	Action Plan 26 Increase locally produced halal food in the world market
Halal Food Hub	Approach
	The said appointed agency/department should encourage food producers to:
Main Objective: Develop a halal brand for Malaysia.	 comply with the Guidelines on Foods, Drinks and Goods Utilised by Muslims for production of all non-haram food apply halal label on all their products
	Recommended: Give tax incentives to food producers who have obtained halal certification.
	Action Plan 27 velop strategies for making Malaysia as the hub for world halal food
Hatal Food Hub	Approach
Main Objective: Turn Małaysia as the hub for world halał food.	Should the findings from the proposed study on international halal food market behaviour indicate that it would be economically beneficial for Małaysia to be hub for world halal food, then we proposed the relevant government agency:
for world halar lood.	 Engage more resources in branding Malaysia as a Halal food producer
	2. Encourage all non-haram food producers to obtain halal certification
	3. Allocate land for the halal hub
	4. Develop world-class infrastructure equivalent to MSC, which incorporates GMP and HACCP standards

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MAJOR CHALLENGES, THREATS AND **ACTION PLANS** STRATEGY **OPPORTUNITIES** PRODUCTION 21 ocus on niche market, i.e value-added and halai chilied and frozen food 512 · Product Marketing Stralegy Malaysia is relatively a high cost food producer products Increase production capacity Raw materials, management -vegetables Product Marketing Strategy Increase Productions 8 9 6 5 3 Aldares **TECHNOLOGY and R&D** . Linde R&D on local c&f Rood a la care a Same in the Production and Varieties Strategy Undertake R&D for popular local h fine 2. 1. 1. 1. 16 Increase Production and Varieties Strategy 125.01 12 BANNER FR Sec. A.

The chart below shows the link between the proposed strategies and action plans and the challenges, opportunities and threats identified in the study:

MAJOR CHAFFENGES, HIREAFS AND OPPORTUNITIES	ACTION PLANS		STRAIFGY
FRODUCTION			
Malaysia is celatively a high	Focus on niche market, i.e value- idded and hafal chilled and frozen food- products	•17	Product Marketing Strategy
	Increase production capacity	•8	Product Marketing Strategy
	Raw materials, management - regetables	•9	Increase Productions
	Reduce import duties in the short run	•6	Production Support Strategy
	Improve quality of local fabricated nachines	•5	Cold Chain Development Strate
Inferior performance of locally	Regulate materials specifications for	•5	
compared to imported ones	onstructing/fabricating machines Obtain approval for design of frigeration equipment	•5	• Cold Chain Development Strate
	Ensure all locally fabricated achines are comparable with nported infachines	•5	
ECHNOLOGY and R&D			
fo	Jndertake R&D for popular local tod Making government fund/incentives	•10	
m	ore accessible Provide incentives to private	•10 •10	
\ c c	in the second second second second second second second second second sector	10	Increase Production and Products
••۲ in p	romote "contract R&D" for products specific target market between ablic sector and local or foreign	•10	Varieties Strategy
•E CL	search house/companies Establish a sub-section within the prent R&D centres focusing on hnic c&f food	•10	
	Indertake R&D for popular local od	•10	
	Aaking government fund/incentives ore accessible	•10	
Acc	rovide incentives to private mpanies to carry R&D either	•10	 Increase Production and Product Varieties Strategy
	dividually or with public sector romote "contract R&D" for	•10	
pr	ocess/technology for developing od demanded in specific target	-	

The chart below shows the link between the proposed strategies and action plans and the chillenges, opportunities and threats identified in the study:

MAJOR CHALLENGES, THREATS AND OPPORTUNITIES	ACTION PLANS		STRATEGY
CONSUMER Poor perception of frozen food Leck of Awareness on stading and on quality	Peducate public on the value of c&f food-fresh alternative Peducate public on food safety and proper handling of c&f food Ensure high product quality	16 16 12	Product Marketing Strategy Increase Production and Products Varieties Strategy
COLD CHAIN	Training on proper bandling of c&f ood Encourage Implementation of OHP, OMP, HACCP. Enforce current legislation: Pood Act 1983 and Pood Regulation 1985 & Proposed Draft Food Hygtens Regulation (once approved) Introduce and mandate the practice of temperature monitoring system Ensure all c&r food producers implement OHP, OMP	-1 -2 -3 -4	Cold Chain Development Strategy
In proper design & quality of materials used in hiller/freezer	Regulate materials specifications of or constructing/fabricating machines Obtain approval for design of effigeration equiptient Ensure all locally fabricated frachines are comparable with a imported machines	3 3	Cold Chain Development Strakery
Lack of Sold Prick Dervork		1	ecold Charlie De Weightseit Strategy
HUMAN RESOURCES DEVELOPMENT	· .		
Shonage of fronting state		20	Human Reports Development
		2 21 22 2	

MNORCHALLENGES, DERIALS AN OPPORTUNDES	NOTON PLANS		STRATEGY
CONVER		-	
Poor perception of frozen	•Educate public on the value of e&f food- fresh alternative	•16	Product Marketing Strategy
	D-Educate public on food safety and	•16	 Increase Production and Products
Lack of awareness on handling and on quality	proper handling of c&f food •Finsure high product quality	•12	Varieties Strategy
CODCHAIN			
	 Training on proper handling of c&f food 	•1	
Poor handling practice	•Encourage implementation of GHP, GMP, HACCP	•2	•Cold Chain Development Strategy
	 Enforce current legislations: Food Act 1983 and Food Regulation 1985 & Proposed Draft Food Hygiene Provide for an entropy of the second sec	•3	
	Regulation (once approved) Introduce and mandate the practice	•4	
	of temperature monitoring system •Fnsure all e&f food producers implement GHP, GMP	•2	
Improper design & quality of	 Regulate materials specifications for constructing/fabricating machines 	•5	
materials used in chiller/freezer	•Obtain approval for design of	•5	•Cold Chain Development Strategy
	•Ensure all locally fabricated machines are comparable with imported machines	•5	
Lack of cold truck network outside the Klang Valley	 Provide incentives for logistics companies to expand their services to selected areas outside the Klang Valley. 	•7	•Cold Chain Development Strategy
HUMAN RESOURCES DEVELOPMEN	• 1		
Shortage of frontline workers	•Allow recruitment of foreign	•19	 Human Resource Development Strategy
	 Upgrade production technology – encourage automation 	•20	
Producers /Manufacturers lack knowledge in food	•Educate management on implementing GHP, GMP, HACCP	•2	Cold Chain Development Stralegy
standard and the technical know-bow covering this	 Educate & train for management on Good Management Practice 	•21	Human Resource Development Strategy
industry	Proposed Chilled and Prozen Food 1 Association to be information resource centre.	•22	•Industry Linkage Strategy
	•Ensure all c&f food producers implement GHP or GMP – mandate GHP and GMP implementation	•2	

