



Malaysian Consumer Empowerment Study 2019-2020



Prepared for
Ministry of Domestic Trade and Consumer Affairs
By Ipsos Strategy3

Publisher Copyright ©

All Rights Reserved. No part of this publication may be reproduced or stored in a form that is reproducible or reproduced in any form by electronic, mechanical, photocopying, recording and/or otherwise without the permission of the Ministry of Domestic Trade and Consumer Affairs, Malaysia.

TABLE OF CONTENTS

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS

1.	INTRODUCTION	2
1.1	Project Background	2
1.2	Project Objective	2
2.	BENCHMARKING	4
2.1	Summary of 2013 Consumer Empowerment Index Study	4
2.2	Benchmarking – European Union Consumer Empowerment Index	6
2.2.1	Index Basis and Eurobarometer Survey	7
2.2.2	Index Study and Results	8
2.3	Benchmarking – South Korea Consumer Empowerment Index (2018)	14
2.4	Benchmarking – Indonesia Consumer Empowerment Index	18
3.	INSTRUMENT DESIGN	22
3.1	International Benchmarking	22
3.2	In-Depth Interviews	23
3.3	Proposed Domains & Subdomains	24
3.4	Proposed Instrument	26
3.4.1	Types of Questions	26
3.4.2	Rating Scale	27
3.5	Stakeholder Workshop	28
4.	PILOT STUDY	31
4.1	Research Design	31
4.2	Research Instrument	32

4.3	Pilot Study – Index Results & Findings	32
4.3.1	Respondent Profile	33
4.3.2	Index Calculation	34
4.3.3	Index Score	36
4.3.4	Consumer Environment	37
4.4	Pilot Study – Instrument Validation & Recommendations	42
4.4.1	Methodology	42
4.4.2	Financial Literacy	44
4.4.3	Purchasing Decision	48
4.4.4	Redress	53
4.5	Summary of Proposed Changes	57
5.	METHODOLOGY	59
5.1	Final Instrument	59
5.2	Sampling Distribution	60
5.3	Research Procedure	60
5.3.1	Procedure during Movement Control Order (MCO)	61
5.3.2	Procedure during Conditional Movement Control Order (CMCO) and Recovery Movement Control Order (RMCO)	61
5.3.3	Quality Assurance (QA) Process	61
5.4	Domain Weighting	62
5.5	Index Calculation	63
6	RESULTS	67
6.1	Demographic Profile	67
6.2	Descriptive Statistics	69
6.3	Score Distribution & Categorization	70
6.4	Index Results	72
6.4.1	Key Demographic Indicators	76
6.4.1.1	Education	76
6.4.1.2	Income Group	79
6.4.1.3	Age Group	81

6.4.1.4	Strata	84
6.4.1.5	Ethnicity	86
6.4.2	State-level Results	88
6.4.2.1	Perlis	91
6.4.2.2	Kedah	93
6.4.2.3	Penang	95
6.4.2.4	Perak	97
6.4.2.5	Selangor	99
6.4.2.6	WP Kuala Lumpur	101
6.4.2.7	WP Putrajaya	103
6.4.2.8	Negeri Sembilan	105
6.4.2.9	Melaka	107
6.4.2.10	Johor	109
6.4.2.11	Pahang	111
6.4.2.12	Terengganu	113
6.4.2.13	Kelantan	115
6.4.2.14	Sabah	117
6.4.2.15	WP Labuan	119
6.4.2.16	Sarawak	121
6.5	Consumer Environment	123
6.5.1	Methodology	123
6.5.2	National-Level Results	124
6.5.3	Key Demographic Indicators	127
6.5.3.1	Age Group	127
6.5.3.2	Strata	128
6.5.3.3	Ethnicity	129
6.5.3.4	Income Group	130
6.5.3.5	Consumer Empowerment Score	131
6.5.3.6	Region - North	132
6.5.3.7	Region - Central	133
6.5.3.8	Region - South	134
6.5.3.9	Region - East	135
6.5.3.10	Region – Sabah & Sarawak	136

7. FOCUS GROUP DISCUSSION & CURRENT ISSUES	138
7.1 Focus Group Discussion	138
7.1.1 Target Respondents	138
7.1.2 Timeline	139
7.1.3 Key Takeaways	140
7.2 Current Issues	144
7.2.1 E-Commerce	145
7.2.2 Retail Services and General Consumer Goods	152
7.2.3 Telecommunications	159
7.2.4 Financial Services and Non-Conventional Financial Services	162
8 RECOMMENDATIONS	167
8.1 Importance of Consumer Empowerment	167
8.2 Strategic Recommendations	168
8.2.1 Reduce gaps in individual consumer empowerment	170
8.2.2 Review the role of online market platforms	172
8.2.3 Strengthen existing efforts to address consumer challenges in Sabah and Sarawak	175
8.3 Recommendations for Future Studies	177
APPENDIX 1: LIST OF ATTENDEES OF THE WORKSHOP	179
APPENDIX 2: DISCUSSION POINTS OF THE WORKSHOP	180
APPENDIX 3: PILOT STUDY QUESTIONNAIRE	183
APPENDIX 4: STATISTICAL ANALYSIS OF THE PILOT STUDY	209
APPENDIX 5: FINALIZED QUESTIONNAIRE FOR FIELDWORK	218
APPENDIX 6: SAMPLING DISTRIBUTION FOR FIELDWORK	253
APPENDIX 7: RESPONDENTS' PROFILE FOR FOCUS GROUP DISCUSSION	259

LIST OF TABLES

Table 1: Framework of the EU Consumer Empowerment Index	10
Table 2: Allocation of weights based on panel experts for EU CEI	11
Table 3: EU Country scores relative to the average	11
Table 4: Highly influential factors and the effects for EU	13
Table 5: 2018 Consumer Empowerment Index System for South Korea	14
Table 6: Weights for 2018 Consumer Empowerment Index for South Korea	15
Table 7: Consumer Empowerment Index of each group (variables) for South Korea	17
Table 8: Dimensions and weightage for 2016 Indeks Keberdayaan Konsumen for Indonesia	18
Table 9: Key demographic characteristics for segmentation for Indonesia	20
Table 10: Summary of international benchmarking	23
Table 11: Overview of the pilot instrument	32
Table 12: Overview of the index scores correspond to each subdomain	36
Table 13: Summary of responses for Financial Literacy domain, Cognitive subdomain	44
Table 14: Communalities for Financial Literacy domain, Cognitive subdomain	44
Table 15: Reliability Testing details for Financial Literacy domain, Affective subdomain	45
Table 16: Reliability Testing details for Financial Literacy domain, Practice subdomain	47
Table 17: Summary of responses for Purchasing Decision domain, Cognitive subdomain	48
Table 18: Communalities for Purchasing Decision domain, Cognitive subdomain	49
Table 19: Reliability Testing details for Purchasing Decision domain, Affective subdomain	50
Table 20: Reliability Testing details for Purchasing Decision domain, Practice subdomain	52
Table 21: Summary of responses for Redress domain, Cognitive subdomain	53
Table 22: Communalities for Redress domain, Cognitive subdomain	54
Table 23: Reliability Testing details for Redress domain, Affective subdomain	55
Table 24: Reliability Testing details for Redress domain, Practice subdomain	56

