from 1 to 14 years :-

Descriptive Statistics

Variable	N	Mean	Median	TrMean	StDev	SEMean
JVageYRS	24	6.583	7.000	6.500	3.450	0.704

Variable	Min	Max	Q1	Q3
JVageYRS	1.000	14.000	3.250	10.000

Table 1.5

A sample size which proportionately represents the exponential growth of JVs through the study period would be impractical at 1,747 cases. However, Chapter Seven explains that the growth in JVs is not a variable in this research, whereas the age of JVs which covers the period and stages of the development of JVs in China is

important in providing a strategy evolution and environmental change perspective. This table provides an example of the number of sample cases required to proportionately reflect the growth in JVs for just a 10 year period, and then only for German / Chinese JVs.

Year	# of JV	Required Sample Size
1979	7	1
1980	27	4
1981	30	5
1982	19	3
1983	107	16
1984	741	106
1985	1412	202
1986	892	128
1987	1395	200
1988	3900	558
1989	3663	524
	Total	1,747

Table 1.6

This table provides a frequency count and percentage expression of the incidence of the sectoral distribution of JVs in the sample as detailed in variable C6 *the type of JV*, which is subdivided into 6 categories viz : Manufacturing = 1, Civils and Construction = 2, Retail = 3, Service = 4, Infrastructural = 5, and Other = 6. One case *('Mi' 10)* has both manufacturing and service functions is retained in the data matrix by its dominant activity i.e. manufacturing (as in this table), although in Figure 7.1. Chapter Seven it is in the service sector to provide variability. It is clear that the majority of JVs in the sample are engaged in manufacturing. One case, *'Mi10'* which has both *manufacturing* and *service* functions is retained in the data matrix as *manufacturing*, although in Figure 7.1. Chapter Seven it is shown in the *service* sector to provide some variability.

Tabulated Statistics

TYPEofJV	Count	% of Column	% of Table
1	22	91.67	91.67
4	1	4.17	95.83
6	1	4.17	100.00
N =	24		

Table 1.7

The following table is a tabulation of the data contained in variable C7 *Foreign Partner Motive.* The entries into this table are based upon the categories Global Strategy = 1, Regional strategy = 2, Competitive Response = 3, Market Entry = 4, Location Specific Advantage = 5. The dominant motive is found to be *market entry* although *regional strategy* is also important, and there may be cases where these may be interdependent -

Tabulated Statistics

FPMotive	Count	CumCnt	Percent	CumPct
1	5	5	20.83	20.83
2	3	8	12.50	33.33
4	14	22	58.33	91.67
5	2	24	8.33	100.00
N =	24			

Table 1.8

This table is an analysis of 4 variables C77 — Exports of foreign partners brand products only ; C96 — Foreign partner purchases JV's products for other markets ; C103 — JV has independent export strategy ; and C123 — Sales staff are regionally located. The purpose of this analysis is to illustrate the variation in actual entry motive and is related to the analysis in Chapter Seven 1(d) *Foreign Partner Motive.*

Data Matrix #	C77	C96	C103	C123	C7
1	0	1	1	0	4
2	1	0	1	1	4
3	1	1	0	1	1
4	0	0	1	0	4
5	1	1	0	1	4
6	1	1	0	1	4
7	1	0	1	1	1
8	1	0	0	0	1
9	1	1	1	1	5
10	1	1	0	1	4
11	0	0	1	1	2
12	1	1	0	0	2
13	0	0	0	1	2
14	1	1	0	1	4
15	1	1	1	0	4
16	1	1	0	1	4
17	1	1	0	1	1
18	1	1	0	1	4
19	1	1	0	1	1
20	1	0	0	1	4
21	1	0	0	0	4
22	1	0	0	1	4
23	1	0	0	1	4
24	1	1	0	1	5

Table 1.9

The following tabulation is the analysis of variable C9, the *Stage of Development.* This is the data used to form Chart 1.3 in Chapter 7. 1(e), which shows that over 40% of JVs in the sample are mature businesses. It is perhaps to be expected that the proportion of cases being in the *growth* and *establishment* phases progressively decreases (Establishment = 1 Growth = 2 Mature = 3) :-

Tabulated Statistics
ROWS : STAGEdev

	Count	% of COL	% of TBL
1	6	25.00	25.00
2	8	33.33	58.33
3	10	41.67	100.00
N =	24		

Table 1.9(a)

The following tables are analyses of the variable C9 *The Stage of Development*, the purpose of which is to determine the age range within the sample as related to the available information of the population. This enables a calculation as to the representativeness of the sample and verification of the adequacy of the sample size. (Mature = 3 ; Growth = 2 Establishment = 1)

Descriptive Statistics

Variable	N	Mean	Median	TrMean	StDev	SEMean
C9-3	10	8.700	9.000	8.625	2.869	0.907
Variable	Min	Max	Q1	Q3		
C9-3	4.000	14.000	6.750	10.250		

Descriptive Statistics

Variable	N	Mean	Median	TrMean	StDev	SEMean
C9-2	8	6.250	6.500	6.250	2.435	0.861
Variable	Min	Max	Q1	Q3		
C9-2	3.000	10.000	4.000	8.000		

Descriptive Statistics

Variable	N	Mean	Median	TrMean	StDev	SEMean
C9-1	6	3.50	3.00	3.50	3.33	1.36
Variable	Min	Max	Q1	Q3		
C9-1	1.00	10.00	1.00	4.75		

Table 1.10

This table analyses the incidence of success amongst the sample JVs, based upon the data matrix variable C10 *'JV Viability'*. It shows that two-thirds of the sample JVs are profitable, whereas one-third are either not profitable or at break even. This table is the source of the data which forms Chart 1.4 in Chapter 7. 1(f). (Non-profitable = 1 Break even = 2 Profitable = 3).

Tabulated Statistics
ROWS : JVViable

	Count	% of COL	% of TBL
1	3	12.50	12.50
2	6	25.00	37.50
3	15	62.50	100.00
N =	24		

Table 1.11

The following table analyses the variable C 37 *Foreign Partner Proportion of Equity* in the Data Matrix, and is the input into Chapter 7. 1(g) Chart 1.5. The findings are that a significant majority of the sample cases involve a majority shareholding by the foreign partner. (Minority = 1 Majority = 2 Equal = 3). 2 cases are equally owned with a Taiwanese partner and are shown in Figure 7.5 Chapter Seven, although they are retained as majority foreign owned in the data matrix, to discriminate between foreign ownership and local ownership. It is clear that the majority of JVs in the sample are foreign partner majority owned.

Tabulated Statistics
ROWS : FPpropEQ

	Count	% of COL	% of TBL
1	2	8.33	8.33
2	22	91.67	100.00
N=	24		

Table 1.12

This table analyses the incidence of management control within the sample JVs by way of analysis of Data Matrix variable C 47, and finds that whilst there is some sharing of responsibilities, and that the local partner has control in a small number of the sample cases, the majority of management control rests with the foreign partner. This issue is discussed in greater detail in Chapter 7. 1(h). (Shared equally = 1 Unequally = 2 Foreign partner = 3 Local partner = 4).

Tabulated Statistics
ROWS: MGT/cont

	Count	% of COL	% of TBL
2	1	4.17%	4.17%
3	21	87.50%	91.67%
4	2	8.33%	100.00%
N =	24		

Table 1.13

This table is an analysis of Data Matrix variable data C 59 *Proprietary Knowledge has been Transferred en bloc*, and reveals that 75% of the sample cases transferred proprietary knowledge to the JV. This data is the basis for Chart 1.7 in Chapter 7.1(h). The input data into this table results from case study inputs of foreign partners who have contributed proprietary knowledge to the JVs, and does not account for the further assimilation of technology, by the local partner by way of his involvement.

Tabulated Statistics

	Count	% of COL	% of TBL
No	6	25.00%	25.00%
Yes	18	75.00%	75.00%
N=	24		

Table H 1(a)

A frequency analysis of the foreign partner's contribution of either *finance*, *enabling inputs* or *both* (C38), and the local partner's contribution of either *site*, *facilities*, *labour*, *technology*, or *finance* (C39), (Appendix 2 Table H1(a)) reveals that in 91.67% of cases the foreign partner's contribution involves both finance and

enabling inputs (i.e. mode '3'), from which we can deduce that in over 90% of cases the foreign partner would be seeking to negotiate a value on part of his inputs only. Just 1 case i.e. 4.17% involved enabling inputs only, the balance 95.83% of cases included some financial investment. Therefore, it follows that the value of the foreign partners' contributions in the sample cases is evident. (Finance = 1 Enabling inputs = 2 Both = 3)

Summary Statistics for Discrete Variables --- C 38

FPcont-n	Count	CumCnt	Percent	CumPct
1	1	1	4.17	4.17
2	1	2	4.17	8.33
3	22	24	91.67	100.00
N=	24			

Table H 1(b)

This analysis of the *local partners' contribution* C39 reveals that a similar number of cases, i.e. 95.24%, involves the contribution of unvaluable assets i.e. not evident, with only 4.76% of cases involving a financial investment by the local partner. (Site = 1 Facilities = 2 Labour = 3 Technology = 4 Finance = 5).

Summary Statistics for Discrete Variables --- C 39

LPcont-n	Count	CumCnt	Percent	CumPct
1	9	7	42.86	42.86
2	9	18	42.86	85.71
3	2	20	9.52	95.24
5	1	21	4.76	100.00
N=	21			
*=	3			

Table H 1(c)

The following analysis reveals the interactions in Table H 1(a) and H 1(b) above by way of a cross tabulation of the variables C38 *Foreign Partners' Contributions* (Finance = 1, Enabling Inputs = 2, Both = 3), and C39 *Local Partners' Contributions*, (Site = 1, Facilities = 2, Labour = 3, Technology = 4, Finance = 5).

Tabulated Statistics

ROWS: FPcont-n COLUMNS: LPcont-n

	1	2	3	5	ALL
1	0	1	0	0	1
	--	100.00	--	--	100.00
	--	11.11	--	--	4.76
	--	4.76	--	--	4.76
	0	1	0	0	1
2	0	1	0	0	1
	--	100.00	--	--	100.00
	--	11.11	--	--	4.76
	--	4.76	--	--	4.76
	0	1	0	0	1
3	9	7	2	1	19

	47.37	36.84	10.53	5.26	100.00
	100.00	77.78	100.00	100.00	90.48
	42.86	33.33	9.52	4.76	90.48
	9	7	2	1	19
ALL	9	9	2	1	21
	42.86	42.86	9.52	4.76	100.00
	100.00	100.00	100.00	100.00	100.00
	42.86	42.86	9.52	4.76	100.00
	9	9	2	1	21

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This analysis (table H 1(c)) correlates the incidence of the various contribution strategies observed in the case studies, to define the *prevalence of opportunities* for the negotiated over-valuation of contributions, which raise establishment costs. It follows, therefore, that cases in which both parties contribute only finance provide the least opportunities, and conversely cases in which both parties contribute only intangible inputs provide the most opportunities, to escalate costs. The data shows that no case of a finance-only contribution from both parties occurred in the cases studied, and only one case occurred in which the foreign partner contributed finance only and the local partner contributed intangibles only. Similarly only one case occurred in which both parties contributed only intangibles. The dominant format is whereby the foreign partner contributes both finance and enabling inputs, and the local partner contributes intangibles only, which accounts for 76.19% of all variations. Of which 42.86% of the cases involves both financial and enabling inputs from the foreign partner, and only use of site (i.e. negotiable value) contribution from the local partner. Similarly another frequent variation, accounting for 33.33% of all cases, involves the contribution of both finance and enabling inputs from the foreign partner, and an intangible contribution from the local partner in the form of *facilities*. The reverse situation whereby the foreign partner contributes both finance and enabling inputs, and the local partner contributes only finance occurs in only 1 case i.e. 4.76% of all cases.

In this analysis *all* the cases involved the contribution by either or both of the parties, of inputs the value of which was achieved by negotiation. However, whilst the foreign partner contributed finance in *all* but two cases, the local partner contributed finance in only one case. So whilst both parties need to negotiate a high value for their intangible inputs in all cases, the level of need and the opportunities to elevate and establish the value of contributions is greatest for the local partner.

Table H 1(d)

The case studies identify the reason for *JVs raising developmental loans* in China (C22) as being the need to balance foreign exchange on current account, rather than the lack of funds within the parties, or their unwillingness to finance the JV. The contrary is most often true in that such loans are guaranteed by foreign exchange deposits. The analysis reveals that 62.5% of the sample has not raised funds locally

to finance JVs in China, indicating that extraordinary costs peculiar to China are not being incurred in this area in the majority of cases. (Yes = 1 No = 0)
Summary Statistics for Discrete Variables

JVloan	Count	CumCnt	Percent	CumPct
0	15	15	62.50	62.50
1	9	24	37.50	100.00
N=	24			

Table H 1(e)

The following analysis investigates whether production is subject to price / volume controls, i.e. limitations on the business which have an indirect cost implication. (C 46). The findings are that over 70% of the sample cases are not subjected to controls, indicating that such controls are not a cost burden on the majority of JVs in the sample. (No = 0 Yes = 1).

P/V/Dcon	Count	CumCnt	Percent	CumPct
0	17	17	70.83	70.83
1	7	24	29.17	100.00
N=	24			

Table H 1(f)

The following analysis investigates whether adaptation of the product to the local market results in direct costs and the loss of international scale benefits, and whether this is a cost burden on the sample JVs. (C 64). It is found that over 40% of the sample JVs incurred no cost in product adaptation at all, and only 12.5% tailored their product extensively to suit local the local market. So whilst over 50% of JVs adapted their products, it is thought unlikely that such costs would be unrecoverable and therefore be a burden. (None = 1 Some = 2 Extensive = 3).

PROadap1	Count	CumCnt	Percent	CumPct
1	9	10	41.67	41.67
2	11	21	45.83	87.50
3	3	24	12.50	100.00
N=	24			

Table H 1(g)

The incidence of the provision of extended credit terms which would result in indirect costs to the JV is investigated in the following analysis of (C 137) *the provision of credit.* (Appendix 2 table H 1(g)). It is found that the provision of credit is an important feature in JVs in China, with the importance of providing such facilities being highly important in 50% of the sample cases, and having a *medium* importance in a further over 40% of cases. Only 8.33% of the sample cases find that the provision of credit is of low importance. (Low = 1 Medium = 2 High = 3). : -

CREDIT	Count	CumPct	Percent	CumPct
1	2	2	8.33	8.33
2	10	12	41.67	50.00
3	12	24	50.00	100.00

N= 24

Table H 1(h)

Clearly accessing distant regions can limit market access and create both direct and indirect costs for the JV (C 144), in overcoming infrastructural and transportation limitations. The following analysis investigates the incidence of such cost burden on the sample JVs, and finds that there is no clear indication as to whether this is a prevalent burden. What is clear is that where accessing distant regions is necessary, there is an inevitable additional cost. The majority of JVs in China, however, are known to be mainly 'local' or 'nearby' regionally concentrated in which case the problem may not be a burden, or the JVs may be recovering any additional costs on their national pricing structure, in which case no overall cost burden is present. The analysis is almost evenly divided (No = 0 Yes = 1).

$access	Count	CumPct	Percent	CumPct
0	11	11	45.83	45.83
1	13	24	54.17	100.00
N=	24			

It is clear from the analyses of Tables H 1(d), H 1(e), H 1 (f), H 1(g) and H 1(h) above that more than half the sample cases have raised loans locally to satisfy foreign exchange current account regulations, thus incurring operational expenses. Although, whilst price, volume, and distribution controls do exist, and could affect accounting returns, almost two-thirds of the sample were not subject to such controls. Similarly, the cost burden of product adaptation does not appear to be prevalent with over 40% of the cases not adapting their product at all, and just over 45% having minor adaptation. Only three cases, i.e. 12.5% of all engaged in extensive product adaptation, this issue would also seem to be a minor cost burden.

The provision of extended credit appears to be a major operational cost area, and confirms the above data on the raising of loans locally. Extended credit is provided in almost 50% of cases, and a medium level of provision in over a further 40% of cases. Only 2 cases in all, i.e. 8.33% report a low level of importance of extended credit. The majority of cases do not suggest that costs limit access to distant market regions, although a large number of JVs i.e. 45.88% do find that the cost in accessing such markets is a limitation.

Whilst only around 30% of cases appear to burdened by costs in the areas of controls and around 60% in the area of adaptation, around half of all cases are affected by costs in the area of finance, by having to arrange local loans to balance foreign exchange and for extended credit to customers, and around the same number are burdened by additional operational costs in accessing distant regions, largely owing to infrastructural and transportation shortcomings.

Table H 1(i)

So it may be assumed from the foregoing that there are some costs, which whilst they may not be unique to China, have been shown to have some compound influence on operational costs. However, if such operational costs are having a significant effect on JV performance then it would reflect on the viability of the

businesses, especially when compared with those in other locations (thereby addressing the issue of whether costs are 'high' or 'higher'). An analysis is made of the 3 variables ; JV viability (C 10) (Non-profitable = 1, Break even = 2, Profitable = 3), JV performance (C 20) (Low = 1 Medium = 2 High = 3), and JV ROI as compared with other locations (C 21) (Low = 1 Similar = 2 High = 3), the latter of which is held as the control variable.

Tabulated Statistics

CONTROL: JVlocROI = 1
ROWS: JVviable COLUMNS: JVperfor

	1	2	3	ALL
1	0	3	0	3
	--	100.00	--	100.00
	--	60.00	--	30.00
	--	30.00	--	30.00
	0	3	1	4
2	3	1	0	4
	75.00	25.00	--	100.00
	75.00	20.00	--	40.00
	30.00	10.00	--	40.00
	3	1	0	4
3	0	0	0	0
	33.33	33.33	33.33	100.00
	25.00	20.00	100.00	30.00
	10.00	10.00	10.00	30.00
	0	0	0	0
ALL	4	5	1	10
	40.00	50.00	10.00	100.00
	100.00	100.00	100.00	100.00
	40.00	50.00	10.00	100.00
	4	5	1	10

CONTROL: JVlocROI = 2
ROWS: JVviable COLUMNS: JVperfor

	1	2	3	ALL
1	0	0	0	0
	--	--	--	--
	--	--	--	--
	--	--	--	--
	0	0	0	0
2	0	2	0	2
	--	100.00	--	100.00
	--	50.00	--	25.00
	--	25.00	--	25.00
	0	2	0	2

3	1	2	3	6
	16.67	33.33	50.00	100.00
	100.00	50.00	100.00	75.00
	12.50	25.00	37.50	75.00
	1	2	3	6
ALL	1	4	3	8
	12.50	50.00	37.50	100.00
	100.00	100.00	100.00	100.00
	12.50	50.00	37.50	100.00
	1	4	3	8

CHI-SQUARE = 5.500 WITH D.F. = 4

CONTROL= JVlocROI
ROWS: JVviable COLUMNS: JVperfor

	1	2	3	ALL
1	0	0	0	0
	..	..	..	..
	..	..	..	..
	..	..	..	..
	0	0	0	0
2	0	0	0	0
	..	..	..	..
	..	..	..	..
	0	0	0	0
3	0	1	5	6
	..	16.67	83.33	100.00
	..	100.00	100.00	100.00
	..	16.67	83.33	100.00
	0	1	5	6
ALL	0	1	5	6
	..	16.67	83.33	100.00
	..	100.00	100.00	100.00
	..	16.67	83.33	100.00
	0	1	5	6

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The indications from which are that *when China JV ROI is low* compared to other locations, which occurs in 41.66% of all cases, 30% of JVs perform at low levels and are breaking even, and 30% of them are profitable at all levels of performance, albeit with a low comparable ROI.

In the 33% of cases *where China JV ROI is similar* when compared to other locations, 12.5% of cases perform at a low level and 37.5% operate profitably. Overall those which perform at medium or high levels, do so profitably and account for over 80% of this group.

When China JV ROI is high as compared to other locations, no cases of break even performance occurred, all cases operated profitably with 83.33% of cases, i.e. 20.8% of all cases being highly viable, with high levels of performance, and with a high ROI as compared to JVs in other locations.

The overall view of the interaction of these 3 variables is that irrespective of whether the suggested establishment and operational costs are high or not, 62.5% of JVs in China are profitable at all levels of comparison with similar JVs in other locations. 58.33% of all cases' ROI is at a similar level or higher than in other locations.

Table H 1(j)

A multivariate regression analysis using 'JVlocROI' (C 21) as the dependent variable, 'JVviable' (C 10) and 'JVperfor' (C 20) as the independent variables, reveals the dependence of 'JVlocROI', which is the overall measure of JV performance, upon 'JVviable' which is the accounting measure of performance, and which is sensitive to both establishment and operational costs. Also to view the relationship between 'JVperfor' and 'JVlocROI' given that the former is formulated to compare results in relation to expectations as a measure of performance, and given the 'high - higher' question, and the fact that all the subject foreign partners have other JV location interests, then comparisons of the formulation of expectations, and the comparison of actuals are inevitable and implied in this hypothesis. The inclusion of both 'JVviable' and 'JVlocROI', whilst they may not be related, answers the 2 main questions i.e. are the subject JVs viable or excessively burdened with high costs?, and as a yardstick, are they comparable to others elsewhere? The purpose of this analysis is to investigate the relationship between *JV ROI as compared to other locations* i.e. the importation of a successful business formula, the *performance of JVs in terms of expectations and results* which concentrates on whether the performance is what was expected based upon experiences elsewhere, and also the actual v*iability* of the JV. The aim being to determine whether JVs in China perform as they would elsewhere, in which case there would be a relationship between these variables, and if not then the relationship would be tenuous, and there may indeed be factors peculiar to China such as high establishment and operational costs affecting JV performance in China.

The variable data has been *standardised* to enable comparison of variable influence from the *predictors* to the dependent variable on the basis of the output *coefficients.* The analysis in Table H 1(j) reveals that there is a relationship between the variables of over 50%. The P-values of the independent variables are also P = < 0.05 and therefore meet a 95% confidence level. The *standardised partial regression coefficients* are all positive and suggest that the components of viability which compose 'JVviable' have a close relationship with 'JVperfor', and there is a favourable comparison with 'JVlocROI'. The overall implication being that given the relationship between *ROI in China JVs* and *performance expectations* of results

based upon experience elsewhere, and also given that the majority of the sample JVs are *viable*, then successful business formulae can be 'exported' to China and operate successfully without any detectable detrimental cost burden.

Regression Analysis

The regression equation is
JVlocROs = 0.000 + 0.415 Jvviabls + 0.442 JVperfos

Predictor	Coef	Stdev	t-ratio	p
Constant	0.0000	0.1491	0.00	1.000
JVviabls	0.4150	0.1658	2.50	0.021
Jvperfos	0.4421	0.1658	2.67	0.014

s = 0.7305 R-sq = 51.3% R-sq (adj) = 46.6%

Analysis of Variance

SOURCE	DF	SS	MS	F	p
Regression	2	11.7926	5.8963	11.05	0.001
Error	21	11.2074	0.5337		
Total	23	23.0000			

SOURCE	DF	SEQ SS
JVviable	1	8.0000
Jvperfos	1	3.7926

Unusual Observations

Obs.	JVviabls	JVlocROs	Fit	Stdev.Fit	Residual	St.Resid
10	0.69	-1.021	0.771	0.228	-1.792	2.58R

R denotes an obs. with a large st. resid.

Table H 2(a)

The analysis in this table reveals that 90% of foreign participated JVs in the sample are formed with SOEs (Data Matrix variable C35 SOEs = 1 Provincial government Cos. = 2 Private = 3 Other = 4), many which are reported in the literature to be failing. Only 10% of all the sample JVs are with private and other .e.g. JVs, consortia.

Summary Statistics for Discrete Variables -- C 35

LPtype	Count	CumCnt	Percent	CumPct
1	10	10	50.00	50.00
2	8	18	40.00	90.00
3	1	19	5.00	95.00
4	1	20	5.00	100.00
N=	20			
*=	4			

Table H 2(b)

The causes of SOE failure are widely reported as being overwhelming overheads, outdated production and products, lack of management expertise and investment,

any of which would be a detrimental import into a new business. The SOEs' perceived needs are revealed by their motives for entering into various JVs, which are identified in this analysis of variable C8 as Products and technology = 1, Brands = 2, Management = 3, Investment = 4, Export and distribution channels = 5. The acquisition of management expertise is naturally not identified by incumbent managers as being their motive for forming JVs, rather the analysis reveals that 72.73% of local partners' main motive for forming JVs is the acquisition of products and technologies.

Summary Statistics for Discrete Variables -- C 8

LPmotive	Count	CumCnt	Percent	CumPct
1	16	16	72.73	72.73
3	1	17	4.55	77.27
4	4	21	18.18	95.45
5	1	22	4.55	100.00
N=	22			
*=	2			

Table H 2(c)

This table analyses variable C7 the *motives of foreign partners* in forming JVs and reveals that almost two-thirds of foreign partners formed JVs in China to gain market access. (Global strategy = 1, Regional strategy = 2, Competitive response = 3, Market entry = 4, Other location specific advantage = 5).

Summary Statistics for Discrete Variables -- C 7

FPmotive	Count	CumCnt	Percent	CumPct
1	5	5	20.83	20.83
2	3	8	12.50	33.33
4	14	22	58.33	91.67
5	2	24	8.33	100.00
N=	24			

Table H 2(d)

The *local partners business knowledge* (variable C41) is found by analysis in this table to be *adequate* in 55% of cases in the sample, with only 20% reporting high levels. Whilst this may suggest that the local partner may be able to manage the business in 75% of the cases, it may also suggest that he may be good enough to act opportunistically. (Low = 1 Adequate = 2 High = 3).

Summary Statistics for Discrete Variables -- C 41

LPbusEXP	Count	CumCnt	Percent	CumPct
1	5	5	25.00	25.00
2	11	16	55.00	80.00
3	4	20	20.00	100.00
N=	20			
*=	4			

Table H 2(e)

The fear of loss of control, technology, proprietary inputs, and financial probity is cited frequently in the literature, and results in the high number (87.5%) of foreign

partners in the sample who have acquired management control of their JVs. (Shared equally = 1, Unequally = 2, Foreign partner = 3, Local partner = 4).
Summary Statistics for Discrete Variables -- C 47

MGT/cont	Count	CumCnt	Percent	CumPct
2	1	1	4.17	4.17
3	21	22	87.50	91.67
4	2	24	8.33	100.00
N=	24			

Table H 2(f)

The issue of incumbent managers acceding to the need for quality management discussed earlier, has led to many negotiating battles, and resulted in management control most often, although not always, going to the majority partner. The analysis in this table of the interaction between variables C47 *Management Control* and C37 *foreign partners' proportion of total equity*, shows that where the foreign partner has acquired an equity majority, he has also retained management control in 87.5% of the sample cases studied, i.e. he has bought management control.
Tabulated Statistics -- C 47 and C 37

ROWS: FPpropEQ COLUMNS: MGT/cont

	2	3	4	ALL
1	0	0	2	2
	--	--	100.00	100.00
	--	--	8.33	8.33
	--	--	8.33	8.33
	0	0	2	2
2	1	21	0	22
	4.55	95.45	--	100.00
	100.00	95.00	--	91.67
	4.17	87.50	--	91.67
	1	21	0	22
ALL	1	21	2	24
	4.17	87.50	8.33	100.00
	100.00	100.00	100.00	100.00
	4.17	87.50	8.33	100.00
	1	21	2	24

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Table H 2(g)

In spite of having ultimate decisionmaking powers, many management functions are often left to local managers or to the local partner company. Analysis of the sample data finds that technical management has been retained by the foreign partner in over 91.67% of cases (C 49) (Foreign = 1, Local = 2, Joint = 3). In no case in the

sample is control of technical management passed entirely to the local partner, this is not the same issue as technology transfer, and involves many other concerns such as third market competence, leakage, and independence.

Summary Statistics for Discrete Variables - C49

TECH/mgt	Count	CumCnt	Percent	CumPct
1	22	22	91.67	91.67
3	2	24	8.33	100.00
N=	24			

Table H 2(h)

This table analyses the case of sales and marketing management where the foreign partner has retained an involvement, aside from his ultimate management control, in over 70% of cases (C 50). (Foreign = 1 Local = 2 Joint = 3). This is done in spite of the fact that the local partner is often experienced in the market in a similar business, and often has market access, regional operations, and effective influence.

Summary Statistics for Discrete Variables - C50

S&M/mgt	Count	CumCnt	Percent	CumPct
1	11	11	45.83	45.83
2	7	18	29.17	75.00
3	6	24	25.00	100.00
N=	24			

Table H 2(i)

The foreign partner has also retained involvement in the management of production in almost 60% of cases (C 51) (Foreign = 1 Local = 2 Joint = 3).

Summary Statistics for Discrete Variables - C51

PROD/mgt	Count	CumCnt	Percent	CumPct
1	11	11	45.83	45.83
2	10	21	41.67	87.50
3	3	24	12.50	100.00
N=	24			

Table H 2(j)

The foreign partner has given greater participation to the local partner in non-confidential functions, than he has in the area of financial management in which the foreign partner has retained involvement in almost 80% of cases, with his sole involvement in financial management in 62.5% of cases (C 52). (Foreign = 1, Local = 2, Joint = 3).

Summary Statistics for Discrete Variables - C52

FIN/mgt	Count	CumCnt	Percent	CumPct
1	15	15	62.50	62.50
2	5	20	20.83	83.33
3	4	24	16.67	100.00
N=	24			

Table H 2(k)

The strategic distribution of responsibilities is clearly visible in the cases of export management (C 53), where the foreign partner would most likely be best equipped to serve foreign markets, and also wish to retain control in that area, as a result it is found that 87.50% of the sample has responsibility for export activities solely in the hands of the foreign partner. (Foreign = 1 Local = 2 Joint = 3).

Summary Statistics for Discrete Variables - C53

EXP/mgt	Count	CumCnt	Percent	CumPct
1	21	21	87.50	87.50
2	3	24	12.50	100.00
N=	24			

Table H 2(l)

The reverse applies in the area of legal management in which the local partner has involvement in 87.50% of cases, owing to his greater familiarity, although the foreign partner jointly participates in about a third of that activity. (C54) (Foreign = 1, Local = 2, Joint = 3).

Summary Statistics for Discrete Variables - (54)

LEGALmgt	Count	CumCnt	Percent	CumPct
1	3	3	12.50	12.50
2	14	17	58.33	70.83
3	7	24	29.17	100.00
N=	24			

Table : Reference : H 2(m)

Therefore, whilst a local partner may relinquish majority and management control, he is not without influence in the JV owing to the number of his own staff transferred into the JV management team. Analysis of *Local management transferees from the local partner* (C 56) Appendix 2 Table H 2(g), reveals that the mean incidence of local partner transferees into management is 42%.

Whereas *Foreign expatriate presence in management hierarchy* (C 55) as analysed in Appendix H 2(h), shows that 57% of positions in the management hierarchy of the sample companies were expatriates. Although the mostly symbolic position of Chairman tends to be held by a local in almost three quarters of the cases (C 48) (Local = 1 Foreign = 2 Alternates = 3 Joint = 4)

Summary Statistics for Discrete Variables

Chairman	Count	CumCnt	Percent	CumPct
1	14	14	58.33	58.33
2	10	24	41.67	100.00
N=	24			

Table H 2(n)

The local partner's influence within a JV may be minimised by relinquishing majority and management control, but he is not entirely unrepresented given the controls embodied in statute, and more specifically in the establishment approvals by the authorities, who are often the parent or governing Ministry of the local partner. Analysis of the sample JVs' control / approval authority (C 45) reveals that over 70% of JVs come under the control of local government agencies, whereas analysis of (C 35) as in Appendix 2 Table H 2(a), reveals that 50% of the sample JVs are SOEs, a further 40% are SOEs which have been transferred to local the government. As more government companies are being transferred to local and provincial authorities, and JVs are becoming smaller overall, the control responsibility of central government is reducing. (C45) (Central Govt. = 1, Local Govt. = 2, Special Authority = 3).

Summary Statistics for Discrete Variables - (C45)

CON/auth	Count	CumCnt	Percent	CumPct
1	4	4	16.67	16.67
2	17	21	70.83	87.50
3	3	24	12.50	100.00
N=	24			

Table H 2(o)

The most common controlling mechanism used by the authorities derives from the periodic review, which frequently results in the adjustment of the establishment targets. 33.33% of the sample cases have minimum production quotas, whilst only two cases have a maximum target limit. 58.33% have no targets at all on production levels (C 83). (Minimum = 1 Maximum = 2 None = 3).

Summary Statistics for Discrete Variables - C83

PRODquot	Count	CumCnt	Percent	CumPct
1	8	8	33.33	33.33
2	2	10	8.33	41.67
3	14	24	58.33	100.00
N=	24			

Table H 2(p)

87.5% of the sample JVs have sales / turnover targets, with over 70% of JVs either meeting or exceeding their targets (C 85). (Not met = 1, Met = 2, Exceeded = 3, None = 4).

Summary Statistics for Discrete Variables - C85

Targets3	Count	CumCnt	Percent	CumPct
1	4	4	16.67	16.67
2	12	16	50.00	66.67
3	5	21	20.83	87.50
4	3	24	12.50	100.00
N=	24			

Table H 2(q)

Whilst there need not be a consensus on the level of targets, they are most often the result of mutual agreement, as such 87.5% of the sample JVs find them to be reasonable (C 18). (Unreasonable = 1, Reasonable = 2, None = 3).

Summary Statistics for Discrete Variables - C18

Targets2	Count	CumCnt	Percent	CumPct
1	3	3	12.50	12.50
2	21	24	87.50	100.00
N=	24			

Table H 2(r)

JV approval and establishment targets are met or exceeded in almost 80% of cases (C 17). (Met = 1, Not met = 2, Exceeded = 3, None = 4).

Summary Statistics for Discrete Variables - C17

Targets1	Count	CumCnt	Percent	CumPct
1	12	12	50.00	50.00
2	4	16	16.67	66.67
3	7	23	29.17	95.83
4	1	24	4.17	100.00
N=	24			

Table H 2(s)

The highly regulated local environment can influence strategy components, limiting the JVs' freedom to formulate and implement strategies. Authority approvals are often required for products and their specifications, financial structures, prices, volumes, materials and components, and labour. Analysis of the case study data, however, finds that over 70% of the sample JVs are not subject to price / volume / distribution controls (C 46). (Yes = 1 No = 0)

Summary Statistics for Discrete Variables - C46

P/V/Dcon	Count	CumCnt	Percent	CumPct
0	17	17	70.83	70.83
1	7	24	29.17	100.00
N=	24			

Table H 2(t)

The regulations related to foreign exchange subsistence have changed during the current period of analysis, from a system requiring the earning of foreign exchange to meet requirements, to a system requiring a surplus on current account sufficient to meet the purchase cost of requisite foreign exchange. 29.17% of the sample cases are either exempt from foreign exchange restriction either because of their establishment terms or by way of their structure e.g. WFOEs. A further 33.33% failed to meet either their foreign exchange earnings target or their current account balance position to an appropriate level. The remaining 37.5% of the sample either met or exceeded the required level (C 84). (Not met = 1, Met = 2, Exceeded = 3 None = 4).

Summary Statistics for Discrete Variables - C84

EXPforex	Count	CumCnt	Percent	CumPct
1	8	8	33.33	33.33

2	7	15	29.17	62.50
3	2	17	8.33	70.83
4	7	24	29.17	100.00
N=	24			

Table H 2(u)
Column Mean -- C 55
Mean of Expats = 46.667

Table H 2(v)
Column Mean -- C 56
Mean of LOCmngrs = 43.333

Table H 2(w)
A cross tabulation of *local partner type* (C35) (SOE = 1 Prov.Govt. Co. = 2 Private = 3 Other = 4) and *control authority* (C45) (Central Govt. = 1 Local Govt. = 2 Special authority = 3) investigates the incidence of authority control on local partners according to their type.
Tabulated Statistics
ROWS: LPtype COLUMNS: CONTauth

	1	2	3	ALL
1	2	7	1	10
	20.00	70.00	10.00	100.00
	50.00	46.67	100.00	50.00
	10.00	35.00	5.00	50.00
	2	7	1	10
2	2	6	0	8
	25.00	75.00	--	100.00
	50.00	40.00	--	40.00
	10.00	30.00	--	40.00
	2	6	0	8
3	0	1	0	1
	--	100.00	--	100.00
	--	6.67	--	5.00
	--	5.00	--	5.00
	0	1	0	1
4	0	1	0	1
	--	100.00	--	100.00
	--	6.67	--	5.00
	--	5.00	--	5.00
	0	1	0	1
ALL	4	15	1	20
	20.00	75.00	5.00	100.00
	100.00	100.00	100.00	100.00
	20.00	75.00	5.00	100.00
	4	15	1	20

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Table H 3(a)

This analysis identifies the number of foreign partners who have transferred proprietary knowledge to their JVs. (Yes = 1 No = 0). The indications are that 75% of foreign partners have transferred proprietary knowledge.

Summary Statistics for Discrete Variables - C59

PROPknow	Count	CumCnt	Percent	CumPct
0	6	6	25.00	25.00
1	18	24	75.00	100.00
N=	24			

Table H 3(b)

This analysis identifies the frequency with which technology transfer is contained within expatriate staff irrespective of the frequency with which it is transferred to the JV as in Table H 3(a) above. (Yes = 1 No = 0). The indications are that whilst proprietary knowledge is transferred to JVs in 75% of cases as above, it is found here that it is contained within expatriate staff in over 45% of the sample cases.

Summary Statistics for Discrete Variables - C67

TECtran1	Count	CumCnt	Percent	CumPct
0	13	13	54.17	54.17
1	11	24	45.83	100.00
N=	24			

Table H 3(c)

This table analyses the quality position that the foreign partners' contribution makes to the JVs in terms of whether the JVs' products are the state of the art in China. (Yes = 1 No = 0). This is an important distinction to make because it indicates the continuing value of the foreign partner to the JV in cases where he has retained / contained such proprietary knowledge.

Summary Statistics for Discrete Variables - C63

PROstate	Count	CumCnt	Percent	CumPct
0	1	1	4.17	4.17
1	23	24	95.83	100.00
N=	24			

Table H 3(d)

Whilst the foregoing table has shown that the technology transferred by the foreign partner to the JV has been the state of the art for China, this table analyses whether a retention strategy is also in operation whereby the foreign partner has retained a superior technology. (Yes = 1 No = 0).

Summary Statistics for Discrete Variables - C61

SUPtechy	Count	CumCnt	Percent	CumPct
0	14	14	58.33	58.33
1	10	24	41.67	100.00
N=	24			

Table H 3(e)

This table analyses the incidence of technology assimilation of the local partner, and assumes that whilst some technology is transferred directly, some is also assimilated by the local partner by his involvement in the business. (Low = 1 Developable = 2 Independent = 3). The containment strategy appears to be effective insofar as whilst 75% of the sample cases have transferred proprietary know how to the JVs, and over 45% of the total have contained this within expatriate staff, the local partners have only acquired an independent level of competence in 37.5% of cases.