MAJOR CHALLENGES, THREATS AND OPPORTUNITIES

OPPORTUNITIES Underiake R&D for local food Educate public on the value of c&f food - fresh alternative Promote local c&f food eIncrease Size of Players and Products Veneties Strategy <u>-10</u> +16 Increasing urbanisation rate and demand for convenient Přotičele usa Ebressivěly Increase production Increase products variebés riod Product Marketing Strategy .17 •8 •11 ŝ Identify popular focal food and imported c&f food Promote local production of c&f food to foodservice providers Encourage investment in minimally processed yegetables Increase production Locrease production Increase products varieties, e.g. fopular c&f food Penetrate overseas markets with ocally product c& (food including boss with meac based products High potential areas i.e. ready meals, snack and meal-based and seafood-based products, and minimally processed regelable as they are in the infancy stage with only a few small product varienes. •17 Product Marketing Strategy Increase Size and Products •17 Varieties Strategy •15 ·Development of Food service Sector Sustery 8 ŝ. -17 •13 · Popularity of the central Development of Food service ·Promote the establishment of central kitchen •14 Sector kitchen operations ·Upgrade SMIs in c&f food to become suppliers to central kitchen operatórs Copies management on implementating GHP, GMP, FIACCP Provide materimers for companies to interenties GHP, GMP, HACCP and ISO
 Enterin commit Food Act and Food Registration
 Contrast Contrast Food Registration
 Contrast Production Contrast Registration
 Contrast Production
 Contrast Productine
 Contrast Production
 Contrast Produ **LEGISLATION & INSTITUTIONAL** 2 -2) ifficulties in incenting international Acci menderits and pressioning communic i requirements Cold Chaid Development Strategy 3 Product Marketing naandry players and do -22 22 and the state of the 2 Industry Linkages Strategy in the second 10 P. 18 miles - 18

na na sana ang sana a Sana ang sana			
	•Undertake R&D for local food	• • •	
	•Educate public on the value of c&f	• [4	 Increase Size of Piayers and Products Varieties Strategy
Increasing urbanisation rote	food – fresh alternative		stearts taking blacey
and demand for convenient	 Promote local c&f food aggressively 	• 1	 Product Marketing Strategy
food	 Increase production 	• *	
	 Increase products varieties of c&f 	• []	
	દિલ્લ		
High potential areas i.e.	Identify popular local food and	•17	Product Marketing Strategy
ready meals, snack and meat-based and seafood-	imported c&f food •Promote local production of c&f food to food any ison acquides	•17	Increase Size and Products
based products, and minimally processed	food to foodservice providers •Fncourage investment in minimally	•15	Varieties Strategy
vegetable as they are in the	processed vegetables		Development of Food service
infancy stage with only a few small producers and	 Increase production Increase products varieties, e.g. 	•8 •11	Sector Strategy
limited product varieties	popular c&f food	-11	
·	·Penetrate overseas markets with	•17	
	locally product e&f food including those with meat-based products		
	mose marmed based products		
Popularity of the central	 Promote the establishment of 	•13	Development of Food service
kitchen operations	central kitchen AUpgrade SMIs in c&f food to	•]4	Necler
	become suppliers to central kitchen	-14	
	operators		
LIGISLATION & INSTITUTIONAL	•Expose management on	. 7	
	implementing GHP, GMP, HACCP	• <u>2</u>	
	 Provide incentives for companies 	•2	
	to implement GHP, GMP, HACCP and ISO		
Difficulties in meeting	•Enforce current Food Act and Food	•3	
international food standards	Regulation		 Cold Chain Development Strategy
and foreign big customer's	 Government to assist c&f meat/meat-based food producers to 	•3	
requirements	A export their products by negotiating		
	with countries that imposing ban on		Product Marketing
	same. Promote locally produced c&f food	•17	
	aggressively	- 6 7	
	Enforce Proposed Draft Food		
	Hygiene Regulation (once approved)	•3	
	•Initiate self regulatory system	•22	
Industry players are not	•Set up a Chilled and Frozen Food	•22	
organized	Association	•22	
	 Facilitate information flow within the industry and government 	•22	
	•Transform Chilled and Frozen	+22	Johnston Finland Charles
Inefficient information flow -	Prood Association into a non-		 Industry Linkages Strategy
missing link between	governmental regulatory and marketing body for the industry.		
industry and government	Develop trade associations for	•22	
agencies	other supporting industry in the		
	chilled and frozen food industry		

ACTION PLANS

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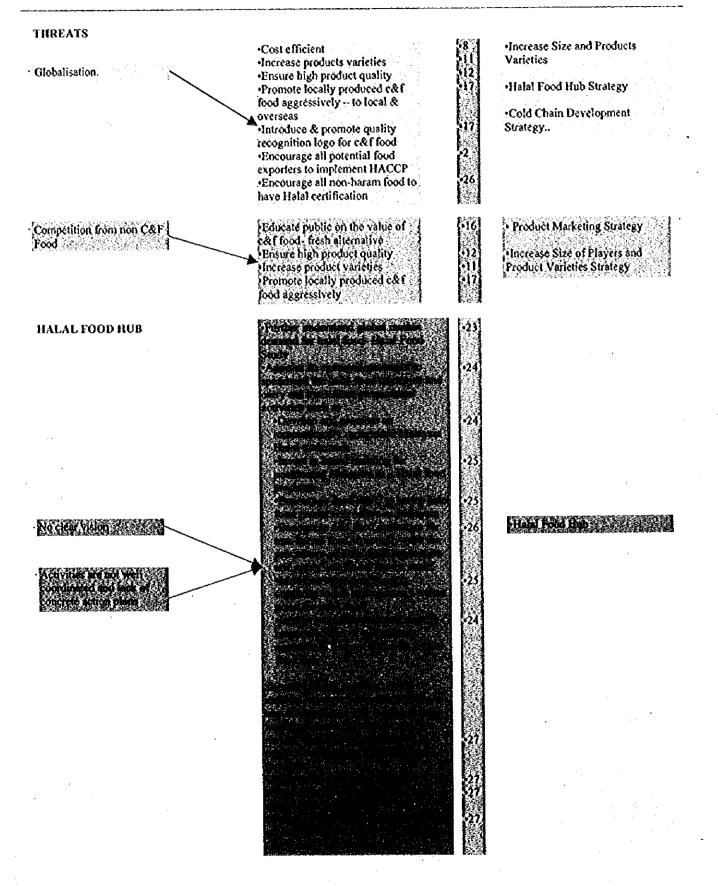
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MAJOR CHALLENGES, THREATS AND OPPORTUNITIES