Table 25: Summary of proposed modifications for each subdomain	57
Table 26: Overview of the instrument	59
Table 27: Results of domain weighting exercise	62
Table 28: Respondents' demographic profile	67
Table 29: Results of Descriptive Statistics Analysis	69
Table 30: Categorization brackets and distribution	70
Table 31: Average domain scores under categorization and proposed descriptions	71
Table 32: Index and domain scores by demographic profile	74
Table 33: Abbreviated subdomains	76
Table 34: Perlis: Index and domain scores by demographic profile (weighted)	92
Table 35: Kedah: Index and domain scores by demographic profile (weighted)	94
Table 36: Penang: Index and domain scores by demographic profile (weighted)	96
Table 37: Perak: Index and domain scores by demographic profile (weighted)	98
Table 38: Selangor: Index and domain scores by demographic profile (weighted)	100
Table 39: WP Kuala Lumpur: Index and domain scores by demographic profile (weighted)	102
Table 40: WP Putrajaya: Index and domain scores by demographic profile (weighted)	104
Table 41: Negeri Sembilan: Index and domain scores by demographic profile (weighted)	106
Table 42: Melaka: Index and domain scores by demographic profile (weighted)	108
Table 43: Johor: Index and domain scores by demographic profile (weighted)	110
Table 44: Pahang: Index and domain scores by demographic profile (weighted)	112
Table 45: Terengganu: Index and domain scores by demographic profile (weighted)	114
Table 46: Kelantan: Index and domain scores by demographic profile (weighted)	116
Table 47: Sabah: Index and domain scores by demographic profile (weighted)	118
Table 48: WP Labuan: Index and domain scores by demographic profile (weighted)	120
Table 49: Sarawak: Index and domain scores by demographic profile (weighted)	122

Table 50: Measures of Consumer Environment	123
Table 51: Conversion of level of agreement to numerical value	124
Table 52: Consumer Environment scores by demographic profile	126
Table 53: Criteria of respondents	138
Table 54: Details of Focus Group Discussion	140
Table 55: Summary of key inputs from Focus Group Discussion	141
Table 56: Descriptive Statistics for Financial Literacy domain, Cognitive subdomain	209
Table 57: KMO and Reliability Tests of Financial Literacy domain, Affective subdomain	209
Table 58: Descriptive Statistics for Financial Literacy domain, Affective subdomain	210
Table 59: KMO and Reliability Tests of Financial Literacy domain, Action subdomain	210
Table 60: Descriptive Statistics for Financial Literacy domain, Action subdomain	211
Table 61: Descriptive Statistics for Purchasing Decision domain, Cognitive subdomain	212
Table 62: KMO and Reliability Tests of Purchasing Decision domain, Affective subdomain	213
Table 63: Descriptive Statistics for Purchasing Decision domain, Affective subdomain	213
Table 64: KMO and Reliability Tests of Purchasing Decision domain, Action subdomain	214
Table 65: Descriptive Statistics for Purchasing Decision domain, Action subdomain	214
Table 66: Descriptive Statistics for Redress domain, Cognitive subdomain	215
Table 67: KMO and Reliability Tests of Redress domain, Affective subdomain	216
Table 68: Descriptive Statistics for Redress domain, Affective subdomain	216
Table 69: KMO and Reliability Tests of Redress domain, Action subdomain	217
Table 70: Descriptive Statistics for Redress domain, Action subdomain	217

LIST OF FIGURES

Figure 1: Results of Consumer Empowerment Index for South Korea	16
Figure 2: Regional index scores by province in Indonesia	19
Figure 3: Segmentation of consumers based on understanding rights and redress channels when choosing goods/services in Indonesia	20
Figure 4: Overview of the in-depth interviews	24
Figure 5: Overview of the instrument and the summary of definition of each subdomain	25
Figure 6: Structure of the instrument	25
Figure 7: Stakeholder Workshop at Zenith Hotel, Putrajaya	29
Figure 8: Example of the approach of Statement Rotation	31
Figure 9: Summary of respondent profile for the Pilot Study	33
Figure 10: Percentage of Malaysian consumers who do not struggle to afford for basic necessities and possess enough product choices while shopping for basic necessities	37
Figure 11: Percentage of Malaysian consumers who are able to find enough information to make an informed buying decision and are able to resolve a problem with their purchase	38
Figure 12: Percentage of Malaysian consumers who are aware of all available complaint channels and think that government complaint channels are accessible	39
Figure 13: Percentage of Malaysian consumers who shop online and the ones who shop on social media platform	40
Figure 14: Percentage of Malaysian consumers who encountered problem with their online purchase in the past 12 months and those who seek redress	40
Figure 15: Percentage of Malaysian consumers who encountered problem with their offline purchase in the past 12 months and those who seek redress	41
Figure 16: Reasons of not seeking redress for the problems encountered during online and/or offline purchase	41
Figure 17: Unweighted distribution of index scores	70
Figure 18: Overall weighted index scores for all respondents for CEI 2020	72
Figure 19: CEI 2020 score compared to national average: gender and age group	73

Figure 20: CEI 2020 score compared to national average: income and ethnicity	73
Figure 21: CEI 2020 score compared to national average: highest education level	74
Figure 22: Index and domain scores by level of educational attainment	77
Figure 23: Gap in subdomain scores between respondents with no formal education and respondents with bachelor's degree	78
Figure 24: Index and domain scores by income level	79
Figure 25: Gap in subdomain scores between B40 and T20 respondents	80
Figure 26: Index and domain scores by age group	82
Figure 27: Gap in subdomain scores between respondents aged 30-39 and aged 60-69	83
Figure 28: Index and domain score by strata	84
Figure 29: Gap in subdomain scores between urban areas in Peninsular Malaysia and rural areas in Sabah and Sarawak	85
Figure 30: Index and domain score by ethnicity	86
Figure 31: Gap in subdomain scores between Malay respondents and Indian respondents	87
Figure 32: CEI 2020 score compared to national average by region	88
Figure 33: CEI 2020 score compared to national average by state	88
Figure 34: Index and domain score by region	89
Figure 35: Gap in subdomain scores between central region and Sabah & Sarawak	90
Figure 36: Gap in subdomain scores between Perlis and the national average	91
Figure 37: Gap in subdomain scores between Kedah and the national average	93
Figure 38: Gap in subdomain scores between Penang and the national average	95
Figure 39: Gap in subdomain scores between Perak and the national average	97
Figure 40: Gap in subdomain scores between Selangor and the national average	99
Figure 41: Gap in subdomain scores between WP Kuala Lumpur and the national average	101
Figure 42: Gap in subdomain scores between WP Putrajaya and the national average	103
Figure 43: Gap in subdomain scores between Negeri Sembilan and the national average	105

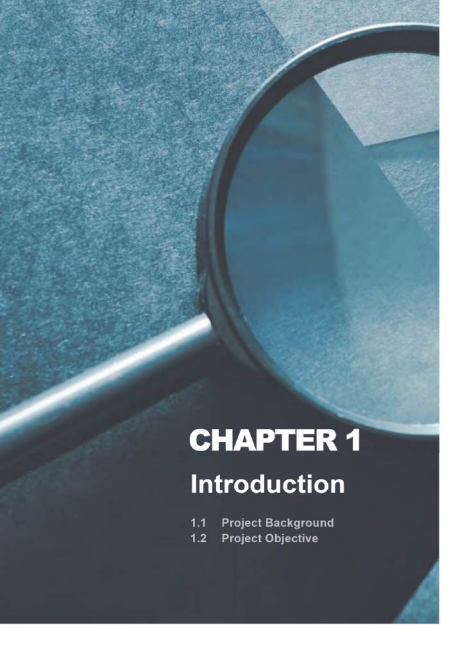
Figure 44: Gap in subdomain scores between Melaka and the national average	107
Figure 45: Gap in subdomain scores between Johor and the national average	109
Figure 46: Gap in subdomain scores between Pahang and the national average	111
Figure 47: Gap in subdomain scores between Terengganu and the national average	113
Figure 48: Gap in subdomain scores between Kelantan and the national average	115
Figure 49: Gap in subdomain scores between Sabah and the national average	117
Figure 50: Gap in subdomain scores between WP Labuan and the national average	119
Figure 51: Gap in subdomain scores between Sarawak and the national average	121
Figure 52: Consumer Environment in Malaysia	125
Figure 53: Difference compared to national average by age group	127
Figure 54: Difference compared to national average by strata	128
Figure 55: Difference compared to national average by ethnicity	129
Figure 56: Difference compared to national average by income group	130
Figure 57: Difference compared to national average by index score classification	131
Figure 58: Difference compared to national average by region - North	132
Figure 59: Difference compared to national average by region – Central	133
Figure 60: Difference compared to national average by region – South	134
Figure 61: Difference compared to national average by region - East	135
Figure 62: Difference compared to national average by region – Sabah & Sarawak	136
Figure 63: Details of consumer complaints in e-commerce received by KPDNHEP in 2019	145
Figure 64: Percentage of CEI respondents who encountered at Least one problem when shop online and shop on social media platform (weighted)	146
Figure 65: Most common issues with online purchase encountered by CEI respondents	147
Figure 66: Percentage of CEI respondents who seek redress for their online purchase	147
Figure 67: Reasons for not seeking redress on problem with online purchase by CEI respondents	148