Summary Statistics for Discrete Variables - C68

TECassim	Count	CumCnt	Percent	CumPct
1	6	6	25.00	25.00
2	9	15	37.50	62.50
3	9	24	37.50	100.00
N=	24			

Table H 3(f)

This analysis shows the risk of assimilation to the local partner insofar as a high proportion of the JVs' employees are transferees from the local partners' main businesses, and as discussed in Chapter Three, are often still on his payroll and welfare umbrella given the customary commitment that employers have in China. (%)

Column Mean - C120

Mean of Local Staff = 49.583 (%)

Table H 3(g)

This table analyses the incidence within the sample of sales being made through the local partners' regional operations. The importance of this data is show that whilst the foreign partner may have management control, the local partner still has a valuable role to play in generating business in a large proportion of the sample. The implication being that the local partners producing such sales may be the ones to whom the foreign partner delegates some responsibility. (Yes = 1 No = 0).

Summary Statistics for Discrete Variables - C138

LPregio1	Count	CumCnt	Percent	CumPct
0	14	14	58.33	58.33
1	10	24	41.67	100.00
N=	24			

Table H 3(h)

This table analyses the frequency with which the sample cases share responsibilities in the critical area of sales and marketing management, which as is shown above can result in sales being generated through the local partners regional operations and through his local knowledge and connections. (Foreign = 1 Local = 2 Joint = 3).

Summary Statistics for Discrete Variables - C50

S&Mmgt	Count	CumCnt	Percent	CumPct
1	11	11	45.83	45.83
2	7	18	29.17	75.00
3	6	24	25.00	100.00

N= 24

Table H 3(I)

Indications as to the willingness of the foreign partner to cooperate and the intention retain proprietary know-how can be got from an analysis of R&D in the next two tables. R&D is done both in China and overseas, the assumption being that if a foreign partner were unwilling to transfer the latest technology then he would not engage in R&D in co-operation with the local partner. (Foreign Partner = 1 Local partner = 2 Jointly = 3). The indications are that a significant majority of the foreign partners' R&D done overseas is done by him alone, and thus containing the findings. A small amount of overseas R&D is done in association with the local partner, and this may have much to do with local market product adaptation.

Summary Statistics for Discrete Variables – C 94

R&Doseas	Count	CumCnt	Percent	CumPct
1	23	23	95.83	95.83
2	1	24	4.17	100.00
N=	24			

Table H 3(j)

The situation of R&D done in China is different in that the majority is carried out with the local partner, although 33.33% of R&D is done in China by the foreign partner alone. Overall between these two tables there is a clear indication that the foreign partner operates a containment strategy on newly developed technologies.

Summary Statistics for Discrete Variables – C 95

R&Dchina	Count	CumCnt	Percent	CumPct
1	2	2	8.33	8.33
2	14	16	58.33	66.67
3	8	24	33.33	100.00
N=	24			

Table H 3(k)

This table analyses the relevant business origins of the local partner, which can indicate the likelihood of his having experience, market access, appropriate connections, distribution channel access, and other contributions to make which ought be embraced within the controlling management structure. Local partners' main business is Similar = 1 Different = 2.

Summary Statistics for Discrete Variables - C36

LPbusnes	Count	CumCnt	Percent	CumPct
1	17	17	85.00	85.00
2	3	20	15.00	100.00
N=	20			

Table H 3(l)

The critical issue of market access assumed to come from a local partner who has his origins in a similar business to that of the JV is analysed in this table. It is found that whilst 85% of local partners were in a similar business, only 52% of them had market access to contribute to the JV. (Yes = 1 No = 0)

Summary Statistics for Discrete Variables - C40

LPaccess	Count	CumCnt	Percent	CumPct
0	9	9	47.37	47.37
1	10	19	52.63	100.00
N=	19			
*=	5			

Table H 3(m)

This table analyses the sources by which market access / distribution channels access has been acquired. Clearly as has been discussed some local partners have market access to contribute, whereas others do not. It is found that a very low level of distribution channel access has been inherited from the local partner (16.67%), and the a larger amount has been created by capitalising on existing channels to market, although the greater part has been developed by the JV independently. (Inherited = 1 Existing = 2 Developed = 3).

Summary Statistics for Discrete Variables - C143

DISTchan	Count	CumCnt	Percent	CumPct
1	4	4	16.67	16.67
2	5	9	20.83	37.50
3	15	24	62.50	100.00
N=	24			

Table H 3(n)

The effectiveness of the local partners' inputs is evident from his prior achievements in the same market. This analysis provides a mean market share (%) of the sample JVs.

Column Mean - C89]

Mean of LPmarkSH = 14.548 (%)

Table H 3(o)

A major contribution which can be expected from an experienced and well connected local partner is to have effective influence with customers, authorities, and suppliers. However, it is found just as with distribution channel access, that despite the 85% similarity of the local partners' main business, only 43% of local partners contributed effective levels of influence and connections. (Ineffective = 1 Effective = 2).

Summary Statistics for Discrete Variables - C141

LPstroke	Count	CumCnt	Percent	CumPct
1	13	13	56.52	56.52
2	10	23	43.48	100.00
N=	23			
*=	1			

Table H 3(p)

This table is a cross tabulation of the variables C143 d*istribution channel access* and C144 *the cost in accessing distant regions limits market access*, the purpose of which is to investigate the relative efficiency of distribution channels according to whether they were *inherited* from the local partner, *existing* and common to the industry, or *developed* by the JVs. The indications are that those *inherited* from the

local partner are economically the most efficient. Those *existing* in the environment are the least economical probably because they are a competitive arena, those *developed* are balanced. The indications are that not only do local partners contribute access but their contributions are highly efficient.

Tabulated Statistics

ROWS: DISTchan COLUMNS: $access

	0	1	ALL
1	3	1	4
	75.00	25.00	100.00
	27.27	7.69	16.67
	12.50	4.17	16.67
	3	1	4
2	1	4	5
	20.00	80.00	100.00
	9.09	30.77	20.83
	4.17	16.67	20.83
	1	4	5
3	7	8	15
	46.67	53.33	100.00
	63.64	61.54	62.50
	29.17	33.33	62.50
	7	8	15
ALL	11	13	24
	45.83	54.17	100.00
	100.00	100.00	100.00
	45.83	54.17	100.00
	11	13	24

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COUNT

Table H 4(a)

This analysis establishes that the majority (90%) of local partners are SOEs. (SOE = 1, Prov. Govt. Co. = 2, Private = 3, Other = 4).

Summary Statistics for Discrete Variables

LPtype	Count	CumCnt	Percent	CumPct
1	10	10	50.00	50.00
2	8	18	40.00	90.00
3	1	19	5.00	95.00
4	1	20	5.00	100.00
N=	20			
*=	4			

Table H 4(b)

The SOEs which are largely outdated and unprofitable seek to acquire products and technology in the majority of cases (72.73%). (Products/technology = 1, Brands = 2, Management = 3, Investment = 4, Export Distribution Channels = 5).

Summary Statistics for Discrete Variables

LPmotive	Count	CumCnt	Percent	CumPct
1	16	16	72.73	72.73
3	1	17	4.55	77.27
4	4	21	18.18	95.45
5	1	22	4.55	100.00
N=	22			
*=	2			

Table H 4(c)

Whereas this table shows that the motive of foreign partners in the sample is mainly market access (58,33%). (Global Strategy = 1, Regional strategy = 2, Competitive response = 3, Market entry = 4, Location specific advantage = 5).

Summary Statistics for Discrete Variables

FPmotive	Count	CumCnt	Percent	CumPct
1	5	5	20.83	20.83
2	3	8	12.50	33.33
4	14	22	58.33	91.67
5	2	24	8.33	91.67
N=	24			

Table H 4(d)

This table shows that the majority (52.63%) of local partners do have market access. (Yes = 1, No = 0)

Summary Statistics for Discrete Variable

LPaccess	Count	CumCnt	Percent	CumPct
0	9	9	47.37	47.37
1	10	19	52.63	100.00
N=	19			
*=	5			

Table H 4(e)

The market access referred to above is likely to be relevant to the JVs, given that the majority (85%) of local partners' origins are in a similar business. (Similar = 1. Different = 2).

Summary Statistics for Discrete Variables

LPbusnes	Count	CumCnt	Percent	CumPct
1	17	17	85.00	85.00
2	3	20	15.00	100.00
N=	20			
*=	4			

Table H 4(f)

This table indicates that a measure of competition pre-existed the establishment of the sample JVs, in that suppliers were present in the market in 87.5% of cases. (Yes = 1 No = 0).

Summary Statistics for Discrete Variables

LOCsupp	Count	CumPct	Percent	CumPct
0	3	3	12.50	12.50
1	21	24	87.50	100.00
N=	24			

Table H 4(g)

The JVs are found to have a substantial mean market share, perhaps because many of them are highly specialised businesses.

Column Mean - C91
Mean of MarkSHna = 12.446

Table H 4(h)

However, this table indicates that their sales are highly concentrated in nearby regions, suggesting that the JVs' distant market access is lacking.

Column Mean - C92
Mean of MarkSHre = 27.562

Table H 4(i)

This table is a cross tabulation of C138 *the local partner regional operations,* (Yes = 1, No = 0) and 143 *the method of acquisition of market access,* (Inherited = 1, Existing = 2, Developed = 3) whilst holding C140 *the market accessed* (HQ province = 1, Nearby province = 2, Widespread = 3) as the control variable, and reveals that the market access derived from the local partner reduced proportionately further away from the home province.

Tabulate Statistics

CONTROL: MktAXES1 - 1 - C 140 - HQ Province
ROWS: DISTchan - C 143 COLUMNS: LPregio1 - C 138

	0	1	ALL
1	0	1	1
	--	100.00	100.00
	--	50.00	33.33
	--	33.33	33.33
	0	1	1
2	1	0	1
	100.00	--	100.00
	100.00	--	33.33
	33.33	--	33.33
	1	0	1
3	0	1	1
	--	100.00	100.00
	--	50.00	33.33
	--	33.33	33.33
	0	1	1
ALL	1	2	3
	33.33	66.67	100.00

	100.00	100.00	100.00
	33.33	66.67	100.00
	1	2	3

CONTROL: MktAXES1 - 2 - C 140 - Nearby Province
ROWS: DISTchan - C 143 COLUMNS: LPregio1 - C 138

	0	1	ALL
1	0	2	2
	--	100.00	100.00
	--	40.00	25.00
	--	25.00	25.00
	0	2	2
2	0	1	1
	--	100.00	100.00
	--	20.00	12.50
	--	12.50	12.50
	0	1	1
3	3	2	5
	60.00	40.00	100.00
	100.00	40.00	62.50
	37.50	25.00	62.50
	3	2	5
ALL	3	5	8
	37.50	62.50	100.00
	100.00	100.00	100.00
	37.50	62.50	100.00
	3	5	8

CONTROL: MktAXES1 - 3 - C 140 - Widespread
ROWS: DISTchan - C 143 COLUMNS: LPregio1 - C 138

	0	1	ALL
1	0	1	1
	--	100.00	100.00
	--	25.00	8.33
	--	8.33	8.33
	0	1	1
2	1	1	2
	50.00	50.00	100.00
	12.50	25.00	16.67
	8.33	8.33	16.67
	1	1	2
3	7	2	9

	77.78	22.22	100.00
	87.50	50.00	75.00
	58.33	16.67	75.00
	7	2	9
ALL	8	4	12
	66.67	33.33	100.00
	100.00	100.00	100.00
	66.67	33.33	100.00
	8	4	12

CELL CONTENTS --
COUNT
% OF ROW
% OF COL
% OF TBL
COUNT

Table H 4(j)

This table is similar to that above except that C50 (Foreign = 1, Local - 2 Joint = 3) *the frequency with which the local partner is involved in sales and marketing* is operationalised, and reveals that where the local partner has been involved in sales and marketing, and distribution channels have been inherited by the JVs from the local partners, then all sales have involved the local partners inputs. This proportion decreases where *existing* channels are used and further when they are *developed.*

Tabulated Statistics

CONTROL : DISTchan = 1
ROWS : S&M/mgt COLUMNS : LPregio1

	0	1	ALL
1	0	0	0
	--	--	--
	--	--	--
	--	--	--
2	0	3	3
	--	100.00	100.00
	--	75.00	75.00
	--	75.00	75.00
3	0	1	1
	--	100.00	100.00
	--	25.00	25.00
	--	25.00	25.00
ALL	0	4	4
	--	100.00	100.00
	--	100.00	100.00
	--	100.00	100.00

CONTROL : DISTchan = 2
ROWS : S&M/mgt COLUMNS : LPregio1

	0	1	ALL
1	1	0	1
	100.00	--	100.00

	33.33	--	20.00
	20.00	--	20.00
2	2	0	2
	100.00	--	100.00
	66.67	--	40.00
	40.00	--	40.00
3	0	2	2
	--	100.00	100.00
	--	100.00	40.00
	--	40.00	40.00
ALL	3	2	5
	60.00	40.00	100.00
	100.00	100.00	100.00
	60.00	40.00	100.00

CONTROL : DISTchan = 3
ROWS : S&M/mgt COLUMNS : LPregio1

	0	1	ALL
1	9	1	10
	90.00	10.00	100.00
	90.00	20.00	66.67
	60.00	6.67	66.67
2	1	1	2
	50.00	50.00	100.00
	10.00	20.00	13.33
	6.67	6.67	13.33
3	0	3	3
	--	100.00	100.00
	--	60.00	20.00
	--	20.00	20.00
ALL	10	5	15
	66.67	33.33	100.00
	100.00	100.00	100.00
	66.67	33.33	100.00

CELL CONTENTS --

COUNT
% OF ROW
% OF COL
% OF TBL

Table H 5(a)

This table analyses the existence and the frequency with which export and foreign exchange targets are being met. It is found that almost 30% of the sample JVs have no such targets, and a similar number who do have targets fail to meet them, the balance of almost 40% either meet or exceed their targets. (Not met = 1, Met = 2, Exceeded = 3, None = 4).

Summary Statistics for Discrete Variables - C84

EXPforex	Count	CumCnt	Percent	CumPct

1	8	8	33.33	33.33
2	7	15	29.17	62.50
3	2	17	8.33	70.83
4	7	24	29.17	100.00
N=	24			

Table H 5(b)

When the above results are compared with domestic results in this table, it is clear that half as many JVs fail to meet their targets, despite the fact that there are less than half as many company not having a target. Almost twice as many companies meet or exceed their targets, all of which suggests that the sample JVs are locally intensive at the expense of exports. (Not met = 1, Met = 2, Exceeded = 3, None = 4).

Summary Statistics for Discrete Variables - C85

Targets3	Count	CumCnt	Percent	CumPct
1	4	4	16.67	16.67
2	12	16	50.00	66.67
3	5	21	20.83	87.50
4	3	24	12.50	100.00
N=	24			

Table H 5(c)

The foreign partner has management control of the sample JVs in the great majority of cases, and doubtless decides where the focus of the business should be, i.e. either in the domestic or foreign markets. (Shared equally = 1, Unequally = 2, Foreign partner = 3, Local partner = 4).

Summary Statistics for Discrete Variables - C47

MGT/cont	Count	CumCnt	Percent	CumPct
2	1	1	4.17	4.17
3	21	22	87.50	91.67
4	2	24	8.33	100.00
N=	24			

Table H 5(d)

The management of exports is retained by the foreign partner in the great majority (87.5%) of cases. (Foreign = 1, Local = 2, Joint = 3).

Summary Statistics for Discrete Variables - C53

EXP/mgt	Count	CumCnt	Percent	CumCnt
1	21	21	87.50	87.50
2	3	24	12.50	100.00
N=	24			

Table H 5(e)

This item reveals the cost advantage gained by the foreign partner by way of his involvement in production in China over other markets. The implication being that aside from global strategic issues, or strategies protecting other invested units in the

same region or elsewhere, the foreign partner could export products from the China production facility competitively into third markets. (%)
Column Mean - C98
Mean of COSTadv1 = 28.667

Table H 5(f)
There would not appear to be any product limitations to the foreign partner doing so given that this analysis finds that a significant majority of the sample JVs' products meet international industry standards. (Yes = 1, No = 0).
Summary Statistics for Discrete Variables - C82

PRODstan	Count	CumCnt	Percent	CumPct
0	1	1	4.17	4.17
1	23	24	95.83	100.00
N=	24			

Table H 5(g)
This latter point of quality is reinforced by the fact that this analysis finds that the foreign partner has an input into quality control. (Yes = 1, No = 0).
Summary Statistics for Discrete Variables - C81

QCinput	Count	CumCnt	Percent	CumPct
0	1	1	4.17	4.17
1	23	24	95.83	100.00
N=	24			

Table H 5(h)
Given that there is no reason founded on quality control, or international standards which would preclude the foreign partners from exporting from the JVs, it is also found that almost 80% of the products produced by the sample JVs carry their international brand, insofar as now 'new' brands have been created for China.
Summary Statistics for Discrete Variables - C73

JVbrands	Count	CumCnt	Percent	CumPct
0	19	19	79.17	79.17
1	5	24	20.83	100.00
N=	24			

Table H 5(i)
As a result a very small proportion of exports is carried out through the JVs' own distribution channels. (Yes = 1, No = 0).
Summary Statistics for Discrete Variables - C74

JVbraEXP	Count	CumCnt	Percent	CumPct
0	23	23	95.83	95.83
1	1	24	4.17	100.00
N=	24			

Table H 5(j)
Neither does the majority case management controlling foreign partner allow exports to be carried out by the local partner through the international distribution channels of his main business. (Yes = 1 No = 0).
Summary Statistics for Discrete Variables - C75

EXPchan1	Count	CumCnt	Percent	CumPct
0	23	23	95.83	95.83
1	1	24	4.17	100.00
N=	24			

Table H 5(k)

With exports clearly being tightly controlled by the foreign partner, it is clear that he would not incorporate any 'new' brand products into his channels, as is found in the majority of the sample cases in this analysis. (Yes = 1, No = 0).

Summary Statistics for Discrete Variables - C76

EXPchan2	Count	CumCnt	Percent	CumPct
0	21	21	87.50	87.50
1	3	24	12.50	100.00
N=	24			

Table H 5(l)

Further evidence as to the sample JVs' dedication to the local market insofar as over 58% of them have adapted their products to some extent or even extensively to suit the local market. (None = 1, Some = 2, Extensive = 3).

Summary Statistics for Discrete Variables - C64

PROadap1	Count	CumCnt	Percent	CumPct
1	10	10	41.67	41.67
2	11	21	45.83	87.50
3	3	24	12.50	100.00
N=	24			

Table H 5(m)

This table is a cross tabulation between the variables indicating the stage of development at which the sample JVs are at (C9 i.e. Establishment = 1, Growth = 2, Mature = 3), and the extent to which the sample JVs are subjected to export and foreign exchange targets and whether they are meeting or exceeding them (C84 i.e. . Not met = 1, Met = 2, Exceeded = 3, None = 4). The indications of which are that newly established are subjected to such targets less frequently than older JVs, which fail to meet targets in 33.33% of all cases, whereas only 38% of all cases actually meet or exceed targets.

Tabulated Statistics -

ROWS : STAGEdev - C9 Columns : EXPforex - C84

	1	2	3	4	ALL
1	0	1	0	5	6
	--	16.67	--	83.33	100.00
	--	14.29	--	71.43	25.00
	--	4.17	--	20.83	25.00
2	3	2	1	2	8
	37.50	25.00	12.50	25.00	100.00
	37.50	28.57	50.00	28.57	33.33
	12.50	8.33	4.17	8.33	33.33
3	5	4	1	0	10
	50.00	40.00	10.00	--	100.00
	62.50	57.14	50.00	--	41.67
	20.83	16.67	4.17	--	41.67

ALL	8	7	2	7	24
	33.33	29.17	8.33	29.17	100.00
	100.00	100.00	100.00	100.00	100.00
	33.33	29.17	8.33	29.17	100.00

CELL CONTENTS --
COUNT
% OF ROW
% OF COL
% OF TBL

Table H 5(n)

This table analyses the same data as the above, whilst holding C85 the domestic target variable as the controlling variable (Not met = 1, Met = 2, Exceeded = 3, None = 4). The purpose being to investigate the incidence of targets applied to newly established JVs, and the export performance of all JVs as compared to their performance in the domestic market.

Tabulated Statistics
CONTROL : Targets3 - 1 C85
ROWS: STAGEdev - C9 Columns : EXPforex - C84

	1	2	3	4	ALL
1	0	0	0	2	2
	--	--	--	100.00	100.00
	--	--	--	100.00	50.00
	--	--	--	50.00	50.00
2	0	0	0	0	0
	--	--	--	--	--
	--	--	--	--	--
	--	--	--	--	--
3	2	0	0	0	2
	100.00	--	--	--	100.00
	100.00	--	--	--	50.00
	50.00	--	--	--	50.00
ALL	2	0	0	2	4
	50.00	--	--	50.00	100.00
	100.00	--	--	100.00	100.00
	50.00	--	--	50.00	100.00

CONTROL: Targets3 = 2 -- C 85
ROWS: STAGEdev -- C 9 COLUMNS: EXPforex -- C 84

	1	2	3	4	ALL
1	0	0	0	0	0
	--	--	--	--	--
	--	--	--	--	--
	--	--	--	--	--

2	3	1	0	2	6
	50.00	16.67	--	33.33	100.00
	50.00	25.00	--	100.00	50.00
	25.00	8.33	--	16.67	50.00
3	3	3	0	0	6
	50.00	50.00	--	--	100.00
	50.00	75.00	--	--	50.00
	25.00	25.00	--	--	50.00
ALL	6	4	0	2	12
	55.56	33.33	--	11.11	100.00
	100.00	100.00	--	100.00	100.00
	55.56	33.33	--	11.11	100.00

CONTROL: Targets3 = 3 - C 85
ROWS: STAGEdev - C 9 COLUMNS: EXPforex - C 84

	1	2	3	4	ALL
1	0	0	0	1	1
	--	--	--	100.00	100.00
	--	--	--	100.00	16.67
	--	--	--	20.00	20.00
2	0	1	1	0	2
	--	50.00	50.00	--	100.00
	--	50.00	50.00	--	40.00
	--	20.00	20.00	--	40.00
3	0	1	1	0	2
	--	50.00	50.00	--	100.00
	--	50.00	50.00	--	40.00
	--	20.00	20.00 --	--	40.00
ALL	0	2	2	1	5
	--	40.00	40.00	20.00	100.00
	--	100.00	100.00	100.00	100.00
	--	40.00	40.00	20.00	100.00

CONTROL: Targets3 = 4 - C 85
ROWS: STAGEdev - C 9 COLUMNS: EXPforex - C 84

	1	2	3	4	ALL
1	0	1	0	2	3
	--	33.33	--	66.67	100.00
	--	100.00	--	100.00	100.00
	--	33.33	--	66.67	100.00
2	0	0	0	0	0
	--	--	--	--	100.00
	--	--	--	--	100.00

	--	--	--	--	100.00
3	0	0	0	0	0
	--	--	--	--	--
	--	--	--	--	--
	--	--	--	--	--
ALL	0	1	0	2	3
	--	33.33	--	66.67	100.00
	--	100.00	--	100.00	100.00
	--	33.33	--	66.67	100.00

CELL CONTENTS --

COUNT
% OF ROW
% OF COL
% OF TBL

Table H 6(a)

There is a high level of similarity between the sample JVs and their competitors of 75%, which indicates that the supply system infrastructure and state company linkages and industry routes are being commonly used by the sample JVs and their competitors, indicating that there is a relatively low level of development of distribution channels. The *'Theta'*, *'Pi'*, *'Mi'* and *'Rho'* case studies show that these companies have spent substantially in distribution to develop their own channels and access the market. (Similar = 1 Different = 2).

Summary Statistics for Discrete Variables - C147

DISTstrt	Count	CumCnt	Percent	CumPct
1	18	18	75.00	75.00
2	6	24	25.00	100.00
N=	24			

Table H 6(b)

This analysis reveals the sources from which distribution channel access has been acquired. The findings are that almost two-thirds of the sample JVs have developed their own routes to market, indicating the inadequacy of available channels. (Inherited = 1 Existing = 2 Developed = 3).

Summary Statistics for Discrete Variables - C143

DISTchan	Count	CumCnt	Percent	CumPct
1	4	4	16.67	16.67
2	5	9	20.83	37.50
3	15	24	62.50	100.00
N=	24			

Table H 6(c)

As it has been shown above that distribution channels are underdeveloped and that the sample JVs and their competitors use similar routes to market, and that the majority of the sample firms have developed their own channels to compensate, this analysis shows the extent to which these developments have radiated away from the JVs' location i.e. the geographic extent of market access achieved. (HQ province = 1 Nearby province = 2 Widespread = 3). This is important because generally it is

known that SOEs are regionally intensive local firms, and their extent of market access contributed is such. Any further afield expansion is likely *developed* as in this case it is indicated to be in over 50% of cases. Only 13% of the sample JVs find themselves constrained by lack of access or specialisation to within their own province, the majority of cases have acquired widespread market access to some measure, and the majority of this has been developed rather than inherited. Development of distant markets is more expensive given the level of underdevelopment and, therefore, must have some limitation on access / penetration.

Summary Statistics for Discrete Variables - C140

MktAXES1	Count	CumCnt	Percent	CumPct
1	3	3	13.04	13.04
2	8	11	34.78	47.83
3	12	23	52.17	100.00
N=	23			
*=	1			

Table H 6(d)

This analysis shows that over half of sales are made without recourse to the local partners' regional operations, although those which are, are also almost 50%, which suggests that the contribution of access from the local partner is an important part of the sample JVs' routes to the market, although it may also be that the local partners would have contributed more access if they were allowed to be more involved in sales and marketing. It also shows the importance of the developed channels created by the sample JVs. (Yes = 1 No = 0). :-

Summary Statistics for Discrete Variables - C138

LPregio1	Count	CumCnt	Percent	CumPct
0	13	13	54.17	54.17
1	11	24	45.83	100.00
N=	24			

Table H 6(e)

This analysis of the mean % of sales made through the local partners' regional operations indicates that whilst not all the sample JVs benefit from inherited market access, overall the mean percentage of sales contributed is considerable, although when taken across the whole sample population is relatively inefficient, and this may be affected by the limitation on the ability to contribute placed upon the local partners.

Column Mean

Mean of LPregio2= 8.7500 (%)

Table H 6(f)

The limitation to market access is not just based upon the ability to access and achieve there is also a cost implication involved, and this is targeted by this analysis which finds that the cost of accessing distant regions is about evenly balanced with a slightly greater indication that such costs resulting from low level of development do limit market access.(Yes = 1 No = 0).

Summary Statistics for Discrete Variables

$access	Count	CumCnt	Percent	CumPct
0	11	11	45.83	45.83
1	13	24	54.17	100.00
N=	24			

Table H 6(g)

This table analyses the mean level of market share (%) achieved by the sample JVs nationally, which indicates a significant level of achievement. Although it should be noted that many of the sample JVs are highly specialised firms, offering products superior to those locally available, and should achieve significant levels of market share. The effectiveness of market access in this respect becomes clear from a comparison of this value when compared to the regional value in Table H 6(h) following, the difference between which indicates the effectiveness of the developed distribution channels.

Column Mean

Mean of MarkSHna= 12.446 (%)

Table H 6(h)

Further to the above market share analysis for the national market, this analysis shows that where distribution channels are developed either because they are inherited or more recently and easily developed, then market share is greater. This indicates that the sample JVs are indeed affected by the historical supply system infrastructure insofar as the access they have inherited is locally intensive and is not sufficiently developed to provide ready market access on a widespread basis without investment and development by the JVs.

Column Mean

Mean of MarkSHre= 27.562

Table H 6(i)

Given that there has been shown to be some cost burden involved in accessing the market owing to the relative underdevelopment, it is found in this analysis that this additional cost is frequently (73% of cases) aggregated in national pricing, which inevitably affects competitiveness to some degree, especially if competitors are regionally intensive, as is the case with the majority of domestic Chinese firms owing to the historical supply system infrastructure proposed in this hypothesis. (Yes = 1 No = 0).

Summary Statistics for Discrete Variables - C145

PxsDIST	Count	CumCnt	Percent	CumPct
0	6	6	26.09	26.09
1	17	23	73.91	100.00
N=	23			
*=	1			

Table H 6(j)

If a developed distribution infrastructure were available would avoid costs which otherwise would be borne by a wholesaler or distributor. However, given that it is found that this function is often carried out by the JVs themselves or by operations

funded and managed by them, then there must be additional costs. This analysis seeks to identify costs incurred by JVs owing to the need to address the market with product delivery. (Local stocks = 1 Bespoke = 2 Central Stocks = 3).

Summary Statistics for Discrete Variables - C131

SellSTOK	Count	CumCnt	Percent	CumPct
1	8	8	33.33	33.33
2	6	14	25.00	58.33
3	10	24	41.67	100.00
N=	24			

Table H 6(k)

Additional costs incurred by the JVs would be incurred by the location of sales staff in distant regions to address the market owing to the absence of specialist agency and distributor networks, which were not appropriate in the historical supply system infrastructure. (Yes = 1 No = 0).

Summary Statistics for Discrete Variables - C123

SstfLOCD	Count	CumCnt	Percent	CumPct
0	6	6	25.00	25.00
1	18	24	75.00	100.00
N=	24			

Table H6(l)

Similarly the setting up of regional offices to manage sales and distribution can create additional costs for the sample JVs resulting from the underdevelopment of channels.

Summary Statistics for Discrete Variables - C127

SalesOFF	Count	CumCnt	Percent	CumPct
1	14	14	58.33	58.33
2	10	24	41.67	100.00
N=	24			

Table H 6(m)

The rarity of specialist agency networks is analysed by this table which shows the frequency with which sales are made through commission agents. It is found that almost two-thirds of the sample JVs do not use commission agents. (Yes = 1 No = 0)

Summary Statistics for Discrete Variables - C132

C/agent	Count	CumCnt	Percent	CumPct
0	15	15	62.50	62.50
1	9	24	37.50	100.00
N=	24			

Table H 6(n)

It has been shown that the absence of specialist agency networks and the low level of commercial development results in limitations to market access, and increased

costs. However, such costs can have an effect on access and penetration by the cost burden on prices resulting in reduced competitiveness. This analysis seeks to identify the level of effect by analysing the product sensitivity to price, (Low = 1 Medium = 2 High = 3), and finds that the majority of the sample JVs experience high levels of price sensitivity which must inevitably be exacerbated by additional costs related to the commercial underdevelopment of the market.

Summary Statistics for Discrete Variables - C106

$STIVITY	Count	CumCnt	Percent	CumPct
1	3	3	12.50	12.50
2	3	6	12.50	25.00
3	18	24	75.00	100.00
N=	24			

Table H 7(a)

This table analyses the frequency with which advertising has been a success or a failure (C155 i.e. Success = 1 Failure = 2) in circumstances when it is either prevalent in the JVs' industry or not (C156 i.e. yes = 1 No = 0). A distinction is also made between different levels of achievement of profitability (C10 i.e. Non-profitable = 1, Break even = 2, Profitable = 3) to determine whether the effectiveness of advertising is correlated to the profitability of the sample JVs.

Tabulated Statistics

CONTROL: Advtsng5 - C156 = 0

ROWS: JVviable - C10 COLUMNS: Advtsng4 - C155

	1	2	ALL
1	2	0	2
	100.00	--	100.00
	25.00	--	16.67
	16.67	--	16.67
2	2	2	4
	50.00	50.00	100.00
	25.00	50.00	33.33
	16.67	16.67	33.33
3	4	2	6
	66.67	33.33	100.00
	50.00	50.00	50.00
	33.33	16.67	50.00
ALL	8	4	12
	66.67	33.33	100.00
	100.00	100.00	100.00
	66.67	33.33	100.00

CONTROL: Advtsng5 - C156 = 1

ROWS: JVviable - C10 COLUMNS: Advtsng4 - C155

	1	2	ALL

1	0	0	0
	--	--	--
	--	--	--
	--	--	--
2	1	0	1
	100.00	--	100.00
	12.50	--	12.50
	12.50	--	12.50
3	7	0	7
	100.00	--	100.00
	87.50	--	87.50
	87.50	--	87.50
ALL	8	0	8
	100.00	--	100.00
	100.00	--	100.00
	100.00	--	100.00

CELL CONTENTS -
COUNT
% OF ROW
% OF COL
% OF TBL

Table H 7(b)

The Figure 7.12 in Chapter Seven shows the mean sales / turnover of the sample JVs during a sample 6 year period i.e. 1991 to 1996 inclusive, and also the coincident mean percentage of expenditure on promotion during the same period. It is clear that expenditure on promotion is not a consistent proportion of the increasing sales / turnover during the same period, indicating that it is transient and most probably intensive at the establishment phase as indicated by the value for 1991, and as is found by the analysis of Table H 7(c).

Table H 7(c)

This table analyses the motives for advertising, and finds that the majority of the sample JVs engage in advertising as an introductory vehicle.

Summary Statistics for Discrete Variables - C 153

Advtsng2	Count	CumCnt	Percent	CumPct
1	12	12	60.00	60.00
2	8	20	40.00	100.00
N=	20			
*=	4			

Table H 7(d)

This table finds that 58% of the sample JVs have sales growth at a higher rate than market development and economic growth. Of these 14 cases in the sample, 7 i.e. 50% are found by further analysis to have used only introductory advertising, indicating that the sales growth achieved within the sample has not been achieved by way of advertising, in at least 50% of the sample cases.

Summary Statistics for Discrete Variables - C 119

Sls:ECON	Count	CumCnt	Percent	CumPct
1	10	10	41.67	41.67

2	14	24	58.33	100.00
N=	24			

Table H 8(a)

This table investigates the sensitivity to price experienced by the sample JVs, which reveals that the majority of them experience high levels of sensitivity. (Low = 1, Medium = 2, High = 3).

Summary Statistics for Discrete Variables - C106

$STIVITY	Count	CumCnt	Percent	CumPct
1	3	3	12.50	12.50
2	3	6	12.50	25.00
3	18	24	75.00	100.00
N=	24			

Table H 8(b)

This analysis shows that typically the lowest level of price sensitivity is at the *bottom-end* of price positioning, and the highest level is at the *top-end*, so we may infer that the consumer is striving for a better deal and is not being careful of necessity. As sensitivity increases to the medium level, the *compliant* price position also becomes sensitive. At high levels of sensitivity all price positions are sensitive, with most at the *top-end* and least at the *bottom-end*.

75% of the sample reports high levels of price sensitivity, with almost half of these being most sensitive towards the top-end priced products. A slightly lesser 39% of the sample reports sensitivity at the compliant level of price, from those who are reported to be highly sensitive to price. There are almost as many cases of low level sensitivity at top-end prices, than there is high level sensitivity at bottom-end prices. (C106 - Low = 1 Medium = 2 High = 3), (C108 - Bottom end = 1, Compliant = 2 Top end = 3).

Tabulated Statistics

ROWS: $STIVITY - C106 COLUMNS: $positn - C108

	1	2	3	ALL
1	1	0	2	3
	33.33	--	66.67	100.00
	25.00	--	18.18	12.50
	4.17	--	8.33	12.50
2	0	2	1	3
	--	66.67	33.33	100.00
	--	22.22	9.09	12.50
	--	8.33	4.17	12.50
3	3	7	8	18
	16.67	38.89	44.44	100.00
	75.00	77.78	72.73	75.00
	12.50	29.17	33.33	75.00

ALL	4	9	11	24
	16.67	37.50	45.83	100.00
	100.00	100.00	100.00	100.00
	16.67	37.50	45.83	100.00

CELL CONTENTS -
COUNT
% OF ROW
% OF COL
% OF TBL

Table H 8(c)

This table is a cross tabulation of 4 variables which investigates the characteristic and situational responses of the consumer to the offerings of the sample JVs in China. (C106 - Low = 1 Medium = 2 High = 3), (C109 - Increasing = 1 Decreasing = 2), (C110 - Yes = 1 No = 2), (C111 - Costs driven = 1 Competition driven = 2).

(a)

It is found that where costs vary in line with economic change they cause increases in JV prices. Given that prices have only increased in these circumstances and none have decreased, this leads to high levels of price sensitivity in the consumer ; perhaps because prices are high, or perhaps there are no bargains to be had. Thus indicating that the consumer is sensitive to higher prices and the effects of market forces.

(b)

Similarly, where prices are competition driven, most of the sample has seen prices in JVs affected by economic change with 25% increasing and 75% decreasing. The consumer is aware that some reductions are available, and he is highly sensitive to prices as he tries to seek out a bargain.

(c)

It is noted that consumer price sensitivity is low as in *block 1* (Appendix 2 Table H 8(c), when only a small activity in terms of price increase occurs, and also when driven by costs in line with economic change. A similar trend appears as between *block 4* and *block 5* in that whilst all other conditions remain the same, price sensitivity changes from low to medium when there is an increase in prices. Occasions of high levels of price sensitivity are correlated with changes in prices in line with economic change, with the mode being when prices decrease creating opportunities.