ACTION PLANS

STRATEGY



MAJOR CHALLENGES, THREATS AND **OPPORTUNITIES**

OPPORTUNITIES			
THREATS			
	•Cost efficient	•8	 Increase Size and Products
	 Increase products varieties 	-11	Varieties
· Globalisation.	•Ensure high product quality	•12	
	 Promote locally produced c&f 	•17	 Halal Food Hub Strategy
	food aggressively to local &		
	overseas		 Cold Chain Development
	Introduce & promote quality	•17	Strategy
	recognition logo for c&f food	•	
	 Encourage all potential foud 	•2	
	exporters to implement HACCP	•26	
	Encourage all non-haram food to	•20	
	have Halal certification		
Competition from non C&F	•Educate public on the value of	•16	Product Marketing Strategy
Food	c&f food- fresh alternative		
1000	•Ensure high product quality	•12	 Increase Size of Players and
	 Increase product varieties 	•11	Product Varieties Strategy
	 Promote locally produced c&f 	•17	
	food aggressively		
HALAL FOOD HUB	•Further understand global market	•23	
	demand for halal food-Halal Food		
	Study		
	Appoint an agency/department to	•24	
	spearhead the hatal food strategies and		
	carry out immediate promotional		
	activities such as 1	.24	
	•Develop and promote an	•24	
	internationally recognised Malaysia . Halal trademark		
	Invest in brand building for	•25	
	positioning Malaysia as a Halal food		
	producer		
	Encourage food MNQ to set up hala	+25	
	food production centre in Malaysia		a second s
No clear vision	 Encourage c&f food producers for 	•26	Halal Food Hub
B. Distances and West present a state of	non-haram food to comply with the		
	procedures of halal food production ;		
Activilles are not well	and apply halal label for the same.		
coordinated and lack of	Motivate other nelgbouring	•25	
concrete action plans	countries to use Malaysia as a transit		
	point for halal food		
	Improve coordination and identify	•24	
	responsibilities of government agencies in making Malaysia a halal		
	food hub	1	
	Should findings from the Study		
	indicate lucrative economic benefits to		
	tum Malaysia as a hub for world hala!		
	food from production point, then;	3	
	Invest heavily in brand building to	•27	
	position Malaysia as a Halal food		
	producer		
	Allocate land for halal food hub	•27	
	Encourage local cell food producers to	•27	
	obtain halal certification		
	Develop world class infrastructure	-27	
	equivalent to MSC, which incorporate OMP and HACCP standards		
	UNIT AND BALLE SUSINGLYS STATE	1	

9.4 Implementation Timeframe For Action Plans

As the strategies and action plans proposed are for a period of 10 years, below is the recommended implementation timeframe. The timeframe for action plans are immediate to two years time, and long-term would refers to 3 to 10 years.

The diagram below links the challenges, opportunities and threats identified to short term and long term action plans.

(Please refer to the following pages) :

Long Term Action Plans	-Focus on niche market, i.e value-addod and halal -18 chilled and frozen food products	 Undertake: R&D. for popular local food Undertake: R&D. for popular local food Analo government fund ancentives: more a food a food and a population of the second of the second and an analytic second and a public second and a pu	
Short Term Action Plans	•Focus on niche market i.e. value-added and natal chilled and frozen food produces	Ondernation (100 Jonnania) ocalifood Mases government innd uncentbres more accessible Provide an companier locearry V&D enher (inderidually oc with public sector	
Challenges, Opportunities and Threats	PRODUCTION Malaysia is relatively a high cost food producer	TECHNOLOGY and R&D	

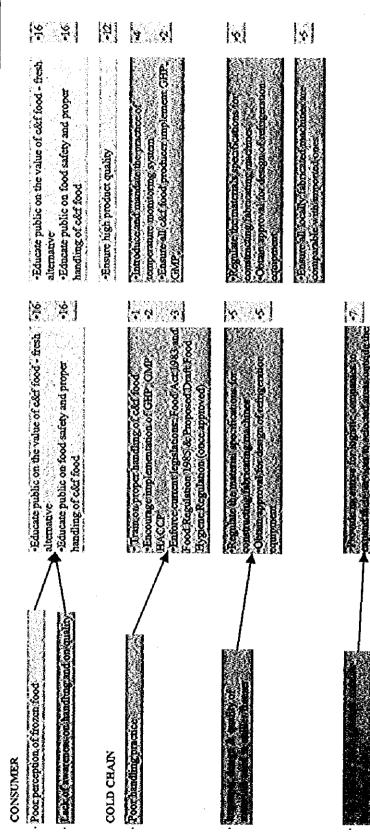
Long Term Action Plans

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High cost of imported equipment - Reclass imported durations High cost of imported equipment - Reclass imported durations High cost of imported equipment - Reclass imported durations High cost of imported equipment - Regiment expective Begulare for manufactoring - Regiment for equipment Begulare for manufactoring - Regiment expective Description - Regiment for equipment Begulare for manufactoring - Regiment for equipment Begulare for manufactoring - Regiment Description - Regiment Begulare for manufactoring - Regiment Begulare for manufactoring - Regiment Description - Regiment Begulare for manufactoring - Chain approval for definitions Description - Regiment Begulare for manufactoring - Regiment Begulare for maturation - Regiment Begula
 - Reduce import dutes in the short num - Regulare the materials specifications for constructing flabricating machines - Obtain approval for design of refrigeration - Obtain approval for popular local food - Obtain contribution of the internitives to carry - Of a control of enter individually or with public sector - Dindertake R&D for popular local food - Or obtain approvation of the internition of the public sector
 Segulare the materials specifications for security fabricating machines: Obrain approval for design of refrigeration Obrain approval for design of refrigeration Obrain approval for popular local food Undertake R&D for popular local food Towide incentives to private companies to carry and second for citor individually or with public sector Orduction of Orduction of Orduction of Orduction of Orduction of Orduction of
 Undertake R&D for popular local food Undertake R&D for popular local food Make government fund/incentives more accessible Provide incentives to private computies to carry in R&D either individually or with public sector Undertake R&D for popular local food Orduction of Make government fund/incentives more accessible Provide incentives to private companies to carry R&D either individually or with public sector
 Undertake R&D for popular local food Undertake R&D for popular local food Make government fund/incentives more Provide incentives to private companies to carry rates Provide incentives to private companies to carry R&D either individually or with public sector Undertake R&D for popular local food Undertake R&D for popular local food Onduction of Undertake R&D for popular local food Indertake R&D for popular local food Provide incentives to private companies to carry R&D either individually or with public sector
 Undertake R&D for popular local food Undertake R&D for popular local food Make government fund/incentives more accessible Provide incentives to private companies to carry R&D either individually or with public sector
 Undertake R&D for popular local food Make government fund/incentives more accessible Provide incentives to private companies to carry R&D either individually or with public sector