Figure 68: Details of consumer complaints in e-commerce received by NCCC in 2018	149
Figure 69: Details of consumer complaints in non-e-commerce received by KPDNHEP in 2019	152
Figure 70: Percentage of CEI respondents who encountered at least one problem with their offline purchase	153
Figure 71: Most common issues with offline purchase encountered by CEI respondents	153
Figure 72: Percentage of CEI respondents who seek redress for their offline purchase	154
Figure 73: Reasons for not seeking redress on problem with offline purchase by CEI respondents	154
Figure 74: Details of consumer complaints received by NCCC in retail services in 2018	155
Figure 75: Details of consumer complaints received by NCCC in general consumer products in 2018	156
Figure 76: Details of consumer complaints received by NCCC in telecommunications in 2018	159
Figure 77: Details of consumer complaints received by NCCC in financial services in 2018	162
Figure 78: Details of consumer complaints received by NCCC in non-conventional financial services in 2018	163

LIST OF ABBREVIATIONS

Acronym	Definition
AHP	Analytic Hierarchy Process
AKPK	<i>Agensi Kaunseling dan Pengurusan Kredit</i>
ATM	Automated Teller Machine
BNM	<i>Bank Negara Malaysia</i>
CAP	Computer Assisted Personal Interviewing
CCID	Commercial Crime Investigation Department
CEI	Consumer Empowerment Index
CFOS	Consumers Front of Sabah
CMCO	Conditional Movement Control Order
COVAS	Consumer Voice Association of Sarawak
CPA	Consumer Protection Act
CRT	Complaint Resolution Timeframe
DOSM	Department of Statistics Malaysia
EFTPOS	Electronic Funds Transfer at Point of Sale
ESTAT	European Statistics
EU	European Union
FGD	Focus Group Discussion
FTC	Federal Trade Commission
GCC	General Consumer Code
HSC	Higher Secondary Certificate
ICT	Information and Communications Technology
IDI	In-Depth Interviews
IKK	<i>Indeks Keberdayaan Konsumen</i>
IRS	Internal Revenue Service
DG	Director General
LCE	Lower Certificate of Education
MITI	Ministry of International Trade and Industry
MC	Malaysian Conformity
MCE	Malaysia Certificate of Education
MCMC	Malaysian Communications and Multimedia Commission
MCO	Movement Control Order
KPDNHEP	Ministry of Domestic Trade and Consumer Affairs
NCCC	National Consumer Complaints Centre
NCP	National Consumer Policy
NFCP	National Fiberisation and Connectivity Plan
NGO	Non-Governmental Organization
NGT	Nominal Group Technique
PMR	<i>Penilaian Menengah Rendah</i>
QA	Quality Assurance
QC	Quality Control

Acronym	Definition
OFS	Ombudsman for Financial Services
RMCO	Recovery Movement Control Order
SD	<i>Sekolah Dasar</i>
SEC	Securities and Exchange Commission
SKM	<i>Suruhanjaya Koperasi Malaysia</i>
SMP-SMA	<i>Sekolah Menengah Pertama-Sekolah Menengah Atas</i>
SPM	<i>Sijil Pelajaran Malaysia</i>
SRP	<i>Sijil Rendah Pelajaran</i>
SPVM	<i>Sijil Pelajaran Vokasional Malaysia</i>
STP	<i>Sijil Tinggi Persekolahan</i>
STPM	<i>Sijil Tinggi Persekolahan Malaysia</i>
WP	<i>Wilayah Persekutuan</i>
UPM	<i>Universiti Putra Malaysia</i>
UPSR	<i>Ujian Pencapaian Sekolah Rendah</i>



CHAPTER 1

Introduction

1.1 Project Background

1.2 Project Objective

1. Introduction

1.1 Project Background

This Consumer Empowerment Index (CEI) study is an effort by KPDNHEP to develop an index for Malaysia and involving a larger scope and number of consumers to measure the level of empowerment among Malaysian consumers and to categorize their level of empowerment.

The index will help the Ministry to quantitatively ascertain the level of empowerment of Malaysian consumers towards their rights and responsibilities, while also understanding the related consumer issues which require immediate attention from the Ministry. Overall, it will help government agencies to examine the effectiveness of their programmes and policies for improvement.

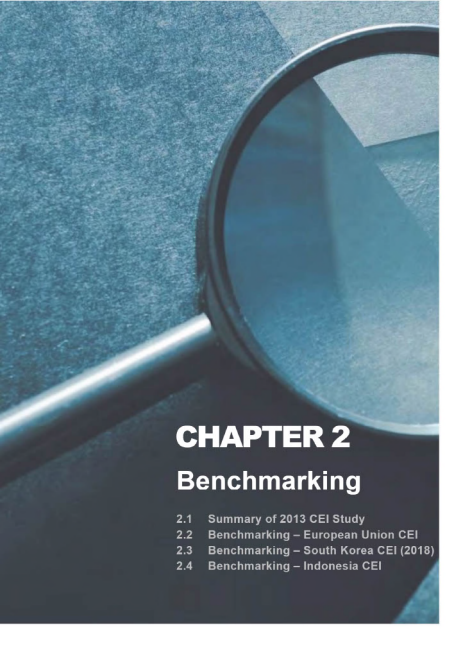
1.2 Project Objective

The objectives of the CEI are as follows:

- i. To measure the trends and level of consumer empowerment in Malaysia periodically;
- ii. To ascertain the level of consumer empowerment of Malaysians towards their rights and responsibilities as consumers in the form of an index;
- iii. To ascertain the effectiveness of consumer empowerment programmes which have been conducted by the government, statutory bodies and NGOs;
- iv. To ascertain the categories of consumer empowerment which need to be focused on and to ascertain the suitable programmes to increase the level of awareness and empowerment, and also steps for improvement.

The objectives of the study for the CEI are as follows:

- i. To measure the level of consumer empowerment in Malaysia and to make 2019 the base year of measurement;
- ii. To serve as a basis for categorizing consumers into low, medium and high empowerment;
- iii. To profile consumers by categories: vulnerable, passive emotion-guided action, knowledge-guided and empowered;
- iv. To benchmark the level of consumer empowerment of Malaysia with other countries;
- v. To build a social map of consumers based on the relevant indicators to awareness and consumer empowerment by state.

A magnifying glass with a silver handle and black frame is positioned over a blue, textured surface. The lens is focused on a specific area, creating a magnified view of the texture. The background is a solid blue color.

CHAPTER 2

Benchmarking

- 2.1 Summary of 2013 CEI Study
- 2.2 Benchmarking – European Union CEI
- 2.3 Benchmarking – South Korea CEI (2018)
- 2.4 Benchmarking – Indonesia CEI

2. Benchmarking

This section is divided into the following:

1. **Summary of 2013 Consumer Empowerment Index Study:** overview of the objective and findings from the 2013 study done by *Universiti Putra Malaysia (UPM)* to develop the domains and subdomains for the CEI;
2. **Benchmarking:** divided into three sections for the EU, South Korea and Indonesia where a preliminary analysis of the approach employed in measuring consumer empowerment and index results are provided.

2.1 Summary of 2013 Consumer Empowerment Index Study

The purpose of the 2013 Consumer Empowerment Index Study was to develop the basis for measuring consumer empowerment. The study was undertaken by UPM and was conducted in a systematic manner via a combination of qualitative and quantitative methods. The key objective and output of the study was to develop the domains and subdomains for Consumer Empowerment within Malaysia, and also to provide a preliminary index measure.