Tabulated Statistics - Block 1
CONTROL: $shift2 = 1
CONTROL: $STIVITY = 1
ROWS: $shift1 COLUMNS: $change

	0	1	ALL
1	0	2	2
	--	100.00	100.00
	--	100.00	100.00
	--	100.00	100.00
2	0	0	0
	--	--	--

	--	--	--
	--	--	--
ALL	0	2	2
	--	100.00	100.00
	--	100.00	100.00
	--	100.00	100.00

CONTROL: $shift2 = 1 - Block 2
CONTROL: $STIVITY = 2
ROWS: $shift1 COLUMNS: $change

	0	1	ALL
1	0	0	0
	--	--	--
	--	--	--
	--	--	--
2	0	0	0
	--	--	--
	--	--	--
	--	--	--
ALL	0	0	0
	--	--	--
	--	--	--

CONTROL: $shift2 = 1 - Block 3
CONTROL: $STIVITY = 3
ROWS: $shift1 COLUMNS: $change

	0	1	ALL
1	0	5	5
	--	100.00	100.00
	--	100.00	100.00
	--	100.00	100.00
2	0	0	0
	--	--	--
	--	--	--
	--	--	--
ALL	0	5	5
	--	100.00	100.00
	--	100.00	100.00
	--	100.00	100.00

CONTROL: $shift2 = 2 - Block 4
CONTROL: $STIVITY = 1
ROWS: $shift1 COLUMNS: $change

	0	1	ALL
1	0	1	1
	--	100.00	100.00
	--	100.00	100.00
	--	100.00	100.00
2	0	0	0
	--	--	--
	--	--	--
	--	--	--
ALL	0	1	1
	--	100.00	100.00
	--	100.00	100.00
	--	100.00	100.00

CONTROL: $shift2 = 2 - Block 5
CONTROL: $STIVITY = 2
ROWS: $shift1 COLUMNS: $change

	0	1	ALL
1	1	0	1
	100.00	--	100.00
	50.00	--	33.33
	33.33	--	33.33
2	1	1	2
	50.00	50.00	100.00
	50.00	100.00	66.67
	33.33	33.33	66.67
ALL	2	1	3
	66.67	33.33	100.00
	100.00	100.00	100.00
	66.67	33.33	100.00

CONTROL: $shift2 = 2 - Block 6
CONTROL: $STIVITY = 3
ROWS: $shift1 COLUMNS: $change

	0	1	ALL
1	0	2	2
	--	100.00	100.00
	--	20.00	15.38
	--	15.38	15.38
2	3	8	11
	27.27	72.73	100.00
	100.00	80.00	84.62

	23.08	61.54	84.62
ALL	3	10	13
	23.08	76.92	100.00
	100.00	100.00	100.00
	23.08	76.92	100.00

CELL CONTENTS -
COUNT
% OF ROW
% OF COL
% OF TBL

Table H 9(a)

As discussed in the formation of this hypothesis (Chapter Five), it is often difficult to separate the various components of the product / proprietary know-how / brand combination. Matrix variable C 8 groups *products* and *technology* together on the assumption that any distinction might be tenuous and unreliable. *Brand* is also grouped with *product* and *technology* for the same reason, although a separate item is also dedicated to '*brand*' , and this is intended to 'house' data in the event of a *'brand only'* motive, which has not occurred in the sample.

72% of local partners' motives for the formation of JVs is the acquisition of products and technology, including brands where appropriate. The acquisition of management, investment and export distribution channels accounted for the balance of local partner motives. (C 8 - Products / Technology = 1, Brands = 2, Management = 3, Investment = 4, Export Distribution Channels = 5).

Summary Statistics for Discrete Variables - C8

LPmotive	Count	CumCnt	Percent	CumPct
1	16	16	72.73	72.73
3	1	17	4.55	77.27
4	4	21	18.18	95.45
5	1	22	4.55	100.00
N=	22			
*=	2			

Table H 9(b)

Over 90% of local suppliers (C 88), some of whom became local partners and others local competitors, manufactured products which fell far behind international standards during the years of 'isolation'. Clearly, these companies, the majority of whom are in a similar business (C 36), would seek to acquire state-of-the-art brands, quality, and products, to improve their prospects (C 60). A cross tabulation analysis of these variables finds that when local technology is inferior (95% of the sample), then it is found that almost 90% of the cases involve companies in a similar business with the foreign partner, and over 82% of these cases are for the acquisition of international state-of-the-art technology. (C36 - Similar = 1 Different = 2) (C60 - Yes = 1 No = 0) (C88 - Yes = 1 No = 0)

Tabulated Statistics
CONTROL: LOCtech - C88 = 0
ROWS: LPbusnes - C36 COLUMNS: TECstate - C60

	0	1	ALL

1	0	0	0
	--	--	--
	--	--	--
	--	--	--
2	0	1	1
	--	100.00	100.00
	--	100.00	100.00
	--	100.00	100.00
ALL	0	1	1
	--	100.00	100.00
	--	100.00	100.00
	--	100.00	100.00

CONTROL: LOCtech = 1
ROWS: LPbusnes COLUMNS: TECstate

	0	1	ALL
1	3	14	17
	17.65	82.35	100.00
	75.00	93.33	89.47
	15.79	73.68	89.47
2	1	1	2
	50.00	50.00	100.00
	25.00	6.67	10.53
	5.26	5.26	10.53
ALL	4	15	19
	21.05	78.95	100.00
	100.00	100.00	100.00
	21.05	78.95	100.00

CELL CONTENTS -
COUNT
% OF ROW
% OF COL
% OF TBL

Table H 9(c)

Although over 95% of the technology transferred to the sample Chinese JVs is of a standard being the most advanced in China (C 63). A useful check on this analysis comes from the contra-proposition which comes when local supplier technology is not inferior (5% of the sample), and it is found that there is no acquisition of technology by local companies in a similar business. (C63 - Yes = 1 No = 0)

Summary Statistics for Discrete Variables - C63

PROstate	Count	CumCnt	Percent	CumPct
0	1	1	4.17	4.17
1	23	24	95.83	100.00
N=	24			

Table H 9(d)

Local companies acquire access to products and the means of producing them by way of JVs in 50% (C 69) of the sample, and they manage to assimilate the technology and know-how to an independent or developable level of competence in 79% of cases, *without specific* transfer from the foreign partner (C 68). However, this is in spite of efforts by the foreign partners' to contain strategies within expatriate staff in over 45% of cases. (Yes = 1 No = 0).

Summary Statistics for Discrete Variables - C67

TECtran1	Count	CumCnt	Percent	CumPct
0	13	13	54.17	54.17
1	11	24	45.83	100.00
N=	24			

Table H 9(e)

Foreign partner's brands are attached to the products of 95% the sample JVs (C 72), and it is most often an essential part of a foreign partner's contributions. Whilst there are other ways of protecting technology, and know-how, by way of retention and internalisation, brands can only really be protected by ownership and are often the reason for taking majority and management control, and even for the establishment of WFOEs (e.g. *Gamma*). These analyses identify the level of assimilation of technology and proprietary knowledge within the local partner (C68 - Low = 1 Developable = 2 Independent = 3), and the frequency with which the foreign partners' brands are attached to the sample JVs' products (C72 - Yes = 1 No = 0).

Summary Statistics for Discrete Variables - C68

TECassim	Count	CumCnt	Percent	CumPct
1	6	6	25.00	25.00
2	9	15	37.50	62.50
3	9	24	37.50	100.00
N=	24			

Summary Statistics for Discrete Variables - C72

FPbrands	Count	CumCnt	Percent	CumPct
0	1	1	4.17	4.17
1	23	24	95.83	100.00
N=	24			

Table H 9(f)

As shown above exclusion and containment strategies are very common in JVs, whereby a controlling foreign partner will internalise sensitive information access within his own expatriate staff, resulting in a diminished assimilation by the local partner. An analysis of whether technology has been contained within expatriate staff (C 67), and the level of assimilation of the local partner (C 68) as in this analysis, investigates the contra-position of the partners. This analysis shows clearly that when knowledge has not been contained within expatriate staff, then the local partner has been able to assimilate a large body of developable knowledge related to brands, quality, and products (21%% of the total), and even 25% of all cases to a level of independence. Yet when knowledge has been kept within the foreign partners' expatriate staff, the majority of cases remain at a lower level of knowledge, and only 17% of the total acquired a developable level of knowledge, and only 13% to an independent level. Such strategies can cause friction with the

local partner and the authorities in areas central to this hypothesis. In any event as discussed above, information retention is a weak defence because information tends to be assimilated over time. An alternative strategy involves the containment and internalisation of specialist design inputs, or the supply of preformulated materials or components. (C67 - Yes = 1 No = 0), (C68 - Low = 1 Developable = 2 Independent = 3).

Tabulated Statistics
ROWS: TECtran1 - C67 COLUMNS: TECassim - C68

	1	2	3	ALL
0	2	5	6	13
	15.38	38.46	46.15	100.00
	33.33	55.56	66.67	54.17
	8.33	20.83	25.00	54.17
1	4	4	3	11
	36.36	36.36	27.27	100.00
	66.67	44.44	33.33	45.83
	16.67	16.67	12.50	45.83
ALL	6	9	9	24
	25.00	37.50	37.50	100.00
	100.00	100.00	100.00	100.00
	25.00	37.50	37.50	100.00

CELL CONTENTS –
COUNT
% OF ROW
% OF COL
% OF TBL

Table H 9 (g)

An analysis of 3 variables shows how a dominant management position is used to overcome risks resulting from a lack of control by way of design, formulation, and materials inputs. It is also apparent from the analysis that management control (C 47) of all such specialist inputs (C 70 Design formulation dependence on the foreign partner ; and C 71 materials supply dependence on the foreign partner) requires a dominant position to maintain the status quo.

When critical inputs for production to a given quality and brand detail are not controlled by the foreign partner, then the foreign partner takes management control and especially in the areas where he has the least alternative control. Conversely, when the foreign partner does control inputs, he seeks management control in areas where he wishes to maintain his control. (C47 - Shared equally = 1 Unequally = 2 Foreign partner = 3 Local partner = 4) (C70 - Yes = 1 No = 0) (C71 - Yes = 1 No = 0).

Tabulated Statistics
CONTROL: MATSsupp - C71 = 0
ROWS: MGT/cont - C47 COLUMNS: DES/form - C70

	0	1	ALL
2	0	0	0

	--	--	--
	--	--	--
	--	--	--
3	5	6	11
	45.45	54.55	100.00
	83.33	85.71	84.62
	38.46	46.15	84.62
4	1	1	2
	50.00	50.00	100.00
	16.67	14.29	15.38
	7.69	7.69	15.38
ALL	6	7	13
	46.15	53.85	100.00
	100.00	100.00	100.00
	46.15	53.85	100.00

CONTROL: MATSsupp = 1
ROWS: MGT/cont COLUMNS: DES/form

	0	1	ALL
2	1	0	1
	100.00	--	100.00
	50.00	--	9.09
	9.09	--	9.09
3	1	9	10
	10.00	90.00	100.00
	50.00	100.00	90.91
	9.09	81.82	90.91
4	0	0	0
	--	--	--
	--	--	--
	--	--	--
ALL	2	9	11
	18.18	81.82	100.00
	100.00	100.00	100.00
	18.18	81.82	100.00

CELL CONTENTS -
COUNT
% OF ROW
% OF COL
% OF TBL

Table H 9(h)

The motive in this secondary hypothesis has been established in the testing of H9. Although it is true that not all foreign partners contribute technology, and many of those who do, retain management control or a measure of critical input. Some local partners pay license fees (46%, C 32), or royalties (46%, C 33) to acquire brands

and technologies. Other local partners are prepared to acquire know-how over time, through their 43% of management transferees into the JV hierarchy (C 56), as compared to the 46% of foreign managers (C 55), which is a favourable balance given that 92% of management control in the sample is held by the foreign partners.

This analysis investigates the relationship between the stage of development (C 9), and the extent of technical assimilation (C 68). The proposition that technology is assimilated over time as the JV develops is evident in this analysis. Developable and independent technology assimilation by the local partner is at a similar rate in the establishment and growth phases of the development of the sample JVs. Although it increases in the mature phase at the independent level : (a) there is more assimilation in the mature phase, 42% of the total, (b) there are fewer cases at the low level of assimilation, than in any other phase, (c) 75% of total are in the 'developable' and 'independent' stages, (d) the largest number is in the 'independent' stage when JVs are mature. This analysis indicates that despite whether technology and know-how, are contributed towards the establishment of JVs, they are evidently assimilated / acquired by the local partner over time. (C9 - Establishment = 1, Growth = 2 Mature = 3) (C68 - Low = 1 Developable = 2 Independent = 3).

Tabulated Statistics

ROWS: STAGEdev - C9 COLUMNS: TECassim - C68

	1	2	3	ALL
1	1	3	2	6
	16.67	50.00	33.33	100.00
	16.67	33.33	22.22	25.00
	4.17	12.50	8.33	25.00
2	3	3	2	8
	37.50	37.50	25.00	100.00
	50.00	33.33	22.22	33.33
	12.50	12.50	8.33	33.33
3	2	3	5	10
	20.00	30.00	50.00	100.00
	33.33	33.33	55.56	41.67
	8.33	12.50	20.83	41.67
ALL	6	9	9	24
	25.00	37.50	37.50	100.00
	100.00	100.00	100.00	100.00
	25.00	37.50	37.50	100.00

CELL CONTENTS -
COUNT
% OF ROW
% OF COL
% OF TBL

Table H 10(a)

This analysis of the relationship between the dependence of a JV on the local partner's main business for operational inputs (C 44), and the stage of development at which this occurs (C 9), provides an insight into the changing relationship of the partners. In the *establishment* phase when a JV is learning about its environment, it is not surprising that it is dependent upon inputs from the local partner's main business, as in half of the cases. As the business develops to the *growth* phase all of its activities are free of the local partner's business, despite the fact that there are almost three times as many cases in the *growth* phase not dependent on their local partner. A similar number of cases in the *mature* phase are not dependent on the local partner. As the sample JVs have developed from *establishment* to *maturity*, the number of sample cases not dependent on the local partner's business has increased from 12.5% of all cases to almost 80%, whereas the number of dependent cases has increased at a much slower rate from 12.5% to just over 20%, remaining one-fifth of the non-dependent cases. (C9 - Establishment = 1, Growth = 2, Mature = 3). (C44 - Yes = 1, No = 0). : -

Tabulated Statistics
ROWS: STAGEdev - C9 COLUMNS: JVdepend - C44

	0	1	ALL
1	3	3	6
	50.00	50.00	100.00
	15.79	60.00	25.00
	12.50	12.50	25.00
2	8	0	8
	100.00	--	100.00
	42.11	--	33.33
	33.33	--	33.33
3	8	2	10
	80.00	20.00	100.00
	42.11	40.00	41.67
	33.33	8.33	41.67
ALL	19	5	24
	79.17	20.83	100.00
	100.00	100.00	100.00
	79.17	20.83	100.00

CELL CONTENTS -
COUNT
% OF ROW
% OF COL
% OF TBL

Table H 10(b)

Conflict in the area of technology transfer, for example, is said to be terminal, and this may explain the low incidence of conflict found in this area in that perhaps

subject JVs have been terminated and are not available in the sample. However, H9 and H9a testing reveals that a local partner's independent level of technical competence comes in the mature phase, but more conflict occurs in other areas e.g. finance and management in various phases, and they appear in this analysis. It is notable that conflict decreases slightly from the establishment phase to the growth phase, and is absent altogether in the mature phase. The areas in which such conflict occurs are typical of the stage at which they occur. For example, Finance and strategy issues are bound to be important in the establishment phase, and both these decrease equally into the growth phase. Whereas management and tactics are continually changing with circumstances and are equally important in both the establishment and the growth phases, both if which are times of change. Technology transfer, however, does not become an issue causing conflict until the local partner starts to assimilate it, and that has been shown in the testing of H9a to come at a later stage of development. So it is typical that it should start becoming an issue in the growth phase. (C168 - Establishment = 1 Growth = 2 Mature = 3) (C169 - Finance = 1, Management = 2, Technology transfer = 3, Tactics = 4, Strategy = 5).

Tabulated Statistics
ROWS: CONFwhen - C168 COLUMNS: CONFarea - C169

	1	2	3	4	5	ALL
1	3	2	0	2	3	10
	30.00	20.00	--	20.00	30.00	100.00
	60.00	50.00	--	50.00	60.00	52.63
	15.79	10.53	--	10.53	15.79	52.63
2	2	2	1	2	2	9
	22.22	22.22	11.11	22.22	22.22	100.00
	40.00	50.00	100.00	50.00	40.00	47.37
	10.53	10.53	5.26	10.53	10.53	47.37
ALL	5	4	1	4	5	19
	26.32	21.05	5.26	21.05	26.32	100.00
	100.00	100.00	100.00	100.00	100.00	100.00
	26.32	21.05	5.26	21.05	26.32	100.00

CELL CONTENTS -
COUNT
% OF ROW
% OF COL
% OF TBL

Table H 11(a)

This analysis interacts the variables C59 *proprietary knowledge has been transferred en bloc*, and C68 the level of *technology assimilation of the local partner.* The results are that proprietary knowledge is transferred or assimilated en-bloc in 75% of the sample cases, although the effectiveness of the transfer process, the ability to receive such transfer, or to assimilate varies considerably with less than 40% of cases assimilating technology to 'independent' levels of competence. (C59 - Yes = 1 No = 0) (C68 - Low = 1 Developable = 2 Independent = 3).

Tabulated Statistics
ROWS: PROPknow - C59 COLUMNS: TECassim - C68

	1	2	3	ALL
0	1	3	2	6
	16.67	50.00	33.33	100.00
	16.67	33.33	22.22	25.00
	4.17	12.50	8.33	25.00
1	5	6	7	18
	27.78	33.33	38.89	100.00
	83.33	66.67	77.78	75.00
	20.83	25.00	29.17	75.00
ALL	6	9	9	24
	25.00	37.50	37.50	100.00
	100.00	100.00	100.00	100.00
	25.00	37.50	37.50	100.00

CELL CONTENTS -
COUNT
% OF ROW
% OF COL
% OF TBL

Table H 11(b)

The indication from this analysis is that where technology is not contained in production equipment, then the assimilation by the local partner follows the intended pattern of transfer shown in Table H 11(a). However, where technology is embodied in production equipment and is there to be seen, it is not contained, and is easily assimilated. (C 67 - Yes = 1 No = 0) (C 68 - Low = 1 Developable = 2 Independent = 3) (C69 - Yes = 1 No = 0).

Tabulated Statistics
CONTROL: TECequit - C 69 = 0
ROWS: TECassim - C 68 COLUMNS: TECtran1 - C 67

	0	1	ALL
1	1	3	4
	25.00	75.00	100.00
	25.00	37.50	33.33
	8.33	25.00	33.33
2	0	2	2
	--	100.00	100.00
	--	25.00	16.67
	--	16.67	16.67
3	3	3	6
	50.00	50.00	100.00
	75.00	37.50	50.00
	25.00	25.00	50.00
ALL	4	8	12
	33.33	66.67	100.00
	100.00	100.00	100.00

	33.33	66.67	100.00

CONTROL: TECequit = 1
ROWS: TECassim COLUMNS: TECtran1

	0	1	ALL
1	1	1	2
	50.00	50.00	100.00
	11.11	33.33	16.67
	8.33	8.33	16.67
2	5	2	7
	71.43	28.57	100.00
	55.56	66.67	58.33
	41.67	16.67	58.33
3	3	0	3
	100.00	--	100.00
	33.33	--	25.00
	25.00	--	25.00
ALL	9	3	12
	75.00	25.00	100.00
	100.00	100.00	100.00
	75.00	25.00	100.00

CELL CONTENTS -
COUNT
% OF ROW
% OF COL
% OF TBL

Table H 11(c)

This analysis indicates that when there is no material or component dependence on the foreign partner, then the need for assimilation to 'independent' levels is high. However, when there is a dependence on supplies from the foreign partner, then the need to assimilate, or the opportunity is reduced to 'low' and 'developable' levels. (C68 - Low = 1 Developable = 2 Independent = 3) (Yes = 1 No = 0) (C71 - Yes = 1 No = 0).

Tabulated Statistics
CONTROL: MATSsupp - C71 = 0
ROWS: TECassim - C68 COLUMNS: DES/form - C70

	0	1	ALL
1	2	0	2
	100.00	--	100.00
	33.33	--	15.38
	15.38	--	15.38
2	3	2	5
	60.00	40.00	100.00
	50.00	28.57	38.46

	23.08	15.38	38.46
3	1	5	6
	16.67	83.33	100.00
	16.67	71.43	46.15
	7.69	38.46	46.15
ALL	6	7	13
	46.15	53.85	100.00
	100.00	100.00	100.00
	46.15	53.85	100.00

CONTROL: MATSsupp = 1
ROWS: TECassim COLUMNS: DES/form

	0	1	ALL
1	0	4	4
	--	100.00	100.00
	--	44.44	36.36
	--	36.36	36.36
2	1	3	4
	25.00	75.00	100.00
	50.00	33.33	36.36
	9.09	27.27	36.36
3	1	2	3
	33.33	66.67	100.00
	50.00	22.22	27.27
	9.09	18.18	27.27
ALL	2	9	11
	18.18	81.82	100.00
	100.00	100.00	100.00
	18.18	81.82	100.00

CELL CONTENTS -
COUNT
% OF ROW
% OF COL
% OF TBL

Table H 12(a)

The minority of the sample which remain HQ province concentrated are found to be parts of three of the case study groups, 2 cases within *Gamma*, 2 cases being *Epsilon*, and 1 case is *Zeta*. The *Gamma* cases are understandably local, as the majority of them have been established on the basis of following a single client, a broader based business has been developed by all the *Gamma* cases since then but they remain largely local client dependent JVs. The 2 *Epsilon* cases are inevitably local, and *Zeta's* strategy is bound to focus on a narrow client base which is largely

inherited, and will take time to expand geographically. So on balance it is found that the 3 HQs region concentrated JVs are not so by a strategic choice which specifically excludes wider market access. So we cannot obtain any wider market inferences, except that broad market access and performance are clearly correlated in all cases, given that all of these cases are profitable, with 60% of them producing high levels of performance. It could also be said that these JVs are also 'safe players' by being locked into long term contracts with major firms, e.g. *Gamma* ; or they have a quasi-captive local market as with *Epsilon*, and as a result there are no loss-making, break-even, and not even any 'low' profitable performers in this category. This sector's performance as related to market access supports the hypothesis.

The 35% of the sample which has expanded into nearby provinces, has clearly taken on higher costs, increased investments in local staff, facilities, and distribution, and increased risks and delays, and this may be the cause of the 'break-even' or 'low' performance of 37.5% of the cases in this sector. These cases are identified as being *Beta* and *Gamma #6* which are breaking even, and *Gamma #7* which is performing at 'low' levels. So the poor performance of some of the subject JVs as they expand further afield may be the result of additional costs which depress their incomes. However, an analysis of whether *costs in accessing distant regions limits market access* (C144) for the 12 cases which make up the mode, finds no difference across the categories, in that only 4 cases reported limitations, viz.: *'Eta'*, *'Theta'*, *'Kappa'* and *'Lamda'*. (C10 - Non-profitable = 1, Break even = 2, Profitable = 3) (C20 - Low = 1 Medium = 2 High = 3) (C140 - HQ province = 1 Nearby province = 2 Widespread = 3).

Tabulated Statistics
CONTROL: MktAXES1 - C140 = 1
ROWS: JVviable - C10 COLUMNS: JVperfor - C20

	1	2	3	ALL
1	0	0	0	0
	--	--	--	--
	--	--	--	--
	--	--	--	--
2	0	0	0	0
	--	--	--	--
	--	--	--	--
	--	--	--	--
3	0	0	3	3
	--	--	100.00	100.00
	--	--	100.00	100.00
	--	--	100.00	100.00
ALL	0	0	3	3
	--	--	100.00	100.00
	--	--	100.00	100.00
	--	--	100.00	100.00

CONTROL: MktAXES1 = 2
ROWS: JVviable COLUMNS: JVperfor

	1	2	3	ALL
1	0	1	0	1
	--	100.00	--	100.00
	--	33.33	--	12.50
	--	12.50	--	12.50
2	1	1	0	2
	50.00	50.00	--	100.00
	33.33	33.33	--	25.00
	12.50	12.50	--	25.00
3	2	1	2	5
	40.00	20.00	40.00	100.00
	66.67	33.33	100.00	62.50
	25.00	12.50	25.00	62.50
ALL	3	3	2	8
	37.50	37.50	25.00	100.00
	100.00	100.00	100.00	100.00
	37.50	37.50	25.00	100.00

CONTROL: MktAXES1 = 3
ROWS: JVviable COLUMNS: JVperfor

	1	2	3	ALL
1	0	2	0	2
	--	100.00	--	100.00
	--	33.33	--	16.67
	--	16.67	--	16.67
2	2	2	0	4
	50.00	50.00	--	100.00
	100.00	33.33	--	33.33
	16.67	16.67	--	33.33
3	0	2	4	6
	--	33.33	66.67	100.00
	--	33.33	100.00	50.00
	--	16.67	33.33	50.00
ALL	2	6	4	12
	16.67	50.00	33.33	100.00
	100.00	100.00	100.00	100.00
	16.67	50.00	33.33	100.00

CELL CONTENTS -
COUNT
% OF ROW
% OF COL
% OF TBL

Table H 12(b)

This analysis investigates the incidence of the market accessed regionally, in relation to the cost of accessing distant regions. The motive of which is to define the extent to which the cost of accessing distant regions limits market access. (C140 - HQ province = 1, Nearby province = 2, Widespread = 3) (C144 - Yes = 1 No = 0).

Tabulated Statistics
ROWS: MktAXES1 COLUMNS: $access

	0	1	ALL
1	0	3	3
	--	100.00	100.00
	--	25.00	13.04
	--	13.04	13.04
2	3	5	8
	37.50	62.50	100.00
	27.27	41.67	34.78
	13.04	21.74	34.78
3	8	4	12
	66.67	33.33	100.00
	72.73	33.33	52.17
	34.78	17.39	52.17
ALL	11	12	23
	47.83	52.17	100.00
	100.00	100.00	100.00
	47.83	52.17	100.00

CELL CONTENTS -
COUNT
% OF ROW
% OF COL
% OF TBL

Table H 12(c)

This analysis investigates the incidence of the extent of market accessed regionally, as against the level of provincial protectionism which limits such access. (C140 - HQ province = 1, Nearby province = 2, Widespread = 3) (C148 - Yes = 1 No = 0).

Tabulated Statistics
ROWS: MktAXES1 - C140 COLUMNS: MktAXES3 - C148

	0	1	ALL
1	1	2	3
	33.33	66.67	100.00
	7.14	22.22	13.04
	4.35	8.70	13.04
2	4	4	8
	50.00	50.00	100.00
	28.57	44.44	34.78
	17.39	17.39	34.78

3	9	3	12
	75.00	25.00	100.00
	64.29	33.33	52.17
	39.13	13.04	52.17
ALL	14	9	23
	60.87	39.13	100.00
	100.00	100.00	100.00
	60.87	39.13	100.00

CELL CONTENTS -
COUNT
% OF ROW
% OF COL
% OF TBL

Table H 12(d)

The fact that time is correlated with a level of achievement Table H 12(d) reflects the developmental work which is required in accessing the market, and it is indicated, for example, that a 'low' to 'medium' level of success can be expected in nearby regions when a JV has an average period of experience of about 5.8 years. However, given that this is a similar period to that indicated for the access of a 'widespread' market, suggests that the expansion of market access is not always geographically progressive, because those JVs which have achieved 'widespread' access (52% of the sample), have not sought access to HQ and nearby regions sequentially. So the sample JVs achieve the level of market access they seek, with *high* levels of performance in almost 40% of cases, across all levels of access (C20 / C140 - Table H 12(d)). (C20 - Low = 1 Medium = 2 High = 3) (HQ province = 1 Nearby province = 2 Widespread = 3).

Tabulated Statistics
ROWS: JVperfor - C20COLUMNS: MktAXES1 - C140

	1	2	3	ALL
1	0	3	2	5
	--	60.00	40.00	100.00
	--	37.50	16.67	21.74
	--	13.04	8.70	21.74
2	0	3	6	9
	--	33.33	66.67	100.00
	--	37.50	50.00	39.13
	--	13.04	26.09	39.13
3	3	2	4	9
	33.33	22.22	44.44	100.00
	100.00	25.00	33.33	39.13
	13.04	8.70	17.39	39.13
ALL	3	8	12	23
	13.04	34.78	52.17	100.00
	100.00	100.00	100.00	100.00
	13.04	34.78	52.17	100.00

CELL CONTENTS --
COUNT
% OF ROW
% OF COL
% OF TBL

Table H 13(a)

This table shows the equal distribution of partner types involved in the sample JVs. (SOE = 1 Provincial Govt. Co. = 2 Private = 3 Other = 4)

Summary Statistics for Discrete Variables - C35

LPtype	Count	CumCnt	Percent	CumPct
1	10	10	50.00	50.00
2	8	18	40.00	90.00
3	1	19	5.00	95.00
4	1	20	5.00	100.00
N=	20			
*=	4			

Table H 13(b)

This analysis ranks the provincial government patronage when materials and components are sourced locally. (Low = 1 Medium = 2 High = 3)

Summary Statistics for Discrete Variables - C151

Patron3	Count	CumCnt	Percent	CumPct
1	11	11	45.83	45.83
2	8	19	33.33	79.17
3	5	24	20.83	100.00
N=	24			

Table H 13(c)

The indications from this analysis are that when central government is the supervision and controlling authority then targets are found to be equally reasonable irrespective of whether JVs are formed with SOEs or provincial government companies. However, when the supervisory and controlling authority is a local government agency, which is the mode in this analysis, then over 90% of targets are reasonable irrespective of whether JVs are formed with SOEs or provincial government companies, as is also the case when special authorities are involved. The inference from this analysis is that targets are reasonable in 62.5% of the sample cases when a local or special authority has supervisory or controlling responsibilities. (C45 - Central Govt. = 1 Local Govt. = 2 Special Authority = 3) (C18 - Unreasonable = 1 Reasonable = 2 None = 3) (C35 - SOE = 1 Prov.Govt. Co. = 2 Private = 3 Other = 4).

Tabulated Statistics

CONTROL: CON/auth. - C45 = 1

ROWS: Targets2 - C18 COLUMNS: LPtype - C35

	1	2	3	4	ALL
1	1	1	0	0	2
	50.00	50.00	--	--	100.00

	50.00	50.00	--	--	50.00
	25.00	25.00	--	--	50.00
2	1	1	0	0	2
	50.00	50.00	--	--	100.00
	50.00	50.00	--	--	50.00
	25.00	25.00	--	--	50.00
ALL	2	2	0	0	4
	50.00	50.00	--	--	100.00
	100.00	100.00	--	--	100.00
	50.00	50.00	--	--	100.00

CONTROL: CON/auth = C45 = 2
ROWS: Targets2 - C18 COLUMNS: LPtype - C35

	1	2	3	4	ALL
1	1	0	0	0	1
	100.00	--	--	--	100.00
	14.29	--	--	--	6.67
	6.67	--	--	--	6.67
2	6	6	1	1	14
	42.86	42.86	7.14	7.14	100.00
	85.71	100.00	100.00	100.00	93.33
	40.00	40.00	6.67	6.67	93.33
ALL	7	6	1	1	15
	46.67	40.00	6.67	6.67	100.00
	100.00	100.00	100.00	100.00	100.00
	46.67	40.00	6.67	6.67	100.00

CONTROL: CON/auth - C45 = 3
ROWS: Targets2 - C18 COLUMNS: LPtype - C35

	1	2	3	4	ALL
1	0	0	0	0	0
	--	--	--	--	--
	--	--	--	--	--
	--	--	--	--	--
2	1	0	0	0	1
	100.00	--	--	--	100.00
	100.00	--	--	--	100.00
	100.00	--	--	--	100.00
ALL	1	0	0	0	1
	100.00	--	--	--	100.00
	100.00	--	--	--	100.00
	100.00	--	--	--	100.00

CELL CONTENTS -
COUNT
% OF ROW
% OF COL
% OF TBL

Table H 13(d)

This analysis indicates the reasonableness of targets imposed on JVs formed with various partner types. (C18 - Unreasonable = 1 Reasonable = 2 None = 3) (C35 - SOE = 1 Provincial Govt. Co. = 2 Private = 3 None = 4)

Tabulated Statistics
ROWS: Targets2 - C18 COLUMNS: LPtype - C35

	1	2	3	4	ALL
1	2	1	0	0	3
	66.67	33.33	--	--	100.00
	20.00	12.50	--	--	15.00
	10.00	5.00	--	--	15.00
2	8	7	1	1	17
	47.06	41.18	5.88	5.88	100.00
	80.00	87.50	100.00	100.00	85.00
	40.00	35.00	5.00	5.00	85.00
ALL	10	8	1	1	20
	50.00	40.00	5.00	5.00	100.00
	100.00	100.00	100.00	100.00	100.00
	50.00	40.00	5.00	5.00	100.00

CELL CONTENTS -
COUNT
% OF ROW
% OF COL
% OF TBL

Table H 13(e)

This analysis finds that 87.5% of targets are reasonable with over 57% of reasonable targets coinciding with medium to high levels of sourcing of materials and components. (C18 - Unreasonable = 1 Reasonable = 2 None = 3) (C151 - Low = 1 Medium = 2 High = 3)

Tabulated Statistics
ROWS: Targets2 - C18 COLUMNS: Patron3 C151

	1	2	3	ALL
1	2	1	0	3
	66.67	33.33	--	100.00
	18.18	12.50	--	12.50
	8.33	4.17	--	12.50
2	9	7	5	21

	42.86	33.33	23.81	100.00
	81.82	87.50	100.00	87.50
	37.50	29.17	20.83	87.50
ALL	11	8	5	24
	45.83	33.33	20.83	100.00
	100.00	100.00	100.00	100.00
	45.83	33.33	20.83	100.00

CELL CONTENTS -
COUNT
% OF ROW
% OF COL
% OF TBL

Table H 14(a)

This analysis reveals that whether the local partner has national coverage and access to provide to the JV, and is important because the majority of JVs are said to be established on the premise that they will access the whole market, which it is proposed is the most profitably efficient strategy to the market. It is found that whilst there is an incidence of national market coverage / access in more than 50% of local partners, the difference is not significant. (C40 - Yes = 1 No = 0).

Summary Statistics for Discrete Variables - C40

LPaccess	Count	CumCnt	Percent	CumPct
0	9	9	47.37	47.37
1	10	19	52.63	100.00
N=	19			
*=	5			

Table H 14(b)

Whether or not the local partner has national market access and coverage to provide to the JV, it is important that such a contribution should be appropriate to the business, and this would likely be contributed by a partner who has gained such experience in a similar business. It is found by this analysis that 85% of the local partners to the sample cases are in a similar business. (C36 - Similar = 1 Different = 2).

Summary Statistics for Discrete Variables - C36

LPbusnes	Count	CumCnt	Percent	CumPct
1	17	17	85.00	85.00
2	3	20	15.00	100.00
N=	20			
*=	4			

Table H 14(c)

The motive of the local partner in forming the JV is an important factor because it indicates the level of synergy which can be expected between the partners. It is found that over 72% of local partners have acquisitive motives in accessing foreign partner products and technologies. C8 - Products / technology = 1 Brands = 2 Management = 3 Investment = 4 Export distribution channels = 5)

Summary Statistics for Discrete Variables - C8

LPmotive	Count	CumCnt	Percent	CumPct
1	16	16	72.73	72.73
3	1	17	4.55	77.27
4	4	21	18.18	95.45

5	1	22	4.55	100.00
N=	22			
*=	2			

Table H 14(d)

The value of the acquisition of foreign partner contributions discussed above, largely depends upon the comparative level of quality in the local partners' main business. This analysis shows that the local partners' technology was inferior prior to the establishment of the JV in over 90% of the sample cases. (C88 - Yes = 1 No = 0).

Summary Statistics for Discrete Variables - C88

LOCtech	Count	CumCnt	Percent	CumPct
0	2	2	8.33	8.33
1	22	24	91.67	100.00
N=	24			

Table H 14(e)

Aside from the contributions of products and technology which enable the JVs to 'make more money easier', as in this proposition, other contributions also have an enabling effect in improving efficiency, which has been shown to be correlated to profitability. This analysis seeks to identify the distribution of management control amongst the partners, and particularly, any dominance of the foreign partner. It is found that the foreign partner actually retains management control in about 90% of cases. This is an important feature of this analysis because it enables management quality to be excluded as a cause of lack of performance. (C47 - Shared equally = 1 Unequally = 2 Foreign partner = 3 Local partner = 4).

Summary Statistics for Discrete Variables - C47

MGT/cont	Count	CumCnt	Percent	CumPct
2	1	1	4.17	4.17
3	21	22	87.50	91.67
4	2	24	8.33	100.00
N=	24			

Table H 14(f)

In addition to the foreign partners products and technologies and management skills, the JVs also received use of the foreign partners' international brands in 96% of the sample cases, which position is augmented as shown in the next table by the creation of local brands in 21% of cases. (C72 - Yes = 1 No = 0).

Summary Statistics for Discrete Variables - C72

FPbrands	Count	CumCnt	Percent	CumPct
0	1	1	4.17	4.17
1	23	24	95.83	100.00
N=	24			

Table H 14(g)

Summary Statistics for Discrete Variables - C73

JVbrands	Count	CumCnt	Percent	CumPct
0	19	19	79.17	79.17
1	5	24	20.83	100.00
N=	24			

Table H 14(h)

Continuing to analyse the extent and posture taken by the sample JVs in addressing the market, this analysis shows that the JVs products are adapted to the requirements of the local market to a 'medium' and 'high' level in over 58% of the sample cases. (C64 - None = 1 Some = 2 Extensive = 3).

Summary Statistics for Discrete Variables - C64

PROadap1	Count	CumCnt	Percent	CumPct
1	10	10	41.67	41.67
2	11	21	45.83	87.50
3	3	24	12.50	100.00
N=	24			

Table H 14(i)

This analysis and the following evidence the fact that the JVs' product quality is not a limiting factor to the achievements in this proposition, insofar as products are of international standards, and the foreign partner has an input into QC. (C80 - Yes = 1 No = 0) (C81 - Yes = 1 No = 0).

Summary Statistics for Discrete Variables - C80

Standard	Count	CumCnt	Percent	CumPct
0	7	7	29.17	29.17
1	17	24	70.83	100.00
N=	24			

Table H 14(j)

Summary Statistics for Discrete Variables - C81

QCinput	Count	CumCnt	Percent	CumPct
0	1	1	4.17	4.17
1	23	24	95.83	100.00
N=	24			

Table H 14(k)

Whilst the foregoing attributes of the sample JVs have set the stage for an advantaged company which ought be able to succeed. This analysis shows that the sample JVs are largely independent of the local partner in almost 80% of cases. (Yes = 1 No = 0)

Summary Statistics for Discrete Variables - C44

JVdepend	Count	CumCnt	Percent	CumPct
0	19	19	79.17	79.17
1	5	24	20.83	100.00
N=	24			

Table H 14(l)

The issue of environmental / in-built limitations to success must be eliminated from the analysis of any hypothesis which proposes that levels are not being achieved, and that there is a shortfall in efficiency, which suggests that some limiting factors exist. The analysis reveals that there are not limiting factors in the areas of price, volume, or distribution controls imposed upon the sample JVs. (C46 - Yes = 1 No = 0).