Long Term Action Plans Short Term Action Plans Challenges, Opportunities and Threats

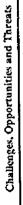


Clean Valley

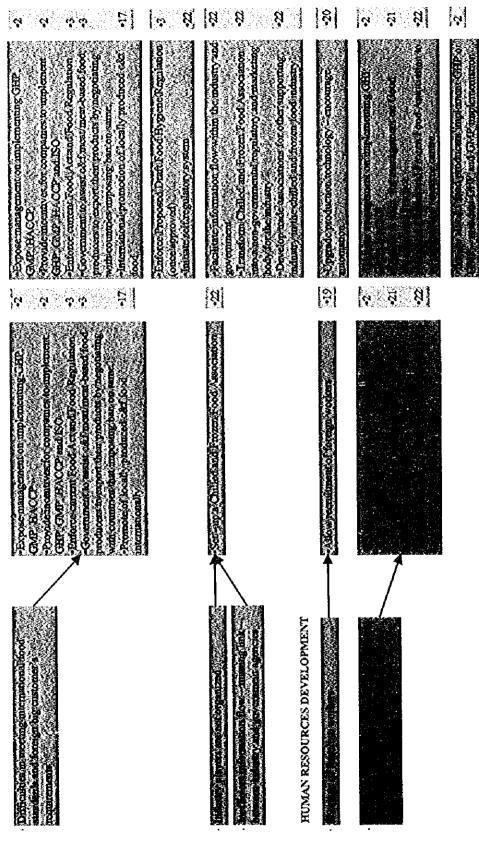
Challenges, Opportunities and Threats	Nitori Avria Aviva Plays	The provide the second second second	
(ONSUMER			
Poor perception of frezen food	 Educate public on the value of e&f food - fresh - (6) alternative 	 "Inducerte public on the value of GKT tood - traction observer. 	<u>s</u> •
Lack of awareness on handling and on quality	•Educate public on food safety and proper handling of edd food		•12 91
C04.D C.H 41.V		 Ensure high product quarky 	<u></u>
Poor handling practice	• Train on proper handling of c&f food •Fracturates implementation of CHP_CMP	·Introduce and mandate the practice of	27 -
	e and od	temperature nonnormg system •Ensure all c&f food producer implement GHP, GMP,	C1
Improper design & quality of muterials used in chiller/freezer	Regulate the material specifications for Constructing/tabricating machines Obtain approval for design of refrigeration S	 Regulate the materials specifications for constructing/fabricating machines Obtain approval for design of refrigeration 	s.
	cquipment	equipment •Ensure all locally fabricated machines are comparable with imported ones	ar •
Lack of cold truck network outside the Klang Valley	 Provide incentive for logistic companies to *? ** expand their services to selected areas outside the Klang Valley. 		

Short Term Action Plans

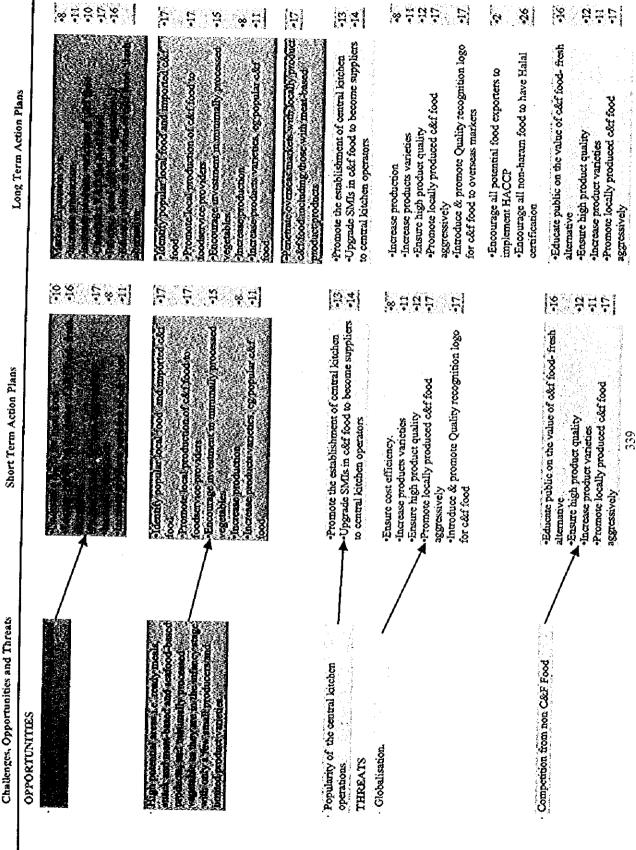
Long Term Action Plans



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 Expose management on implementary (13P). GMP, HACCP Provide incontrues for companies to implement GHP, GMP, HACCP and ISO Enforce current Food Act and Food Regulation Government to assist e&F meatheur-based food producers to export their products by negotating with countries imposing ban on same. International promotion of locally produced e&F food 	 Enforce Proposed Orait Food Hygiene Regulation (once approved) Initiate self regulatory system 	 Facilitute information flow within the industry and government Transform Chilled and Frozen Food Association into a non-governmental regulatory and marketing body for the industry Develop trade associations for other supporting industry in the chilled and frozen food industry l 	 Upgrade production technology – encourage automation 	 Educate management on implementing GHP, GMP, HACCP Educate & train for management on Good Management Pracine for Management Pracine Context and Frozen Food Association to be information resource centre. Ensure all c&f food producers implement GHP or GMP – mandate GHP and GMP implementation 	
		C4	6 I •	55 55 - 5 51	
 Expose munagement on implementing GHP, GM2, HACCP Provide incentives for companies to implement GHP, GMP, HACCP and ISO Enforce current Food Act and Food Regulation Gevenment to assist c&f meat/meat-based food producers to export their products by negotiating with countries that imposing ban on same. Promote of iocally produced c&f food internationally 		Set - up a Chilled and Frozen Food Association		-Educate management on implementing GHP, GMP, HACCP GMP, HACCP Educate & train for management on Good Management Practice -Proposed Chilled and Frozen Food Association to be information resource centre.	
Difficulties in meeting international food standards and foreign big customer's requirements		Industry players are not organized Inefficient information flow – missing link – between industry and government agencies HE MAN & ESCH RCES DEVELOTATENT	Shortage of frontline workers	Producers Manufacturers lack Imowledge in food standard and the technical know-how covering this industry	