The development of the instrument (domains and subdomains) was pre-tested by the public to ensure its reliability and validity. In addition, literature review on the concepts of financial literacy was conducted to ensure that the established CEI was in line with the study in developed countries (i.e. Europe). Four methods were used by the researchers to formulate the domains and the subdomains, namely:

1. **Literature Review**
Analysis of existing materials to establish the concept and operational definition of empowerment.
2. **Focus Group Discussion (FGD):**
Qualitative data collection approach through discussions with two major groups of stakeholders: 14 sessions with experts (academic and NGOs) and 12 with consumers (urban and rural) randomly chosen from four zones (northern, southern, eastern and central zones of Peninsular Malaysia, Sabah and Sarawak). Each focus group consisted of 10 to 12 respondents and was facilitated by a moderator.
3. **Nominal Group Technique (NGT):**
Qualitative data collection was conducted with the same participants in order to determine the weights attributed to each domain and its subdomains.

4. **Field studies:**

Quantitative data collection was carried out in three stages:

1. Pre-field study aimed at validating the relevance of the domains and subdomains extracted through FGD and NGT.
2. Pilot Study was conducted with 34 subjects to assess and refine the domains and subdomains determined by FGD, NGT and pre-field study.
3. Actual field study was carried out on 3,503 respondents to measure the empowerment of Malaysian consumers via six sections:
 - i. Background of the respondent
 - ii. Awareness
 - iii. Skills
 - iv. Assertiveness
 - v. Affective
 - vi. Access to consumer programmes

Overall, the study concluded that the operational definition of consumer empowerment to be used for index measurement was to be divided into three domains:

1. **Cognitive:**

Awareness of consumer rights and responsibilities, knowledge and consumer skills to take appropriate actions to avoid and resolve problems in the market.

2. **Affective:**

Psychological traits that enable individual to act in accordance to his or her skills and abilities. The measure is based on the inner power of an empowered consumer: hope, self-efficacy, resilience, optimism, assertiveness and impulsiveness.

3. **Practice:**

The relevant behaviours are file complaints for bad experiences, citation frequency and involvement in consumers' activities (via experience sharing).

Based on the measure of these three domains, this study allows us to regroup the consumers into five categories:

1. **Vulnerable consumers:**

Consumers do not possess any characteristics listed within all domains.

2. **Passive consumers:**

Consumers with characteristics belong to Cognitive and Affective domains without any characteristics belong to the Practice domain.

3. **Emotion-driven consumers:**

Consumers with characteristics belong to Affective and Practice domains without any characteristics belong to the Cognitive domain. In other words, their actions are solely based on feelings but not knowledge.

4. **Cognitive-driven consumers:**

Consumers with characteristics belong to Cognitive and Practice domains without any characteristics belong to the Affective domain.

5. **Empowered consumers:**

Consumers who possess the characteristics listed on all three domains: Cognitive, Affective and Practice.

The findings showed moderate level of consumer empowerment amongst Malaysian consumers at 52.6%. Specifically, respondents achieved 67.0% in the Cognitive domain, 46.5% in the Affective domain and 44.7% in the Practice domain.

Generally, Malaysians can be considered as knowledgeable consumers, but unwilling to take action when facing problems in the market. Based on the comparison between the ethnic groups, the results showed that Malays scored the highest in Cognitive and Affective domains while Indians scored the highest in Practice domain.

2.2 Benchmarking – European Union Consumer Empowerment Index

The development of the European Union (EU) Consumer Empowerment Index stemmed from the need to provide a quantitative assessment of consumer empowerment within the EU for the purpose of policy development, with the impetus provided by the EU Consumer Policy Strategy 2007-2013¹. This assessment was particularly important due to the size of the EU consumer market (493 million people) which stretches across separate countries with different demographic characteristics, local consumer laws and national cultures/attitudes towards consumer rights. Effective policy development would hence require a detailed understanding of the consumer empowerment profile and landscape within the EU.

The aforementioned policy sets the aim of empowering consumers, enhancing their welfare and protecting them effectively. The Strategy defines an empowered consumer as a consumer with “real choices, accurate information, market transparency and the confidence that comes from effective protection and solid rights”. According to the Strategy, the notion of consumer

¹ European Commission (2007). Communication from the Commission to the European Parliament, the Council, the Economic and Social Committee and the Committee of the Regions ‘Consumer Policy Strategy 2007-2013: Empowering consumers, enhancing their welfare, effectively protecting them’. COM (2007) 99 final.

empowerment was established based on three main aspects, comprising the key elements below:

1. **Skills:** Consumers should be aware of their decisions when buying;
2. **Knowledge:** Consumers should be able to get information on their rights; and
3. **Assertiveness:** Consumers should have access to advocacy and redress mechanisms.

2.2.1 Index Basis and Eurobarometer Survey

It is important to note that the EU Consumer Empowerment Index did not constitute a study on its own. Instead, measurement of the index leveraged on the responses to a separate study named the Eurobarometer Survey (Special Eurobarometer Survey no. 342). A brief summary of the Eurobarometer Survey is given below.

The Eurobarometer Survey (Special Eurobarometer Survey no. 342) was launched by the DG Health & Consumers and the DG ESTAT in 2010. In the light of the Strategy, the purpose of the survey was to gain insight of the actual behaviour of the European consumers in the marketplace. Specifically, the survey was intended to constitute an empirical basis for estimation of overall consumer detriment and redress in the EU, and pertinently, given the diversity of consumers within the EU, to identify the disadvantaged or vulnerable consumers and to obtain a more sophisticated profile of them.

Based on the literature review in the survey report, there was a debate regarding the appropriate definition of consumers who are prone to detriment². The traditional research approach identified the disadvantaged consumers based on socio-economic factors: lower income, older age, lesser education and belonging to a minority group. However, a latter research approach introduced the subjective concepts of 'personal and social self-perception' of the consumer: "the actual vulnerability arises from the interaction of individual states, individual characteristics and external conditions within a context where consumption goals may be hindered and the experience affects personal and social perceptions of self"³.

Hence, by taking into consideration of different aspects of the term 'vulnerable', the survey included, besides socio-economic group variables, subjective characteristics, namely three types of consumer confidence: feeling of confident as a consumer, feeling knowledgeable as a consumer and feeling protected by consumer law. The survey analysed the relation between consumers' subjective confidence and their actual capacities, knowledge and assertiveness in order to assess whether the confidence of the European consumers was consistent with their

² Garrett D. and Tourani-P. (2010). Are consumers disadvantaged or vulnerable? An examination of consumer complaints to the better business bureau. *Journal of Consumer Affairs*, Vol. 44, No.1.

³ Baker S.M. et al. (2005). Building Understanding of the Domain of Consumer Vulnerability. *Journal of Macromarketing*, Vol. 25, Issue 2.

actual level of empowerment. The dataset covered EU of 29 countries (including Iceland and Norway) with 56,470 respondents aged 15 and above.

2.2.2 Index Study and Results

The EU Consumer Empowerment Index was jointly developed by the DG Health & Consumers together with the DG Joint Research Centre with the aim of summarizing and/or capturing the various aspects of consumer empowerment into a single index, based on the data collected by the Eurobarometer Study.

The CEI described consumer empowerment along three main dimensions: Consumer skills, Awareness of consumer legislation and Consumer engagement, corresponding to the three main aspects highlighted by the EU Consumer Policy Strategy. Based on the literature review, the definition of consumer empowerment was mainly through two sources: social psychology and marketing literature. Both referred to the strategic role of consumers in relation to the producers, as well as the role of information as a source of empowerment.

As stated in the report, the theoretical definition of consumer empowerment was established by the authors via presentation of three dominant sociology explanatory models:

1. **Consumer Sovereignty Model⁴**
Empowered consumers are free to act as a rational and self-interested agent. They make producers to fulfil their needs via their buying decision.
2. **Cultural Power Model⁵**
Empowered consumers are the makers. They are not the adapters of spaces and goods designed by the marketer.
3. **Discursive Power Model⁶**
Empowered consumers would be able to establish discourses producing normalized and acceptable forms of engagement, thereby changing a field of action, expanding what is possible to do.