Summary Statistics for Discrete Variables - C46

P/V/Dcon	Count	CumCnt	Percent	CumPct
0	17	17	70.83	70.83
1	7	24	29.17	100.00

N= 24

Table H 14(m)

The above analyses have provided a perspective of the advantages and disadvantages accruing to JVs, which suggests that JVs go a long way towards addressing the market. This analysis interacts a variable dealing with comparative efficiency (C57 - Low = 1 Medium = 2 High = 3), and another related to ROI compared to other JV locations (C21 - Low = 1 Similar = 2 High = 3). Whilst the advantages are more *frequent* than the disadvantages, the balance between them must indicate the *'ease'* referred to in this hypothesis. An analysis of 'efficiency as compared to other units internationally' (C57), and 'ROI as compared to other locations' (C21), provides the interaction which addresses the issue of 'ease' in this hypothesis. The mode is 'medium' in terms of comparative efficiency, and 'low' in terms of comparative ROI. These findings go some way to support the hypothesis, insofar as the 17% of cases which had a low level of efficiency, achieved low comparative levels of ROI, indicating that there was no 'easy money'. Indeed 79% of all cases had levels of efficiency of 'medium' and above, 68% of whom achieved levels of ROI of 'similar' and above, in comparison with other locations. Overall it appears that JVs which achieved medium and high levels of efficiency, also achieved commensurable levels of ROI. Those which achieved low levels of efficiency, achieved mainly low levels of ROI.

Tabulated Statistics
ROWS: INTEReff - C57 COLUMNS: JVlocROI - C21

	1	2	3	ALL
1	4	1	0	5
	80.00	20.00	--	100.00
	40.00	12.50	--	20.83
	16.67	4.17	--	20.83
2	5	5	4	14
	35.71	35.71	28.57	100.00
	50.00	62.50	66.67	58.33
	20.83	20.83	16.67	58.33
3	1	2	2	5
	20.00	40.00	40.00	100.00
	10.00	25.00	33.33	20.83
	4.17	8.33	8.33	20.83
ALL	10	8	6	24
	41.67	33.33	25.00	100.00
	100.00	100.00	100.00	100.00
	41.67	33.33	25.00	100.00

CELL CONTENTS -
COUNT
% OF ROW
% OF COL
% OF TBL

Table H 14(n)

All of the sample JVs have had a measure of investment other than capital, e.g. equipment, know-how, technology, licensing, and brands. Whilst it is difficult to place a value on any resulting improvement, it is *any* effect which is central to the testing of this hypothesis. An analysis of the transfer of modernising technology (C60), on the local outdated technical base (C88), finds that two-thirds of the cases had inferior technology and received 'state of the art' transfer. The balance of cases were either not inferior but received technology anyway, or they were inferior and received more modern technology. (C60 - Yes = 1 No = 0) (C88 - Yes = 1 No = 0).

Tabulated Statistics
ROWS: TECstate - C60 COLUMNS: LOCtech - C88

	0	1	ALL
0	1	6	7
	14.29	85.71	100.00
	50.00	27.27	29.17
	4.17	25.00	29.17
1	1	16	17
	5.88	94.12	100.00
	50.00	72.73	70.83
	4.17	66.67	70.83
ALL	2	22	24
	8.33	91.67	100.00
	100.00	100.00	100.00
	8.33	91.67	100.00

CELL CONTENTS -
COUNT
% OF ROW
% OF COL
% OF TBL

Table H 14(o)

To view the effect on JV performance the same analysis as above is performed including the variable 'JV performance ; expectations / results' (C20), from which it appears that irrespective of whether local supplier technology had been inferior or not (C88), 77% of cases received 'state of the art' technology improvement, and 86% of the cases produced results at medium or high levels of expectation. Investigation into 5 cases which produced low performance, finds that one of these JVs is *'Beta'* which has been troubled by disagreements with the local partner related to whether technology had been transferred or not. The other cases are 3 in the growth phase and one in the establishment phase, all 4 of which are relatively young JVs having a mean age of 4.5 years, when it has been shown in an earlier hypothesis hereto, that none of the sample JVs had reached full market access potential at this age. The balance of the evidence, therefore, shows that the effect of

foreign partner contributions are at a level not achievable with *ease*. (C88 - Yes = 1 No = 0) (C20 - Low = 1 Medium = 2 High = 3) (C60 - Yes = 1 No - 0).

Tabulated Statistics
CONTROL: LOCtech - C88 = 0
ROWS: JVperfor - C20 COLUMNS: TECstate - C60

	0	1	ALL
1	0	0	0
	--	--	--
	--	--	--
	--	--	--
2	1	0	1
	100.00	--	100.00
	100.00	--	50.00
	50.00	--	50.00
3	0	1	1
	--	100.00	100.00
	--	100.00	50.00
	--	50.00	50.00
ALL	1	1	2
	50.00	50.00	100.00
	100.00	100.00	100.00
	50.00	50.00	100.00

CONTROL: LOCtech - C88 = 1
ROWS: JVperfor - C20 COLUMNS: TECstate - C60

	0	1	ALL
1	0	5	5
	--	100.00	100.00
	--	31.25	22.73
	--	22.73	22.73
2	4	5	9
	44.44	55.56	100.00
	66.67	31.25	40.91
	18.18	22.73	40.91
3	2	6	8
	25.00	75.00	100.00
	33.33	37.50	36.36
	9.09	27.27	36.36
ALL	6	16	22
	27.27	72.73	100.00
	100.00	100.00	100.00
	27.27	72.73	100.00

CELL CONTENTS -
COUNT
% OF ROW
% OF COL
% OF TBL

Table H 14(p)

The indications within the sample are that prices have increased over the life of 46% of the sample JVs. (C109 - Increasing = 1 Decreasing = 2).

Summary Statistics for Discrete Variables - C109

$shift	Count	CumCnt	Percent	CumPct
1	11	11	45.83	45.83
2	13	24	54.17	100.00
N=	24			

Table H 14(q)

This table shows that 79% of all change in prices has been in line with economic change. (C10 - Yes = 1 No = 0).

Summary Statistics for Discrete Variables - C110

$change	Count	CumCnt	Percent	CumPct
0	5	5	20.83	20.83
1	19	24	79.17	100.00
N=	24			

Table H 14(r)

However, there is a clear indication that the change in prices has been driven by competition in 71% of the sample cases. (C111 - Costs driven = 1 Competition driven = 2).

Summary Statistics for Discrete Variables - C111

$shift2	Count	CumCnt	Percent	CumPct
1	7	7	29.17	29.17
2	17	24	70.83	100.00
N=	24			

Table H 14(s)

Although, over 58% of the sales change has been at a higher rate than market development and economic growth. (C119 - Lower = 1 Higher = 2).

Summary Statistics for Discrete Variables - C119

Sls:ECON	Count	CumCnt	Percent	CumPct
1	10	10	41.67	41.67
2	14	24	58.33	100.00
N=	24			

Table H 15(a)

This analysis is part of the testing process which investigates the extent to which JVs comply with known market preferences in their posture to the consumer. It is found that 58% of the sample JVs have adapted their products to market demand. (C64 - None = 1 Some = 2 Extensive = 3).

Summary Statistics for Discrete Variables - C64

PROadap1	Count	CumCnt	Percent	CumPct

1	10	10	41.67	41.67
2	11	21	45.83	87.50
3	3	24	12.50	100.00
N=	24			

Table H 15(b)

Much of the basis of hypothesis H15 is based upon the proximity between the JVs and their customers, based upon the reported importance of Guanxi which it is said is dependent upon personal service and contact. This analysis investigates the incidence of JVs maintaining local stocks, as far as this is possible, and finds that 33% of the sample JVs maintain local stocks in the regions. (C131 - Local stocks = 1 Bespoke = 2 Central stocks = 3).

Summary Statistics for Discrete Variables - C131

SellSTOK	Count	CumCnt	Percent	CumPct
1	8	8	33.33	33.33
2	6	14	25.00	58.33
3	10	24	41.67	100.00
N=	24			

Table H 15(c)

Whilst it is clearly not appropriate for all businesses to maintain local stocks, e.g. not least because 25% of the sample JVs manufacture bespoke products, it is significant that 75% of the sample JVs have staff regionally located to get closer to their customers. (C123 - Yes = 1 No = 0).

Summary Statistics for Discrete Variables - C123

SstfLOCD	Count	CumCnt	Percent	CumPct
0	6	6	25.00	25.00
1	18	24	75.00	100.00
N=	24			

Table H 15(d)

On the basis of a similar analysis to the above but as related to the provision of service centres, it is found that 37.5% of the sample cases provide such services to their customers to a 'medium' and 'high' extent. (C134 - Low = 1 Medium = 2 High = 3).

Summary Statistics for Discrete Variables - C134

SERVcent	Count	CumCnt	Percent	CumPct
1	15	15	62.50	62.50
2	5	20	20.83	83.33
3	4	24	16.67	100.00
N=	24			

Table H 15(e)

There is evidence that the sample JVs are sensitive to China's traditional characteristics of thrift and asceticism, whilst simultaneously respecting the concept of 'face' in enabling consumers to buy the 'best' products. This analysis of price sensitivity (C106) and price positioning (C108) investigates the correlation between the level of price sensitivity recognised by the sample JVs, and the price level at which they offer their products. The indications from which are that price

sensitivity is directly correlated to price positioning, such that the highest level of price sensitivity occurs when price positioning is at the 'top-end', and decreases progressively such that the lowest levels are the 'low' or 'bottom end'. Clearly what is happening in this case is that the majority of the sample JVs are marketing superior products which are more expensive, than the inferior and cheaper products which the consumer is used to, and the consumer is sensitised to the higher prices. (C106 - Low = 1 Medium = 2 High = 3) (C108 - Bottom end = 1 Compliant = 2 Top-end = 3).

Tabulated Statistics
ROWS: $STIVITY - C106 COLUMNS: $positn - C108

	1	2	3	ALL
1	1	0	2	3
	33.33	--	66.67	100.00
	25.00	--	18.18	12.50
	4.17	--	8.33	12.50
2	0	2	1	3
	--	66.67	33.33	100.00
	--	22.22	9.09	12.50
	--	8.33	4.17	12.50
3	3	7	8	18
	16.67	38.89	44.44	100.00
	75.00	77.78	72.73	75.00
	12.50	29.17	33.33	75.00
ALL	4	9	11	24
	16.67	37.50	45.83	100.00
	100.00	100.00	100.00	100.00
	16.67	37.50	45.83	100.00

CELL CONTENTS -
COUNT
% OF ROW
% OF COL
% OF TBL

Table H 15(f)

This analysis investigates the incidence in which the foreign partner has an input into QC within the JV, as an indication of the maintenance of product quality, in line with the reported characteristic of the Chinese consumer in seeking quality. (C81 - Yes = 1 No =0). The findings are that foreign partners retain an involvement in the management of QC in 96% of the sample JVs.

Summary Statistics for Discrete Variables - C81

QCinput	Count	CumCnt	Percent	CumPct
0	1	1	4.17	4.17
1	23	24	95.83	100.00
N=	24			

Table H 15(g)

Similarly it is found that the continued involvement of the foreign partner in the QC management within the sample JVs ensures that the products of the JV meet international industry standards in 96% of the sample cases. (C82 - Yes = 1 No = 0).

Summary Statistics for Discrete Variables - C82

PRODstan	Count	CumCnt	Percent	CumPct
0	1	1	4.17	4.17
1	23	24	95.83	100.00
N=	24			

Table H 15(h)

In addressing the cultural attitude of 'face' by offering high quality mainly foreign branded products, the sample JVs promote their products in advertising 45% of which focuses on the quality of the products, 25% on the foreign brand, and 30% on the product utility. This is an example of the sample JVs' sensitivity to Chinese cultural characteristics. (C154 - Quality = 1 Foreign brand = 2 Utility = 3).

Summary Statistics for Discrete Variables - C154

Advtsng3	Count	CumCnt	Percent	CumPct
1	9	9	45.00	45.00
2	5	14	25.00	70.00
3	6	20	30.00	100.00
N=	20			
*=	4			

Table H 15(i)

It is important to determine whether the sample JVs were preceded by local suppliers, such that a market existed for similar products. It is found by this analysis that local suppliers pre-existed the JVs in 87.5% of the sample cases.

Summary Statistics for Discrete Variables - C87

LOCsupp	Count	CumCnt	Percent	CumPct
0	3	3	12.50	12.50
1	21	24	87.50	100.00
N=	24			

Table H 15(j)

In the same vein as the foregoing it is important to determine that the pre-existing suppliers offered products which were inferior to those of the sample JVs. This is found to have been the case in 92% of the sample cases. (C88 - Yes = 1 No = 0).

Summary Statistics for Discrete Variables - C88

LOCtech	Count	CumCnt	Percent	CumPct
0	2	2	8.33	8.33
1	22	24	91.67	100.00
N=	24			

Table H 15(k)

Given that it is found that suppliers pre-existed the JVs and thus we may assume that there was a demand for such products, and given that it has been established that their products were largely inferior to the offerings of the sample JVs, it is important to determine whether the local partner was one such company. It is found that this is so in 85% of the sample cases. (C36 - Similar = 1 Different = 2).

Summary Statistics for Discrete Variables - C36

LPbusnes	Count	CumCnt	Percent	CumPct
1	17	17	85.00	85.00
2	3	20	15.00	100.00
N=	20			
*=	4			

Table H 15(l)

This table shows the market share held by the local partner prior to the formation of the JV, as an indicator of the access, experience, influence and connections. (%)

Column Mean - C89

Mean of LPmarkSH= 14.548 [%]

Table H 15(m)

A mean of almost 50% of the JVs' staff are transferees from the local partner, indicating the availability of local market experience available to the JV if it is taken up. (%)

Column Mean - C120

Mean of LOCstaff= 49.583 [%]

Table H 15(n)

As a recognition of the importance of customer contact in Chinese cultural interactions, and the prevalence of Guanxi, 75% of the sample JVs have some regional location of staff. (Yes =1 No = 0).

Summary Statistics for Discrete Variables - C123

SstfLOCD	Count	CumCnt	Percent	CumPct
0	6	6	25.00	25.00
1	18	24	75.00	100.00
N=	24			

Table H 15(o)

The use of the local partners regional operations provides an effective contribution to sales in cases where the local partner is allowed to participate in the sales and marketing of the JV. (C138 - Yes = 1 No = 0).

Summary Statistics for Discrete Variables - C138

LPregio1	Count	CumCnt	Percent	CumPct
0	13	13	54.17	54.17
1	11	24	45.83	100.00
N=	24			

Table H 15(p)

The contribution of the above local partners' regional operations to the JVs' sales amount to a mean value of 8.75%.

Column Mean - C139

Mean of LPregio2= 8.7500 [%]

Table H 15(q)

The effectiveness of Guanxi is measured as the local partners' influence and connections, again insofar as he is allowed to contribute such advantages, then these are found to be effective in 43% of cases. However, given that this frequency is similar to that of regional operations and other measures of sales participation / contribution by the local partner, then it is assumed that this value might be much higher of the local partner were allowed to participate in the management of ales and marketing and thus contribute more often. (C141 - Ineffective = 1 Effective = 2).

Summary Statistics for Discrete Variables - C141

LPstroke	Count	CumCnt	Percent	CumPct
1	13	13	56.52	56.52
2	10	23	43.48	100.00
N=	23			
*=	1			

Table H 15(r)

This analysis correlates JV performance and the location of sales offices, and finds that head office sales operations have more cases performing at low levels i.e. 12.5% of their total, as compared to only 8.3% of the total for regional operations. Similarly regional operations operate more efficiently at high levels when they produce 56% of their total performance, as compare to 44% for head office operations. Thus regional operations are more efficient, and 58% of cases conduct sales from established regional offices.(C20 - Low = 1 Medium = 2 High = 3) (C127 - Regional offices = 1 Head office = 2).

Tabulated Statistics

ROWS: JVperfor - C20 COLUMNS: SalesOFF - C127

	1	2	ALL
1	2	3	5
	40.00	60.00	100.00
	14.29	30.00	20.83
	8.33	12.50	20.83
2	7	3	10
	70.00	30.00	100.00
	50.00	30.00	41.67
	29.17	12.50	41.67
3	5	4	9
	55.56	44.44	100.00
	35.71	40.00	37.50
	20.83	16.67	37.50
ALL	14	10	24
	58.33	41.67	100.00
	100.00	100.00	100.00
	58.33	41.67	100.00

CELL CONTENTS -
COUNT
% OF ROW
% OF COL
% OF TBL

Table H 15(s)

This table analyses the frequency with which the partners are involved in the sales and marketing management within the JVs. (C50 - Foreign = 1 Local = 2 Joint = 3). :-

Summary Statistics for Discrete Variables - C50

S&M/mgt	Count	CumCnt	Percent	CumPct
1	11	11	45.83	45.83
2	7	18	29.17	75.00
3	6	24	25.00	100.00
N=	24			

Table H 16(a)

This analysis operationalises the variables related to the type of a JV (C6 - Manufacturing = 1 Civils / Construction = 2 Retail = 3 Service = 4 Infrastructural = 5 Other = 6)with that describing the stage of development at which the sample JVs are at (C9 - Establishment = 1 Growth = 2 Mature = 3), as they relate to R&D which is carried out overseas (C94 - Foreign partner = 1 Jointly = 2 Local partner = 3). The result is clearly that the majority of R&D carried out overseas is done by the foreign partner of JVs in the manufacturing sector. The frequency of such R&D as related to the stage of development shows that more R&D is carried out in the *mature* phase,

Tabulated Statistics
CONTROL: R&Doseas - C94 = 1
ROWS: TYPEofJV - C6 COLUMNS: STAGEdev - C9

	1	2	3	ALL
1	6	6	9	21
	28.57	28.57	42.86	100.00
	100.00	75.00	100.00	91.30
	26.09	26.09	39.13	91.30
4	0	1	0	1
	--	100.00	--	100.00
	--	12.50	--	4.35
	--	4.35	--	4.35
6	0	1	0	1
	--	100.00	--	100.00
	--	12.50	--	4.35
	--	4.35	--	4.35
ALL	6	8	9	23
	26.09	34.78	39.13	100.00

	100.00	100.00	100.00	100.00
	26.09	34.78	39.13	100.00

CONTROL: R&Doseas - C94 = 2
ROWS: TYPEofJV - C6 COLUMNS: STAGEdev - C9

	1	2	3	ALL
1	0	0	1	1
	--	--	100.00	100.00
	--	--	100.00	100.00
	--	--	100.00	100.00
4	0	0	0	0
	--	--	--	--
	--	--	--	--
	--	--	--	--
6	0	0	0	0
	--	--	--	--
	--	--	--	--
	--	--	--	--
ALL	0	0	1	1
	--	--	100.00	100.00
	--	--	100.00	100.00
	--	--	100.00	100.00

CELL CONTENTS -
COUNT
% OF ROW
% OF COL
% OF TBL

Table H 16(b)

This table operationalises the variables related to the type of JV (C6 - Manufacturing = 1 Civils / Construction = 2 Retail = 3 Service = 4 Infrastructural = 5 Other = 6) with those indicating the stage of development (C9 - Establishment = 1 Growth = 2 Mature = 3) in the same way as Table H 16(a) except that in this case the control variable is that of the incidence of R&D carried out within China (95 - Local partner = 1 Jointly = 2 Foreign partner = 3). The mode in this analysis is found to be where R&D is carried out jointly by the partners.

Tabulated Statistics
CONTROL: R&Dchina - C95 = 1
ROWS: TYPEofJV - C6 COLUMNS: STAGEdev - C9

	1	2	3	ALL
1	1	0	1	2
	50.00	--	50.00	100.00
	100.00	--	100.00	100.00
	50.00	--	50.00	100.00
4	0	0	0	0
	--	--	--	--

	--	--	--	--
	--	--	--	--
6	0	0	0	0
	--	--	--	--
	--	--	--	--
	--	--	--	--
ALL	1	0	1	2
	50.00	--	50.00	100.00
	100.00	--	100.00	100.00
	50.00	--	50.00	100.00

CONTROL: R&Dchina - C95 = 2
ROWS: TYPEofJV - C6 COLUMNS: STAGEdev - C9

	1	2	3	ALL
1	2	4	6	12
	16.67	33.33	50.00	100.00
	100.00	66.67	100.00	85.71
	14.29	28.57	42.86	85.71
4	0	1	0	1
	--	100.00	--	100.00
	--	16.67	--	7.14
	--	7.14	--	7.14
6	0	1	0	1
	--	100.00	--	100.00
	--	16.67	--	7.14
	--	7.14	--	7.14
ALL	2	6	6	14
	14.29	42.86	42.86	100.00
	100.00	100.00	100.00	100.00
	14.29	42.86	42.86	100.00

CONTROL: R&Dchina - C95 = 3
ROWS: TYPEofJV - C6 COLUMNS: STAGEdev - C9

	1	2	3	ALL
1	3	2	3	8
	37.50	25.00	37.50	100.00
	100.00	100.00	100.00	100.00
	37.50	25.00	37.50	100.00
4	0	0	0	0
	--	--	--	--
	--	--	--	--
	--	--	--	--

6	0	0	0	0
	--	--	--	--
	--	--	--	--
	--	--	--	--
ALL	3	2	3	8
	37.50	25.00	37.50	100.00
	100.00	100.00	100.00	100.00
	37.50	25.00	37.50	100.00

CELL CONTENTS -
COUNT
% OF ROW
% OF COL
% OF TBL

Table H 16(c)

The interaction between the measure of performance of JVs (C20 - Low = 1 Medium = 2 High = 3), and that of R&D which is performed in China (C95 - Local partner = 1 Jointly = 2 Foreign partner = 3) seeks to identify any influence that the engagement in R&D may have upon the performance of the sample JVs in China. The relationship is, of course, somewhat tenuous given the period that it takes for the results of R&D to develop into products. As a result no clear significant findings are made in this analysis.

Tabulated Statistics
ROWS: JVperfor - C20 COLUMNS: R&Dchina - C95

	1	2	3	ALL
1	0	4	1	5
	--	80.00	20.00	100.00
	--	28.57	12.50	20.83
	--	16.67	4.17	20.83
2	2	3	5	10
	20.00	30.00	50.00	100.00
	100.00	21.43	62.50	41.67
	8.33	12.50	20.83	41.67
3	0	7	2	9
	--	77.78	22.22	100.00
	--	50.00	25.00	37.50
	--	29.17	8.33	37.50
ALL	2	14	8	24
	8.33	58.33	33.33	100.00
	100.00	100.00	100.00	100.00
	8.33	58.33	33.33	100.00

CELL CONTENTS -
COUNT
% OF ROW
% OF COL
% OF TBL

Table H 16(d)

This analysis is similar to that in H 16(c) except that the relationship between JV performance (C20 - Low = 1 Medium = 2 High = 3) is sought in relation to R&D which is carried out overseas (C94 - Foreign partner = 1 Jointly = 2 Local partner = 3). No clear significant indications are found to correlate R&D with JV performance, for the same reasons discussed above.

Tabulated Statistics
ROWS: JVperfor - C20 COLUMNS: R&Doseas - C94

	1	2	ALL
1	5	0	5
	100.00	--	100.00
	21.74	--	20.83
	20.83	--	20.83
2	9	1	10
	90.00	10.00	100.00
	39.13	100.00	41.67
	37.50	4.17	41.67
3	9	0	9
	100.00	--	100.00
	39.13	--	37.50
	37.50	--	37.50
ALL	23	1	24
	95.83	4.17	100.00
	100.00	100.00	100.00
	95.83	4.17	100.00

CELL CONTENTS -
COUNT
% OF ROW
% OF COL
% OF TBL

Table H 16(e)

This analysis seeks to identify what proportion of R&D carried out in China is related to adaptation and what part is related to new product development. This is done by the interaction of the variables related to product adaptation (C64 - None = 1 Some = 2 Extensive = 3), and that for R&D being carried out in China (C95 - Local partner = 1 Jointly = 2 Foreign partner = 3). The indications are that over 40% of R&D is carried out in the sample cases which do not engage in any product adaptation for the China market. The balance of the sample cases involve either some or extensive adaptation, and the mode of the analysis is where the partners jointly perform the R&D. This suggests that the majority of the R&D is related to product adaptation.

Tabulated Statistics
ROWS: PROadap1 - C64 COLUMNS: R&Dchina - C95

	1	2	3	ALL
1	1	7	2	10
	10.00	70.00	20.00	100.00
	50.00	50.00	25.00	41.67
	4.17	29.17	8.33	41.67
2	1	6	4	11
	9.09	54.55	36.36	100.00
	50.00	42.86	50.00	45.83
	4.17	25.00	16.67	45.83
3	0	1	2	3
	--	33.33	66.67	100.00
	--	7.14	25.00	12.50
	--	4.17	8.33	12.50
ALL	2	14	8	24
	8.33	58.33	33.33	100.00
	100.00	100.00	100.00	100.00
	8.33	58.33	33.33	100.00

CELL CONTENTS --
COUNT
% OF ROW
% OF COL
% OF TBL

Table H 17(a)

This table analyses the variability in the sample JVs based upon a variety of main determinants of their size. The indication is that there is a wide ranging variance in the sample which is evident from the large value for standard deviation apparent in these analyses. This data provides a perspective for the more specific analyses which follow hereafter in H 17.

Descriptive Statistics

C1

Variable	N	Mean	Median	TrMean	StDev	SEMean
JVEquity	24	14293	4150	8760	31718	6474

Variable	Min	Max	Q1	Q3
JVEquity	300	150000	550	10600

C2

Variable	N	Mean	Median	TrMean	StDev	SEMean
EmployNO	23	518	120	400	945	197

Variable	Min	Max	Q1	Q3
EmployNO	5	3500	60	320

C3

Variable	N	Mean	Median	TrMean	StDev	SEMean
AnnT/o96	16	12886	4285	11133	16869	4217

Variable	Min	Max	Q1	Q3
AnnT/o96	310	50000	1135	26500

C4

Variable	N	Mean	Median	TrMean	StDev	SEMean
JVageYRS	24	6.583	7.000	6.500	3.450	0.704

Variable	Min	Max	Q1	Q3
JVageYRS	1.000	14.000	3.250	10.000

Table H 17(b)

This analysis finds that small JVs tend to acquire a broader spread of geographic market access, although they are also variously successful with a greater variability in terms of performance. Medium sized JVs are found to acquire all their market access at the widespread level, and large JVs are the only ones which perform at high levels most often. The size mode within the sample is in the area of small JVs. (C20 - Low = 1 Medium = 2 High = 3) (C173 id C1 encoded for size - Small = 1 Medium = 2 Large = 3 based upon ,US$5m, <US$10m, >US$10m in equity) (C140 - HQ = 1 Nearby province = 2 Widespread = 3).

Tabulated Statistics

CONTROL: JVsizeCD - C173 Coded = 1 (small JVs)
ROWS: JVperfor - C20 COLUMNS: MktAXES1 - C140

	1	2	3	ALL
1	0	1	1	2
	--	50.00	50.00	100.00
	--	20.00	20.00	16.67
	--	8.33	8.33	16.67
2	0	3	2	5
	--	60.00	40.00	100.00
	--	60.00	40.00	41.67
	--	25.00	16.67	41.67
3	2	1	2	5
	40.00	20.00	40.00	100.00
	100.00	20.00	40.00	41.67
	16.67	8.33	16.67	41.67
ALL	2	5	5	12
	16.67	41.67	41.67	100.00
	100.00	100.00	100.00	100.00
	16.67	41.67	41.67	100.00

CONTROL: JVsizeCD - C173 Coded = 2 (Medium JVs)
ROWS: JVperfor - C20 COLUMNS: MktAXES1 - C140

	1	2	3	ALL
1	0	0	1	1
	--	--	100.00	100.00
	--	--	20.00	20.00

	--	--	20.00	20.00
2	0	0	3	3
	--	--	100.00	100.00
	--	--	60.00	60.00
	--	--	60.00	60.00
3	0	0	1	1
	--	--	100.00	100.00
	--	--	20.00	20.00
	--	--	20.00	20.00
ALL	0	0	5	5
	--	--	100.00	100.00
	--	--	100.00	100.00
	--	--	100.00	100.00

CONTROL: JVsizeCD - C173 Coded = 3 (large JVs)
ROWS: JVperfor - C20 COLUMNS: MktAXES1 - C140

	1	2	3	ALL
1	0	2	0	2
	--	100.00	--	100.00
	--	66.67	--	33.33
	--	33.33	--	33.33
2	0	0	1	1
	--	--	100.00	100.00
	--	--	50.00	16.67
	--	--	16.67	16.67
3	1	1	1	3
	33.33	33.33	33.33	100.00
	100.00	33.33	50.00	50.00
	16.67	16.67	16.67	50.00
ALL	1	3	2	6
	16.67	50.00	33.33	100.00
	100.00	100.00	100.00	100.00
	16.67	50.00	33.33	100.00

CELL CONTENTS -
COUNT
% OF ROW
% OF COL
% OF TBL

Table H 17(c)

Medium sized JVs are the mode in the analysis of the methods of acquisition of distribution channels, albeit that all the channel access acquired at this level has been developed by the JVs, and their mode of performance is at medium levels. Small JVs have the greatest variability in this analysis also, and this is as a result of their greater flexibility in acquiring access from all available sources. Their performance is at medium and high levels in over 80% of the cases, and they

develop over 50% of their access channels themselves. (C143 - Inherited = 1 Existing = 2 Developed = 3).

Tabulated Statistics
CONTROL: JVsizeCD C173 Coded = 1 (Small JVs)
ROWS: JVperfor - C20 COLUMNS: DISTchan - C143

	1	2	3	ALL
1	0	2	0	2
	--	100.00	--	100.00
	--	50.00	--	15.38
	--	15.38	--	15.38
2	1	1	4	6
	16.67	16.67	66.67	100.00
	50.00	25.00	57.14	46.15
	7.69	7.69	30.77	46.15
3	1	1	3	5
	20.00	20.00	60.00	100.00
	50.00	25.00	42.86	38.46
	7.69	7.69	23.08	38.46
ALL	2	4	7	13
	15.38	30.77	53.85	100.00
	100.00	100.00	100.00	100.00
	15.38	30.77	53.85	100.00

CONTROL: JVsizeCD - C173 Coded = 2 (Medium JVs)
ROWS: JVperfor - C20 COLUMNS: DISTchan - C143

	1	2	3	ALL
1	0	0	1	1
	--	--	100.00	100.00
	--	--	20.00	20.00
	--	--	20.00	20.00
2	0	0	3	3
	--	--	100.00	100.00
	--	--	60.00	60.00
	--	--	60.00	60.00
3	0	0	1	1
	--	--	100.00	100.00
	--	--	20.00	20.00
	--	--	20.00	20.00
ALL	0	0	5	5
	--	--	100.00	100.00
	--	--	100.00	100.00

	--	--	100.00	100.00

CONTROL: JVsizeCD - C173 Coded = 3 (Large JVs)
ROWS: JVperfor - C20 COLUMNS: DISTchan - C143

	1	2	3	ALL
1	1	0	1	2
	50.00	--	50.00	100.00
	50.00	--	33.33	33.33
	16.67	--	16.67	33.33
2	0	0	1	1
	--	--	100.00	100.00
	--	--	33.33	16.67
	--	--	16.67	16.67
3	1	1	1	3
	33.33	33.33	33.33	100.00
	50.00	100.00	33.33	50.00
	16.67	16.67	16.67	50.00
ALL	2	1	3	6
	33.33	16.67	50.00	100.00
	100.00	100.00	100.00	100.00
	33.33	16.67	50.00	100.00

CELL CONTENTS -
COUNT
% OF ROW
% OF COL
% OF TBL

Table H 17(d)

The characteristic flexibility of smaller JVs described above also appears in this analysis of distribution strategy, in that small JVs have the greatest variability in their strategy. Whereas medium sized JVs are mainly locally intensive, and large JVs mainly centrally intensive. Smaller JVs also have the greatest concentration of performance at the medium and high levels. (C131 - Local = 1 Bespoke = 2 Central = 3).

Tabulated Statistics
CONTROL: JVsizeCD - C173 = 1 (Small JVs)
ROWS: JVperfor - C20 COLUMNS: SellSTOK - C131

	1	2	3	ALL
1	0	1	1	2
	--	50.00	50.00	100.00
	--	20.00	20.00	15.38
	--	7.69	7.69	15.38
2	1	3	2	6
	16.67	50.00	33.33	100.00

	33.33	60.00	40.00	46.15
	7.69	23.08	15.38	46.15
3	2	1	2	5
	40.00	20.00	40.00	100.00
	66.67	20.00	40.00	38.46
	15.38	7.69	15.38	38.46
ALL	3	5	5	13
	23.08	38.46	38.46	100.00
	100.00	100.00	100.00	100.00
	23.08	38.46	38.46	100.00

CONTROL: JVsizeCD - C173 = 2 (Medium JVs)
ROWS: JVperfor - C20 COLUMNS: SellSTOK - C131

	1	2	3	ALL
1	1	0	0	1
	100.00	--	--	100.00
	33.33	--	--	20.00
	20.00	--	--	20.00
2	1	1	1	3
	33.33	33.33	33.33	100.00
	33.33	100.00	100.00	60.00
	20.00	20.00	20.00	60.00
3	1	0	0	1
	100.00	--	--	100.00
	33.33	--	--	20.00
	20.00	--	--	20.00
ALL	3	1	1	5
	60.00	20.00	20.00	100.00
	100.00	100.00	100.00	100.00
	60.00	20.00	20.00	100.00

CONTROL: JVsizeCD - C173 Coded = 3 (Large JVs)
ROWS: JVperfor - C20 COLUMNS: SellSTOK - C131

	1	2	3	ALL
1	0	0	2	2
	--	--	100.00	100.00
	--	--	50.00	33.33
	--	--	33.33	33.33
2	1	0	0	1
	100.00	--	--	100.00
	50.00	--	--	16.67
	16.67	--	--	16.67

3	1	0	2	3
	33.33	--	66.67	100.00
	50.00	--	50.00	50.00
	16.67	--	33.33	50.00
ALL	2	0	4	6
	33.33	--	66.67	100.00
	100.00	--	100.00	100.00
	33.33	--	66.67	100.00

CELL CONTENTS -
COUNT
% OF ROW
% OF COL
% OF TBL

Table H 17(e)

Similarly in the case of the location of sales and regional operations, smaller JVs tend to be regionally concentrated, whereas larger ones tend to be HQs concentrated, and once again performance in smaller JVs is the mode in the analysis at medium and high levels. (C127 - Regional = 1 HQs = 2).

Tabulated Statistics
CONTROL: JVsizeCD - C173 Coded = 1 (Small JVs)
ROWS: JVperfor - C20 COLUMNS: SalesOFF - C127

	1	2	ALL
1	1	1	2
	50.00	50.00	100.00
	11.11	25.00	15.38
	7.69	7.69	15.38
2	5	1	6
	83.33	16.67	100.00
	55.56	25.00	46.15
	38.46	7.69	46.15
3	3	2	5
	60.00	40.00	100.00
	33.33	50.00	38.46
	23.08	15.38	38.46
ALL	9	4	13
	69.23	30.77	100.00
	100.00	100.00	100.00
	69.23	30.77	100.00

CONTROL: JVsizeCD - C173 Coded = 2 (Medium JVs)
ROWS: JVperfor - C20 COLUMNS: SalesOFF - C127

	1	2	ALL
1	1	0	1
	100.00	--	100.00
	33.33	--	20.00

	20.00	--	20.00
2	1	2	3
	33.33	66.67	100.00
	33.33	100.00	60.00
	20.00	40.00	60.00
3	1	0	1
	100.00	--	100.00
	33.33	--	20.00
	20.00	--	20.00
ALL	3	2	5
	60.00	40.00	100.00
	100.00	100.00	100.00
	60.00	40.00	100.00

CONTROL: JVsizeCD - C173 Coded = 3 (Large JVs)
ROWS: JVperfor - C20 COLUMNS: SalesOFF - C127

	1	2	ALL
1	0	2	2
	--	100.00	100.00
	--	50.00	33.33
	--	33.33	33.33
2	1	0	1
	100.00	--	100.00
	50.00	--	16.67
	16.67	--	16.67
3	1	2	3
	33.33	66.67	100.00
	50.00	50.00	50.00
	16.67	33.33	50.00
ALL	2	4	6
	33.33	66.67	100.00
	100.00	100.00	100.00
	33.33	66.67	100.00

CELL CONTENTS -
COUNT
% OF ROW
% OF COL
% OF TBL

Table H 17(f)

JVs having a less than US$5million equity valuation need not come under central government control. The JV establishment contract can be negotiated and structured within the JV regulations, directly with the local government authorities. Therefore, many of the sample foreign partners have numerous JV interests in China, such that they can avoid coming under central government scrutiny and experimentation. It is

found that over 70% of the sample foreign partners have more than one JV in China, each of which is relatively small to the extent of their total investment. This has the effect of keeping JVs smaller in individual size than they might otherwise be. (C104 - Yes = 1 No = 0).

Summary Statistics for Discrete Variables - C104

FPchnJVs	Count	CumCnt	Percent	CumPct
0	7	7	29.17	29.17
1	17	24	70.83	100.00
N=	24			

Table H 18(a)

This table shows the progressive maturation of JVs in China, in that the majority of 0-4 year old JVs are in the establishment phase, that there are no 'old' JVs in the *establishment* and *growth* phases, and that the majority of *mature* JVs are in the 5-8 and 9-12 age range. (C9 - Establishment = 1 Growth = 2 Mature = 3) (C173 - years 0-4 = 1, 5-8 = 2, 9-12 = 3, 13-16 = 4).

Tabulated Statistics

ROWS: STAGEdev - C9 COLUMNS: JVagell - C173 (coded)

	1	2	3	4	ALL
1	5	0	1	0	6
	83.33	--	16.67	--	100.00
	55.56	--	16.67	--	25.00
	20.83	--	4.17	--	25.00
2	3	4	1	0	8
	37.50	50.00	12.50	--	100.00
	33.33	50.00	16.67	--	33.33
	12.50	16.67	4.17	--	33.33
3	1	4	4	1	10
	10.00	40.00	40.00	10.00	100.00
	11.11	50.00	66.67	100.00	41.67
	4.17	16.67	16.67	4.17	41.67
ALL	9	8	6	1	24
	37.50	33.33	25.00	4.17	100.00
	100.00	100.00	100.00	100.00	100.00
	37.50	33.33	25.00	4.17	100.00

CELL CONTENTS -
COUNT
% OF ROW
% OF COL
% OF TBL

Table H 18(b)

The development trend in JVs can be seen from this analysis, which shows both that JVs develop at different rates, and also that the development towards profitability through the stages is on an approximately 4 year cycle. It is also clear from this analysis that there are no 'old' under-achieving JVs suggesting that either there is an inevitability of eventual profitability, or that under achieving JVs fail before

maturity. (C10 - Non-profitable = 1 Break-even = 2 Profitable = 3) (C173 (coded) - years 0-4 = 1, 5-8 = 2, 9-12 = 3, 13-16 = 4)

Tabulated Statistics
ROWS: JVviable - C10 COLUMNS: JVagell - C173 (coded)

	1	2	3	4	ALL
1	2	1	0	0	3
	66.67	33.33	--	--	100.00
	22.22	12.50	--	--	12.50
	8.33	4.17	--	--	12.50
2	1	2	3	0	6
	16.67	33.33	50.00	--	100.00
	11.11	25.00	50.00	--	25.00
	4.17	8.33	12.50	--	25.00
3	6	5	3	1	15
	40.00	33.33	20.00	6.67	100.00
	66.67	62.50	50.00	100.00	62.50
	25.00	20.83	12.50	4.17	62.50
ALL	9	8	6	1	24
	37.50	33.33	25.00	4.17	100.00
	100.00	100.00	100.00	100.00	100.00
	37.50	33.33	25.00	4.17	100.00

CELL CONTENTS -
COUNT
% OF ROW
% OF COL
% OF TBL

Table H 18(c)

This table shows that the age of a JV is not correlated with performance, indicating that JVs develop to maturity and profitability at different rates. (C20 - Low = 1 Medium = 2 High = 3) (C173 (coded) - years 0-4 = 1, 5-8 = 2, 9-12 = 3, 13-16 = 4).