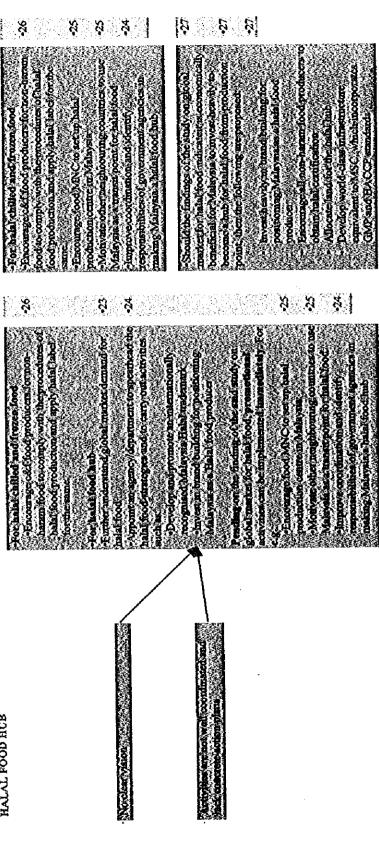
Challenges, Oppretunities and Thegats OPPORTI NITLES	Note 3 or 10 Addition Market and Market and Market		Trade Strate Article Manager
Increasing urbanisation rate and demand for convenient food	 Undertake R&D for local food Educate public on the value of c&f food- fresh alternative Promote local c&f food aggressively Increase production Increase products varieties of c&f food 	4 4	Market Expansion via: -Increase production -Increase products varieties of e&f food -Underase R&D for local food -Promote local food aggressively -Educate public on the value of e&f food- fresh alternative
High potential areas i.e. ready meals, snack and meat-based and scafood-based products, and minimally processed vegetable as they are in the infancy stage with only a few small producers and limited product varieties	 Identify popular local food and imported c&f food Promote local production of c&f food to foodservice providers Encourage investment in minimally processed vegetables Increase production Increase products varieties, cg popular c&f food 	· · · · · · · · · · · · · · · · · · ·	 Identify popular local food and imported c&f food Promote local production of c&f food to foodservice providers Encourage investment in minimally processed vegetables Increase production Increase products varieties, eg popular c&f food
			research oversear markets with nearby product c&f food including those with meat-based product products
Popularity of the central kitchen operations FRIREATS	 Promote the excisionant of control kitchen match (particle SMIs in edd filood to become suppliers to control kitchen operators) 		Promote the establishment of central latchen Urpatade SMIs in e&r food to become suppliers to contral latchen operators
Co-Millautre as	 ⁴ Instance over efflorency. ⁴ Prove Prevalence Antropologie. ⁴ Prove Reader Antropologie. ⁴ Prove Reader Colling Colling. ⁴ Proves V. V. Specificaci Colling. ⁴ Proves V. A. ⁴ Proves V. A. ⁴ Proves V. V. Specificaci Colling. ⁴ Proves V. A. 	$\frac{1}{2} 04 04 0$	 Colorando productional Colorando productional Colorando producta surveyando Colorando falorendo da surveyando Colorando falorendo da surveyando Colorando falorendo da surveyando Colorando da surveyando da surveyando da surveyando Colorando da surveyando da surveyando da surveyando
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Long Term Action Plans

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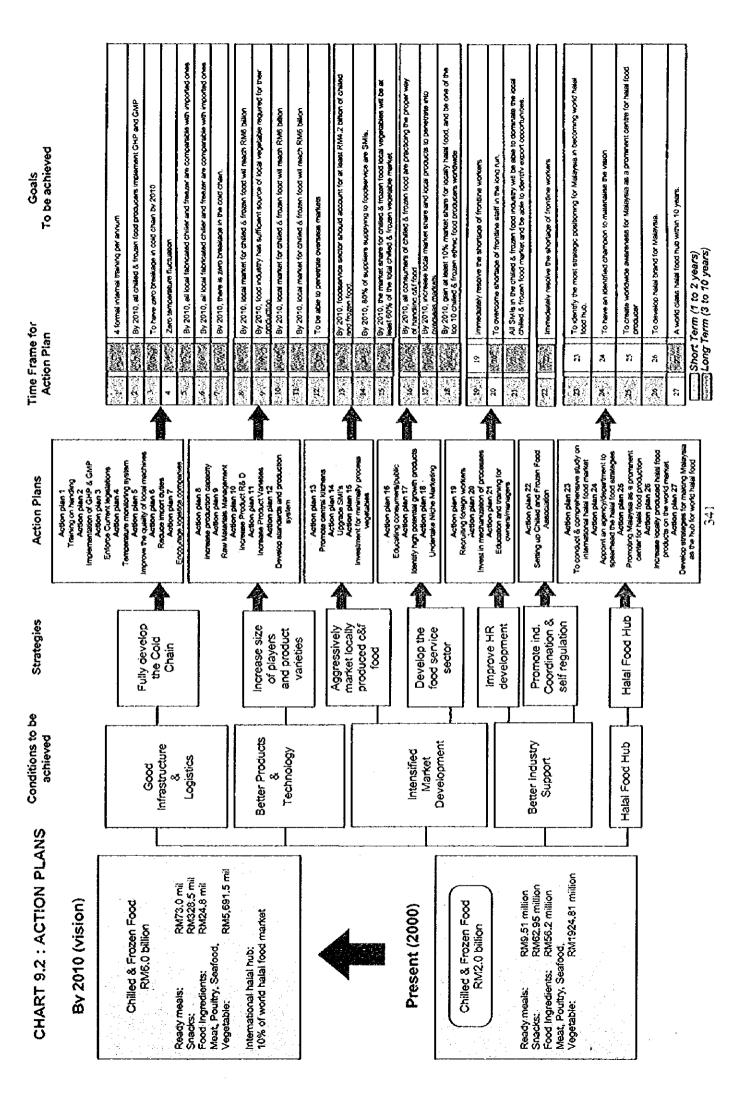
Short Term Action Plans