⁴ Denegri-Knott, J., Zurich, D., Schroeder, J.E. (2006). Mapping consumer power: an integrative framework for marketing and consumer research. *European Journal of Marketing*, 40 (9/10), 950-971.

⁵ Kozinets, R. V. and J. M. Handelman (2004). Adversaries of Consumption: Consumer Movements, Activism, and Ideology. *Journal of Consumer Research*, 31 (3), 693-704.

⁶ Denegri-Knott, J. (2004). Sizing the online music pirates: foucault, power and deviance on the web. *Journal of Computer Mediated Communication*, Vol. 9 No. 4.

Besides that, the definition of consumer empowerment originated from the marketing literature⁷ was equally mentioned in the CEI study. The research^{8,9} showed that consumer empowerment was either a subjective state/experience related to an increase in abilities or an objective condition related to greater information or understanding. In the latter, a wider access to choices, ease of access to information and higher education were considered as the premises to empowerment and hence results in greater consumer involvement.

The operational definition of the consumer empowerment mentioned in the EU Consumer Policy Strategy was used as parameters to measure the consumer empowerment. In particular, the operational concept of empowerment was built on consumers' skills, consumers' knowledge and consumers' assertiveness. Hence, the European Barometer survey, which aimed to measure responses along similar attributes, was deemed to be usable for a Pilot Study for the Consumer Empowerment Index.

The developed index had a pyramid structure and included 22 indicators grouped in pillars and sub-pillars. It was the weighted average of three pillars, as shown in Table 1. Each pillar was the weighted average of a variable number of sub-pillars, and each sub-pillar was made up of various indicators constructed from the Eurobarometer survey questions:

1. Consumer skills:

Measure the ability of consumers to perform basic arithmetic operations deemed necessary for consumers to make informed purchase decisions.

i. Basic financial skills

- *Identify the best interest rate for a saving or deposit account*
- *Calculation of a yearly interest on a loan*
- *Recognize cheaper product*

ii. Capacity to read logos/labels

- *Interpret packaging information (nutritional information)*
- *Identify expiring date of a product ("best before" date)*
- *Identify and interpret commonly used EU logos related to consumer information and protection*

2. Awareness of legislation on consumer rights:

Actual knowledge of consumers related to several EU consumer legislation related to:

- i. Unfair commercial practices
- ii. Length of guaranteed rights validity
- iii. Cooling-off period in distance or doorstep selling

⁷ Hurster, G.L., Garnefeld, I. (2008). When does Consumer Empowerment Lead to Satisfied Customers? Some Mediating and Moderating Effects of the Empowerment-Satisfaction Link. *Journal of Research for Consumers*, 15.

⁸ Wathieu, L., et al. (2002). Consumer Control and Empowerment: A Primer. *Marketing Letters*, 13(3), 297-305.

⁹ Brennan, C., Bitters, K. (2004). Consumer Education in the UK: New Developments in Policy, Strategy, and Implementation. *International Journal of Consumer Studies*, 28 (March), 97-107.

3. Consumer engagement:

Different aspects of consumer behaviour.

- i. Attitude in comparing products
 - *Efforts that consumers make in obtaining information on products (e.g. reading specialized consumer magazines, using internet, visit different shops)*
 - *Attention to price differences*
 - *Consumers' habits when reading terms and conditions during contracts signature*
- ii. Interest in obtaining information on consumer rights
 - *Pro-active attitude of consumers when looking for information on their rights*
 - *Knowledge of programmes related to consumer rights*
 - *Knowledge of organizations protecting consumer rights*
- iii. Tendency to talk
 - *Attitude to talk about negative and/or positive experiences*
- iv. Detriment and redress
 - *Attitude when experiencing a problem causing a legitimate case for complaint*

Table 1: Framework of the EU Consumer Empowerment Index

Pillar	Sub-pillar	Indicator
Consumer skills	Basic skills	Recognize cheaper product
		Find the best interest rate
		Calculate the interest on a loan
	Capacity to read logos/labels	Correct interpretation of "grams of fat"
		Find expiring date for a product
		Recognize correctly logos
Awareness of consumer legislation	Unfair commercial practices	Rule for illegal advertisement
		Rule for gifts received by post
		Rule for advertising prices (air tickets)
	Cooling-off period after purchase	Rule for money back guarantee
		Rule for the purchase of car insurance
	Guaranteed period	Rule for door-to-door sales
Consumer engagement	Comparing products	Rule for commercial guarantees
		Comparisons when purchasing a good
	Reading terms and conditions	Actual behaviour in comparing products
		Reading terms and conditions
	Interest in consumer information	Knowledge of consumer organizations
		Knowledge of programmes related to consumer rights
		Actual behaviour in obtaining info on consumer rights
	Tendency to talk	Tendency to communicate negative experiences
		Tendency to communicate positive experiences
	Detriment and redress	Combination of five questions describing the actual behaviour when experiencing problems for which there is a legitimate cause for complaint

The attribution of weights within each pillar had been defined and/or chosen by 20 DG Health & Consumers experts via participatory approach and presented in Table 2. The Consumer Market Expert Group was composed by the representatives of the national authorities handling consumer affairs of the 27 EU Member States. In order to provide a more systematic representation of experts' opinion, a technique known as budget allocation was used. Each participant in the group was requested to allocate 100 points to the three dimensions of consumer empowerment: skills, knowledge and assertiveness. Twenty different sets of weights obtained were then summarised by measure of central tendency in order to construct an "official" weight for the CEI. The small sample size recommended the use of the median in lieu of average of 20 sets of values, as it is less sensitive to outliers in comparison to other measures of central tendency. Furthermore, as mentioned in the report, the median is very similar to the mean, both produce roughly the same scores and exactly the same ranks.

Table 2: Allocation of weights based on panel experts for EU CEI

Domain	Consumer Skills	Awareness of Consumer Legislation	Consumer Engagement
Average	32.07	32.72	35.22
Median	32.00	30.00	34.00
Standard Deviation	9.21	10.78	10.79

The results demonstrated geographic discrepancies in groups of empowered consumers:

1. The most empowered group of countries was clustered in Northern Europe;
2. Middle ranking was dominated by Western European countries;
3. The least empowered (or the most vulnerable) group was clustered in Mediterranean and Eastern European countries.

The EU Consumer Empowerment Index was calculated on country basis by comparing the score of each country to the average score of the EU-27. Hence, a score of 102 for Bulgaria indicated the score of Bulgaria is 2% higher than the EU-27 Average. Based on the results shown in Table 3, the best performer (Norway) had the score up to 20% higher than the EU-27 average, while the worst performer (Romania) had the score up to 26% lesser than the EU-27 average.

Table 3: EU Country scores relative to the average

EU Countries	Comparison with Average
Bulgaria	102
Belgium	84
Czech Republic	113
Denmark	114

EU Countries	Comparison with Average
Germany	115
Estonia	99
Ireland	98
Greece	98
Spain	91
France	103
Italy	90
Cyprus	106
Latvia	96
Lithuania	87
Luxembourg	99
Hungary	92
Malta	103
Netherlands	116
Austria	108
Poland	83
Portugal	91
Romania	74
Slovenia	104
Slovakia	106
Finland	117
Sweden	113
United Kingdom	100
Iceland	107
Norway	120

Based on the analysis of the socio-economic indicators, the study found the following results:

1. Consumer empowerment was strongly linked to age, profession, education level and internet use;
2. Empowered consumers did not always behave as per the expectation of the experts, given that the index structure was determined ex-ante by the experts' opinion (i.e. an empowered consumer does not read terms and conditions when signing a service contract, as opposed to the expectation of the consumer experts);
3. The most significant factors of empowerment were material deprivation and education. Materially deprived consumers were 15% less empowered than wealthier consumers. Despite differences across countries, the relationship between material deprivation and empowerment was strong in Ireland, Italy, Luxembourg, Portugal and Spain;
4. Consumers with low education scored up to 10% less than more educated ones at the EU level, these results were consistent in each country;
5. Consumers using the internet were 12% more empowered. The largest impact of internet use on empowerment was found in Iceland, Ireland, Luxembourg and Portugal.