Tabulated Statistics
ROWS: JVperfor - C20 COLUMNS: JVagell - C173 (coded)

	1	2	3	4	ALL
1	2	1	2	0	5
	40.00	20.00	40.00	--	100.00
	22.22	12.50	33.33	--	20.83
	8.33	4.17	8.33	--	20.83
2	4	3	3	0	10
	40.00	30.00	30.00	--	100.00
	44.44	37.50	50.00	--	41.67
	16.67	12.50	12.50	--	41.67
3	3	4	1	1	9
	33.33	44.44	11.11	11.11	100.00
	33.33	50.00	16.67	100.00	37.50

	12.50	16.67	4.17	4.17	37.50
ALL	9	8	6	1	24
	37.50	33.33	25.00	4.17	100.00
	100.00	100.00	100.00	100.00	100.00
	37.50	33.33	25.00	4.17	100.00

CELL CONTENTS -
COUNT
% OF ROW
% OF COL
% OF TBL

Table H 18(d)

This table confirms the findings of Table H 18(c) in showing that whilst age is not correlated with performance, the stage of development is positively correlated, with a clear trend towards higher levels of performance with increasing maturity. (C9 - Establishment = 1 Growth = 2 Mature = 3) (C20 - Low = 2 Medium = 2 High = 3).

Tabulated Statistics
ROWS: STAGEdev - C9 COLUMNS: JVperfor - C20

	1	2	3	ALL
1	2	3	1	6
	33.33	50.00	16.67	100.00
	40.00	30.00	11.11	25.00
	8.33	12.50	4.17	25.00
2	1	4	3	8
	12.50	50.00	37.50	100.00
	20.00	40.00	33.33	33.33
	4.17	16.67	12.50	33.33
3	2	3	5	10
	20.00	30.00	50.00	100.00
	40.00	30.00	55.56	41.67
	8.33	12.50	20.83	41.67
ALL	5	10	9	24
	20.83	41.67	37.50	100.00
	100.00	100.00	100.00	100.00
	20.83	41.67	37.50	100.00

CELL CONTENTS -
COUNT
% OF ROW
% OF COL
% OF TBL

Table H 18(e)

This table confirms the reports in the literature that newer established JVs have longer periods of tenure. This is important because the investment strategies of foreign partners of both financial and enabling inputs are often tailored to the optimal recovery period, which has been observed as a limitation to investment. It is found that the incidence of the longest tenure JVs is inversely proportional to the

age of the sample JVs. (C173 - C4 (coded) - years 0-4 = 1, 5-8 = 2, 9-12 = 3, 13-16 = 4) (C174 - C4 (coded) - years 1-12 = 1, 13-24 = 2, 25-36 = 3, 37-50 = 4).

Tabulated Statistics
ROWS: JVageII - C173 (C4 - coded) COLUMNS: JVperII - C174 (C5 - coded)

	1	2	3	4	ALL
1	2	0	0	7	9
	22.22	--	--	77.78	100.00
	66.67	--	--	58.33	37.50
	8.33	--	--	29.17	37.50
2	1	1	4	2	8
	12.50	12.50	50.00	25.00	100.00
	33.33	33.33	66.67	16.67	33.33
	4.17	4.17	16.67	8.33	33.33
3	0	2	2	2	6
	--	33.33	33.33	33.33	100.00
	--	66.67	33.33	16.67	25.00
	--	8.33	8.33	8.33	25.00
4	0	0	0	1	1
	--	--	--	100.00	100.00
	--	--	--	8.33	4.17
	--	--	--	4.17	4.17
ALL	3	3	6	12	24
	12.50	12.50	25.00	50.00	100.00
	100.00	100.00	100.00	100.00	100.00
	12.50	12.50	25.00	50.00	100.00

CELL CONTENTS -
COUNT
% OF ROW
% OF COL
% OF TBL

Table H 18(f)

This analysis investigates the link between the period tenure of JVs and performance. This follows on from the analysis of age and performance which has failed to prove a relationship, whereas a relationship has been found between the stage of development and performance. The assumption in this analysis is that if, for example, JV tenure is longer and this encourages enhanced foreign partner investment which increases competence in the JVs, then this enhanced competence ought be reflected in the performance of JVs. This principle is important as an indicator of the effect of an appropriate investment in JVs in China. (C20 - Low = 1 Medium = 2 High = 3) (C174 - C5 (coded) - years 0-12 = 1, 13-24 = 2, 25-36 = 3, 37-50 = 4).

Tabulated Statistics
ROWS: JVperfor - C20 COLUMNS: JVperII - C174 (C5 - coded)

	1	2	3	4	ALL
1	0	0	2	3	5
	--	--	40.00	60.00	100.00
	--	--	33.33	25.00	20.83
	--	--	8.33	12.50	20.83
2	2	3	3	2	10
	20.00	30.00	30.00	20.00	100.00
	66.67	100.00	50.00	16.67	41.67
	8.33	12.50	12.50	8.33	41.67
3	1	0	1	7	9
	11.11	--	11.11	77.78	100.00
	33.33	--	16.67	58.33	37.50
	4.17	--	4.17	29.17	37.50
ALL	3	3	6	12	24
	12.50	12.50	25.00	50.00	100.00
	100.00	100.00	100.00	100.00	100.00
	12.50	12.50	25.00	50.00	100.00

CELL CONTENTS -
COUNT
% OF ROW
% OF COL
% OF TBL

Table H 19(a)

Tables H 19(a) to (h) are analyses which provide descriptive data on the sample JVs, to illustrate the product quality, promotional effort, and quality of service, between the sample JVs' products and the necessary price position. It is found that the sample JVs produce products which are the state-of-the-art in China (C63) ; which carry the foreign partners' international brands (C72) ; which conform with international standards (C80) ; whilst local products tend to be inferior (C88) ; whilst sales benefit from the local partners' regional operations (C138) ; with additional analyses on price positioning (C108), and price sensitivity (C106) ; and market forces on prices (C111). (C63 - Yes = 1 No = 0).

Summary Statistics for Discrete Variables - C63

PROstate	Count	CumCnt	Percent	CumPct
0	1	1	4.17	4.17
1	23	24	95.83	100.00
N=	24			

Table H 19(b)

(Yes = 1 No = 0)

Summary Statistics for Discrete Variables - C72

FPbrands	Count	CumCnt	Percent	CumPct
0	1	1	4.17	4.17
1	23	24	95.83	100.00
N=	24			

Table H 19(c)
(Yes = 1 No = 0)
Summary Statistics for Discrete Variables - C80

Standard	Count	CumCnt	Percent	CumPct
0	7	7	29.17	29.17
1	17	24	70.83	100.00
N=	24			

Table H 19(d)
(Yes = 1 No = 0)
Summary Statistics for Discrete Variables - C88

LOCtech	Count	CumCnt	Percent	CumPct
0	2	2	8.33	8.33
1	22	24	91.67	100.00
N=	24			

Table H 19(e)
(Yes = 1 No = 0)
Summary Statistics for Discrete Variables - C138

LPregio1	Count	CumCnt	Percent	CumPct
0	13	13	54.17	54.17
1	11	24	45.83	100.00
N=	24			

Table H 19(f)
(Bottom-end = 1 Compliant = 2 Top-end = 3)
Summary Statistics for Discrete Variables - C108

$positn	Count	CumCnt	Percent	CumPct
1	4	4	16.67	16.67
2	9	13	37.50	54.17
3	11	24	45.83	100.00
N=	24			

Table H 19(g)
Low = 1 Medium = 2 High = 3)
Summary Statistics for Discrete Variables - C106

$STIVITY	Count	CumCnt	Percent	CumPct
1	3	3	12.50	12.50
2	3	6	12.50	25.00
3	18	24	75.00	100.00
N=	24			

Table H 19(h)
Costs driven = 1 Competition driven = 2)
Summary Statistics for Discrete Variables - C111

$shift2	Count	CumCnt	Percent	CumPct
1	7	7	29.17	29.17
2	17	24	70.83	100.00
N=	24			

Table H 19(i)

This analysis seeks to identify a relationship between price and the length of operation, to determine whether experience refines pricing strategy, and thus is an advantage to 'older' JVs. However, no significant indication is available from this analysis, other than that 'older' JVs appear to focus more on the top-end of the market, and that younger JVs tend to address the bottom-end and compliant price areas. (C173 (coded) - years 0-4 = 1 5-8 = 2 9-12 = 3 13-16 = 4). (C106 - Low = 1 Medium = 2 High = 3) (C108 - Bottom-end = 1 Compliant = 2 Top-end = 3).

Tabulated Statistics

CONTROL: JVagell - C173 = 1

ROWS: $STIVITY - C106 COLUMNS: $positn - C108

	1	2	3	ALL
1	1	0	0	1
	100.00	--	--	100.00
	50.00	--	--	11.11
	11.11	--	--	11.11
2	0	1	0	1
	--	100.00	--	100.00
	--	25.00	--	11.11
	--	11.11	--	11.11
3	1	3	3	7
	14.29	42.86	42.86	100.00
	50.00	75.00	100.00	77.78
	11.11	33.33	33.33	77.78
ALL	2	4	3	9
	22.22	44.44	33.33	100.00
	100.00	100.00	100.00	100.00
	22.22	44.44	33.33	100.00

CONTROL: JVagell - C173 = 2

ROWS: $STIVITY - C106 COLUMNS: $positn - C108

	1	2	3	ALL
1	0	0	1	1
	--	--	100.00	100.00
	--	--	25.00	12.50
	--	--	12.50	12.50
2	0	0	1	1
	--	--	100.00	100.00
	--	--	25.00	12.50
	--	--	12.50	12.50
3	1	3	2	6
	16.67	50.00	33.33	100.00
	100.00	100.00	50.00	75.00
	12.50	37.50	25.00	75.00

ALL	1	3	4	8
	12.50	37.50	50.00	100.00
	100.00	100.00	100.00	100.00
	12.50	37.50	50.00	100.00

CONTROL: JVagell - C173 = 3
ROWS: $STIVITY - C106 COLUMNS: $positn - C108

	1	2	3	ALL
1	0	0	0	0
	--	--	--	--
	--	--	--	--
2	0	1	0	1
	--	100.00	--	100.00
	--	50.00	--	16.67
	--	16.67	--	16.67
3	1	1	3	5
	20.00	20.00	60.00	100.00
	100.00	50.00	100.00	83.33
	16.67	16.67	50.00	83.33
ALL	1	2	3	6
	16.67	33.33	50.00	100.00
	100.00	100.00	100.00	100.00
	16.67	33.33	50.00	100.00

CONTROL: JVagell - C173 = 4
ROWS: $STIVITY - C106 COLUMNS: $positn - C108

	1	2	3	ALL
1	0	0	1	1
	--	--	100.00	100.00
	--	--	100.00	100.00
	--	--	100.00	100.00
2	0	0	0	0
	--	--	--	--
	--	--	--	--
	--	--	--	--
3	0	0	0	0
	--	--	--	--
	--	--	--	--
	--	--	--	--
ALL	0	0	1	1
	--	--	100.00	100.00

--	--	100.00	100.00
--	--	100.00	100.00

CELL CONTENTS -
COUNT
% OF ROW
% OF COL
% OF TBL

Table H 19(j)

This analysis investigates the correlation between the length of operation and price sensitivity, which is an important relationship because it can cause JVs to modify their price position over time. It is found that price sensitivity reduces proportionately with an increase in the length of operation of JVs. (C173 (coded) - years 0-4 = 1, 5-8 = 2, 9-12 = 3, 13-16 = 4) (C106 - Low = 1 Medium = 2 High = 3).

Tabulated Statistics

ROWS: JVagell - C173 (coded) COLUMNS: $STIVITY - C106

	1	2	3	ALL
1	1	1	7	9
	11.11	11.11	77.78	100.00
	33.33	33.33	38.89	37.50
	4.17	4.17	29.17	37.50
2	1	1	6	8
	12.50	12.50	75.00	100.00
	33.33	33.33	33.33	33.33
	4.17	4.17	25.00	33.33
3	0	1	5	6
	--	16.67	83.33	100.00
	--	33.33	27.78	25.00
	--	4.17	20.83	25.00
4	1	0	0	1
	100.00	--	--	100.00
	33.33	--	--	4.17
	4.17	--	--	4.17
ALL	3	3	18	24
	12.50	12.50	75.00	100.00
	100.00	100.00	100.00	100.00
	12.50	12.50	75.00	100.00

CELL CONTENTS -
COUNT
% OF ROW
% OF COL
% OF TBL

Table H 19(k)

This analysis indicates that with increasing length of operation the sample JVs experience progressively increasing costs driven influences on price, and decreasing competition driven influences on price. This suggests that 'older' JVs have refined their pricing strategy over time such that they have an understanding of the

competitive environment and posture appropriately within it, although they are inevitably influenced by costs, in such a rapidly changing economic environment. (C173 (coded) - years 0-4 = 1, 5-8 = 2, 9-12 = 3, 13-16 = 4) (C111 - Costs driven = 1 Competition driven = 2).

Tabulated Statistics

ROWS: JVagell - C173 COLUMNS: $shift2 - C111

	1	2	ALL
1	2	7	9
	22.22	77.78	100.00
	28.57	41.18	37.50
	8.33	29.17	37.50
2	2	6	8
	25.00	75.00	100.00
	28.57	35.29	33.33
	8.33	25.00	33.33
3	3	3	6
	50.00	50.00	100.00
	42.86	17.65	25.00
	12.50	12.50	25.00
4	0	1	1
	--	100.00	100.00
	--	5.88	4.17
	--	4.17	4.17
ALL	7	17	24
	29.17	70.83	100.00
	100.00	100.00	100.00
	29.17	70.83	100.00

CELL CONTENTS -
COUNT
% OF ROW
% OF COL
% OF TBL

Table H 20(a)

Analysis of the following variables provides a characteristic overview of the sample JVs. This data reveals the respective motives of the partners insofar as concentration on the local market may be their raison d'être ; whether the proposed strategy fulfils or ignores targets ; and what effect does a locally intensive strategy have on export targets and strategies.

Summary Statistics for Discrete Variables

7 - Foreign Partner Motive
(Global Strategy = 1 Regional Strategy =2
Competitive Response = 3 Market Entry
= 4 Location Specific Advantage = 5)

FPmotive	Count	CumCnt	Percent	CumPct
1	5	5	20.83	20.83
2	3	8	12.50	33.33
4	14	22	58.33	91.67
5	2	24	8.33	100.00
N=	24			

C8 - Local Partner Motive
(Product / Technology = 1 Brands = 2
Management = 3 Investment = 4 Export
Distribution Channels = 5)

LPmotive	Count	CumCnt	Percent	CumPct
1	16	16	72.73	72.73
3	1	17	4.55	77.27
4	4	21	18.18	95.45
5	1	22	4.55	100.00
N=	22			
*=	2			

C18 - JV Approval Targets
(Unreasonable = 1 Reasonable = 2 None = 3)

Targets2	Count	CumCnt	Percent	CumPct
1	3	3	12.50	12.50
2	21	24	87.50	100.00
N=	24			

C17 - JV Approval Establishment Targets(Met = 1 Not Met = 2 Exceeded = 3 None = 4)

Targets1	Count	CumCnt	Percent	CumPct
1	12	12	50.00	50.00
2	4	16	16.67	66.67
3	7	23	29.17	95.83
4	1	24	4.17	100.00
N=	24			

C103 - JV Independent Export Strategy
(Yes = 1 No = 0)

INDexpST	Count	CumCnt	Percent	CumPct
0	17	17	70.83	70.83
1	7	24	29.17	100.00
N=	24			

C74 - 'New' Brand Exports
(Yes = 1 No = 0)

JVbraEXP	Count	CumCnt	Percent	CumPct
0	23	23	95.83	95.83
1	1	24	4.17	100.00
N=	24			

C75 - 'New' Brand Products exports by LP
(Yes = 1 No = 0)

EXPchan1	Count	CumCnt	Percent	CumPct
0	23	23	95.83	95.83
1	1	24	4.17	100.00
N=	24			

C76 - 'New' Brand Products exports by FP (Yes = 1 No = 0)

EXPchan2	Count	CumCnt	Percent	CumPct
0	21	21	87.50	87.50
1	3	24	12.50	100.00
N=	24			

C77 - Exports of FP Brand Only
(Yes = 1 No = 0)

FPexpBRA	Count	CumCnt	Percent	CumPct
0	4	4	16.67	16.67
1	20	24	83.33	100.00
N=	24			

Table 20(b)

The proposition H20 suggests that the rapidly expanding high growth opportunities available in China have enticed JVs to concentrate domestically at the expense of exports. This table shows that almost twice as many JVs have *met* and *exceeded* domestic targets as have *met* and *exceeded* export targets. Also that more JVs are exempted from export targets than are exempted from domestic targets. Twice as many JVs fail to meet export targets as fail to meet domestic targets. Given that 87.5% of the JVs have agreed that all targets were set at reasonable levels, then it follows that the shortfall in achievement results from the concentration of effort in one area i.e. the domestic market. (C84 - Not met = 1 Met = 2 Exceeded = 3 None = 4) (C85 - Not met = 1 Met = 2 Exceeded = 3 Exceeded = 4).

Tabulated Statistics

ROWS: EXPforex - C84 COLUMNS: Targets3 - C85

	1	2	3	4	ALL
1	2	6	0	0	8
	25.00	75.00	--	--	100.00
	50.00	50.00	--	--	33.33
	8.33	25.00	--	--	33.33
2	0	4	2	1	7
	--	57.14	28.57	14.29	100.00
	--	33.33	40.00	33.33	29.17
	--	16.67	8.33	4.17	29.17
3	0	0	2	0	2
	--	--	100.00	--	100.00
	--	--	40.00	--	8.33
	--	--	8.33	--	8.33
4	2	2	1	2	7
	28.57	28.57	14.29	28.57	100.00
	50.00	16.67	20.00	66.67	29.17
	8.33	8.33	4.17	8.33	29.17
ALL	4	12	5	3	24
	16.67	50.00	20.83	12.50	100.00
	100.00	100.00	100.00	100.00	100.00
	16.67	50.00	20.83	12.50	100.00

CHI-SQUARE = 15.886 WITH D.F. = 9

CELL CONTENTS -
COUNT
% OF ROW
% OF COL
% OF TBL
COUNT

Table H 21(a)

This analysis is important because the benefits of achieved synergies must conform to the motives of the parties otherwise they are just incidental relationships. (C7 - Global strategy = 1 Regional strategy = 2 Competitive response = 3 Market entry = 4 Location specific advantage = 5).

Summary Statistics for Discrete Variables - C7

FPmotive	Count	CumCnt	Percent	CumPct
1	5	5	20.83	20.83
2	3	8	12.50	33.33
4	14	22	58.33	91.67
5	2	24	8.33	100.00
N=	24			

Table H 21(b)

Similarly, synergies are derived from the interaction of inputs from the partners, this analysis identifies those contributed by the local partner. (C39 - Site = 1 Facilities = 2 Labour = 3 Technology = 4 Finance = 5).

Summary Statistics for Discrete Variables C39

LPcont-n	Count	CumCnt	Percent	CumPct
1	9	9	42.86	42.86
2	9	18	42.86	85.71
3	2	20	9.52	95.24
5	1	21	4.76	100.00
N=	21			
*=	3			

Table H 21(c)

Identifies the motives of the local partners in creating the JVs, the findings of which provide an indication of the relevance of the achieved synergies. (C8 - Products / technology = 1 Brands = 2 Management = 3 Investment = 4 Export distribution channels = 5).

Summary Statistics for Discrete Variables - C8

LPmotive	Count	CumCnt	Percent	CumPct
1	16	16	72.73	72.73
3	1	17	4.55	77.27
4	4	21	18.18	95.45
5	1	22	4.55	100.00
N=	22			
*=	2			

Table H 21(d)

This table analyses the relationship between the level of local partners' technologies, his contribution of market access, and the resulting JV performance, the outcome of which is an indicator of synergies created between the parties and its effect on JV performance. The local partners have provided the JVs with local market access in 56% of the sample cases, the synergistic effect of which is evidenced by the 72% of performance, almost half of which has been at a 'high' level. (C88 - Yes = 1 No = 0) (C20 - Low = 1 Medium = 2 High = 3) (C40 - Yes = 1 No = 0)

Tabulated Statistics
CONTROL: LOCtech - C88 = 0
ROWS: JVperfor - C20 COLUMNS: LPaccess - C40

	0	1	ALL
1	0	0	0
	--	--	--
	--	--	--
	--	--	--
2	0	0	0
	--	--	--
	--	--	--
	--	--	--
3	1	0	1
	100.00	--	100.00
	100.00	--	100.00
	100.00	--	100.00
ALL	1	0	1
	100.00	--	100.00
	100.00	--	100.00
	100.00	--	100.00

CONTROL: LOCtech - C88 = 1
ROWS: JVperfor - C20 COLUMNS: LPaccess - C40

	0	1	ALL
1	2	3	5
	40.00	60.00	100.00
	25.00	30.00	27.78
	11.11	16.67	27.78
2	4	3	7
	57.14	42.86	100.00
	50.00	30.00	38.89
	22.22	16.67	38.89
3	2	4	6
	33.33	66.67	100.00
	25.00	40.00	33.33
	11.11	22.22	33.33
ALL	8	10	18
	44.44	55.56	100.00
	100.00	100.00	100.00
	44.44	55.56	100.00

CELL CONTENTS -
COUNT
% OF ROW
% OF COL
% OF TBL

Table H 21(e)

This analysis concentrates in the area of management where the interaction between these two variables can be seen to significantly influence JV performance. It is found that achieved performance in the JVs is highest when both partners contribute valuable inputs, i.e. when synergies are greatest. For example, when the foreign partner has management control , performance increases in line with the adequacy of local partner contributions. which are correlated with performance in the sample JVs. (C47 - Shared equally = 1 Unequally = 2 Foreign partner = 3 Local partner = 4) (C20 - Low = 1 Medium = 2 High = 3) (C41 - Low = 1 Adequate = 2 High = 3).

Tabulated Statistics

CONTROL: MGT/cont - C47 = 2

ROWS: JVperfor - C20 COLUMNS: LPbusEXP - C41

	1	2	3	ALL
1	0	1	0	1
	--	100.00	--	100.00
	--	100.00	--	100.00
	--	100.00	--	100.00
2	0	0	0	0
	--	--	--	--
	--	--	--	--
	--	--	--	--
3	0	0	0	0
	--	--	--	--
	--	--	--	--
	--	--	--	--
ALL	0	1	0	1
	--	100.00	--	100.00
	--	100.00	--	100.00
	--	100.00	--	100.00

CONTROL: MGT/cont - C47 = 3

ROWS: JVperfor - C20 COLUMNS: LPbusEXP - C41

	1	2	3	ALL
1	1	2	1	4
	25.00	50.00	25.00	100.00
	20.00	22.22	33.33	23.53
	5.88	11.76	5.88	23.53
2	3	2	1	6
	50.00	33.33	16.67	100.00
	60.00	22.22	33.33	35.29
	17.65	11.76	5.88	35.29
3	1	5	1	7
	14.29	71.43	14.29	100.00
	20.00	55.56	33.33	41.18

	5.88	29.41	5.88	41.18
ALL	5	9	3	17
	29.41	52.94	17.65	100.00
	100.00	100.00	100.00	100.00
	29.41	52.94	17.65	100.00

CONTROL: MGT/cont - C47= 4
ROWS: JVperfor - C20 COLUMNS: LPbusEXP - C47

	1	2	3	ALL
1	0	0	0	0
	--	--	--	--
	--	--	--	--
	--	--	--	--
2	0	1	1	2
	--	50.00	50.00	100.00
	--	100.00	100.00	100.00
	--	50.00	50.00	100.00
3	0	0	0	0
	--	--	--	--
	--	--	--	--
	--	--	--	--
ALL	0	1	1	2
	--	50.00	50.00	100.00
	--	100.00	100.00	100.00
	--	50.00	50.00	100.00

CELL CONTENTS -
COUNT
% OF ROW
% OF COL
% OF TBL

Appendix Three

The Case Studies

The following are abbreviated and synthesised and consist mainly of the information used within the analyses herein. The data has been synthesised for purposes of comparison, and the cases studied are identified by *Greek* alpha-numeric designations.

Syntheses of the Case Studies

'Alpha' 1

Originally conceived as a sale of technology, this JV was formalised in 1987 by a major USA corporation which acted as a deal maker only and brought together the technology contributions of a UK manufacturer of fire engine pumps, a Dutch company which manufactures tanks and tenders, and a Finnish manufacturer of ladders and platforms. The USA and UK companies took 35.7% each and the balance of the equity of a mutual HK company was shared between the other two partners. This HK company contracted in the form of a CJV with the local partner, with 35% of the CJV equity going to the foreign partners in exchange for the transfer of enabling technologies.

The USA company withdrew from the CJV two years later, and was bought out by the parties, thus further disproportionately increasing the cost of participation, and requiring loan guarantees and equity fund contributions from the residual partners, such that the CJV became an EJV in real terms. Whilst the JV is registered as valued at US$6m only US$300,000 has been issued, and much of this is covered by bank guarantees given by the foreign partners for buy-out and expansion loans raised by the JV in China. The business is located in the local partner's facilities on the outskirts of Shanghai, and 120 staff are allocated to the JV. The local partner has management control of the business in all respects, and has absorbed the technologies transferred to the point of independence and business maturity.

Turnover with the JV grew very rapidly in the first seven years, although the burden of costs from the local partner's inputs consumed all profits and no income at all accrued to the foreign partners during that time. Recent technical innovations have required additional technical inputs from the foreign partners, which they have used to re-establish an income basis of participation in the JV. Foreign partner incomes are currently at about 5% of turnover.

The JV is approved and governed by the Ministry of Public Security, which owns the local partner, and which has not had occasion to 'supervise' the JV given that the 'reasonable' targets set by them have all been achieved. Now that the foreign partners are receiving dividends from their investment they describe the JV as performing according to their expectations, although ROI is lower than for other JV locations. Turnover has grown consistently throughout the JV life which still have some 15 years to go. Whilst the JV's prices and production volumes are controlled centrally, this central control also provides benefits in national market coverage resulting from Ministerial patronage. The local partner retains all management and control functions, although the foreign partners are now more involved in technical and production decisions which also gives them an input into QC, and this participation involves the location of one expatriate employee of the HK holding company.

Management efficiency is said to be low compared to other similar JV units internationally, although comparative cost efficiency is much better at 65%, an advantage which is derived largely from lower labour and material costs. The JV's products are currently the 'state of the art' in China, but only of international standard with the continued involvement of the foreign partners. Such latest technologies are dependent upon the designs, formulae, and some components supplied by the foreign partners. The foreign partner's brands are attached to the JV's products to evidence quality and it is the foreign partner branded products which the JV is promoting for export through its own channels.

Prices are controlled through the local partner's parent given that the Ministry is both the owner of 65% of the JV, and also its customer, as a result price is a

sensitive issue and recent changes in prices have been driven by increases in costs, which have resulted from the inflationary effects of economic growth and development. This connection to the Ministry is advantageous in providing market access to regions where no local competitor exists, and in which purchases are made centrally by the Ministry, or recommended by them to the provincial authorities. In other areas where local competition exists, the Ministry and the local authorities tend to favour the local supplier, however, competition on the basis of price and quality is increasing in importance and the JV company concentrates its advertising and promotional activities in these areas. Although advertising and promotion is said to have failed and not to have justified the cost. There has been a high level of conflict between the partners on financial issues within the mature phase of this JV, largely owing to the fact that Alpha was not realising any income despite the relative success of the JV.

'Beta' 2

The foreign partner is a subsidiary of one of the UK's major industrial groups, and operates in some 29 countries in about half of which it has a WFOE or a JV arrangement. The company operates a global strategy, and entered China by way of a JV with an SOE in 1991, with the intention of accessing the world's largest market for construction materials. The current stock value of the JV is US$500,000 apportioned 55:45 in favour of the foreign partner, and having a tenure of 25 years.

The JV operates independently of the local partner's business, which is very similar although provides products which are outdated and do not meet the needs of modern civil engineering techniques. Nevertheless, the local partner still has some 15% regional market share, and about 3% national market share in his main business. The JV employs 80 people in a purposely equipped facility on the outskirts of Shanghai, which manufactures special chemical products for the construction and civil engineering industries. Turnover has grown consistently throughout the first 5 years of trading, increasing fourfold in the period. Income to the foreign partner, however, has been at a lower level than is expected from a majority JV operation in

a developing country, although efficiency is said to be adequate and production costs are 75% of those in other units. The JV had met the production targets placed upon its establishment approval, except in regard to exports and foreign exchange earnings where the foreign partner claimed that the JV's products were not of a quality expected by export clients. The authorities blamed the foreign partner given that they had management control, and partially 'supervised' the JV pending an improvement, which has since been realised largely owing to the growth in the market and the increase in prices.

The foreign partner's income is derived from proportional dividends and also from license fees for the transfer and use of technology, both of which issues have been disputed, the first as to whether it is necessary and the latter as to whether transfer has been accomplished. JV performance is said to be below expectations, as is ROI. The local partner being an SOE within the Construction Materials Bureau and ultimately the appropriate Ministry dealing with construction, has access to projects throughout China, and in this regard it offers the JV a measure of national market coverage, although the JV's business is regionally concentrated as a result of the high level of provincial patronage on projects which are often funded by Provincial governments. Whilst the local partner has effective influence within China, the JV company is made to compete for contracts on commercial grounds given that it is a separate legal entity and independent of the local partner's business. The foreign partner has retained majority control of management, technical issues, finance, and exports, although it shares responsibility for local market sales and marketing management and legal matters with the local partner. Expatriate personnel occupy some 30% of management posts within the JV with the balance being held largely by transferees from the local partner along with some new recruits from outside.

The issue of technology transfer has been an issue of conflict between the parties insofar as the local partner had paid the sum of £150,000 for the transfer, which they claim has not been made. However, the technology so far transferred is indeed the 'state of the art' for China as are the products produced by the JV. The foreign partner has assimilated sufficient technology over the JV period to be able to be independent if circumstances required, and this is a worry for the foreign partner.

This has led to the design of products such that they require formulated and designed inputs from the foreign partner to achieve the specification implied by the brand, this level of imported raw materials is roughly 15% by value. Sales and turnover targets which had not been met in terms of exports, have now been largely removed given the demand for the JV's products domestically, and in any event the target levels are now being met both for sales and production despite past increases. Foreign exchange requirements are now largely irrelevant given the liberalisation of the markets in China. JV's products have recently been exported in greater amounts given the beneficial currency exchanges and the 30% cost advantages provided by the JV, 20% of which results from low labour costs and raw material costs locally.

A flexible pricing policy is operated, which is adjusted for regional cost differentials and given the sensitivity of prices in the construction sector in China. Generally speaking prices are decreasing compared to economic indicators, in what is becoming an increasingly competitive sector. Advertising and promotion has been introductory in nature, promoting the utility of the JV's products, and has been generally effective and economical, despite the modest amounts spent.

'Gamma'

The foreign partner's parent group is one of the most active JV participants in China, having a total of 6 currently active JV and WFOE projects. Whilst it is inevitable that some strategic elements are similar, there are essential differences in strategic posture between them. For example, Gamma 8 was established as a WFOE to manufacture some of the more lucrative products previously within the range of Gamma 3, which involves a local partner. This is an aggressively profit intensive strategy and requires a posture which capitalises on the created advantage, and protects the foreign partner in its continuing relationship in Gamma 3.

'Gamma' 3

This was the first of the *Gamma* JVs now being a mature JV in its 9th year. The JV is foreign majority purpose built facility in partnership with 3 SOEs, two of which are the JVs main customers, and the other of which has a history in the same industry, although without the benefit of modern manufacturing methods and products. The JV has an equity base in excess of US$3m and is highly successful with a current turnover in excess of US$15m, and is the most profitable *Gamma* operation in China. The original approval tenure period of 25 years is currently being extended to 50 years on the basis of modernisation investment. The foreign partner's original motive for participation was to access the local market, although the current motive is a global one.

Production and turnover targets were placed upon the establishment approval of the JV, although they no longer apply given the success of the JV in exceeding all targets in all respects. Local loans have been raised to expand and improve the business over time, and these have been repaid, as the JV has continued to grow exceeding performance expectations in dividend and license fee contributions to the parent. The JV has national market coverage given that two of its local parents are industry controlling SOEs, and the other is the industry major in China. The JV is independent of the local partners' businesses, and the majority foreign parent retains management control, production management, technical, and financial management, although legal and sales and marketing issues are shared. Exports are controlled by the foreign partner given that the non-adapted production carries the foreign brand, and products are exported through the foreign partners distribution channels. There had been a medium amount of conflict between the partners during the growth phase of this JV on issues of strategy, and this is said to have resulted from the disorientating effect of modern business methods.

Technology transfer has inevitably taken place, although the critical components have been retained within the foreign partner, who also supplies design and formulation components into the local production system. Market access is far reaching given that much of the JV's business is with central bodies, as a result pricing has increased through the life of the JV on a national basis, in response to

costs and economic change. Advertising and promotion has been modest increased marginally year on year, with the motive of introducing the utility of the products, which is said to have been economically effective.

'Gamma' 4

This second of the *Gamma* JVs involves the largest single investment of the 6, and is 6 years old. Performance has exceeded expectations with turnover being at over US$5m in the current year, and profitability being at about 10%. The foreign partner retains majority and management control including control of technical, production, quality, and finance, although it shares management of legal and sales responsibilities. The local partner is a provincial government company which continues in a similar business, which whilst it supplies more basic lower technology products, it has developed appropriate national distribution channels and customers which it makes available to the JV. This 50 years tenure JV has exceeded all of the soft targets which were set for it upon establishment. The JV operates a separate legal entity independent of the local partner's business, and it mainly managed by expatriate staff who retain the majority of technology within the foreign partner.

The foreign partner supplies formulated raw materials and components to the JV, and has responsibility for QC and standards and ensures compliance with international brand quality. Exports are controlled by the foreign partner within his international distribution channel system, and the foreign partner's international brand is attached to domestic supply and exports. China JV production provides a 30% price advantage, 20% of which results from low labour and raw material costs. The JV has produced consistent results throughout its life, with turnover growth over the 5 year period 1991-1996 being almost five-fold, which is higher than market development rates and economic growth, with foreign partner income derived from dividends and license fees. National market share is estimated at 20% within the narrow confines of the product speciality, although there are competitors in China and these benefit from provincial support just as this JV does in its region,

and so the JV's regional market share is about 30%. Advertising and promotion has not been undertaken given that the business sector is very narrow.

'Gamma' 5

The equity base of US$1.2m is equally divided with a Taiwanese partner, in a wholly foreign owned enterprise, manufacturing powder coatings materials. The JV has a 50 year tenure and is located in a purpose built facility largely equipped with imported equipment, which is critical to the technology of the manufacturing processes. The 80 employees largely consist of production labour, with management control and all related functions being retained by the local expatriate management. Established in 1994, the JV's turnover and profits have grown rapidly in such a short period, although this is largely founded upon several large long run contracts with other foreign JV major products manufacturers. Establishment targets were originally placed by the local government authorities upon the JV, mainly to ensure foreign exchange subsistence, but these have been exceeded in all respects, and are today 'soft' targets, and the JV's results have exceeded the original expectations.

The technology used by the company in China is the 'state of the art' internationally without any local adaptation, and the business is dependent upon formulation, design inputs and raw materials from the foreign partner. The foreign partners' international brands have been attached to the JV's products, although exports are minimal top-up supplies into the partners' international supply base. The JV is equal to any local competitor in terms of standards and production capacity, although business is regionally concentrated with about 22% regional market share. Production capacity is taken up meeting local contracts, such that the 25% produced cost advantage is not a available for an export strategy. Pricing policy is made on a case specific basis given that the business is supply contract dependent, and typically such contracts are hard fought for and price sensitivity is very high and compliant to market forces, although prices have changed faster than market development and economic growth in the economy.

Typically, the business is concentrated in the nearby provinces being subject to delivery costs and provincial patronage, although new distribution channels have been developed by the company in its planned growth further afield. Advertising and promotion is not seen as important given the 'narrow' nature of the business, and is not commonplace in the industry.

'Gamma' 6

This project had been intended as a WFOE by the foreign parent owing to their previous experience with elevated establishment costs, however, upon application it was found that the authorities sought a substantial export and foreign exchange subsistence target. This would have been an unacceptable burden on the business given that the company was to be established to 'follow' a traditional manufacturer of toiletries into China, to whom the company would supply packaging materials. An ownership strategy was created whereby *Gamma 3* would act as the local partner, thereby giving the foreign parent of both 95.1% ownership of *Gamma 6*, and avoiding the imposition of control targets. The total equity investment of US$1.8m was made in 1995 and has matured into a US$1.1m turnover in 1995/96, producing in its first year some 9% profit on turnover being 6% ROI, which is a healthy performance indicator for a JV in a growth phase.

The JV is managed and controlled in all main respects by the foreign partner's expatriate staff as an independent entity, deriving its income from dividends and license fees. The long term contract manufacturing nature of the business linked to a captive client makes issues of market access, local partner influence, and targets rather irrelevant. Although *Gamma* is conscious that the fate of the JV is only as good as that of client, and so other contracts are sought in China to spread the risk of dependence. The level of efficiency is measured according to the JV's ability to meet the needs of its client, and according to his level of efficiency, which is estimated as moderate when compared to other international plants. The latest technology has been transferred to the JV although this has been well kept within the control and knowledge of the expatriate managers. The JV's technology is the

international 'state of the art', without any special adaptation for China. Formulated raw materials, components, and product designs are provided by the foreign parent from overseas, which is another conduit for the repatriation of profits by way of transfer pricing and normal supply profits.