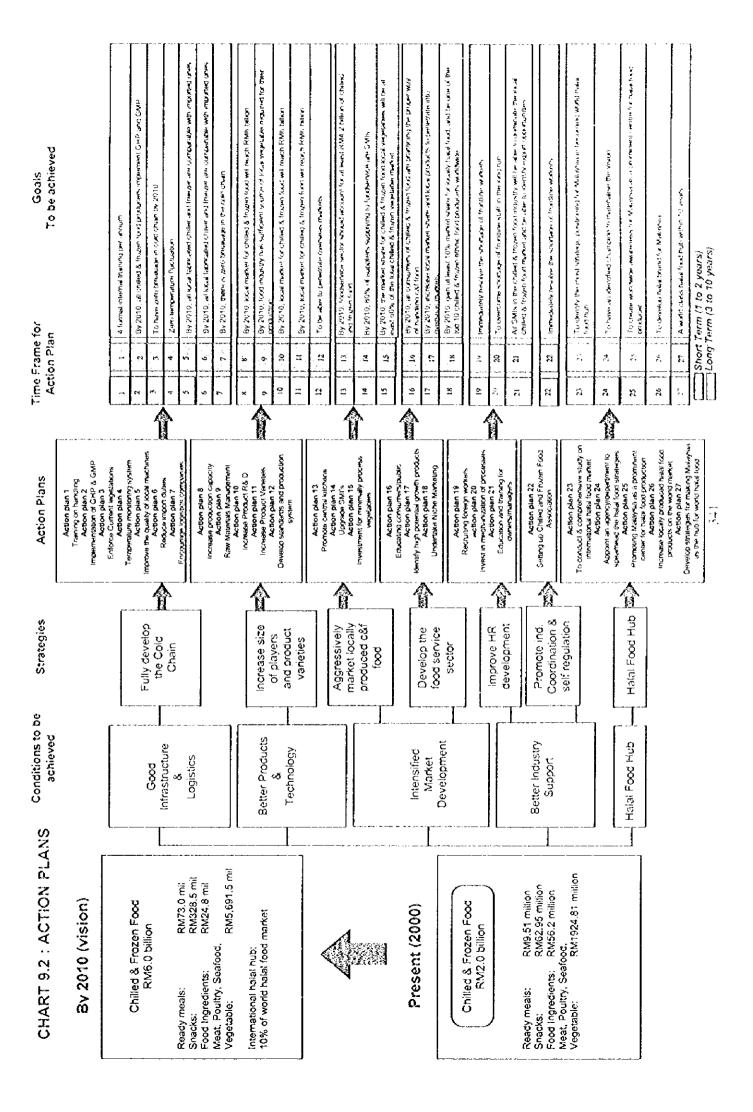
HALAL FOOD HUB



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•26	·25	-24	-27	-27	
•For halal chilled and frozen food -Encourage c&f food producers for non-haram food to comply with the procedures of halal food production and apply halal label for the	same. •Encourage food MNC to set up halal production centre in Malaysia •Monvate other neighbouring countries to use	Malaysia as a transit point for halal food -improve coordination and identify responsibilities of government agencies in making Malaysia a halal food hub	 Should the findings of the study on global market for halal food indicatent is economically beneficial for Malaysia to invest heavily to beneficial for Malaysia to invest heavily to 	point, then the following are proposed: • Invest heavily in brand building for producer	 Encourage all non-haram food producers to obtain halal certification Allocate land for the halal hub Develop world-class infrastructure equivalent to MSC, which incorporates GMP and HACCP standards
-26	-23	-24		•25	-25 -24
 For halal chilled and frozen food Encourage c&f food producers for non- haram food to comply with the procedures of halal food production and apply halal label 	for the same. For halat food hub Further understand clobal market demand for	halal food -Appoint an agency/department to spearhead the halal food strategies and to carry out activities such as:	 Develop and promote an internationary recognised Malaysia Halal trademark Invest in brand building for positioning. Malaysia as a Halal food producer 	Pending on the finding of the said study on global market for halal food, promotional activities can be implemented immediately. For e.g.: -Encourage food MNC to set up halal	production centre in Maiaysia Motivate other neighbouring countries to use Malaysia as a transit point for halal food -Improve coordination and identify responsibilities of government agencies in melong Malaysia a halal food hub
8.1и доол түтүн		No clear vision	Activities are not well coordinated and lack concrete action plans		





Chapter 10 CONCLUSION AND RECOMMENDATION

CHAPTER 10

CONCLUSION AND RECOMMENDATION

The demand for chilled and frozen food has been increasing in both developed and developing countries, such as Malaysia mainly due to changing demographic and lifestyle. In Malaysia, the chilled and frozen food industry is considered to be at an infancy stage. The state of cold chain, chilled and frozen food handling awareness, consumer perception, food technology and R&D knowledge are still far from the desired level. This study has also identified the potential food segments to be further developed e.g. local ethnic food and snacks, minimally processed vegetables and central kitchen operations.

Although this Study reveals that the Malaysian chilled and frozen food industry has great potential in the future, the existing limited industry infrastructure and knowledge would hinder the growth of the industry. Accordingly, it is believed that Government needs to intervene to realise the projected market potential and ensure orderly development of the chilled and frozen food industry.

Accordingly, strategies and action plan together with the implementation timeframe have been formulated to achieve the vision recommended by this Study. It is strongly recommended that the Malaysian Government spearheads the implementation of proposed action plans during the initial period, as adequate financial and policy supports are needed.

LIST OF APPENDIX

APPENDIX

1	Location of Consumer Survey (List of Shopping Malls)
2	Demographic Data of Surveyed Respondents
3	Questionnaire for Consumer Survey
4	Questionnaire for Industry Players in the Chilled and Frozen Food
5	Selected Retailers and their Products Range, Purchase and Retail Prices
6	List of Companies Certified to the Various Standards
7	Frigoscandia Classic Line C3 88
8	Flow Chart for a Further Processing Line Operation
9	Surimi Processing Flow Chart

APPENDIX 1

Location of Consumer Survey (List of Shopping Malls)

Appendix 1

LOCATION OF CONSUMER SURVEY (LIST OF SHOPPING MALLS)