Table 4: Highly influential factors and the effects for EU

Highly influential factors	Effect
Material deprivation	Materially deprived consumers are 15% less empowered than wealthier consumers. They are 35% less skilled, 21% less aware and 8% less engaged. This result is valid in majority of the countries (especially Ireland, Italy, Luxembourg, Portugal and Spain).
Internet use	Consumers using the internet are 12% more empowered (13% more skilled, 14% more aware, and 9% more engaged). The largest impact of internet use on empowerment is found in Iceland, Ireland, Luxembourg and Portugal.
Education	Consumers with low education score up to 10% less than more educated ones at the EU level. Low educated consumers are 16% less skilled, 10% less aware and 8% less engaged. These results are consistent in all EU countries in each country.
Language spoken	Language is indeed a barrier in many countries: at EU level consumers reporting a mother tongue different from the official language have an empowerment 8% lower than the remaining consumers. They are 10% less skilled, 16% less aware and 3% less engaged. This effect depends on the country considered, specifically in Finland, Italy and Hungary.

The analysis demonstrated that, at the aggregated level, there was a north-south division in terms of consumer empowerment. However, as shown in Table 4, the results did not demonstrate a clear influence of demographic patterns (i.e. education, age, material deprivation, internet) to the consumer empowerment, in the sense that regional factors were more important determinants of the level of consumer empowerment.

Overall, the analysis carried out through the CEI shows that many European consumers are far from being able to play the role of active, informed and assertive market participants. However, these results provide important background information for policymakers and stakeholders at both European and national level, to help them design smarter policies and regulations that improve consumer decision-making and reduce administrative burdens. They can be applied in relation to interventions in any policy seeking to shape or influence consumer decision-making, corresponding to the cognitive skills of consumers. Besides that, these results could be useful for rethinking the set of criteria used to evaluate empowerment (e.g. "reading terms and conditions" is an essential criterion for consumer empowerment).

2.3 Benchmarking – South Korea Consumer Empowerment Index (2018)

The 2018 South Korea Consumer Empowerment Index was conducted to measure the level of competency of consumers while also assessing the effectiveness of government policies. The results of the study, already in the third iteration (first and second in four-year cycles in 2010 and 2014 respectively) were intended to be used as a basis for setting the direction and establishment of policies for consumer education in the future.

The study covered consumers aged 20 and above within all regions in South Korea for a total of 2,000 samples derived through quota extraction based on national statistics on gender, age and regional population.

The Korean Consumer Agency (KCA) in the study defines Consumer Empowerment as 'the total amount of consumer ability that must be equipped to effectively perform its role as a consumer' and consists of three 'competency' categories with a total of seven divisions, as shown in Table 5.

Table 5: 2018 Consumer Empowerment Index System for South Korea

(Unit: Number of Questions)

Contents Area				Configuration Factors			Sub Total	Total
Category		Division	Measurement	K	A	P		
Consumer Empowerment	Consumer Financial Competency	Financial Planning Ability	Financial Planning, Income / Expense Management, Planning for Old	4	4	4	12	24
		Financial Managing Ability	Saving / Investment, Credit Card / Debt Management, Insurance Management	4	4	4	12	
	Consumer Transaction Competency	Information Understanding / Utilization Ability	Searching / Selecting Information, Displaying / Information Understanding, Using Information & Communication Technology (ICT)	3	3	3	9	27
		Buying Decision Ability	Price, Contract / Transaction Option, Quality Comparison	4	4	4	12	
		Ability to Use Information / Resolve Conflict	Resolve Conflicts, Safe Use	2	2	2	6	

Contents Area				Configuration Factors			Sub Total	Total
Category		Division	Measurement	K	A	P		
Consumer Empowerment	Consumer Civic Competency	Ability to Claim Rights	Understanding Laws / Regulations for Consumer, Consumer Rights Recognition & Use of Rights	4	4	4	12	21
		Ability to Take Responsibility	Ethical Consumption, Green Consumption, Consumer Participation	3	3	3	9	

K = Knowledge, A = Attitude, P = Practice

Similar to the EU study, weights were applied to each category and division by a panel of experts using Analytic Hierarchy Process (AHP). The weights for the categories and divisions are provided in Table 6.

Table 6: Weights for 2018 Consumer Empowerment Index for South Korea

Category	Weights (W2)	Division	Weights (W1)
Consumer Financial Competency	0.277	Financial Planning Ability	0.385
		Financial Managing Ability	0.615
Consumer Transaction Competency	0.434	Information Understanding / Utilization Ability	0.386
		Buying Decision Ability	0.377
		Ability to Use / Resolve conflict	0.237
Consumer Civic Competency	0.289	Ability to Claim Rights	0.461
		Ability to Take Responsibility	0.539

The 2018 study found that the Consumer Empowerment Index had an average score of 65.5 points, up 1.5 points (or 2.3%) from the 2014 study. The results at the category level are shown in Figure 1.

Figure 1: Results of Consumer Empowerment Index for South Korea



As shown in Table 7, the Korean study found that demographic factors were the strong determinants which were similar to the previous iterations, the current study also compared index scores across social and economic variables. The key results are:

1. The index score was noticeably lower for those aged 60 and over at 60.4 points, more than five points lower than the average;
2. The financial competency of those aged between 20-29 years old was the lowest among all age groups, and even lower than those aged 60 and over;
3. There was a strong link between higher education level and higher consumer empowerment;
4. There was also a strong link between higher income level and higher consumer empowerment;
5. In support of government initiatives, the results showed that respondents who have had consumer education over the past three years had a much higher index score of 75.4, ten points (or 15.5%) higher than those without at 65.3 – showing the impact of the initiatives.

Table 7: Consumer Empowerment Index of each group (variables) for South Korea

		Frequency	CEI	Financial Comp.	Transaction Comp.	Civic Comp.
			Mean	Mean	Mean	Mean
Total		2000	65.5	65.7	66.0	64.4
Age	20s	321	66.1	62.5	69.2	64.7
	30s	345	68.4	67.8	69.8	66.7
	40s	409	68.4	67.8	69.6	67.3
	50s	406	66.0	67.5	65.9	64.6
	60s and above	519	60.4	63.4	58.5	60.4
Educational Level	Under High School	918	62.9	64.5	62.4	62.1
	Vocational College	336	67.5	66.7	69.0	65.9
	University Graduate	721	67.6	66.8	68.9	66.5
	Graduate School and above	25	70.3	69.2	72.6	68.1
Income Level	Less than 1.5 million Won	106	59.6	60.4	59.2	59.7
	1.5 million and less than 3.0 million Won	491	62.6	64.1	62.1	61.9
	3.0 million and less than 4.5 million Won	698	66.5	66.5	67.3	65.5
	4.5 million and less than 6.0 million Won	479	67.4	67.3	68.5	66.0
	Above 6.0 million	226	66.9	66.3	68.2	65.6
Consumer Education Experience	No	1,970	65.3	65.7	65.8	64.3
	Yes	30	75.4	72.1	77.9	74.9

Ultimately, the 2018 study provided a set of profile of consumers whose consumer empowerment level needed to be enhanced, and recommended targeted consumer policy towards consumer groups between 20-29 years of age, 60s and above, with diploma or below and a monthly income of less than 1.5 million won, and also suggested the domains of enhancement required, for example:

1. Consumers between 20-29 years of age: strengthening consumer financial management competency;
2. Consumers 60 and above: reinforcing all categories for consumer competency, especially with regards to understanding and utilization of information;
3. Consumers with high school diploma and below: similarly, to reinforce all categories, and also with regards to understanding and utilization of information;

4. Consumers with monthly income below 1.5 million won: strengthening of financial management, information understanding/utilization, buying decisions, and actions for redress.