All of *Gamma 6*'s products carry the foreign partner's international brand, and comply with all local and international standards. Production in the JV has a 35% price advantage over similar plants elsewhere with 25% being derived from low labour and raw material costs, although these advantages are declining at the rate of 5% per annum as against the rate of economic development. Advertising and promotional activities were not undertaken at the outset given that the JV was established with long term contracts in hand. However, the single client dependence risk has encouraged the foreign partner to advertise and promote the JV more in search of additional mainstay contracts, and this has been found to have been an economical and successful.

'Gamma' 7

Gamma 7 is a 100% foreign owned JV located in a facility adjacent to *Gamma 8*, and having the same 50 : 50 arrangement with a Taiwanese partner as in *Gamma 5*. Despite the absence of a local Chinese partner, the JV was approved by the Shanghai SEZ authorities in 1996 without any target commitment to export or to maintain foreign exchange subsistence. This is the smallest and youngest of the *Gamma* JVs having an equity capital of US$400k, 52 employees and a first year turnover of US$310k, although the JV is still in the establishment phase. The equity contributions of the partners has been both equity capital, and manufacturing equipment, with the foreign partner motive of market entry and the authorities' motive of high technology import. The JV is still in the investment phase and profits from the first year of trading have been absorbed in equipment, although early performance is described as medium and according to expectations.

All management functions are contained within the foreign expatriate management group, including all technical, production, QC, financial, and legal management, and the technology which has been transferred to the JV is the international 'state of the art' which meets all international standards and codes. Production is heavily dependent upon imports of critical raw materials and components, and upon designs and formulations provided by the foreign partners, and the efficiency of the JV is reckoned to be high as compared to other similar plants elsewhere in both developing and developed countries. The foreign partners' international brands have been attached to the JV's products, without any adaptation, although it is not anticipated that exports will ever feature large in the JV's business. The JV maintains foreign exchange liquidity by trading mainly in foreign currency with foreign participated JV companies in China. Local competitors are about of equal size in production terms, but their technology is far outdated, although that bottom end of the market still commands about 90% of market share. There is a role, therefore, for advertising and promotion to introduce users to the utility and quality of the JV's products, and such promotional activity is planned for 1998 onwards.

Price sensitivity is high given that the majority of the JV's contracts are long term OEM type contracts, which further indicates that contracts are hard fought for and pricing is made on a case specific compliant/competitive basis. Prices and sales have increased in line with economic change which has brought raw material and labour costs increases, although prices have had to be decreased in response to competitive pressures, such that they have reduced in real terms over the period. The market accessed thus far has been mainly nearby regional, and dependent upon several long term tied contracts, although the partners are anxious to spread their risks and their market access by acquiring further contracts further afield, although it is anticipated that provincial pressures and patronage will limit their geographic growth unless they set up additional facilities to service local long term contracts.

'Gamma' 8

Certain special product sectors were identified over time within the product range of *Gamma 3* which had to be included within the range, but which were disruptive of the volume flow of production within *Gamma 3*. As special products these were also premium price and lucrative lines, provided dedicated facilities were available to produce them. *Gamma 8* was set up as a WFOE 100% *Gamma* owned in 1994/95, without any export commitment on the basis that the plant liberated production facilities within *Gamma 3*. Employing 86 people, 80 of whom work in production, with an equity base of US$850k, *Gamma 8* had a 1996 turnover of US$1.24m with profits at 15% realised a modest income for the parent of US$186k.

The JV is operated as a separate legal entity to *Gamma 3*, and is heavily dependent upon raw material, component, design and formulation inputs from the parent, who also maintains management control, in technical, financial, and production areas in the hands of expatriate personnel. Production is also heavily dependent upon the production equipment imported and supplied as part equity, which produces unadapted international 'state of the art' products the same as those in the parent's international product range, and carrying the parent's international brand. Whilst no targets were set upon the establishment approval of the JV, range, quality and volume expectations were expected by the authorities, and these have all been exceeded. The JV's market is regionally concentrated with 15% share within the narrow confines of its field. The market has an oversupply of product given that many consumers group special products such as the JV manufactures, along with traditional old fashioned products. However, it is recognised that there is a need to introduce the benefits to a wider marketplace, which will then result in increased demand and an assumed undersupply.

When compared top other similar operations the China JV's costings are 30% better, however, these are not achieved by scale economies for the reasons discussed above, but rather from lower labour and raw material costs which account for 85% of all costs. The JV's production cost advantage is eroding at an estimated 4% per annum in response to the pressures of economic change. Price sensitivity is a moderate influence at this time given the long term nature of existing contracts,

although pricing decisions are made on a competitive case by case basis compliant to market forces, although they have increased overall. The business is centrally concentrated within the JV's HQ although there are plans to locate sales staff regionally to resist the provincial patronage tendency, which tends to prefer less efficient products which are locally sourced, than more efficient products which are not. A measure of advertising and promotion has been undertaken, often under the umbrella of *Gamma 3*, to promote and introduce special products on the basis of their utility. The modest expenditure to date is said to have been successful in producing certain contracts from companies who would otherwise not have known of the products, so on this basis the modest promotional spend is said to have been effective.

'Delta' 9

The parent group sought to acquire location specific advantages and market access in China, with the formation of a JV which involved the transfer of technology, brands and international distribution channel access. The arrangements were originally conceived as a CJV which later required a measure of equity investment resulting in a quasi-EJV, although the foreign partner's primary motive has been in third markets and as such has not participated in the local management and marketing of the JV's products.

Investment based upon cost coverage and expenses has exceeded US$350k which has been recovered, despite proportionately high established costs, in the initial sales of trial products into the agreement exclusive markets of Iran, Libya and the UAE. Although the nature of the JV is such that it was approved for a relatively short period of 3 years, to allow frequent performance reviews. The motive of the foreign partner is to manufacture generic products which are traditional to its subsidiaries, with exclusive rights to sell them within its established markets. The motive of the local partner is to acquire additional technological inputs as well as entrenched market access. The JV is still at the establishment/growth phase given that many of

the units sold are being appraised for quality and performance, as is typical in the oil industry.

Performance has exceeded the establishment agreed targets which were modest and based upon the sale of trial quantities. Profitability is greater than expectations largely based upon the 20% or so price advantage resulting from low labour and raw material costs locally in China. The foreign partner's income, however, is not derived from dividends and license fees as is common in JVs, as the trading nature of this JV requires that income is derived from the trading of the products in third markets, except in the case of sales made within China in which case a profit sharing arrangement exists. The foreign partner holds a minority share of the JV and does not actually participate in the management other than in the case of QC or production, technology issues, and only then when these are related to his supply contracts. Despite considerable success, the JV experienced a high level of conflict between the partners, largely based upon tactical issues.

The local partner provides the production infrastructure, which in fact amounts to little more than the finished product. The JV is an ad hoc arrangement and as such is more of an agreement to cooperate than a formal separate legal entity, and in this respect is heavily dependent upon the local partner's infrastructural and management inputs. Issues of targets, foreign exchange balancing, staff, and legal issues are, therefore, consistent with such arrangements in not being major issues of concern.

Technology has been transferred on the basis of top-up either for conformance to specifications or compliance to third market codes. Whilst the products are of a common generic nature, the foreign partner retains some control on the supply of material inputs by supplying components and formulations not available in China, and yet required by some international specifications e.g. Neoprene and Buna-N seals, and Teflon coating materials. Price is agreed on a case specific basis, with sensitivity increasing owing to competition, although prices are increasing in response to economic growth. The nationally distributed specialisation of manufactured specialities, means that certain products are only available from a few

sources in China, and so provincial influence does not play a major role, and neither does advertising and promotion given the prescriptive nature of transactions. It must be said, however, that no business has materialised in China, and this is not an unexpected result.

Political and diplomatic, government to government moves in response to wider international issues, have negated the value of this JV, and it is assumed to be terminated soon.

'Epsilon' 10

The foreign parent has developed numerous JV interests in China in all its various sectors, but all originating from their flour milling JV which was established in 1991 (subject of this case study). *Epsilon 10* is rare amongst China JVs in that it was not created by the partners, they acquired it by way of a take-over of an existing failing business. The local partner is a major Chinese industrial group with widely diverse interests, but without any experience in foodstuffs. The business was acquired for the total equity amount of US$3.8m, with ownership divided 60 : 40 in favour of the foreign partner, who retains total management control with the local partner taking no part. Many concessions on normal JV regulations were made to attract the foreign parent including foreign jurisdiction, special loan arrangements in view of the relative high cost of participation, and joint foreign company ownership.

Almost all senior positions within the company are held by officers of the foreign parent, with some 320 production personnel being hired from the local workforce. Turnover has grown from US$2.4m in 1991 to US$22m in 1996 producing profits at 11% of US$2.45 distributed as dividend according to shareholding. The JV is reckoned to be still in a growth phase with additional production capacity coming on stream in 1996/97, although all targets placed upon the take-over of the JV having already been exceeded. ROI is low compared with other developing country JV locations for similar operations, although this results from the inherited deal negotiated by the previous owners, which the partners are trying to overturn. The

partners conflicted on issues of finance during the establishment phase of the JV, largely because of the impatience of the local partner, at a time when the JV was finding its feet.

Production is subject to the usual price, volume, and quality controls and the retail price is often supported by the government at the wholesaler / retailer level. The JV has consistently exceeded all approval / establishment targets, which are reasonable and were agreed after negotiation with the local partner, who is also the local authority for the Suzhou special region. Whilst the foreign partner has transferred 'state of the art' technology, management and proprietary knowledge to the JV company, his income is derived from dividends without any license fees or royalties. The JV is independent of the local partner's business and operates as a separate legal entity without any inputs from the local partner, except in exceptional circumstances where their substantial influence may be required.

The product itself is not adapted for the Chinese market, although some adaptation has taken place in packaging, presentation, and distribution, has been necessary. Production is not design / formulae dependent on the foreign partner although it is dependent upon his management systems, and to a small measure for spares and components of production equipment. The foreign partner's international brands are attached to the JV's products, and about 2% of which are exported to maintain foreign exchange liquidity within the business. The JV's products accord with all international standards for QC, specification, and hygiene, and all exports are made through the foreign export channels. Prices have increased marginally over time in response to increasing costs resulting from the development of the domestic economy. The controls in force for all basic foodstuffs, however, result in price increases being pegged to as maximum equal to the rate of price inflation in the regional economy. Sales are made mainly in the HQ region, from running production stocks, by sales staff who are hired locally, and who also sell other products from the foreign partner's other JV interests in China. Sales are mainly to wholesalers using existing distribution channels as do all competitors. The nature of the product being a relatively low cost staple food, means that the economics of distribution largely contains the product within its area of manufacture. Essential

foodstuffs are subject to the most concentrated provincial government patronage and support, on the basis of the central government's plan for local subsistence in essential products. National and regional advertising has been undertaken over the JV period, mainly by way of roadside hoardings and in the press and this has proven very successful in introducing the newly arrived brand and promoting the quality of the product.

'Epsilon' 11

Epsilon 11 like *Epsilon 10* is a take-over of an existing yet failing business, which has the basic 'building blocks' in terms of equipment, land, products, government / provincial patronage or support. The subject company had been an SOE owned by the Department of Agriculture and managed by the Liaoning provincial government, which had failed to produce anything like the capacity that the equipment was designed for, and had never made profits. The foreign partner was approached to create a JV by way of take-over of the facilities, and to improve performance by the transfer of advanced technologies and management systems.

The existing company was purchased by the foreign partner and the Liaoning provincial government in 1992 by way of a JV arrangement, in which the foreign partner acquired 60% for US$2.45m which investment included a quantity of hardware and a measure of technology transfer. The foreign partner found that the negotiation on the proportional value of inputs resulted in an elevated costs. After a period of revamping of the facilities the foreign partner retained management control and expatriated some 20+ of his own personnel to run the business. Soon thereafter the business commenced trading and produced profits and unprecedented levels of production. The number of employees was reduced from 120 to 80, and responsibility for the retirees was passed back to the provincial government. The purpose of the JV was to produce animal feeds, poultry and other related products, in line with the foreign partner's main line of business. The foreign partner's motive was mainly a regional strategy given that he sought a copious local unit to produce low cost poultry products to serve the Japanese market.

The JV was established in 1992 with a contract tenure of 50 years, and is still said to be in the establishment / growth phase given that new activities continue to be added. All targets set by the authorities at the outset to ensure that the JV was more effective than the previously failing company, have all been exceeded, and the results are better than the expectations of the partners. ROI is high even compared to some other similar successful operations within the foreign partners group activities in other developing countries. The foreign partner derives his income from dividends which are apportioned according to shareholding, and also by way of license fees for the use and support of technology supplied by the foreign partner, and also by way of royalties for the use of the foreign partner's trade mark. The business is mainly concentrated in the HQ province, although the local partner has national market coverage and effective influence, and can assist effectively in acquiring contracts further afield although the economics and transport facilities available restrict market access. All senior management positions including technical, financial, QC, and exports, have been retained by the foreign partner and these positions are filled by his expatriates, although there has been a shift towards hiring more local employees into senior positions.

The technology transferred as part of the establishment of the JV has been the 'state of the art', and the efficiency of the plant is high as compared to other similar plants internationally. The foreign partner's international brands are attached to the products, which have been exported through the foreign partner's international distribution channels, especially to Japan which takes a large part of the 38% of exports and meets the required levels of foreign exchange liquidity. There is a maximum input (95%) of locally acquired raw materials, which assists in keeping costs down such that produced costs are about 80% of those of other similar plants in the region. A large part of such low cost result from scale economies, but also from low labour and raw material costs. Prices are controlled by the local government which accords to a national plan for foodstuff costs, as such prices are highly sensitive, although prices have increased over the life of the JV in line with economic growth. Sales strategies are developed and controlled centrally, with the majority of sales staff having been transferred from the local partner.

The business is regionally concentrated owing to the special transportation required for foodstuffs and the costs in accessing distant regions. Sales staff sell from central stocks, mainly to wholesalers and distributors. mainly through distribution channels inherited from the local partner. Provincialism plays a large role in regions accessed owing to the importance placed upon foodstuffs subsistence expected of local authorities by central government, so local authority support plays an important role in this industry. Advertising and promotion has played a large role in establishing the brand in terms of quality, although expenditure has been modest the results are said to have been both economical and effective. The business has grown in turnover from US$5.6m in 1991/92 to US$38.3m in 1996, which has resulted in a profit to the JV in 1996 of US$2.3m after tax. There has been a moderately high level of conflict between the partners during the growth phase on the basis of disagreements on strategy, although these difficulties are now largely overcome.

'Zeta' 12

Zeta was established in 1959 to service the post war industrial regeneration of Japan, by the importation, manufacture and assembly of engineering equipment such as valves, heat exchangers, and pumps. A slowdown in the domestic market in Japan during the 1980s caused Zeta to look overseas for production cost advantages and also for new markets. A south east Asia office was opened in Singapore to serve that region, and two offices were opened in China in an attempt to access the huge potential China market. The company failed to access the China market adequately by way of imports, and eventually decided that a measure of localisation was necessary. However, Zeta did not want to localise all its activities, and it wanted to retain international market rights to whatever products were produced by its participation in China. So a two-pronged strategy was developed whereby Zeta would establish a WFOE in a FTZ, and simultaneously engage in a JV with an established company which could offer both quality production and also market access. Zeta preferred to find a 'troubled' company with which to participate such that its investment would buy maximum equity and also management control. Zeta

found such a company in 1994, and a JV was created in 1995 giving Zeta 50% shareholding and management control.

Zeta invested US$300,000 elevating the previous equity value of the company from US$200,000 to US$500,000 of which equity Zeta retained 50%, and control of management, QC, exports, finance, technical, and Chairmanship of the JV firm. The local partner was left with the responsibility for those issues best within his control, i.e. legal and infrastructural, local sales and marketing, and production. The business grew in turnover terms by almost four-fold in the first year of the JV from US$410,000 in 1994 to US$1,500,000 in 1995, and then again doubled in the following year to US$3,000,000. Profitability grew from a bout 4.5% to 8% as the business benefited from advanced management methods, contributing a dividend of US$120,000 to Zeta in 1996.

The JV has 60 full time employees, and has no finite period of tenure given that it is a continuing business, i.e. a hybrid-JV. The motives of the respective partners are clear in that the foreign partner sought a regional expansion strategy, and the local partner sought investment to 'lift' his business competitively. The JV is reckoned to still be in the establishment phase despite being three years old, as new products are being added all the time, and the re-equipping of the production facilities continues to increase the range and capacity of the business thus changing its nature considerably. The JV has been profitable from day one given that the enlarged joint ventured company had a small order book which has been enlarged since. The authorities approved the JV on certain minor conditions, given that it is essentially a private company, the conditions were mutually agreed and reasonable, and have all been met.

The JV has exceeded the expectations of the partners and ROI is high as compared to other similar developing country locations within the Zeta group's knowledge. There are two local partners to the business, one of which is an SOE, and there is another foreign partner other than Zeta, which is a Hong Kong portfolio investor. Zeta receives its income by way of dividends, and also license fees, although it profits further by reselling the 38% of exports to which it has exclusive rights. The

business tends to be localised in the area of the HQ province, although the company has some wider access to the market through its contacts and through its SOE partner. The senior officers of the company are mainly from JMC, although many management positions are held by the retained local shareholder managers of the company. Proprietary knowledge and technology has been transferred without reservation, and this technology is the 'state of the art' internationally, although Zeta continues to supply some essential components not readily available locally.

Market share has grown regionally to about 10%, although national market access is very difficult in this highly competitive sector and national market share is negligible. Cost benefits accrue to Zeta from the participation in their export markets of about 20%, which results from lower raw material and labour costs. R & D is mainly provided to the JV as a deliverable having been done by Zeta overseas, although some product development is carried out by the JV itself to meet specific bespoke requirements locally. All exports are carried out by Zeta through its WFOE in Shanghai, and all exported products carry the Zeta brand, whereas local sales are both of the Zeta brand for new products and the JV's brand traditional brand. Price is very sensitive in what is a highly competitive sector, and is mainly made on a compliant case specific 'what the market will bear' basis. However, prices have increased through the JV's life in response to economic changes, but they have also been forced back down by competitive forces until an estimated price decay of about 2% per annum exists in 1997.

Sales staff are mainly retained from the previous company staff, and sales strategy is made nationally and operated from HQ. Sales staff also handle other Zeta products not part of the JV's main line of business. Commission agents are used in the distant regions of China, and their sales are provided from central stocks at HQ. The JV's foreign costs are estimated at 15% and these are mainly for materials and equipment imported by Zeta. Distribution channels used have been inherited from the previous business and are one of the main assets acquired by Zeta in the formation of the JV. A small amount of advertising has been undertaken to promote the new products introduced by Zeta into the JV, and this modest activity has been moderately successful. The metamorphosis of the business after the creation of the JV, and the

introduction of modern management methods and products, caused a moderate level of conflict between the partners owing to the extra benefits accruing to the foreign partner owing to his WFOE.

'Eta' 13

Eta is a world leader in the manufacture of industrial gases, with additional interests in healthcare, special pumps and glass coating technologies. Many of the industry's generic processes have been developed by *Eta*, and many of those which are still exclusively controlled by the company form the majority of the bases of their international network of Licensees, WFOEs and IJVs. *Eta* is a true MNE with interests on all continents, and is capitalised at some US$ 6 billion on the London and Tokyo markets. 70% of *Eta's* business remains in its core area of industrial gases, with its other interests growing rapidly. International sales are roughly achieved one-third each in Europe, the Americas, and Asia, with the latter being the fastest growing region in both sales and profitability.

Eta's formal entry into the China market by way of a participative entry mode was preceded by a long history of trading and supply of special gases and machinery through its facilities in Hong Kong, and then typically to the southern areas in China. Since then *Eta* has established some 29 companies, invested over US$80 million, and currently employs over 3,000 people in China. The company's first JV in China was an EJV in Shanghai in partnership with a chemicals manufacturing SOE. The total investment of the partners was US$15 million with equity in the JV company being shared equally between the two partners. *Eta's* main contribution was capital, equipment, technology, management, and equipment. Whereas the local partner mainly contributed the assets of its outdated Gas Division including the use of its site, and the 350 strong workforce, distribution channels, and local market knowledge. The task of the JV initially was to update the existing facilities with modern technology, with *Eta* taking management control.

Given that *Eta* had developed considerable facilities and market share in the region by way of stand-alone facilities in the recently preceding years, *Eta's* motive for entry into China was to access the local market, with exports being of minor importance. Local distribution to consumers is an important feature of the business, the economics and logistics of which require a multi-location distribution intensive strategy, which is complex and expensive to establish and manage.

The company experienced the usual establishment problems of negotiation related to essential inputs, which typically involved the issue of land use valuation, and later developed into problems of profits repatriation, and earnings from exports. These issues have largely been overcome by the reinvestment of profits, the changes in the foreign exchange earnings regulations, and the expansion of the business into locally intensive essential sectors such as the carbon dioxide network JVs. Much of the increased investment has gone into the originally established JV company in Shanghai, and both increased production volumes, and also expanded the JV's range of products.

Management control is exercised by an *Eta* appointed general manager who retains control over sensitive areas of the business such as technology / technical and finance. More locally intensive activities such as marketing, promotion, accounting, and legal, are delegated to local employees who are more familiar with local and infrastructural issues. Training is provided by *Eta* for locally hired staff, to ensure that systems are operated the *Eta* way and to re-educate them away from the 'state owned mentality' and developing their customer awareness, cost-consciousness, safety and reliability of supplies, by way of pay and conditions incentives.

Eta's most recent development has also perhaps been its most ambitious, in which it has created China's only nation-wide carbon dioxide production and distribution system. The company responded to the needs of some of its major international clients who traditionally supply aerated drinks e.g. Coca-Cola, Pepsi, McDonald's, Kentucky Fried Chicken, Pizza Hut and major food processors who require rapid freezing and chilling, by creating a nation-wide manufacture, supply and distribution network. The distribution network covers an area 2,000 kilometres from north to

south and east to west, and involves production arrangements with companies in various industries. The production capacity of seven JVs whose production is already commissioned is 100,000 tons per year, with a further three JVs becoming operational in the near future producing an additional 30,000 tons per year. The company's market entry mode has involved WFOEs, IJVs, and JVs with IJVs. *Eta* has invested substantially to overcome the major problem of distribution in China by internalising much of its distribution system. Which is designed to accommodate the 15% annual growth currently being experienced, and also the 30% growth rate reported in the bottling plant demand for carbon dioxide.

The JV's costs have increased substantially since it started, as has its profitability and its sales. The arrival of *Eta* has had the effect of dividing the market in China causing the pre-existing local suppliers to continue to supply the smaller consumer, with the JV companies taking on the large contract customers, who prefer them because of their product quality and reliability of supplies.

'Theta' 14

Theta's activities in 22 countries in which it employs some 26,100 people and produces over US$ 3,1 billion in turnover annually, makes it one of the largest biscuit, snack foods and frozen foods manufacturers in the world. The Group first established a foothold in the China market at the time of the 'open door' policy in 1979 / 1980, by way of exports through its subsidiary in Hong Kong, and later established an equity JV in 1988.

The Company sought a suitable JV partner for several years and eventually decided to acquire an already established Hong Kong Company as a vehicle into the market, and also to use the new acquisition's 20% market share in the Hong Kong market as a means of satisfying the 50% export quota.

Theta's original JV agreement was made with a Hong Kong Company with extensive interests and contacts in China, and also involved a TVE in the area in

which production was to take place. However, the motives of the partners soon changed, which resulted in *Theta* taking over the Hong Kong partner. Production began in 1990 and profitability achieved in 1994. The original investment has been recovered and reinvested into expansion and development of the JV.

The JV grew at a rate which made the 50% export quota unsustainable and this was renegotiated in 1995 to a level which effectively exempted *Theta* from an export commitment provided the JV was in balance on current account. The JV has localised about 92% of its production despite large increases in raw material costs locally. Yet further investment and reinvestment has taken place until the current level of *Theta's* investment is at approximately US$25 million. Despite which the JV has taken local loans to finance working capital, which situation has been caused both by the need to provide credit to customers locally, and also results from elevated establishment costs.

Theta currently employs 1350 people in its China operations, who are managed by a 7 strong team of expatriates, who include the General Manager, and who internalise all critical functions. The JV has opened numerous regional offices in major cities and internalised warehousing and distribution for much of its operations. *Theta's* market share is growing, although it remains regionally concentrated in its home province in Guangdong. *Theta* has found that distribution and distant market access are the keys to expansion, and is currently negotiating further JVs in the eastern and northern regions of China.

Theta's turnover currently exceeds US$50 million, despite which the JV is said to be in the growth phase of its development, with the investment and reinvestment plans suggesting that the JV is at a break-even level. Typically, the JV had establishment targets placed upon it which have all been met. Although, performance overall is said to be at a 'medium' level with ROI being similar to that achieved in other locations.

The foreign partner derives his income from the JV by way of dividends based upon profitability, although it also levies a royalty on the JV for the use of brand names

and products. *Theta* maintains an equity majority interest in all its JV activities, having invested both capital and enabling inputs, and has used this position to acquire management control and the Chairmanship of the JV. Similarly, all critical functions have been internalised within the foreign partner's control in areas of technical sales, production, finance, exports, and legal issues. As a result of such a protective attitude, proprietary knowledge has been transferred en bloc, providing the JV with state-of-the-art technology and products, which have been extensively adapted to local tastes. The local partner, however, has contributed mainly site access and also labour.

The JV's main advantages over its competitors are without doubt the quality control, hygiene standards, and unique products contributed by the foreign partner. These qualities have enabled the JV to meet all targets imposed upon it, and to export to third markets, thus maintaining current account balances and achieving foreign exchange sufficiency. Price sensitivity has reduced from a high level to a medium level as snack foods have become more commonplace in China, and pricing policy is made by the foreign partner on a national basis. However, many new entrants, some of whom are from overseas but also some local companies who have adapted their products, have created an increase in competition, such that the price positioning stance taken by *Theta* is compliant to competitive pressures. As a result prices have been decreasing over time in response to competition. The increasing acceptance of snack foods has been largely brought about by the level of advertising which is prevalent in China as it is in other markets in this industry, in this respect advertising has proven to be successful, although it continues to be largely introductory in nature, and mainly features the foreign brand and the product quality.

Case Study : *'Yiota' 15*

Yiota's parent company is one of the largest press manufacturers in the world, with turnover in excess of US$ 530 million. The Group is headquartered in south west

Germany and has 28 overseas interests, located in Europe, the US, and South America. *Yiota* also has a JV located in Shanghai manufacturing general mechanical presses.

The Group's wholly owned subsidiary *Yiota* specialises in the manufacture of presses for the automobile industry, and is a major supplier in this sector world-wide. However, until the establishment of the JV in Tianjin, it did not have any manufacturing outside Germany. In company with many other equipment and component manufacturers, *Yiota* followed the flow of major automobile manufacturers into China, many of whom are major clients of *Yiota* in other locations, e.g. General Motors (Opel), Ford, Chrysler, and Volkswagen. Apart from producing automobile parts, *Yiota's* products have other applications in washing machine drums, beer kegs, gas bottles, stainless steel sinks, bathtubs, and parts for air conditioners, and the management viewed the establishment of a JV on the back of the automobile industry, would allow *Yiota* to also access other sectors.

The Company knew of a technical and commercial complementarity between themselves and a local company, who were conveniently located in the port city of Tianjin, which has an SEZ suitable for heavy industry (TEDA). However, owing to the investment required of the local partner, the local partner brought in another local partner in the form of CITIC (China International Trust and Investment Corporation), which is a local commercial bank. CITIC enabled the JV to acquire land within TEDA at preferential rates, in exchange for which arrangements and investment CITIC took a stake in the JV, which had the effect of elevating establishment costs.

A JV agreement was signed in January 1992 with the business licence being issued 5 months later. The initial investment of US$ 7.6. million would be in the form of cash (i.e. finance), of which US$ 6 million would form share capital and the balance would be a loan. The land use rights acquired are for 30 years, and the tenure of the JV has an extension clause, allowing for renegotiation thereafter. The investment also covered the construction cost of new buildings and the importation of machines, expertise, and technology transfer from Germany.

The JV has raised local loans for RMB operating capital from the industrial commercial bank and from the Bank of China. These loans are secured by DM and US Dollar deposits which are progressively released as the repayments are made. Foreign exchange has been a problem owing to a restriction on exports placed upon the JV, although by good fortune the JV has supplied one project to a company which could not afford to purchase, so the JV made a bank leasing arrangement, the proceeds of which accrue to the JV in foreign exchange. This foreign exchange enables the JV to import some essential components, and to repatriate royalties payable to *Yiota* for the sale of each machine. Technology transfer has already been paid for by a lumpsum payment to *Yiota*.

Yiota increased its stake in 1994 by purchasing 12% of the equity from CITIC, thus giving it a 51.4% controlling stake, with the local partner holding 39.4% and leaving CITIC with 9.2%. The JV has not produced profits since start up in June 1992, despite having recently received contracts from Volkswagen and Linde (both German companies), and break even projections suggest that the JV will stop making losses in the 1997/98 period. The JV currently employs 60 people, two of whom are expatriates having been appointed by *Yiota*, the balance being locals are appointees of the local partner and CITIC, some of whom have been trained by *Yiota* in Germany as part of the technology transfer agreement.

The skilled labour employed by the JV is in short supply in China, and there is a high level of mobility of skilled labour. The JV has experimented with performance pay, a loyalty fund, company housing, welfare packages, incentives schemes, and transportation, in an effort to keep its staff. Although the fear of their leaving is not founded on the loss of technology acquired by the employees, because *Yiota* believes that copying such machines would be difficult given the detailed complexities. In any event, *Yiota* has retained a measure of component input, which items are imported from Germany. It also retains a design supply input into each project such that whilst the cutting and welding can be seen, the supporting technology is not all locally apparent.

There are 2 local competitors each of whom manufactures similar machines to *Yiota's*, but having lower technology and not operating to the same tolerances, efficiencies and reliability. The most effective competition to *Yiota* in China is also foreign, mainly Japanese who both assemble locally from local and imported parts, and who also import whole machines.

The JV is said to be in the growth phase and operates at break-even level, although it is failing to meet the agreed reasonable JV approval target levels imposed upon it. The performance of the JV is at a low level in relation to the original expectations, as is the ROI as compare to other operations in similar circumstances. The foreign partner would derive income from dividends if profits were being made, but *Yiota* also receives license fees from the JV for allowing use of its brands and designs. *Yiota* has retained a majority shareholding in the JV having contributed finance and enabling inputs, whereas the local partner has contributed mainly labour and access to location facilities. The local partner has provided the JV with a measure of market access and contacts, although the JV operates as a separate legal entity from the local partner's main business, and is not dependent upon the local partner for any operational inputs.

Yiota has retained management control of all critical areas within the JV, except in the cases of legal management and production management which are shared with the local partner, and where it is decided that the local partner has a valuable contribution to make. Whilst efficiency is said to be at a 'medium' level, production from the JV has a 15% cost advantage as compared to other similar locations within the Group. State-of-the-art technology has been transferred en bloc to the JV, at a level which is not bettered by other technology possessed by the foreign partner, and at am equal level to any other world-wide competitor. However, the level of assimilation of the local partner is at a developable level, although any independent ambitions are limited somewhat by the production dependence upon proprietary equipment supplied by the foreign partner as equity.

The market has an oversupply situation, and as a result there is considerable competition and a high level of price sensitivity, whilst at the same time the JV

maintains a 'top-end' price position whereas prices are decreasing overall in response to competitive forces. The local partners regional operations are found to be ineffective and the widespread extent of market accessed by the JV has been developed by the JV itself.

Case Study : *'Kappa' 16*

Kappa is one of the top 3 companies world-wide producing high technology electronic sensor products. The company employs some 1200 people in more than 50 countries. It has 3 production plants in Germany, one in the USA, one in Switzerland, and it owns 50% of a related technologies company also in Germany. *Kappa* produced US$ 118 million in turnover in 1994, mainly from the sales of sensors and associated bus systems, into its main customer areas in general industry, automobile manufacturing, sewage plants, oil and petrochemicals, food and drink manufacturing, aeronautics, and paper production.

The wide range of applications for advanced sensor systems, and the high technology possessed by *Kappa*, made the proposal of establishment of a manufacturing unit a highly desirable prospect for the Chinese. The company planned to enter China by way of a WFOE, which meant that it would have to fund the acquisition of land use rights, as opposed to acquiring them as equity inputs into a JV. So it sought economical locations, which also offered advantageous tax rates and tax holidays. In this case *Kappa* obtained a reduced a 10% income tax rate, and a 5 year tax holiday.

Kappa had considered taking the JV route to market entry, but had failed to find a local partner who could provide a sales network which *Kappa* considered as being critical. The fear the company had in going in with a WFOE strategy was that the authorities may impose a very high level of export commitment. However, by going into the TEDA (Tianjin Enterprise Development Area) SEZ in Tianjin as a quasi-WFOE (i.e. TEDA have an involvement in the business) with a genuinely high

technology business producing 'state of the art' products, *Kappa* were able to negotiate a relatively low 20% export quota rate, although other target levels have since been found to have been high. The land use and buildings costs were also found to be between 30% and 40% cheaper than in Shanghai, whilst still being situated in a major industrial city.

Kappa's operating licence was issued on 6th September 1994, when the original investment was US$ 1.2 million, but this has subsequently been increased to US$ 4.2. million. Part of the investment was in the form of production hardware, but the bulk of the investment was in cash and was used to purchase 2 floors of a new building, which *Kappa* moved into in February 1995, and began production in May 1995. The business is described as being *'mature'* having overcome many of the early establishment problems and is currently operating at a profit, although it has taken out RMB loans secured with a DM currency deposit to provide working capital, and to enable the company to use the foreign exchange liberated by the repayments for the importation of components from Germany. Typically the Company was given high JV approvals / establishment targets which it has not met, although *Kappa's* own performance expectations / results have been at a high level, with ROI being at similar levels as compared to other units within the group.

Critical proprietary knowledge has been *retained* within the expatriate staff, whilst some *technology transfer* has taken place to employees, overall the company operates *independently* of any local inputs. Inevitably, in a business which supplies case specific OEM products, there has been and extensive amount of *product adaptation* for the *national* market, which has been accessed on a *widespread* basis through the company's own *developed* distribution channels. The Company has seen no need to set up *regionally* and sales and service are conducted from *Kappa's* China office in Tianjin, although they find that the costs in accessing *distant* regions do limit market access to some extent, and they aggregate this *cost* burden on their *national price* structure. *Kappa's* distribution strategy is inevitably similar to that used by the company's competitors in that they identify opportunities and develop products accordingly, which given the relative small size of the input and the level

of specialisation, influenced by any provincial protectionism in terms of patronage or sourcing.

The company has 30 local employees who have been hired directly by *Kappa* with the assistance of TEDA, plus a general manager who is a transferee from *Kappa* in Germany, but who is originally a Chinese from Tianjin. The bulk of sales to date have been to domestic customers, although *Kappa* is targeting the large OEM market, much of which goes to export, within the FIEs. As the investment is a quasi-WFOE insofar as the authorities have a participative interest established in contract, although not in the form of equity, the foreign partner has retained sales and marketing management, production management, and financial management and accounting within their expatriate staff, despite which efficiency as compared to other *Kappa* units internationally remains at a *medium* level. Although cost advantages are realised by *Kappa* both for local competitiveness and also for exports, with produced unit costs being 70% of those in other units within the group.

The company has found advertising a valuable tool owing to the diverse sectors into which it sells its products. The chosen media has been the technical journal, and *Kappa's* message has been a detailed technical specification to encourage engineers to incorporate the products into their systems. Promotion has been carried out on a national basis and features the company's product quality, foreign brand, and product utility, the message being based mainly on value i.e. high quality versus a marginally higher price. *Kappa's* main competitor in China is another German company, which established a JV in Shanghai some 6 months earlier than *Kappa*. Whilst there are a few indigenous companies manufacturing low technology products, *Kappa's* research has shown that consumers would gladly purchase more reliable products from *Kappa* if the price differentials where reasonable. The company is currently studying its pricing in the light of the price sensitivity which exists.

Case Study : *'Lamda' 17*

Lamda is a 'state of the art', and world's largest manufacturer of Oscilloscopes and associated technologies. It has manufacturing facilities in 4 locations in the USA, as well as 4 overseas JVs, and has a world-wide network of sales and service centres. The Company produced US$ 1.47 billion in turnover in 1994/95 from which it realised a profit in excess of US$ 80 million. The company employs some 7600 people world-wide, and holds more than 2300 international patents, to which total it adds almost 70 new ones each year.

The Company entered into a contract to establish a 5 year co-operative JV (CJV) in China in August 1991, with an SOE instrument manufacturer. The local partner is the second largest Oscilloscope manufacturer in China with 1992 revenues of US$ 1.14 million and having 543 employees. *Lamda* entered into a second JV in China in 1993, this time with China's largest manufacturer of electronic instrument based in Shanghai, which had 1992 revenues of US$ 6.38 million and employed 1514 staff. A further JV was set up in 1994 in Chongqing with China's largest manufacturer of TV testing equipment. Each of these 3 JVs involved an investment of about US$ 1 million.

The stated aims of the foreign partner in establishing the JVs, were to manufacture locally for the local market and thus produce import substitution benefits, and also to transfer technologies to local manufacturers to produce locally for established export markets within *Lambda's* global system. A high level of localisation was required to be accomplished over time, yet by 1995, *Lamda* had made US$ 35 million in sales in China, with only about 5% of that value having been manufactured within the JVs, the balance 95% having been imported. Localisation has improved on some lines to 90% as the JVs have matured, although overall the production is dependent on critical components imports from *Lamda* in the USA, which amount to some 15% of costs. Whilst the slow rate of localisation was highlighted by the authorities in the early days, and has since improved, the current focus is on the fact that as agreed in the establishment contracts the foreign partner controls the JVs' exports, all of which are foreign partner brand products, which are

purchased cheap and sold at first world prices to the benefit of the foreign partner alone. The JVs provide *Lamda* with a 25% or so production cost advantage over other units internationally, which is derived from low labour and raw materials costs and not from scale economies. The foreign partner is thus the JVs' largest single customer, which makes the exports / income argument difficult for the local partners and the authorities to enforce, although this is a flaw in the foreign partner's strategy in that whilst exports have been considerable, they still do not satisfy the establishment quotas imposed by the authorities. Herein may lay a lever for the authorities to correct matters, although the foreign partner may simply welcome their insistence that the JV engages in exports under the Chinese brand, without access to the foreign partner's distribution channels, in which case his business would continue, which given the slow level of market development and the high costs involved would frustrate the local brand effort.