Shopping Mall	Frequency	Percent	Valid Percent	Comulative Percent
Sg Wang	. 7	.9	.9	.9
Megamall	33	4.1	4.1	5.0
Carrefour Subang Jaya	33	4.1	4.1	9.1
Sunway Pyramid	36	4.5	4.5	13.6
Cold Storage SS14	35	4.4	4.4	18.0
BB Plaza	15	1.9	1.9	. 19.9
Sogo	24	3.0	3.0	22.9
The Mall	20	2.5	2.5	25.4
Amcorp Mall	· 9	1.1	1.1	26.5
One Utama	7	.9	.9	27.4
Wangsa Maju (Alfa Angle)	14	1.8	1.8	29.2
Subang Parade	17	2.1	2.1	31.3
Bansar Mall	14	1.8	1.8	33.0
Plaza Pheonix	46	5.8	5.8	38.8
Leisure Mall	19	2.4	2.4	41.2
Mydin (IIn Masjid India)	30	3.8	3.8	44.9
Kotaraya (S&M,	10	1.3	1.3	46.2
Metrojaya)				
Metrojaya SS 14	3	.4	.4	46.6
Lot 10	2	.3	.3	46.8
Jusco Tran Maluri	18	2.3	2.3	49.1
Jaya Jusco Klang	110	13.8	13.8	62.8
Thin Lucky Garden	9	1.1	1.1	64.0
Baturoad	3	.4	4	64.3
Mines	25	3.1	3.1	67.5
Extra	5	.6	.6	68.1
Subminit	9	1.1	1.1	69.2
Bukit Jambul	22	2.8	2.8	72.0
Sunshine (Penang)	16	2.0	2.0	74.0
Komtar (Penang)	2	.3	.3	74.2
Bkt Jambul (Penang)	31	3.9	3.9	78.1
Ipoh Parade	41	5.1	5. i	83.2
Superkinta (lpoh)	20	2.5	2.5	85.7
Terminal I (Seremban)	32 .	4.0	4.0	89.7
The Store (Seremban)	11	1.4	1.4	91.1
Seremban Parade	17	2.1	2.1	93.2
City Square(JB)	48	6.0	6.0	99.2
Kotaraya (JB)	3	4	.4	99.6
Penang	3	.4	.4	100.0
Total	799	99,9	100.0	
System	1	1		
ojoum	800	100.0		

Missing Total

APPENDIX 2

Demographic Data of Surveyed Respondents

	Frequency	Percent (%)
Place:		
Klang Valley	554	69.3
Penang	59	7.4
Ipóh	61	7.6
Scremban	60	7.5
Johor Bahru	66	8.3
Gender:		
Mate	395	49.4
Female	404	50.6
Race:		
Matay	353	44.2
Chinese	247	30.9
Indian	154	19.3
Foreigners	35	4.4
Others	10	1.3
Age:		
< 18	30	3.8
~ 18 18-24	242	30.3
25-34	264	33.0
15-44	187	23.4
	69	8.6
>55	7	0.9
-55 Marilal status:		
Marital status: Married	420	52.6
	378	47.4
Single	3/8	
Family monthly income:	88	11.0
< RM 1,000	1	20.2
RM 1,001-2,000	161	22.5
RM 2,001-3,000	179	17.7
RM 3,001-4,000	141	
RM 4,001-5,000	97	12.2
> RM 5,000	131	16.4
Contributor of family income:		60.0
Respondents	418	52.3
Spouse	241	30.1
Children of the family	34	4.3
Other family members	296	37.0
Family size:		
I-3	174	21.8
1-6	467	58.4
7-9	133	16.6
t0 and more	25	3.1

DEMOGRAPHIC DATA OF SURVEYED RESPONDENTS

	Frequency	Percent (%)
Stage of education:		
Primary	29	3.6
Secondary	266	33.3
Higher (Certificate/Diploma)	270	33.8
Tertiary (Bachelor, Master, PhD)	233	29.2
Ownership of household appliance:		
	779	98.6
Normal fridge	109	13.9
Independent freezer	595	75.6
Oven	1	
Microwave oven	400	50.8

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DEMOGRAPHIC DATA OF SURVEYED RESPONDENTS (cond't)

APPENDIX 3

Questionnaire for Consumer Survey

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QUESTIONNAIRE FOR CONSUMER SURVEY

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Section A : Chilled and Frozen Food (eg: frozen murtabak, pau, mantau, fish balls, sausage, burger, nugget, crab meat, chilled chicken)

 Do you know the difference in the chilled and frozen food Yes No Do you consume chille 	15?	Please rank the following foods according to their perceived quality. (Number 1 is the highest quality food, 2 as second and so forth). Frozen foods Chilled foods (fresh & processed)
U Yes O No		Canned foods
 3. Do you consume frozen Yes No 	n foods? 9.	What types of foods do you normally consume? Home-cooked meals
 4. Do you know that chill available in the market Yes 		 Eating out Convenience foods (such as chilled and frozen foods)
Νό		Canned foods Others
 Do you consider chilled healthy foods? Yes 	d foods as 10.	How do you determine the halal status of foods? (First choice)
 No 6. Do you consider frozen foods? Yes 	n foods as healthy	 The halal logo stated on the label Would you accept? Only official logo by JAKIM Any logo indicating halal status
No7. What factors are your		 Check the ingredients Both
when purchasing ch foods? Please rank factors according to t (Number 1 is the most second most important	the following 11. timportance. 11. timportant, 2 as and so forth).	How do you determine the halal status of foods if there is no halal logo stated on the label?
Factor Quality Price Halal status Hygiene	Importance	 Check the ingredients Brand name Manufacturer Look at the packaging/words
Outlet Brand Taste Nutritious/healthy Convenience	12.	standardized the halal logo?
(easy to obtain, time saving) Attractiveness of the packaging		ing No. State and St

Appendix 3

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Section B : Chilled & Frozen Meals & Snacks

	Please check if	How many packages	Consumption Frequency					
	you consume these foods	do your family consume per month?	< Once a month	Once a month	Once a week	2-3 times a week	Daily	
Frozen karipap						1		
Frozen murtabak								
Frozen pau								
Frozen mantau								
Frozen spring rolls				1				
Frozen roti pratha								
Frozen roti canai								
Frozen samosa								
Frozen pizza								
Frozen pies								
Chilled nasi lemak								
Frozen naan/capati								

The following questions focuses on this category of food in general:

1.	Do you like these types of chilled and frozen meals & snacks?	5.	How frequent do you purchase chilled and frozen meals & snacks?
	Q Yes		Daity
			2-3 time a week
			Once a week
2.	When do you normally eat chilled and frozen meals & snacks?		Once a month
	Morning as breakfast		C < Once a month
	Lunch as full meal		
	Dinner as full meal	6.	How many packages do you purchase at one time?
	Tea break as snacks		Only 1 package
	Anytime		2-3 packages
			4-5 packages
3.	Who normally consumes chilled and		G.7 packages
	frozen meals & snacks in your family?		S-9 packages
	Children		10 or more
	Adult Adult		U or more
	Senior citizen at home	7.	Normally who does the purchasing of
	All family members		chilled and frozen meals & snacks?
	Only myself		C Yourself
	11. 1		Spouse
4.	Where do you normally purchase chilled and frozen meals & snacks?	-	Senior citizen at home
	Supermarket/hypermarkets		Children
	Mini market/groceries		🗖 Maids
	Wet markets	8.	Will you continue to consume chilled
	Night markets		and frozen meals & snacks?
	Deli shops		Yes