2.4 Benchmarking – Indonesia Consumer Empowerment Index

Indonesia's base measurement of the consumer empowerment index was conducted in 2016 and was named the *Indeks Keberdayaan Konsumen* (IKK). The study was intended to analyse the level of consumer empowerment across regional, demographic, and socio-economic aspects. As a result, the study in 2016 was conducted across 13 provinces among 1,950 respondents.

In a significant departure from the previous empowerment index, the Indonesian IKK domains were construed as stages in the buying process which were similar to consumer marketing models, with seven dimensions weighted individually, as demonstrated in Table 8.

Table 8: Dimensions and weightage for 2016 Indeks Keberdayaan Konsumen for Indonesia

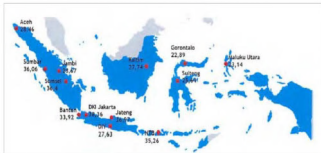
Consumer Buying Process	Dimensions	Weightage
Pre-purchase	Information search	20%
	Knowledge of consumer protection laws and institutions	10%
Purchase decision	Evaluation of choices for goods and services	5%
	Preferences for goods and services	5%
	Buying behaviour	15%
Post-purchase	Tendency for discussion	5%
	Complaints behaviour	40%

Notably, there was a strong emphasis on buying of 'national products' (made-in-Indonesia products) with multiple lines of questioning comparing local and foreign-made products and seeking the respondent's preference. Furthermore, the study also determined a categorization of the index scores, as follows:

1. **Aware (0.0-20.0):** recognizes basic rights and responsibilities of a consumer;
2. **Understanding (20.1-40.0):** understands the rights and responsibilities of a consumer to protect himself/herself;
3. **Capable (40.1-60.0):** Capable of employing his/her rights and responsibilities as a consumer to find the best choice, including a preference for national products;
4. **Critical (60.1-80.0):** Plays an active role in advocating consumer rights and performs his/her responsibilities as a consumer, and also strongly prefers national products;
5. **Empowered (80.1-100.0):** Has a strong sense of nationalism when interacting with the market and also advocates the importance of the consumer.

The overall result of the study was an index score of 30.86. Analysis of the results showed large disparities between geographical and demographic factors. For example, the scores in cities were significantly higher than in rural areas (33.46 vs 28.15) and were much lower in provinces further from the centres of commercial activity in Indonesia. The results by province are demonstrated in Figure 2.

Figure 2: Regional index scores by province in Indonesia



Among the seven dimensions of consumer empowerment identified, individually 'Knowledge of consumer protection laws and institutions' and 'Complaints behaviour' recorded the lowest scores at 13.39 and 15.51 respectively, and as a result they were the main areas of focus for consumer empowerment initiatives in the next three years (directive from the President's Office).

As shown in Figure 3, the study further provided segmentation of the consumer respondent pool, on the dimension of 'quality' and 'procedure' in utilizing consumer rights and obtaining redress. The segmentation resulted in the following distribution of respondents, showing that only 28% of consumers in Indonesia were deemed to have high concern for getting the best product. The results are also further broken down by the key demographic characteristics demonstrated in Table 9.

Figure 3: Segmentation of consumers based on understanding rights and redress channels when choosing goods/services in Indonesia

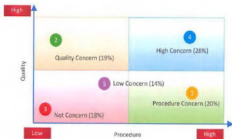


Table 9: Key demographic characteristics for segmentation for Indonesia

Characteristics	High Concern	Quality Concern	Procedure Concern	Low Concern	Not Concern
Age Group	25-35	25-55	25-55	Varies	45-55
Economic Class	Sec A and A+	Sec B and C	Sec A and B	Varies	Sec D and E
Education	Diploma-degree	SMP-SMA	Degree	Varies	SD and below
Occupation	Formal workers	Private sector workers	Students	Informal workers	Elementary - unemployed

Overall, the study also provided information on key areas for improvement, which was subsequently used for targeted policy making by the President's office.



CHAPTER 3

Instrument Design

- 3.1 International Benchmarking
- 3.2 In-Depth Interviews
- 3.3 Proposed Domains & Subdomains
- 3.4 Proposed Instrument
- 3.5 Stakeholder Workshop

3. Instrument Design

The design of the instrument consisted of four steps:

- i. International benchmarking;
- ii. Stakeholder and expert consultation (in-depth interviews) as well as stakeholder workshop; and
- iii. Pilot Study.

In the first step, the study benchmarked similar index studies in other countries to provide an overview of the approach other agencies have taken towards measuring the level of consumer empowerment in their respective countries. The study took note of methodological concerns, as well as differences in interpretation and analysis of results.

The second step involved extensive consultation with stakeholders and experts to provide qualitative insights on the topic of consumer empowerment, as well as to align, as much as possible, the direction of the study to the objectives and specific needs of the key stakeholders. In the first phase, the study conducted in-depth interviews on an individual basis with identified stakeholders within the Ministry, consumer groups and academics. Those insights were used to craft the first draft of the instrument (questionnaire), which was then presented and amended during a stakeholder workshop involving stakeholders. The resulting instrument for the Pilot Study can be referred to Appendix 3.

Next, a Pilot Study was conducted to test the validity of the instrument. The results and analysis of the study, and the recommended amendments in the questionnaire are presented in Section 4 (Pilot Study).

3.1 International Benchmarking

The initial step of the instrument design was based on the benchmarking of countries which have conducted similar index studies. In addition to providing an overview of the interpretation and domains within consumer empowerment used in different countries and their subsequent measurement, the study also identified the methodological strengths and weaknesses within the benchmarked indices. An overview of the benchmarking is provided in Table 10.

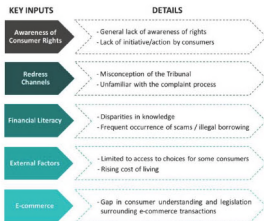
Table 10: Summary of international benchmarking

	 European Union	 Indonesia	 South Korea
Year	2010	2016	2018
Objective	Policy development based on consumer profiles (e.g. vulnerable consumers) in 27 countries	Analysis of level of consumer empowerment based on regional and demographic aspects as well as promote national products	Assess the effectiveness of government policies; setting the direction and policies establishment for consumer education in the future
Sample Size	56,470	1,950	2,000
Instrument Construction	Combination of test-like and self-report questions	Combination of test-like and self-report questions	Combination of test-like and self-report questions
Domain Construction	a. Consumer Skills b. Awareness of Legislation c. Consumer Engagement	a. Pre-Purchase b. Purchase Decision c. Post-Purchase	a. Financial Competency b. Transactional Competency c. Civic Competency
Weighing Method	Balloting by panel	Analytic Hierarchy Process by Panel	Agency
Resulting Socioeconomic Factors	a. Material Deprivation b. Internet Use c. Education Level d. Language	a. Age b. Economic Class c. Education Level d. Occupation	a. Age b. Income Level c. Education Level d. Consumer Education

3.2 In-Depth Interviews

Semi-structured interviews were carried out with decision makers, government officials, academicians and representatives from NGOs in order to obtain qualitative insights and views to establish the domains within the study, as well as to develop the initial draft questionnaire to be presented at the stakeholder workshop (Section 3.6). The interview discussion guides were continuously refined throughout the information gathering process so that they were relevant to the respondents as well as to verify information gathered. An overview of the in-depth interviews is provided in Figure 4.

Figure 4: Overview of the in-depth interviews



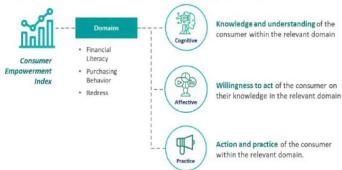
3.3 Proposed Domains & Subdomains

The definition of consumer empowerment in the 2013 study to develop the domains of the index was broken down into three domains - Cognitive, Affective and Practice. This is in contrast to all three benchmarked indices where a more operational definition of consumer empowerment was used. The domains were designed such that they corresponded to the policymaking goals established by the government. Furthermore, the study's consultation with stakeholders has also yielded requests for more practical considerations in translating findings into policy action, and hence lent support to a more operational definition of consumer empowerment.