Lamda had a long history of supplying equipment to clients in China by way of imports. However, many of their customers were experiencing problems in obtaining sufficient foreign exchange and import licences. So the initial purpose of the JVs was to enable *Lamda* to access the market, and trade within it on a local basis. Each of the partners contributed US$ 500,000 in tangible assets, i.e. cash from *Lamda* and land and buildings from the local partners. Although it was the contribution of intangible assets in the form of design, technology, and engineering which elevated the value of *Lambda's* contributions, such that in each case *Lamda* took 70% of the equity. As a result of this balanced investment arrangement, the format is not purely that of a CJV as described in the statutes, it is in fact more like a conventional EJV, the main difference being that the arrangements do not create an entirely self-sufficient legal entity independent of the partners, and the JVs remain dependent upon the local partners' main businesses for operational inputs, although *Lamda* has retained management, technology. financial, and production control.

Cloning is a problem for the JV, with copies of the JV's products appearing on the local market, many of them being produced by former employees, often in new start-up businesses. *Lamda* has noticed that employees frequently press for an

insight into production design and technology. Although at this time *Lamda* feels that 'leakage' and any resulting cloning are minor problems, owing to the technology retention strategy employed by them, whereby critical knowledge has been contained within the 10% or so of *Lamda* personnel in the management hierarchy, and the JVs are dependent on them for design and formulated inputs and critical components. The retention of quality control has also enabled *Lamda* to evaluate locally available components, and to ensure that the JVs' localisation has improved from 5% in 1995 to 90% in 1997 on some lines, although efficiency overall as compared to other units internationally remains at a medium level.

All 3 of *Lambda's* JVs have an ongoing cash flow shortage of some 10%, which is financed by way of local loans from banks. Foreign currency shortfalls are effectively bankered by *Lamda* which ships materials to the JV on between 30 to 45 days credit. The authorities have typically not placed production quotas owing to the implicit import substitution effect of the JVs, although they have imposed 'reasonable' minimum production targets all of which have been met in terms of produced unit numbers, although not necessarily so in terms of value given the high level of early dependence on supplies from the foreign partner. Sales targets were also imposed by the authorities and these have been exceeded, despite a market oversupply, the JVs' top-end pricing policy, increasing prices in response to rising costs in line with economic growth. Although, overall sales increased in 1996 at a higher rate than economic growth, reaching a turnover in 1996 of US$4 million. 30% of the sales within China have been made through nationally co-ordinated regional representative offices by sales staff, 90% of whom are transferees from the local partners and who have been trained by the foreign partner. A lesser amount of sales has been achieved by commission agents and distributors with on-consignment stocks, and service centres. The sum of which activities results in the JVs having accessed the market to a widespread extent, largely through existing distribution channels and local partner contacts. Overall, the JVs' performance expectations as compared to results are high, with a high level of ROI as compared to other JV locations within *Lamda*.

The JV has created an employee welfare fund to overcome some of the problems associated with housing, health, and pensions which are normally provided to employees. It has also instituted incentive and bonus schemes to encourage vigilance in its workforce. Although it has not bowed to all culturally based demands, some of which are founded in 'Guanxi', such as influence peddling and corruption, and has lost a couple of contracts as a result of trying to 'westernise' its marketing.

Promotional work done by the JV is mainly concentrated on national exhibitions and trade shows, although the advertising that has been done in weekly trade magazines and journals has proven very effective in producing sales from areas of China where the JV has had no promotional contact or business history. The main thrust of promotional activity has focused on the quality implicit in the foreign brand, which has the effect of differentiating the JV's products from both the clones and those of the local partners' main businesses.

The USA parent is the JV's largest customer, with China JV products having been incorporated into its world-wide catalogue, and thus being sold through well established distribution channels, and benefiting from the *Lamda* brand, the international service centres, and reputation as the world's major supplier of Oscilloscopes. Distribution within China is multi-layered with e.g. 4 distributors in Beijing alone, and others in major cities throughout the country. Distributors sell to local retailers, and they in turn often sell on to other outlets. Such a multi-layered strategy has been found to be expensive owing to the discounts required from the JV to sustain the system.

The JVs have produced a sales turnover of US$ 4 million in 1996, the profit on which is almost 25% before taxes, and about 8% after tax. Further localisation is expected to improve profits to 50% before tax and 22% after tax. The foreign partner's income is derived from dividends on these profits, although license fees and royalties also accrue to him for sales made within China. The import substitution effect that same-model local production is having is expected to increase the JVs' market share to about 30% in the next few years, and growing

local development and consumption along with changes in *Lambda's* global organisation should decrease export levels from the current 70% to about 50% over the same period.

The original 5 year CJV arrangements have been extended for a further 6 years and agreement has been reached to convert the CJV into a formal EJV, despite the fact that the differences between the current arrangements, and a formal EJV are small. Consideration has also been given to a buyout of the local partners to convert the CJV to a WFOE, to avoid the problems associated with the bankruptcy, take-over or merger of the local partner in the light of the great changes that SOEs are going through at present.

Case Study : *'Mi' 18*

This US based healthcare and optical products manufacturer has invested in 185 countries, and has a network of international sales offices. Turnover in 1995 exceeded US$ 1.9 billion and the group employs some 14,000 staff. The group currently has two operating units in China with investment and loans amounting to over US$ 20 million.

In 1987 *'Mi'* entered into a JV with the Beijing No. 608 eyeglass factory, which is an SOE under the control of the Beijing Light Industry Bureau, to create a JV to manufacture and distribute contact lenses, and lens care products. The company's second venture was a WFOE in Guangdong province to manufacture and distribute *'Mi'* sunglasses. *'Mi'* had been approved to import for a period of almost one year to allow them to test the market, prior to the establishment of production facilities in 1992.

'Mi's' first steps in China were by way of a 3 year CJV, which was later converted to a formal EJV. The company's contribution to the JV was manufacturing technology, especially that used to form plastic raw materials into contact lenses.

There was also the supply of semi-finished goods by way of imports, to kick-start the business, and an injection of finance as registered share capital. Finished goods were also imported at first to 'seed' the market, although *'Mi'* believes that their greatest contribution has been in the area of marketing and management.

The local partner contributed land and buildings, some three-quarters of the original staff of 60 which included all the manufacturing and sales staff, accounting and finance employees. Along with the staff came knowledge and contacts within distribution channels, and within the local authorities. It took the JV two years until 1987 to produce a profit, which was ahead of time and convinced *'Mi'* to convert to an EJV in 1991, and to seek management control. Two common problems became apparent within the negotiations, firstly as related to the number of employees who would be taken over by the JV, and secondly as related to the valuation of the local partner's contributions. The employee issue was handled by way of an explanation of the needs of the JV, and the land and buildings valuation was agreed on the basis of the greater value of the technology transferred.

The earlier CJV had an export quota requirement of 20%, and this was renegotiated annually. However, by the time the JV was formed domestic demand for contact lenses was so great, and the JV clearly had a substantial import substituting effect, that the authorities amended the JV operating terms to allow 100% domestic sales. The EJV deal gave *'Mi'* a 60% stake in the new company, and the registered share capital was raised to US$ 8.4 million, and a tenure of 10 years, renewable by simple board majority vote. *'Mi'* claim a 50% market share in China, and the group projects that the China JV activities will become the most profitable part of the whole group's business.

'Mi' has managed its foreign exchange requirements by way of the minor incomes made from the few remaining exported items, such as glasses cases. Although the pressure to produce foreign exchange at this time to repatriate profits is not so pressing as almost all of *'Mi's'* income in China is being reinvested in the JV's expansion.

'Mi's' strength in China is its wide coverage, its multi-layered distribution system, and its more concentrated approach in opening retail outlets selectively in major cities, e.g. 5 in Beijing alone. Pricing is centrally controlled and tends to vary according to the channel into which the product is fed. However, the rapid development of distribution channels, and the establishment of chain multiples in this sector is creating a more balanced environment in pricing. Price sensitivity is quite high in this area, and *'Mi'* hopes to access a greater level of profitability by expanding vertically into the retail area, which has the potential to be the largest part of *'Mi's'* China activities.

Whilst *'Mi'* has engaged in some local manufacture of frames and lens materials for export, it is clear that the foreign partner's original motive was to access the local market. The JV has exceeded its 'reasonable' establishment targets and operates profitably, although JV performance as compared to expectations is said only to have achieved medium levels of performance similar to other comparable operations elsewhere. Sales and turnover targets have been consistently increased and always at least met and often exceeded, as is also the case with production targets which are regularly exceeded within the period of this study. *'Mi'* has retained overall management control and the majority of critical functions, except in cases where it shares management with the local partner, e.g. in sales and marketing and legal affairs where it is assumed that the local partner is better informed.

The JV positions itself at the 'top-end' of the market where it experiences high levels of price sensitivity, although prices in this sector are found to have been increasing over the lifetime of the JV, in line with economic development. The market accessed by *'Mi'* over time is widespread, and distribution channel problems have been overcome by way of the internalising of retail outlets, and wholesale supply directly by the JV.

Case Study : *'Ni' 19*

'Ni's' original strategy in entering China was to attach the location specific advantages of low cost materials and production in response to high levels of competition in the international marketplace. Its original JV created a world class plant which has since grown into 3 JVs on the same site, with the same partner, and production has more than doubled. The 3 JVs share all management functions which enables economies to be made, and enables efficiency in materials purchasing and production.

'Ni' is a UK plc formed in the early 1980s formed from the merger of a thread manufacturer and an artificial fibres manufacturer. 1995 group turnover of US$ 3.6 billion makes 'Ni' the largest textile company in Europe, and one of the top 3 in the world. It has interests in more than 50 countries, and employs some 70,000 people world-wide.

'Ni's' investment strategy in China has been carried out by 2 subsidiary companies in Hong Kong. The first *'Ni'* Development Company (HK) Ltd., is engaged in 4 JVs in the areas of polyester yarn, chopped filament thread, and dyeing and finishing, these are the Guanying, Jinying, Liqizhuang and Jinco JVs. They are 50% equity held by *'Ni'* and involve a total investment of US$ 55 million. The other subsidiary based in Hong Kong which has formed only one JV is *'Ni'* (HK) Ltd., which has a 75% equity position in a JV which manufactures textiles and garments, and which involves a US$ 6.3 million investment. *'Ni's'* first steps in China were taken in 1982, but not as a participant in China's internal development, rather as a customer who provided a soft loan to one of its suppliers to create goodwill, secure supplies, and to improve quality. It was with this same company that *'Ni'* formed its first CJV 6 years later in 1988, which was converted to an EJV in 1990.

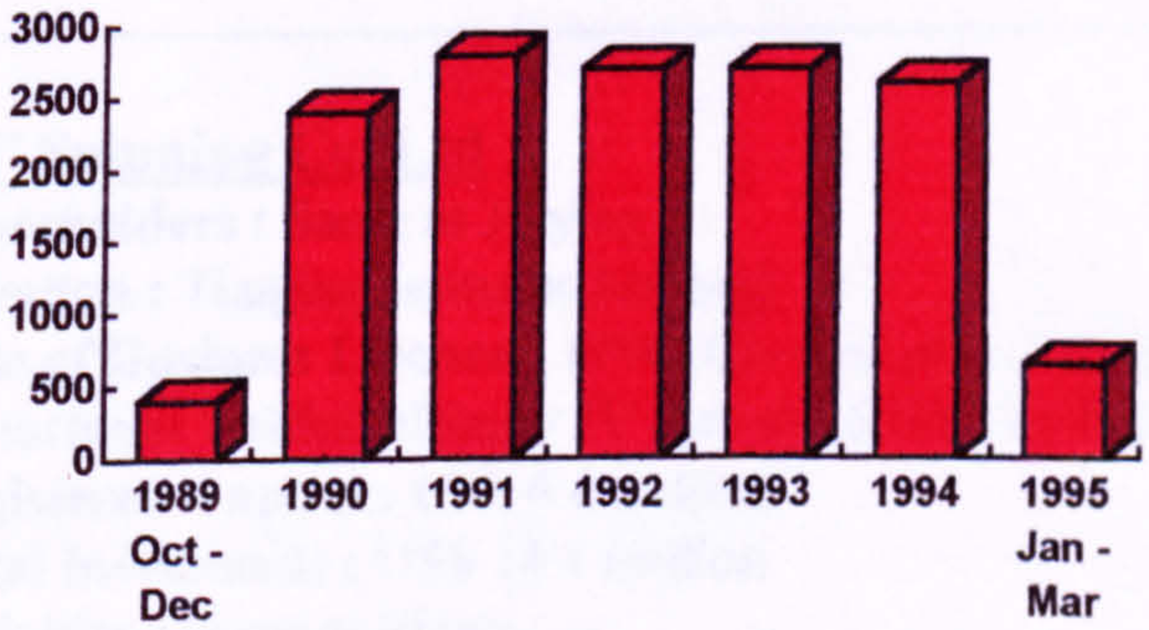
The Jinying JVs produce high quality thread which it had been planned would be sold 60% for export and 40% domestically. However, the quality of the product is too high for the local market, and 100% of production goes for export. All of these 'Tianjin' JVs produce different kinds of thread for which there is considerable

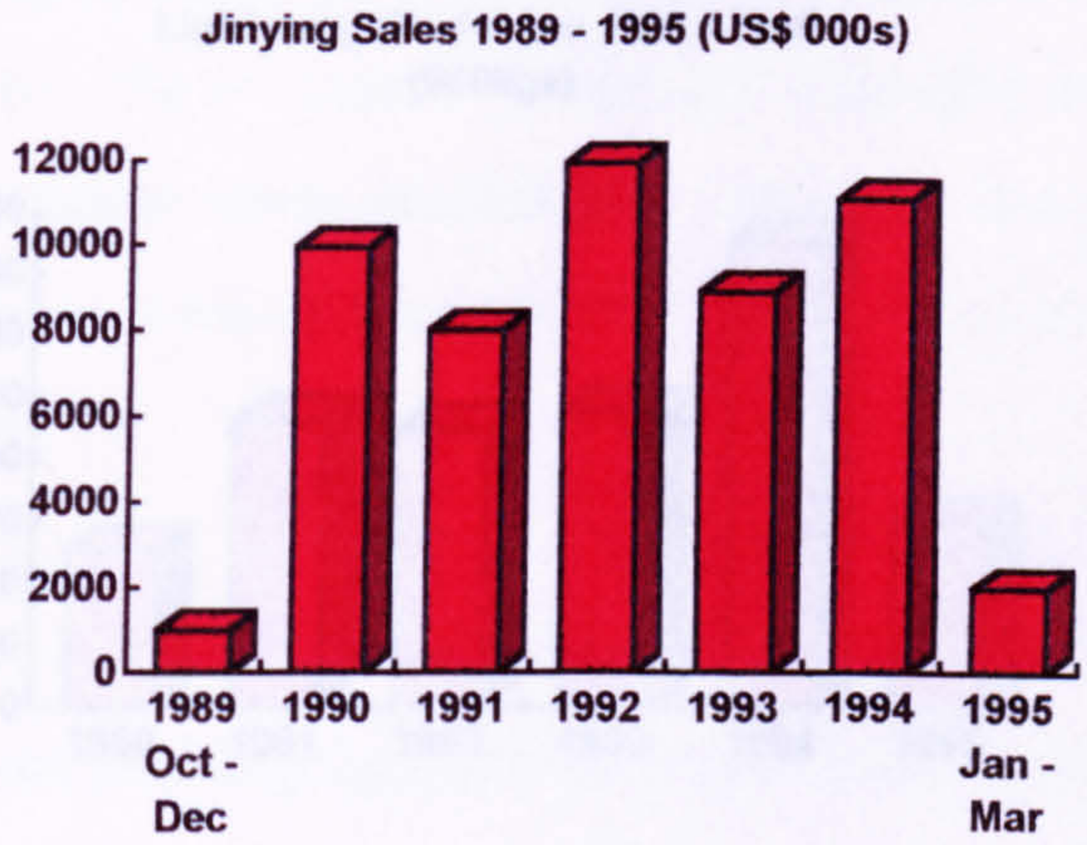
international demand, and all have been profitable from their first day, from which they are gradually repaying the local and foreign banks who provided a large part of the original equity capital.

The 3 'Tianjin' JVs are founded on a site containing an imported prefabricated factory having 14,000 M2 of floor space, and which has been constructed on a 30,000 M2 plot situated beside a cotton mill belonging to the local partner. The most modern production equipment from Germany, Switzerland and Japan were imported to equip this optimum sized pant. The plant was amongst the most profitable in the group when it started, although sharp cost increases in raw materials, labour and power supplies have eroded that position substantially. The foreign partners have management control in all of the *'Ni'* JVs, although there is an uncommon difference, in that the local partner's business ceased to produce upon the commencement of production in the JV company.

'Ni' Co. Ltd.
Foreign Partner : *'Ni'* Development Co. Ltd.
Chinese Partners : Tianjing No. 7. Cotton Mill (40%) - Tianjin Textile Import Export Union (10%)
Location : Tianjin Xi Qing District.
Date of Signing : July 1988
Investment Vehicle : Equity Joint Venture
Registered Capital : US$ 8.8 million
Total Investment : US$ 22.3 million
Activities : Manufacture of 100% spun Polyester Grey yarn
Number of Employees : 305
Duration of Joint Venture : 20 years

Jinying Production 1989 - 1995 (000kgs)

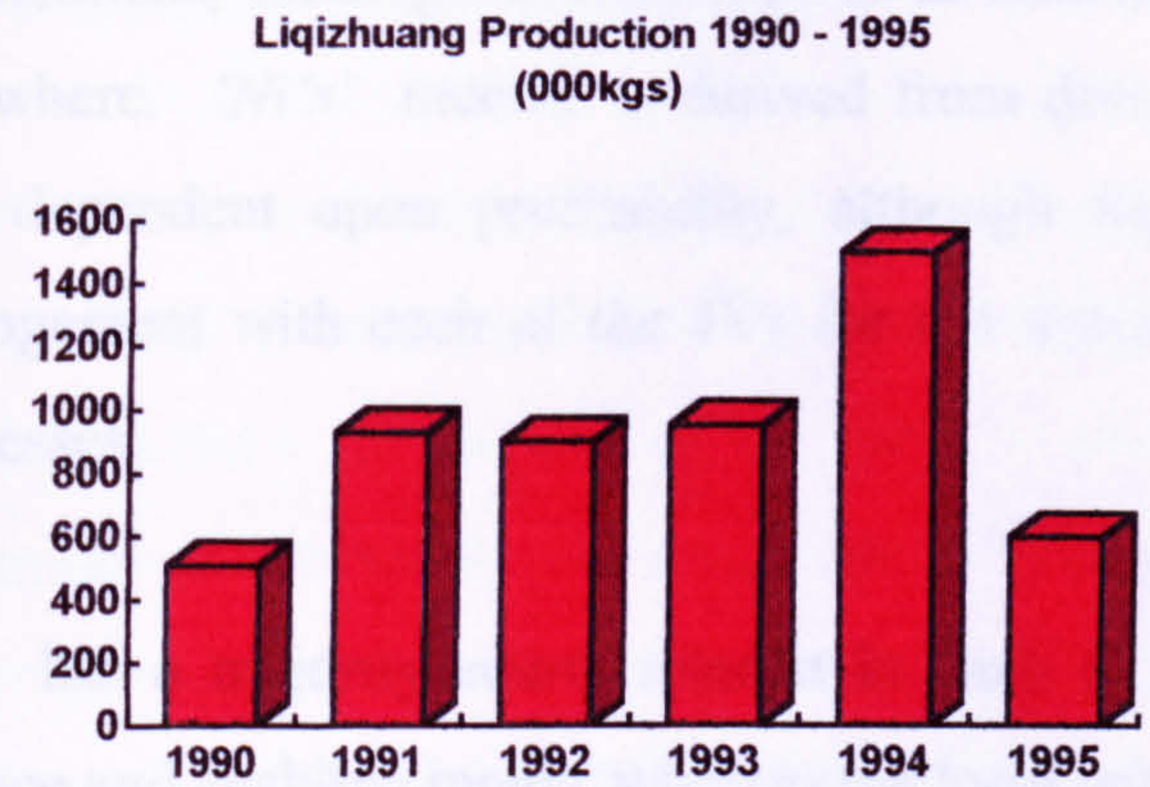


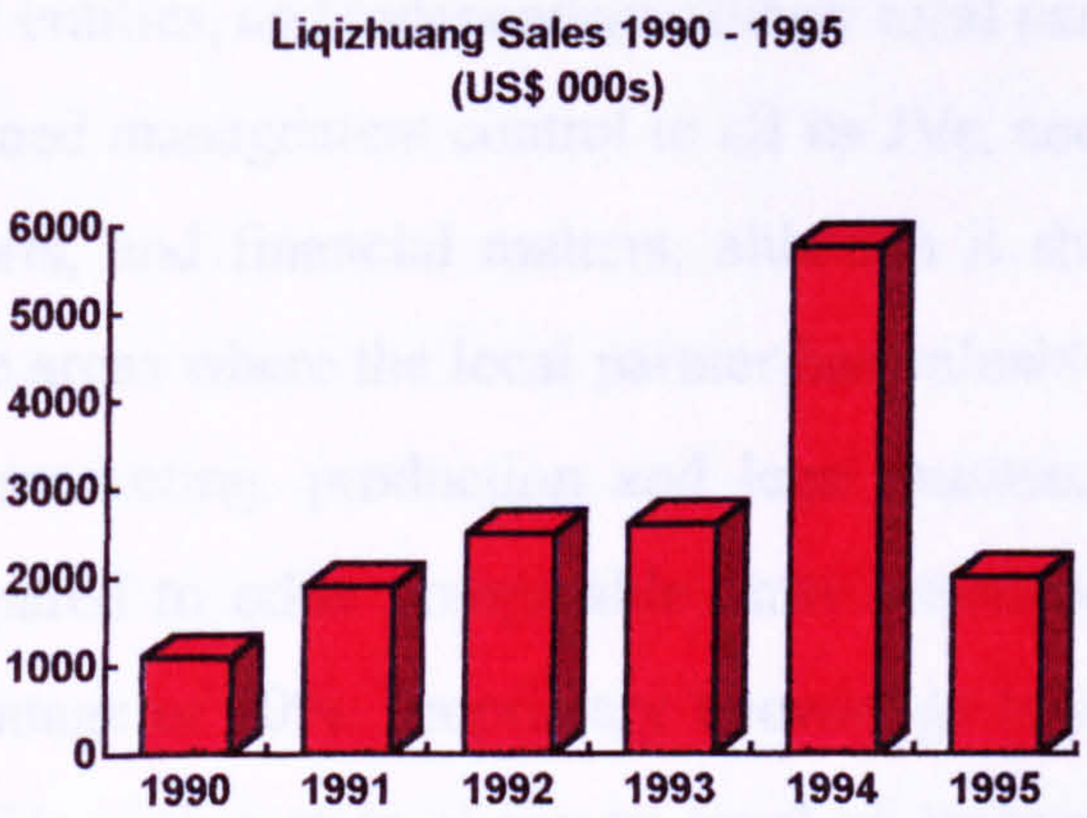


<u>*'Ni'* Spinning Co. Ltd</u>
Shareholders : same as Jinying
Location : Tianjin (same as Jinying)
Date of Business Licence : November 1995
Investment Vehicle : Equity Joint Venture
Registered Capital : US$ 2.5 million
Total Investment : US$ 3.6 million
Activities : Manufacture of chopped filament thread
Number of Employees : 20
Duration of Joint Venture : 50 years

<u>*'Ni'* Spinning Co. Ltd</u>
Foreign Partner : *'Ni'* Development Co. Ltd (50%)
Chinese Partner : Guangzhou No. 2 Cotton Spinning Mill (50%)
Location : Guangzhou, Yuancun District
Production Start-Up : 1986
Investment Vehicle : Equity Joint Venture
Registered Capital : US$ 6.4 million
Total Investment : US$ 12.7 million
Activities : Manufacture of 100% spun grey polyester yarn
Number of Employees : 300
Duration of Joint Venture : 20 years

<u>*'Ni'* Spinning Co. Ltd</u>
Shareholders : Same as Jinying
Location : Tianjing (same as Jinying)
Date of Business Licence : 1990 (Co-operative JV) ; July 1993 (Equity JV)
Investment Vehicle : Equity JV converted from earlier Co-operative JV in 1993
Registered Capital : US$ 6.4 million
Total Investment : US$ 14.1 million
Activities : Same as above
Number of Employees : 496
Duration of Joint Venture : 50 years.





The JVs all provide accommodation for many of their employees 95% of whom are female, and also operates a welfare fund to provide the benefits which normally accrue to workers of SOEs. JVs pay more than indigenous firms and some JVs, notably US firms, pay more than others. So the 'Tianjin' JVs pay above average local salaries and operate a deductive bonus system, whereby workers who fail to perform suffer a reduction in salary.

'Ni's' motive in entering China was largely based upon their global strategy, given the location specific advantages of low cost labour, production and raw materials available. The local partners' motives, however, were based upon modernising their outdated production facilities, which inevitably requires investment of finance, technologies, and equipment. The JVs are fully operational and in the mature stage of their development, and all are profitable, having exceeded their agreed reasonable establishment approval targets. Performance is at a high level of establishment

expectations, although overall ROI is at similar levels to comparable operations elsewhere. *'Ni's'* income is derived from dividends based upon its shareholding and dependent upon profitability, although the Company also has a licensing arrangement with each of the JVs for the use of brand names, technologies, and processes.

'Ni' has a majority equity interest in each of the JVs, having contributed both finance and enabling inputs, whereas the local partner has contributed the use of site and a measure of national market access. The JVs are all established as separate legal entities, and independent of their local partners for operational inputs. *'Ni'* has retained management control in all its JVs, and especially in the areas of technical, exports, and financial matters, although it shares management responsibilities in those areas where the local partner has valuable experience and contacts, e.g. sales and marketing, production and legal matters. Efficiency is at a high level as compared to other comparable units internationally, resulting in a produced cost advantage of 30%. Proprietary knowledge has been transferred en bloc, providing the JVs with a state-of-the-art level of technology. Such technology has not been contained within expatriate staff resulting in a developable level of technology having been assimilated by the local partner.

All establishment targets related to exports and foreign exchange, sales / turnover, and production have all been met by all the JVs, despite the fact that the JVs produce 'top-end' products at a time when there is a product oversupply in the market, and price sensitivity is at a high level with prices increasing in response to economic change. The JVs have accessed the market on a widespread basis, some of which ability to do so was contributed by the local partners, although the majority of such achievements have been made by the JVs themselves.

Case Study : *'Xi' 20*

'Xi's' 30 plus Various JVs are in the Energy, Industry, Communications, Information, Transportation, Healthcare, Household Appliances, Lighting, and Service sectors. *'Xi'* is one of the largest electrical, electronic, and engineering companies in the world, with a turnover in 1995 in excess of US$ 58.5 billion. *'Xi'* controls its operations in more than 170 countries in which it has more than 390,000 employees, from its base in Munich, Germany.

'Xi's' history in China goes back more than 125 years, and the company has done business with China throughout the austere days of communism and the 'dark days' of the cultural revolution. More recently, and notably just prior to the 'open door', *'Xi'* supplied steam turbines for a major power station project in 1974. Since when *'Xi's'* presence in China has grown dramatically to over 30 JVs involving over US$ 300 million in investment. 20 more JVs are planned by the year 2000, taking *'Xi's'* China workforce to over 30,000.

Such widespread and varied activities benefit from consolidation of management, and *'Xi'* is one of the few joint venturers in China to have set up a holding company to provide central guidance on marketing, human resources, financial co-ordination, and central negotiating expertise and power with the authorities. Although the holding company strategy is not supported by the legislation, especially in the area of intra-financing between affiliated JVs. A company the size of *'Xi'* inevitably has influence in high places, and has preferential access to state project contracts, if not only because of its track record and credibility.

'Xi' has recently entered the field as a project participant, in that it provides the equipment and it also provides the financing, either itself as a debt financing loan, or as equity in the project, or it arranges commercial finance. A separate company has been formed in Hong Kong to handle finance and equity participated projects in China. To date *'Xi'* has invested in one power plant in Rizhao in Shandong province taking 12.5% of the equity.

It is expected that *'Xi's'* turnover in China will be at about US$ 6.75 billion, or about 10% of *'Xi's'* world-wide sales by the end of the century, making it *'Xi's'* biggest single business area outside Europe.

'Xi' Power Cables Co. Ltd. Tianjin	
Foreign Partner	: *'Xi'* AG (Germany) [51%]
Chinese Partner	: Tianjin General Cable Works [49%]
Location	: Tianjin City, Nankai District
Date of Signing	: July 1994
Investment Vehicle	: Equity Joint Venture
Total Investment	: US$ 19 million
Registered Capital	: US$ 13 million
Activities	: Manufacture of medium / high voltage power cables
Number of employees	: 120 (2 expatriates)
Duration of Joint Venture	: 50 years.

'Xi' Power Cables Co. Ltd., was set up in 1994 in partnership with an SOE under the control of the Ministry of Energy. The JV had been preceded by a long standing (10 years) licensing agreement. *'Xi'* took 51% of the equity and management control in order to control the transfer of technology. The process of evaluating the relative value of the partners' respective contributions was relatively easy because the majority of the local partner's inputs was by way of imported machinery, the value of which is well known. The rights to the use of 28,000 M2 of land and existing buildings posed a more difficult problem. Eventually an independent assessment by a third party was agreed. The JV was approved in July 1994 and comes under the jurisdiction of a municipal authority, The Tianjin Bureau of Machinery.

The JV took only 120 of the partner's 2000 staff and there are only 2 expatriates from *'Xi'*, the general manager and the commercial manager. Production and technical issues are handled by specially trained local managers, and visiting specialists from Germany. There is no export quota applied to the company given that there is a great demand and national shortage of power cables, which results in an import substitution effect. Although the JV has experienced problems in convincing consumers to pay extra for a high quality product.

The foreign partner's motive in establishing a JV in China with this division of the Group, was based upon the certainty that a rapidly developing country of this size would need large quantities of power cables. The local partner's motive was based upon the need to modernise outdated products and production methods. Whilst the JV is only 4 years old at the time of writing, it is said to have achieved maturity and to be operating profitably, and that it has met the agreed reasonable JV approval and establishment targets. The performance of the JV as related to expectations / results is found to be at a low level, with ROI also being low as compared to other locations.

The foreign partner retain management control of the JV, including all critical functions such as technical management, financial management, and legal management, although he shares responsibility for sales and marketing, production, and legal management with the local partner. Efficiency is said to be at a medium level as compared to similar operations elsewhere, resulting in a 20% produced cost advantage over other locations. Technology and other proprietary knowledge has not been transferred en bloc being largely contained within expatriate staff, although there is a high level of assimilation of knowledge within the local partner, who is reckoned to have acquired a 'developable' level of proprietary knowledge over time. The production is dependent upon specialist equipment supplied by the foreign partner as equity, and the foreign partner protects the JV from copying and cloning by retaining the dependence of the JV upon the supply of critical design and formulated components and materials from the foreign partner. The JVs products are also branded with the foreign partner's international brands and no new brands have been created for the JV. All sales / turnover and production targets imposed upon the JV have been met, despite the fact that there is a high level of price sensitivity to the JV's 'top-end' products, with a great deal of competition driving prices down.

Case Study : *'Omicron' 21*

'Omicron' is a well known manufacturer of consumer electrical products which carry its brand name. What is not generally known is that *'Omicron'* is also a major manufacturer of electronic components which are essential to manufacturers of all products which have electric motors and load switches, such as refrigerators, TVs, microwave ovens, hairdryers, and toasters. These components are manufactured by *'Omicron's'* materials and controls division, and are fitted to stop electrical overloads and overheating.

'Omicron's' involvement in China began at the time of the 'open door' in 1979, and resulted in the establishment of local operations in China by an *'Omicron'* subsidiary, Geophysical Service Inc., (GSI), which obtained a contract from what is now the China National Petroleum Corporation (CNPC), to provide geophysical survey data in support of CNPC's search for oil reserves. GSI at one time employed some 300 people in China whom it controlled from a representative office in Beijing, until GSI was sold in the late 1980s.

'Omicron's' materials and controls subsidiary had a relationship for some 10 years with China's largest manufacturer of thermal protection devices, to whom it had supplied bi-metal components by way of imports. The quantities being purchased by *'Omicron's'* customer, Jiangsu Baoying, and the growth in electrical products manufacturing in China indicated to *'Omicron'* that there was a substantial local market. *'Omicron'* entered China initially by way of a licensing agreement believing that this was the least risky method. Licensing agreements were made with 2 factories who manufactured different products, and this enabled *'Omicron'* to evaluate the suitability of the companies as potential JV partners. Eventually, *'Omicron'* decided to set up a JV with Jiangsu Baoying in 1994, although the licensing agreement with the other company still continues. The experiences of the partners during the licensing agreement provided a good platform from which to negotiate the JV agreement.

The *'Omicron'* Instruments Electrical Equipment Co. Ltd., was registered in November 1995 with a duration of the JV of 50 years, and a share capital of US$10 million as an EJV. *'Omicron'* of the US have a 60% shareholding with the balance 40% being held by the Baoying Electric Appliance Factory. The JV's 150 employees are drawn from the local population of a small rural town, so employees were concerned about leaving their state housing and welfare benefits, to go to work for a JV which might fail. *'Omicron'* overcame this problem by employing only secondees from the local partner, who continues to provide benefits to them, thus also minimising *'Omicron's'* responsibility. The General Manager and Production Manager are both expatriates, from Taiwan and Japan respectively.

'Omicron's' entry motive was to access the domestic market in China, as it had done in Malaysia. It did not wish to be committed to an export quota, and negotiated the JV agreement on the basis that the JV had an import substitution effect, as evidenced by *'Omicron's'* historic business with Jiangsu Baoying, and also that the growth of the electronics sector in China indicated a substantial growth in demand for such OEM products. The JV, which is said to be still in the establishment / growth phase, initially accessed its regional market, although the widespread development of the electronics industry customer base, and the commonality of designs and specifications, indicates a national market potential. The JV is profitable having met negotiated 'reasonable' establishment targets, although JV results compared to establishment performance expectations are low. The JV operates at *medium* levels of efficiency as compared to other units internationally and its operations produce similar levels of ROI, despite having a production cost advantage derived from low labour and raw materials costs of some 25% as compared to other units internationally. The foreign partner's income is derived from dividends based on the performance of the business, and also from royalties from the JV, and also from a further licensing arrangement with another manufacturer of non-competing products.

The local partner has knowledge of the market in China and is known as a manufacturer of electronic components having had some 10% national market share in its narrow field, but it does not have established national market access, having

been largely closely regionally concentrated with some 40% market share in its specialist area. There is a market oversupply of similar, although inferior products which pre-existed the formation of the JV, although the JV has a greater production unit size of production. The JV is independent of the local partner's main business as a separate legal entity, and is not dependent upon Baoying for operational inputs. The import substitution argument put forward to the authorities upon establishment of the JV, has resulted in an exemption from any price, volume, distribution controls, or sales targets.

Price is highly sensitive for OEM manufacturers to the highly competitive electronics industry, and the JV's price position is at the top-end given its high quality products. The pricing policy is formulated by the foreign partner and is arranged on a national basis, to allow for regional and distance costs, and have been found to be strongly influenced by economic change, and are costs driven. Sales change has been at a lower level than market development and economic growth. All sales staff are transferees from the local partner, and are trained by the foreign partner. Sales are nationally co-ordinated and made from the centre, with regional interests being handled by the local partners regional operations which produce some 25% of sales, although for the most part, and aside from his presence in the regions, the local partner's 'connections' are ineffective in generating sales. The majority of distance channels have been developed by the JV, although the concentration has been mainly regionally intensive, and as such the cost of distance access has not yet been a burden, and is similar to strategies employed by competitors.

There is a high level of synergy between the partners, combining *'Omicron's'* technology and application experience, and Baoying's manufacturing and local market knowledge. *'Omicron'* has management control, including control of technology and exports, whereas management of sales and marketing, production, and financial matters is shared between the partners. 'State of the art' proprietary knowledge has been transferred to the local workforce, and technology has not been contained within the expatriate staff, as a result the level of assimilation of the local partner is reckoned to be at a 'developable' level. However, the implied risk in this

strategy is minimised by the fact that the JV is dependent upon the production equipment which is bespoke to *'Omicron'*, which was supplied as part of the equity by the foreign partner, and which embodies the technology. As a result the JV is not dependent upon the foreign partner for the supply of components or formulated material inputs, although *'Omicron'* has retained the rights to the research and development which it carries out overseas, which develops new products, and engages in a minimum amount of R&D in China jointly with the local partner in the adaptation and application of existing products.

The foreign partner's brands are attached to the JV's products with no new brands having been developed specifically for the China market, and all exports from the JV being of foreign partner's brand products only. This indicates that the technology, quality and expertise characteristics of the brand are a major advantage to the JV, which the foreign partner protects by retaining QC responsibilities to ensure meeting international standards. The promotion of the JV's products has been done on a relatively small scale by way of specialist journal advertising nationally, and is mainly introductory in nature, focusing on quality, product utility, and foreign brand, and has been successful in justifying the expenditure.

Conflict between the partners is at an insignificant level on all issues, despite the differential in shareholding. The JV's sales force which is made up of Baoying transferees, is very familiar with the local market although not as familiar with JV management priorities. *'Omicron'*, on the other hand, is not as familiar with local market characteristics, and there is a mutual 'learning by doing' which occasionally results in compromise, e.g. the sales force operates according to the prevailing environmental conditions, and *'Omicron'* resists the issue of extended credit and insists on prompt payment, whereas the sales force views this issue as an essential part of 'Guanxi'.