Section C : Chilled & Frozen Food Ingredients

	Please check					quency	uency	
	if you consume these foods	packages do your family consumes per month?	<once a month</once 	Once a month	Once a wcek	2-3 times a week	Daily	
C&F coconut milk/grated								
Chilled spices pastes								
Frozen vegetables					···•			
Chilled vegetables								
Chilled fruits								
Cendol/cincau								

The following questions focuses on this category of food in general:

1.	Do you like these type of chilled and	5.	How frequently do you purchase chilled
	frozen food ingredients?		and frozen food ingredients?
	Q Yes		Daily
	No No		2-3 time a week
			Once a week
2.	When do you use chilled and frozen food ingredients?		Once a month
			\Box < Once a month
	Preparing normal meals		
	U Preparing snacks	6.	How many packages do you purchase at
	Eaten as fresh		one time?
			Only 1 package
3.	Who normally uses chilled and frozen		2-3 packages
φ.	food ingredients in your family?		4-5 packages
	Children		G-7 packages
	Adult		B 8-9 packages
	Senior citizen at home		10 or more
	All family members		
		7.	Normally who does the purchasing of
	Only myself		chilled and frozen food ingredients?
4.	Where do you normally purchase		U Yourself
	chilled and frozen food ingredients?		Spouse
	Supermarket/hypermarkets		Senior citizen at home
	Mini market/groceries		Children
	Wet markets		🖸 Maids
	Night markets		
	Deli shops	8.	Will you continue to use chilled and
	🛥 Den snops		frozen food ingredients?
			U Yes
			D No

Section D : Chilled & Frozen Meat & Seafood Products

-	· · · · · · · ·	Please	How many	Consumption Frequency				
		check if	packages	<	Once	Once	2.3	Daily
		you	your family	Once	a	a	times a	
		consume	consume	а	month	week	week	
		these foods	per month?	month				
C&F Burge	<u>r</u>				ļ			
C&F Sausa						ļ		
C&F Nugge								
C&F Seafoo						·	·	
C&F Meat of	· · · · · · · · · · · · · · · · · · ·				ļ			
C&F Chick					<u> </u>		·	
C&F Satay/								
	lunch meal pack							
	pe meat (RTE)	_ <u></u>			·	ļ		
Marinated n	neat (RTE)	l	I		l	L		J
The followi	ng questions focus	es on this cate	gory of food in	general:			•	
	you like these typ		nđ	C	Daily			
	zen meat & scafoo	od products?			2-3 tim	e a week		
	Yes			- T	Once a			
	No							
				<u>ب</u>	Once a			
	hen do you normal		and	L	< Once	a month		
frò	zen meat & seafoo	od products?						
	Préparing norma	it meal	. 6		low many j ne time?	packages	: do you pu	ichase at
	Preparing snack			-	_		e de la companya de l	
n	Eaten as fresh	-			Only I	-		
	Ealen as nesn			L	2-3 pac	kages	1	
3. WI	ho normally consu	mes chilled an	đ	[4-5 pac	kages		
	zen meat & seafor			C	6-7 pac	kages		
	nily?		•	ſ	3 8-9 pac	•		
0	Children				10 or n	-		
ñ	Adult				al Ivorn	iore		
		•		t N	làmaile n	hà đoặc	the purchas	ing of
<u> </u>	Senior citizen at		- 1				eat & seaf	
	All family mem	bers		-	roducts?	nozen m		
	Only myself			-	Yourse	16	· · ·	· · · ·
		· .						
	here do you norma				Spouse		÷ .	
	illed and frozen m	cat & seafood		L	Senior	citizen al	i hôme	
pro	oducts?			(Childre	n i	1. • •	
	Supermarket/hy	permarkets		Ē	Maids	• •		
	Mini market/gro	oceries						
· · · · 🗖	Wet markets	•	·				consume	
	Night markets						eafood pro	
					Yes	÷ .	. *	an a
	Deli shops			· · ·				n an Arrison An Arrison an Arrison
			Had					an an Siri Sana an Siri
	ow frequently do y d frozen meat & s			- -	2. m.		n de la composición d Composición de la composición de la comp	

Appendix 3

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Section E : Futuristic Questions

- 1. Would you continue buying chilled and frozen food in the future?
 - U Yes
 - D No

2. Which category of food is your preference? (Please rank the answer with number 1 as most preferable, 2 as second and so forth)

Chilled and frozen meals and snacks

Chilled and frozen food ingredients

- Chilled and frozen meats and seafood
- How much are you willing to spend on chilled and frozen foods per month?
 - **G** <RM 100

3.

- C RM 101-200
- C RM 201-300
- RM 301-400
- RM 401-500
- >RM 500

4. Would you be willing to pay more for chilled & frozen food products that are properly handled, stored and displayed?
Yes
No

LI NO

5. What taste of food is your favorite?

Sweet

C Sour

D Bitter

G Salty

6. Following is the list of chilled & frozen varieties of products, please check according to your preferences.

- Western
- Japanese
- G Malay
- Chinese
- **D** Indian
- Middle Eastern
- Other local variety

7. Please state your degree of agreement with the following statements

Statement	Strongly disagree	Disagree	Uncertain	Agree	Strongly agree
Chilled & frozen food form a significant proportion of my total food consumption.	1	2	3	4	5
I will consume more of these types of food in the future.	1	2	3	4	5
Most of the people around me consume chilled and frozen food.	1	2	3	4	5
The consumption of chilled & frozen food will be an important frend of the future.	1	2	3	4	5
I always try new food products in the market	1	2	3	4	5
I always come across chilled & frozen food advertisements (in various media).	1	2	3	4	5
I am satisfied with the chilled & frozen food that I consumed.	1	2	3	4	5
I always try new chilled & frozen food products at the supermarket food testing section.	1	2	3	4	5

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8. In general, what do you think about chilled and frozen food? (e.g. which chilled & frozen food products you like the most?, why you don't try other chilled & frozen food products?)

Family Income		
🔲 < RM 1,000		
🔲 RM 1,000-2,000		
🖾 RM 2,001-3,000		
RM 3,001-4,000		
RM 4,001-5,000		
>RM 5,000		
Contributor of family income		
Myself		
My Spouse		
Children		
Other family members		
Education		
D Primary		
Secondary		
Higher (Certificate/Diploma		
Tertiary		
Family size		
U 1-3		
U 4-6		
7-9		
10 and more		
Yes No		
Yes No		

Numerator Name:	Location:		Dale:
	 	<u>- 1</u>	