Case Study : *'Pi' 22*

9 EJVs, 3 CJVs, and 1 WFOE.

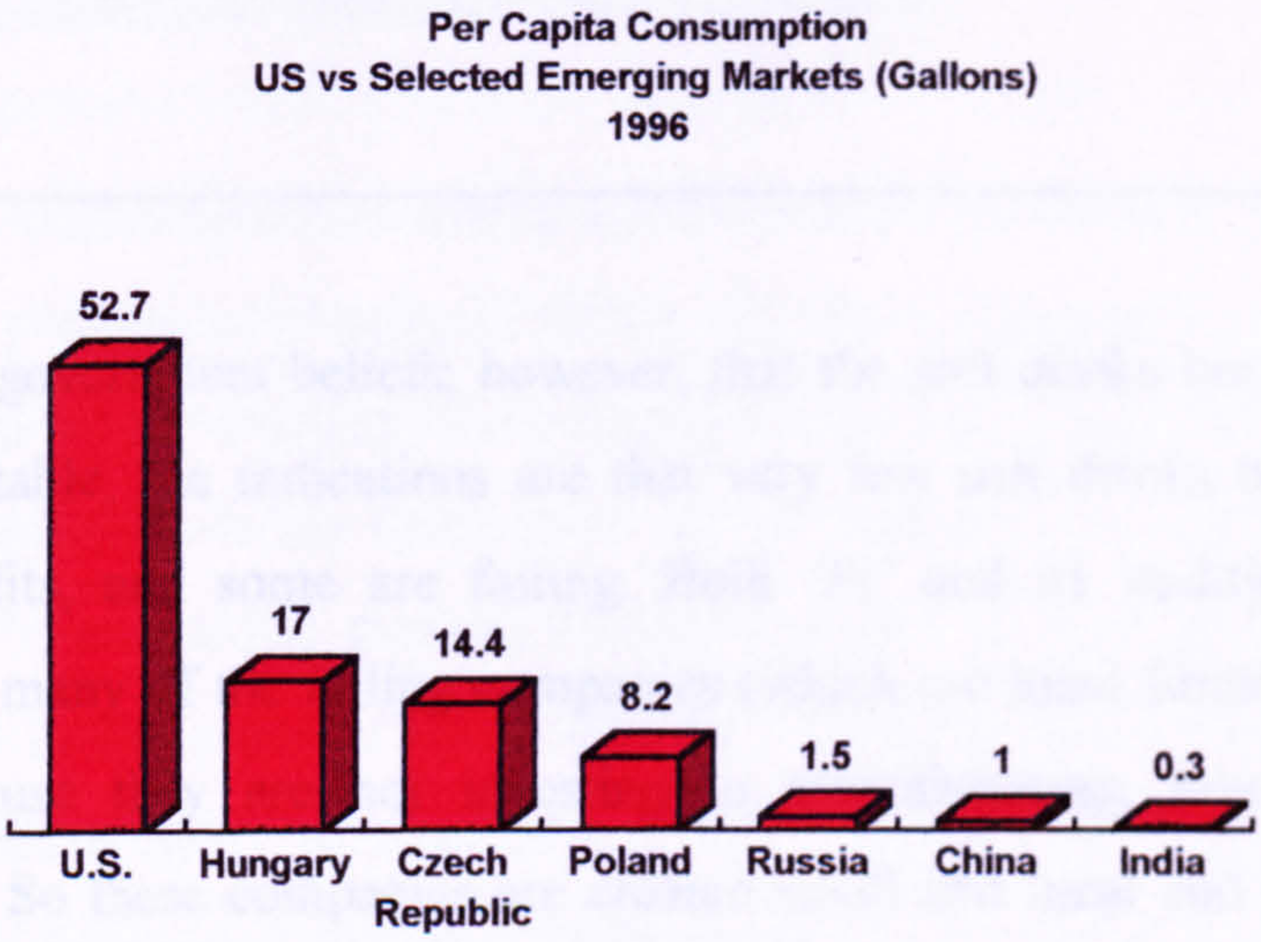
The Chinese government has not enthusiastically welcomed soft drinks manufacturers into China to form JVs, and they have not benefited from the incentives offered to other industries. The reasons for this are complex and firstly based upon the fact that carbonated drinks are a new and luxury item for the Chinese consumer, and the introduction of which does not improve an existing product and the JVs do not 'advance' China's interests. Secondly the industry is inevitably local given the cost of transportation and, therefore, has no potential to earn foreign exchange, it is also said to be highly profitable and exploitative.

Although *'Pi'* appears to be succeeding against all the odds having created 12 JVs and 1 WFOE, with a further 4 JVs due to open before 1998, all of which are widely distributed around China. *'Pi'* and its traditional competitor are both present in the China market, although head-on competition between them is not common owing to the regulations, which require that approvals for the establishment of further JVs should be obtained at municipal, provincial and central government levels. The effect being that the government decides where the next JVs will be located, and it can restrict its market coverage to a given area. In a further protectionist attitude towards existing indigenous manufacturers, the government approves maximum production levels on an annual basis. In this way it restricts damaging competition with local companies, and by not allowing both *'Pi'* and its traditional competitors to open JVs in the same area at the same time, it restricts competition between them. This competitive restriction has been limited to 3 years from the establishment of a JV by either company.

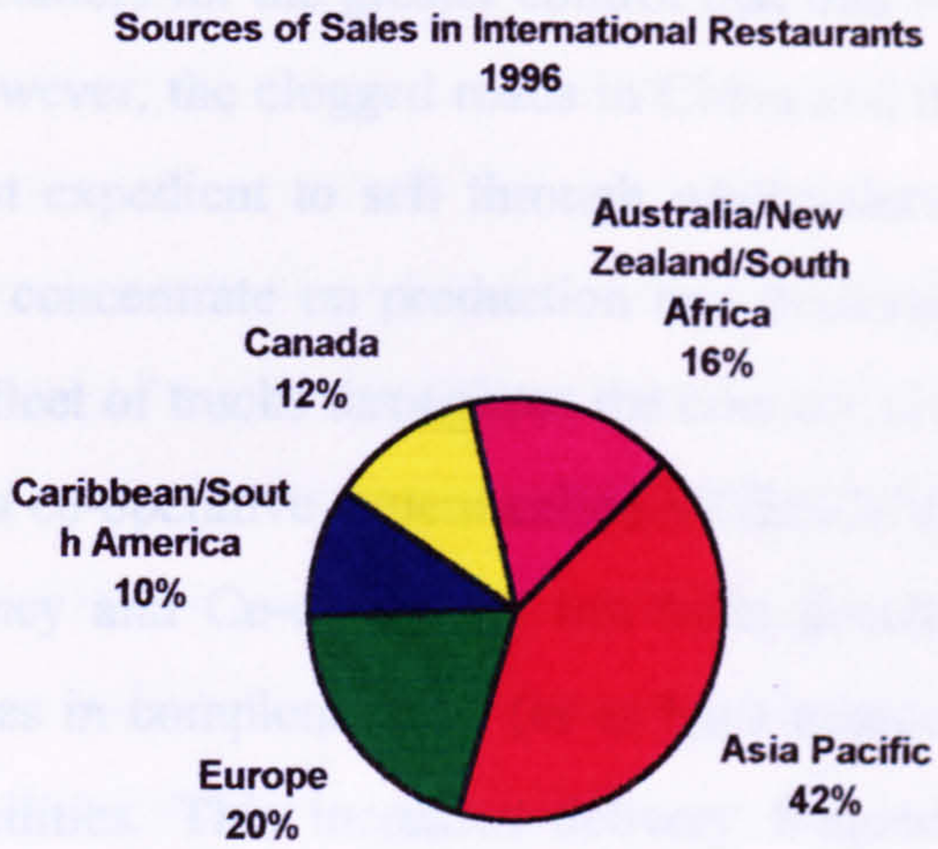
All emerging markets have enormous potential for *'Pi's'* products based upon their large population size and the current very low levels of consumption :-

Market Type	% of *'Pi's'* International Volume	% of World Volume	% of World Population	Average per Capita Consumption
Low Share	30%	53%	19%	High
Competitive	40%	33%	13%	Medium-high
Leadership	15%	3%	2%	Medium
Emerging	*15%*	*11%*	*66%*	*Very Low*

Even with low consumption, China is already the fifth largest soft drinks market, and growing very fast :-



A related example, widely used as an industry indicator, is the level of consumption in restaurants and the growth of the restaurant sector. *'Pi's'* own restaurant division's activities in China have growth by more than 80% in 1996, making China and the Asia Pacific region its major investment destination :-



Contrary to government beliefs, however, that the soft drinks business in China is highly profitable, the indications are that very few soft drinks manufacturers are making profits, and some are failing. Both *'Pi'* and its traditional competitors believe that many of the failing companies (which are local firms), are performing poorly because they are not investing in manufacturing, brand building, and distribution. So these companies are created small and local and they tend to stay that way, not availing themselves of enhanced scale economies and expansions. As a result they can only compete on price at the cost of their margins.

Experience has shown that local presence is the key to market access. Companies without local manufacturing cannot use the most common and cost effective form of soft drinks packaging i.e. the returnable bottle. This limits such companies to selling in cans, Tetra-Paks, and plastic bottles, all of which are uncompetitive. The barriers put up by the authorities, however, do not prohibit one company from selling to the area apportioned to another, by selling to wholesalers, distributors and retailers whose market coverage is greater than the narrow confines of that apportioned to the JV.

So distribution is the key, but the company still faces a problem in getting its products to the consumer, even in cities where *'Pi'* has a presence. *'Pi'* would prefer

to sell directly to retailers for the greater control that this would give it as to where its products go. However, the clogged roads in China and the traffic restrictions are such that it is most expedient to sell through wholesalers and distributors which leaves *'Pi'* free to concentrate on production and marketing. *'Pi'* currently has a large and growing fleet of trucks throughout the country, although the distances and costs are such that a co-operative system called MODECC (Market Oriented Design End-user Consultancy and Co-ordinated) has been developed. MODECC allows numerous companies in complementary (or at least non-competitive) industries to share transport facilities. This increases delivery frequencies, reduces returning empty loads, and makes distribution more economical.

The supply / consumption mentality left over from the centrally planned economy days is still present in retailing in China. *'Pi'* have observed that soft drinks cans may just be piled up in a shop and people are expected to buy them and drink them. Thus the retailer views his function as one of 'delivery' i.e. just to make products available. *'Pi'* are taking steps to raise the profile of their product in the retail environment at the point of sale, by supplying refrigerators which will keep the products at the ideal temperature of 4°C. The company also engages in advertising on a national basis, and also on a regional basis to allow for dialectic differences. The main thrust of their advertising of the *'Pi'* product is similar to that in other countries, i.e. targeting the young and adolescent consumers.

'Pi' originally established its operations in China by way of several CJVs, which was the only vehicle available to it at the time. The basis of these CJVs variously gave the local partners between 70% and 83% of the equity. However, it was soon clear that these businesses were substantially uncompetitive and inefficient and hardly producing profits for *'Pi'* or for the local partners. The regulations have changed and allowed *'Pi'* to propose substantial modernising investment in the local partners' facilities, and have also allowed CJVs to be converted to EJVs to reflect the investments made by *'Pi'* and the change in the relative position of the partners. All converted CJVs to EJVs, and all newly created EJVs are now formed on the basis of a 60 : 40 equity and having a 50 year tenure, with *'Pi'* having majority and management control. *'Pi'* claim that this is the most important reason for the change

in their fortunes, on which basis they would never set up a CJV in future, and would never accept a minority equity position or relinquish management control.

'Pi's' expatriate management dominate the JVs, although training is undertaken to enable local staff to take on the critical functions. The shortage of managers is seen as a major problem in the development of the JVs, and the transfer of personnel from the local partner is not always an option, because most of *'Pi's'* local partners are either from other industries or not non-competitors. *'Pi'* seeks out such local partners owing to experiences with partners who operate strategies within the JVs, which protect their own competitive products. Such conflicts of interest seek to attach the beneficial market position of a major brand like *'Pi'* and the modern strategies to their own indigenous products.

4 of *'Pi's'* 9 EJVs started out as CJVs and have been converted, the remaining 3 CJVs are currently being converted to EJVs, and the 1 WFOE produces the proprietary concentrate, the technology of which is protected by way of preformulated imports and confidentiality. 2 of *'Pi's'* EJVs also produce locally branded products, which are traditional *'Pi'* formulations sold under a local brand name which is the registered property of *'Pi'*.

The total equity of all the *'Pi'* JVs in China amounts to US$150 million, which includes interests in the Group's restaurant interests, and employs some 3000 people locally. Clearly the foreign partner's entry motive was to access the local market, whereas the local partners' motives have been to acquire investment into outdated businesses with uncompetitive products. All of the JVs are in the mature stage and all are profitable, despite the industry indications that the business is not viable owing to distribution costs, which is widely seen as a response to the authorities' belief that the industry is exploitative. This belief in the authorities originally led to unreasonable targets being imposed upon *'Pi'* and other similar companies, which 'Pi' has managed to meet. Whilst performance is found to be at a high level as related to establishment expectations, results show that the JVs in China only perform at a similar level to other operations in other locations.

'Pi's' income is derived from dividends which are dependent upon profitability, but the company also receives a license fee and royalties for the use of brand names, and formulae. The foreign partner retains a majority interests in all the JVs which it has acquired by the investment of finance and also enabling inputs. *'Pi'* also retains management control of the JVs, and internalises all critical management functions except for those where the local partner has a valuable contribution to make based upon his local knowledge, e.g. sales and marketing management and legal affairs. Operational efficiency is found to be at medium levels as compared to similar operations elsewhere, which is reflected in a cost comparison showing that there is only a 10% produced cost advantage in the China JVs. The JVs products are clearly brand intensive, and the foreign partner retains proprietary knowledge on formulations and other secrets by the supply of raw materials and production facilities. All products carry the foreign partner's international brands which remain the property of the foreign partner, although some local brands have been created as adaptations to local tastes.

Price sensitivity is at a relatively low level, although this is addressed by way of a regional pricing strategy to account for the less developed and less affluent regions of China. Nonetheless, the product remains as a 'top-end' product as compared to local soft drinks, the majority of which are small local brands. Prices have increased over the lifetime of the JVs in line with economic change, although competition has contained price growth. The majority of *'Pi's'* sales are directly to wholesalers although the company is developing its own distribution system so that it can internalise distribution and thus overcome the large margins taken by distributors, and the clear limitation to market access posed by the distances involved. The extent of the internalised distribution is said to be mainly to the nearby provinces, through channels which the JVs have developed themselves. Advertising, which is crucial, has been successful and is carried out on a regional basis and is mainly introductory and features the foreign brand.

Case Study : *'Rho' 23*

'Rho' Shanghai Ltd. — also in Beijing, Guangzhou, Hong Kong, Xiamen, Wuhan, Chengdu, and Shenyang.

'Rho' was one of the first international marketing and advertising groups to enter the Chinese market by following major clients who themselves were forming JVs locally, soon after the 'open door' policy of 1979. This early entrance gave *'Rho'* some learning and experience advantages, but it also burdened it with much of the pioneering work from which modern advertising JVs in China have evolved.

'Rho' formed an EJV in June 1991 with the Shanghai Advertising Corporation (SAC), which is one of the largest state owned advertising corporations in China, on the basis of a 51 : 49 equity distribution in favour of *'Rho'*. The JV was established with an original registered share capital of US$200,000 which was increased to US$400,000 in 1993, when the business was expanded by the opening of offices in Beijing and Guangzhou. Profits from the JV accrue to *'Rho'* in the form of dividends with no royalties or license fees applicable given that the JV operates as a stand-alone separate legal entity. *'Rho's'* overall China interests are managed by the Chairman of their Greater China group whose main office is in Taiwan, although he spends some 50% of his time in Shanghai or the regional offices. Typically, *'Rho'* invested both finance and enabling inputs, whereas SAC's contribution was mainly in providing labour, and the JV is not dependent on the local partner's main business for operational inputs. *'Rho'* Shanghai which was established with a 15 year tenure, currently employs some 300 of whom 30 are expatriates having increased in line with the opening of regional offices, and are mainly from Chinese speaking countries in the region. The balance of the employees are local hirings many of whom are SAC transferees now wholly employed by *'Rho'* Shanghai. Overall *'Rho's'* business in China is said to be *profitable* with a turnover in excess of US$8.2 million in 1996, although whilst the China group based in Shanghai is in the *growth* phase, the regional offices are at various stages of development and are, therefore, variously successful. Growth in the JV has been gradual owing to the slow development of the advertising business in general, although *'Rho'* have shown improvements of between 8% and 10% per annum since the first JV was established

in Shanghai with SAC. However, it is said that result / performance expectations have only been met to a *medium* level, despite the fact that the Company has *exceeded* the JV approval and establishment targets based on turnover. No price, volume, or distribution controls were placed upon the JV given that the majority of its business was expected to come from the FIEs and that an SOE partner is involved. *'Rho'* maintain their top-end price positioning strategy despite a high level of price sensitivity, which has led to prices being competition driven, and in spite of which they have increased over the JV's life in line with market development and at a higher rate than economic growth. However, there is an indication that *'Rho'* had expected the China market to be more lucrative than it has been and have been disappointed in that respect, because whilst performance is said to be at a *medium* level, JV ROI as compared to other locations is said to be *similar*.

'Rho' Shanghai's client base is largely made up of *'Rho'* International's customer base, about 40 of whom have established JVs in China. These include major MNEs such as IBM, American Express, Boeing, Duracell, Guinness, Martell Cognac, Mild Seven, Pepsi-Cola, Ponds Skincare, Tang, and Wella Haircare. The generally local nature of JVs in China, has dictated the branch office expansion of *'Rho'*, such that they can service their client base in its region of operations. Although the local offices are not operated as branches which do local work on head office projects alone. These local offices have their own clients whom they serve independently, in a cellular rather than a hierarchical structure.

The majority of media advertising in China at this time is city based, addressing the major urban conurbations, which are the most economically developed. Advertising and promotion in rural and less developed areas tends to be more point-of-sale based. 95% of *'Rho'* Shanghai's work is for international clients, with the encroachment on the local market proving slow to develop, and accounting for only 5% of *'Rho'* Shanghai's portfolio. The *'Rho'* China group is now reckoned to have some 25% market share within its specialist sector of international product manufacturers in China, and in the Shanghai region. Competition is not as fierce as in developed markets because the market is so large, widespread and relatively

under-developed, and despite the fact that most of the top 20 or 30 major international firms are now established in China.

Whereas *'Rho'* entered into the JV to enable it to service its international clients, and to access the market, SAC's motive was to acquire first world advertising knowledge and experience, and to enlarge its local client dependent low price inferior business, which had about 5% regional market share. The local partner also had a low level of business knowledge and experience, which led *'Rho'* to insist on the JV being independent of the local partner's main business, and to retain management control especially in the area of management of sales and marketing, although financial management and accounting responsibilities are shared, and local infrastructural management is delegated to the local partner. This important shared responsibility coupled to the fact that SAC has the necessary approvals, and the connections with the largely government controlled media, results in some complementarity / synergy between the partners and a low level of conflict. The connections, influence and local knowledge provided by the local partner have proven to be effective with the authorities in acquiring facilities and media, which amount to some 60% of costs, and have been largely ineffective in acquiring business, and are supported by a high level of training provided by *'Rho'*. *'Rho's'* strategy to acquire widespread market access has been largely achieved by their regional strategy, despite the local partner's lack of national market coverage / access. The cost in accessing distant regions is not found to limit market access owing to the regional establishment strategy, and the fact that all the regional operations are solvent. However, the additional cost of accessing the distant regions is aggregated on the Company's national price structure, whereas clearly if the regional operations were all profitable, and pricing was not so supported from the centre, then the burden would be removed suggesting that accessing distant regions may be a limitation on profitability.

The all important creative, concept, design and application element of the business i.e. the *production management* has been retained within the transferees of the foreign partner, which has ensured that the quality of *'Rho's'* product is the 'state of the art' in China, with the overall responsibility for QC being with *'Rho'*. There has

been extensive *product adaptation* on a *national* basis, and despite the fact that critical technology has been retained within expatriate staff, who are 80% of the management hierarchy, some proprietary knowledge has had to be transferred *en bloc* in an effort to increase the low level of *efficiency*. The assimilation of the local partner is at a developable level, with more local transferees rising to senior levels and taking on whole project responsibilities. As a result production technology and methods are not embodied in *'Rho'* alone and the JV is not dependent on *'Rho'* for formulated design inputs, in which respect the JV is self sufficient. Whilst efficiency may be low, costs are also low at about 50% as compared to other units internationally with the *'Rho'* group.

Advertising in China is a seller's market with demand exceeding supply, and the situation is further complicated by the *PRC Advertising Law 1995*, which has placed various restrictions and censorship on advertisers. New entrants are controlled by a licensing requirement, which when coupled with the JV approval regulations means that foreign partners can only enter this sector in JV with a select group of companies. In the case of *'Rho'* this has meant that they have joint ventured with a state owned company which had previously been a 'servant' department with a doubtful future. The industry is also in a state of flux, which is characteristic of advertising in a developing economy. Reliable research data is difficult to find, which often imposes a larger than normal front-end study phase, with the resulting expensive workload added to advertising projects. There are dramatic variations in rates, depending upon who is the seller and who is the buyer, which tends to favour indigenous firms. There are no standard industry practices, and no national content or format regulations, such that each project requires separate approval by the authorities in the target region, and this situation often results in widely varying outcomes. TV planning is unreliable which can disrupt project planning, as can media price inflation at between 30% and 60% per annum, with payments having to be made in advance, and thus extended credit becomes an important factor.

'Rho' Shanghai produced 200 print advertisements and 24 TV commercials during 1996, and over 80 other items of communications in more than 70 cities. The widely dispersed and varied media, and the variety of language and cultural differences

provide great challenges for advertisers. Although such diversity has resulted in a large number of media channels. There are, for example, over 600 television stations (mostly local), and more than 900 radio stations, 2000 newspapers, and some 6000 magazines, as well as coverage of Star TV across a wide area. As a result advertising is locally intensive in terms of content and media, characteristics which are not common in other markets.

Case Study : *'Sigma' 24*

The Company was established as a private company in 1970, to manufacture plastic bonding systems, mainly for export. The product range was expanded over the following 15 years, into complementary areas in precision cleaning, CD ROM and compact discs, video and audio cassette tapes, vinyl discs and other related products. The Company also expanded geographically during the same period, establishing manufacturing and marketing subsidiaries in Hong Kong, China, Spain, Germany, South Korea, and the USA.

Turnover grew steadily to some £58 million by 1996, since when the Group then suffered in difficult market conditions world-wide, incurring losses for the first time in its history, on a declining turnover 1996/1997 period. Investments have been made in new product development in all its subsidiaries since 1995, in an effort to recover market share by offering much improved products, and there are indications in 1998 that this strategy is proving successful.

'Sigma' established a JV in China (*'Sigma'* Ultrasonics (Shenzhen) Ltd) in 1988, with the Jinglang Electronics manufacturing TVE in Shenzhen for a 30 year tenure period, and on the basis of a *'Sigma'* 51% majority shareholding which the Company acquired with an initial investment of US$500,000. The JV which is located in Shenzhen City across the old border with Hong Kong, has a dual purpose in manufacturing and marketing to the local Chinese market, and also producing plastic welding machines for export, mainly within the region. *'Sigma'* contributed

both finance and enabling inputs to the JV, whereas the local partner typically contributed site, labour and a measure of locally intensive market access. Typically, the nature of the partner inputs had the effect of elevating realistic establishment costs.

The JV company is now said to be 'mature' having some 10 years experience, and having been at a break-even level for 3 years between 1989 and 1992, by which time the JV was growing and producing profits for the parents. However, the 1996 - to date decline in Asian economies has caused a slowdown in the market, which has reversed the JV's growth and profitability, leading to losses in the period. Nevertheless, the JV has *met* its *reasonable* establishment targets, although performance has been lower than originally expected, and is lower than in other similar locations.

'Sigma' derives income from the JV by way of dividends based on profits, and on a continuing license fee arrangement. The local partner's basis for market access is derived from his being a provincial government participated JV company, which originates in a similar business. The JV is formed as a separate legal entity which is not dependent upon operational inputs from the local partner. The advantage of the local partner's parent being both an ultimate shareholder and the controlling authority is evident in the absence of price, volume, and distribution controls, despite the fact that the JV was established in 1988 when such controls were almost invariably applied to JVs.

The foreign partner has retained ultimate management control of the business, although in practice the local partner's transferees, whose management skills are described as being 'adequate', handle the day to day management. Whilst *'Sigma'* has retained the Chairmanship of the JV, individual functions have been either entirely retained by them, as with technical management and export management, or they are shared as with financial management. Some functions are found to be better performed by the local partner owing to his local familiarity and parentage, as in the case of sales management, production management, and legal management. The staffing of the JV indicates the responsibilities of the local partner in that 100% of

the staff are transferees from his main business. The local management team report frequently to *'Sigma's'* head office on matters requiring approval.

The JV operates effectively in producing goods at prices which are 70% of those produced elsewhere (although this level of advantage is said to be reducing at the rate of 5% per annum), although, the efficiency of the JV as compared to other units internationally is said to be 'low'. This reveals the rationale upon which the JV was formed in that, on the one hand, state-of-the-art proprietary knowledge has been transferred en bloc to the JV, which has attached low cost production and materials. The level of inputs and management involvement of the local partner transferees has resulted inevitably in technology and management assimilation at an independent level. Although *'Sigma'* continues to supply some specifically designed and formulated inputs, and materials and components not easily available to the local partner. As a further defence against the creation of a competitor through the independent competence of the local partner, *'Sigma'* restricts all products to its own brand. The JV's products, therefore, benefit in third markets by the quality perception which is not always attached to highly technical electronic products manufactured in China. *'Sigma'* has protected its brand by acquiring international standards accreditation for the JV in 1992 ; retaining an input into the QC process ; and ensuring that the JV's products meet other international customer industry standards.

Production quota / targets have not been imposed on the JV for the reasons of authority preference discussed earlier, although the authorities have previously been forced to impose export and foreign exchange targets and sales and turnover targets, which have been met in both cases largely because of the product offtake by *'Sigma'* for third markets. The JV is estimated to have a 2.5% national market share, which is mainly regionally intensive as discussed earlier, to an estimated 4.5% regional market share, being mainly in its home province of Guangdong, where there is currently a product oversupply.

The economic decline in the region and the increasing number of new entrant competitors, has made the market highly competitive with a high level of price

sensitivity, with the JV's prices being compliant to competitor levels and decreasing in the majority of cases, at the rates imposed by market conditions and not economic circumstances. Whilst the JV's prices have often changed at higher levels than market development and economic change, sales have grown at lower levels overall, indicating the effect of the current economic climate on the JV's business.

Sales are conducted largely from head office which co-ordinates national sales strategy. This concentration in the home province, the supply of either bespoke products or those supplied from central stocks, and the hands-off use of commission agents may have much to do with the regional concentration of the business in the home province. The same attitude can be seen in the JV's unwillingness to engage in regional operations beyond a 'medium' level of involvement. However, the JV does comply with market preferences in providing credit to its customers in a large number of cases.

The local partner's level of market access is indicated by the absence of sales being made through any regional operations the local partner may have. Although the JV's market access is achieved on a widespread level, indicating that much of this has been achieved by the JV itself. Protectionism does not appear to influence market access, and given the nature and high cost of the products, neither does the cost in accessing distant regions.

Advertising and other promotional activities have been largely ineffective, perhaps owing to the relatively low level of expenditure. Conflict between the partners has only ever been at a low level and then only in the establishment phase, when the JV was not profitable. This relationship between success and conflict has been confirmed by the increased level of conflict during the current economic decline which has depressed the market for the JV's products.

Questionnaire

Name of Foreign Partner Company :-.....

.....

Name of JV Company :-.....

.....

Structural Variables

1. Size of business (equity value) **US $**.....
2. Number of employees .....
3. Annual turnover (1996) **US $**.....
4. Age of JV (year established) .....
5. Contractual period of JV (number of years) .....
6. Type of JV : **Manufacturing ☐ Civils / Construction ☐ Retail ☐**
   Service ☐ Infrastructural ☐ Other ☐
7. Foreign partner motive :- **Global strategy ☐ Regional strategy ☐**
   Competitive response ☐ Market entry ☐ Location specific advantage ☐
8. Local partner motive :- **Products / Technology ☐ Brands ☐ Management ☐**
   Investment ☐ Export distribution channels ☐
9. Stage of development **Establishment ☐ Growth ☐ Mature ☐**
10. JV viability **Not profitable ☐ Break even ☐ Profitable ☐**
11. JV profit / loss (+/-) 1996.....
12. JV profit / loss (+/-) 1995.....
13. JV profit / loss (+/-) 1994.....
14. JV profit / loss (+/-) 1993.....
15. JV profit / loss (+/-) 1992.....
16. JV profit / loss (+/-) 1991.....

17.JV approval / establishment targets : None ☐ Met ☐ Not met ☐ Exceeded ☐

18.JV approval targets None ☐ Unreasonable ☐ Reasonable ☐

19.JV is under 'Supervision' by the Authorities Yes ☐ No ☐

20.JV performance : expectations / results Low ☐ Medium ☐ High ☐

21.JV ROI compared to other JV locations Low ☐ Similar ☐ High ☐

22.JV has raised developmental loan in China Yes ☐ No ☐

23.Number of partners Foreign ☐

24.Number of partners Local ☐

25.Foreign partner's income / loss 1996.....

26.Foreign partner's income / loss 1995.....

27.Foreign partner's income / loss 1994.....

28.Foreign partner's income / loss 1993.....

29.Foreign partner's income / loss 1992.....

30.Foreign partner's income / loss 1991.....

31.Foreign partner's income derived from dividends Yes ☐ No ☐

32.Foreign partner's income derived from license fees Yes ☐ No ☐

33.Foreign partner's income derived from royalties Yes ☐ No ☐

34.Foreign partners of same nationality Yes ☐ No ☐

35.Local partner is SOE ☐ Provincial Govt. Co. ☐ Private ☐ Other ☐

36.Local partner's main business sector is Similar ☐ Different ☐

37.Foreign partner's proportion of total equity Minority ☐ Majority ☐

38.Foreign partner's contribution Finance ☐ Enabling inputs ☐ Both ☐

39.Local partner's contribution Site ☐ Facilities ☐ Labour ☐

Technology ☐ Finance ☐

40.Local partner has national market coverage / access Yes ☐ No ☐

41.Local partner's business knowledge / experience Low ☐ Adequate ☐ High ☐

42.JV is independent of local partner's business Yes ☐ No ☐

43.JV is separate legal entity Yes ☐ No ☐

44.JV is dependent upon local partner's main business for operational inputs
Yes ☐ No ☐

45.JV control / approval authority
Central govt. ☐ Local govt. ☐ Special Authority ☐

46.Production is subject to price / volume / distribution controls : Yes ☐ No ☐

47.Management control : Foreign partner ☐ Local partner ☐
Shared equally ☐ Unequally ☐

48.Chairmanship held Local ☐ Foreign ☐ Alternates ☐ Joint ☐

49.Technical management : Foreign ☐ Local ☐ Joint ☐

50.In-China sales and marketing management : Foreign ☐ Local ☐ Joint ☐

51.Production management : Foreign ☐ Local ☐ Joint ☐

52.Financial management and accounting : Foreign ☐ Local ☐ Joint ☐

53.JV export sales and marketing management : Foreign ☐ Local ☐ Joint ☐

54.Local internal / legal / infrastructural management : Foreign ☐ Local ☐ Joint ☐

55.Foreign *expatriate* presence in management hierarchy .....%

56.Local management transferees from local partner .....%

57.Efficiency compared to other units internationally : Low ☐ Medium ☐ High ☐

58.Produced units costs compared to other units internationally .....%

59.Proprietary knowledge has been transferred en-bloc Yes ☐ No ☐

60.Technology transferred is the 'state of the art' Yes ☐ No ☐

61.Superior technology exists within the foreign partner Yes ☐ No ☐

62.Superior technology exists within foreign competitors Yes ☐ No ☐

63.JV's products are the 'state of the art' in China Yes ☐ No ☐

64.Product adaptation for China None ☐ Some ☐ Extensive ☐

65.Product adaptation for China Regional ☐ National ☐

66.Product as adapted is unique within the foreign partner's range Yes ☐ No ☐

67.Technology transfer has been contained within expatriate staff Yes ☐ No ☐

68.Technology assimilation of partner Low ☐ Developable ☐ Independent ☐

69.Technology is embodied in production equipment supplied as equity

Yes ☐ No ☐

70.Production is design / formulae dependent on foreign partner Yes ☐ No ☐

71.Formulated raw materials / components supplied by foreign partner Yes ☐ No ☐

72.Foreign partner's international brands attached to the JV's products Yes ☐ No ☐

73.'New' brands have been created for the China JV Yes ☐ No ☐

74.'New' brand products are exported to third markets by the JV through its own distribution channels Yes ☐ No ☐

75.'New' brand products are exported through the local partner's main business' distribution channels Yes ☐ No ☐

76.'New' brand products are incorporated into the foreign partner's international distribution channel system Yes ☐ No ☐

77.Exports are of foreign partner's brand only Yes ☐ No ☐

78.Local partner purchases some raw materials / components locally Yes ☐ No ☐

79.Local materials / components as proportion of manufacturing cost .....%

80.JV has acquired international / industry standards e.g. ISO 9000 Yes ☐ No ☐

81.Foreign partner has input into QC Yes ☐ No ☐

82.JV's products meet international / industry standards Yes ☐ No ☐

83.Production quotas in force (min. / max.) None ☐ Min. ☐ Max.☐

84.Export / foreign exchange earnings targets : None ☐ Not met ☐ Met ☐ Exceeded ☐

85.Sales / turnover targets in force : None ☐ Not met ☐ Met ☐ Exceeded ☐

86.Production targets in force : None ☐ Not met ☐ Met ☐ Exceeded ☐

87.Local suppliers pre-existed the JV Yes ☐ No ☐

88.Local suppliers' technology was inferior Yes ☐ No ☐

89.Local partner was a supplier with a share of domestic market .....%

90.Size of JV's production compared to local competitors

Lesser ☐ Same ☐ Greater ☐

91.JV's Market share (nationally) .....%

92.JV's Market share (regionally) .....%

93.Market has product Undersupply ☐ Oversupply ☐

94.R & D is done overseas by : Foreign partner ☐ Local partner ☐ Jointly ☐

95.R & D is done in China by : Foreign partner ☐ Local partner ☐ Jointly ☐

96.Foreign partner purchases JV's production for other markets Yes ☐ No ☐

97.China JV production exported to third markets forms part of foreign partner's total international sales .....%

98.China JV production provides cost advantage .....%

99.China JV production cost advantage is derived from scale economies Yes ☐ No ☐

100.China JV production cost advantage results from low labour and raw material costs .....%

101.China JV production cost advantage is eroding in line with economic development at an average annual rate (1991-1996) of .....%

102.Foreign partner incorporates China JV products into his international supply chain to maintain JV export levels and foreign exchange liquidity, without clear price advantage Yes ☐ No ☐

103.JV operates an independent export strategy Yes ☐ No ☐

104.Foreign partner has other JV interests in China Yes ☐ No ☐

105.Local partner has other JV interests in China Yes ☐ No ☐

Operational Variables

106.Price sensitivity Low ☐ Medium ☐ High ☐

107.Pricing policy National ☐ Regional ☐ Case specific ☐

108.Price positioning Bottom-end ☐ Compliant ☐ Top-end ☐

109.Price shift over JV life Increasing ☐ Decreasing ☐

110.Prices have changed in line with economic change Yes ☐ No ☐

111.Price shift Costs driven ☐ Competition driven ☐

112.Pricing policy made by : Local ☐ Foreign ☐ Jointly ☐ Controlled ☐

113.Sales turnover 1996.....

114.Sales turnover 1995.....

115.Sales turnover 1994.....

116.Sales turnover 1993.....

117.Sales turnover 1992.....

118.Sales turnover 1991.....

119.Sales change in line with market development and economic growth
Lower ☐ Higher ☐

120.Sales staff transferred from local partner .....%

121.Sales staff hired by JV .....%

122.Sales staff are trained by Foreign partner ☐ Local partner ☐

123.Sales staff are regionally located Yes ☐ No ☐

124.Sales staff turnover is Low ☐ High ☐

125.Sales targets imposed by Authorities
None ☐ Reduced ☐ Same ☐ Increased ☐

126.Sales targets are imposed on staff : None ☐ Penalised ☐ Rewarded ☐

127.Sales are conducted from Regional offices ☐ Head office ☐

128.Sales staff handle : JV's products only ☐ Also partner's products ☐ Other ☐

129.Sales tactics are nationally co-ordinated Yes ☐ No ☐

130.Sales efforts are supported by regional promotional activities Yes ☐ No ☐

131.Sales staff sell from Local stocks ☐ Bespoke ☐ Central stocks ☐

132.Sales made through Commission Agent Yes ☐ No ☐

133.Sales made on an *'on consignment stock'* basis Yes ☐ No ☐

134.Service centre importance for maintenance / repair / training
Low ☐ Medium ☐ High ☐

135.Costs have changed in line with economic change Yes ☐ No ☐

136.JV's foreign costs as % of total costs (imports, license fees etc.) .....%

137.Extended credit terms importance within channel : Low ☐ Medium ☐ High ☐

138.Sales made through local partner's regional operations Yes ☐ No ☐

139.Sales made through local partner's regional operations .....%

140.Market accessed is HQ province ☐ Nearby province ☐ Widespread ☐

141.Local partner's influence and 'connections' are Ineffective ☐ Effective ☐

142.Sales are to : End user ☐ Wholesaler ☐ Distributor ☐

Retailer ☐ OEM ☐ Contractor ☐

143.Distribution channel access : Inherited ☐ Existing ☐ Developed ☐

144.Costs in accessing distant regions limits market access Yes ☐ No ☐

145.Distance cost burden is aggregated on national price structure Yes ☐ No ☐

146.Communications / transportation limit market access Yes ☐ No ☐

147.Distribution strategy compared to competitors Similar ☐ Different ☐

148.Provincialism / protectionism limits market access Yes ☐ No ☐

149.Provincial govt. patronage with no local competitor : Low ☐ Medium ☐ High ☐

150.Provincial govt. patronage with local competitor : Low ☐ Medium ☐ High ☐

151.Provincial govt. patronage where raw materials and components sourced locally

Low ☐ Medium ☐ High ☐

152.Advertising is Regional ☐ National ☐

153.Advertising is Introductory ☐ Competitive ☐

154.Advertising features Quality ☐ Foreign brand ☐ Product utility ☐

155.Advertising has been a Success ☐ Failure ☐

156.Advertising is prevalent in the industry / market strategy Yes ☐ No ☐

157.Advertising has been Hoarding ☐ Press ☐ Journal ☐ TV ☐ Other ☐

158.Advertising has been coupled with other promotional activity Yes ☐ No ☐

159.JV's advertising strategy Leads ☐ Follows ☐

160.Total promotional spend 1996.....

161.Total promotional spend 1995.....

162.Total promotional spend 1994.....

163.Total promotional spend 1993.....

164.Total promotional spend 1992.....

165.Total promotional spend 1991.....

166.Promotional spend has been Ineffective ☐ Effective ☐

167.Level of conflict between partners : None ☐ Low ☐ Medium ☐ High ☐

168.Conflict occurred in which phase : Establishment ☐ Growth ☐ Mature ☐

169.Area of conflict :-

Finance ☐ Management ☐ Tech. transfer ☐ Tactics ☐ Strategy ☐

170.Conflict coincided with :- Success ☐ Failure ☐

171.Conflict was based on cultural issues / differences : Yes ☐ No ☐

172.Conflict was exacerbated by the level of shareholding : Yes ☐ No ☐