Based on the findings from benchmarking as well as the interviews with respective stakeholders, the study proposed the breakdown of consumer empowerment into three main component domains: Financial Literacy, Purchasing Decision and Redress. The domains are further broken down into Cognitive, Affective and Practice each, reflecting the initial findings from the 2013 study and in a similar configuration as the Korean CEI study.

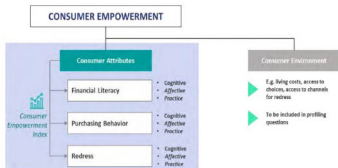
The overview of the proposed domains is presented in Figure 5 and each of the proposed domain composed of three subdomains, each determining an aspect of the domain from knowledge to practice:

Figure 5: Overview of the instrument and the summary of definition of each subdomain



Based on the inputs gathered from in-depth interviews with stakeholders, the study has found consistent emphasis and concerns on the consumer environment, which are conditions or facts outside of the control of the individual consumer. For example, an empowered consumer would not have the chance to exert his/her rights if the environment does not allow him/her to use the consumer skills – either because of prohibitive costs (rising cost of living) or lack of access to product choices (access to goods in rural areas). Therefore, the study also proposed to include an additional section comprised of profiling questions (spending on basic necessities, issues encounter for e-commerce and non-e-commerce, consumer information channels) within the instrument aimed at identifying the consumer environment, which will also contribute to the direction of future policies, as shown in Figure 6.

Figure 6: Structure of the instrument



3.4 Proposed Instrument

The measuring instrument for the index is the questionnaire. The questions were designed and/or adapted based on:

- Reference of the instruments/questionnaires of respective benchmarked countries;
- Inputs from the in-depth interviews with respective stakeholders.

Furthermore, the instrument should as much as possible be insensitive to socio-economic environment of the respondents, while also adhering to the objectives of the study. Hence, the following factors below were taken into consideration while formulating the instrument:

- Comprehension: Questions should be formulated in a familiar language (e.g. the native language of the respondent) and should be easy to understand (i.e. the conveyed message is similar to both the researcher and the respondent);
- Urban/rural differences: Education level as well as living environment should be taken into consideration in order to avoid urban bias (e.g. investment related questions);
- Precision: Double-barreled questions (i.e. two topics in one question) should be avoided.

The draft questionnaire is also a combination of direct, test-like questions (within the Cognitive subdomain) and self-report questions (within the Affective and Practice subdomains). This is in line with benchmarked indices, and also with the methodology used in the 2013 study. Examples for the types of questions can be referred to Section 3.4.1.

3.4.1 Types of Questions

- Example of Test-like Question - Single Choice Question

If a pair of RM 100 jeans is offered at 50% plus 20% discount, how much is the final price? <i>Jika sepasang jeans yang berharga RM 100 ditawarkan diskaun sebanyak 50% ditambah 20%, apakah harga akhirnya?</i>	
RM 30	☐
RM 40	
Not Sure / Tidak Pasti	

ii. Example of Test-like Question - Multiple Choices Question

Which are the courts that the consumers can go to when they want to seek redress? "Redress" covers remedy, compensation and repayment.

Antara berikut, yang manakah merupakan mahkamah yang pengguna boleh pergi untuk mendapatkan pembelaan? "Pembelaan" merangkumi pemulihan, pampasan dan bayaran semula.

Civil courts only / Mahkamah Sivil sahaja	☐
Tribunal for Consumer Claims only / Tribunal Tuntutan Pengguna sahaja	☐
Tribunal for Consumer Claims and civil courts / Mahkamah Sivil dan Tribunal Tuntutan Pengguna	☐
Not Sure / Tidak Pasti	☐

iii. Example of Self-Report Question

I am confident with my general knowledge about financial matters. <i>Saya rasa yakin dengan pengetahuan kewangan saya.</i>	1 Not at all confident <i>Sangat tidak yakin</i>	2 Slightly confident <i>Kurang yakin</i>	3 Fairly confident <i>Agak yakin</i>	4 Very confident <i>Yakin</i>	5 Extremely confident <i>Sangat yakin</i>
---	--	--	--	---	---

3.4.2 Rating Scale

Two types of numerical rating scale were used in the current questionnaire - likert scale and semantic differential rating scale (e.g. importance). The respondents were asked to rate the statements in the questionnaire according to their level of agreement or perception: (i) importance; (ii) confidence; (iii) frequency and (iv) agreement.

i. Importance Scale

I think it is important to save from my monthly income. <i>Saya berpandangan lanya adalah penting untuk menyimpan duit sebagai simpanan daripada gaji bulanan.</i>	1 Not at all important <i>Tidak penting langsung</i>	2 Slightly important <i>Kurang penting</i>	3 Fairly important <i>Penting</i>	4 Very important <i>Agak penting</i>	5 Extremely important <i>Sangat penting</i>
---	--	--	---	--	---

ii. Confidence Scale

I am confident with my general knowledge about financial matters. <i>Saya rasa yakin dengan pengetahuan kewangan saya.</i>	1 Not at all confident <i>Sangat tidak yakin</i>	2 Slightly confident <i>Kurang yakin</i>	3 Fairly confident <i>Agak yakin</i>	4 Very confident <i>Yakin</i>	5 Extremely confident <i>Sangat yakin</i>
---	--	--	--	---	---

iii. Frequency Scale

If I cannot afford an expensive mobile phone, I think it is okay to buy it through a loan. <i>Saya rasa elok membeli telefon bimbit melalui pinjaman jika saya tidak mampu membelinya</i>	1 Never <i>Tidak pernah</i>	2 Rarely <i>Jarang</i>	3 Sometimes <i>Kadang-kala</i>	4 Often <i>Kerap</i>	5 Always <i>Sentiasa</i>
--	---	--	--	--	--

iv. Agreement Scale

I think it is a waste of money to buy health insurance and/or Takaful. <i>Saya rasa ia amat membazir untuk membeli insurans kesihatan dan/atau Takaful.</i>	1 Strongly Disagree <i>Sangat tidak setuju</i>	2 Disagree <i>Tidak setuju</i>	3 Agree <i>Setuju</i>	4 Strongly Agree <i>Sangat setuju</i>
--	--	--	---	---

3.5 Stakeholder Workshop

The objective of the stakeholder workshop was to provide an open forum to discuss the draft instrument and also to consolidate opinions from stakeholders, policymakers and NGOs, leading to a finalized questionnaire to be used during the Pilot Study. The proposed domains, external factors, subdomains and questions for the instrument were presented and discussed during the workshop, which was held on 5 December 2019 at Zenith Hotel, Putrajaya.

The workshop was attended by internal project stakeholders from KPDNHEP and representatives from NGOs. Kindly refer to Appendix 1 for the list of attendees of the workshop.

Figure 7: Stakeholder Workshop at Zenith Hotel, Putrajaya



The key activities from the workshop are summarized as follows:

1. Introduction to the study:

Participant were briefed on the background and history of the study. They were also briefed on the approach and methodology undertaken to-date – summary of benchmarking and in-depth interviews.

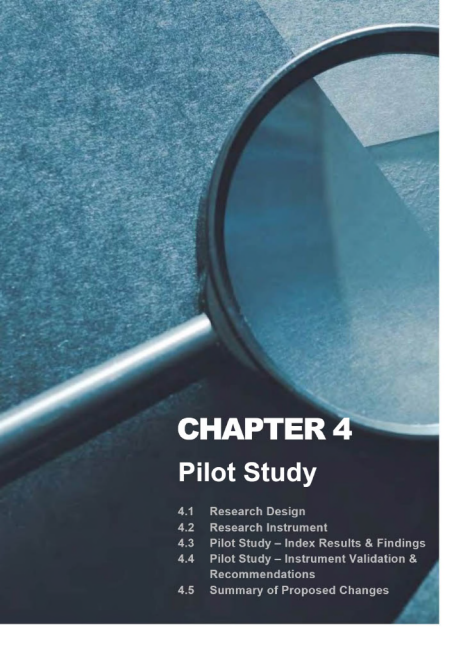
2. Presentation of index design:

An overview of the instrument was introduced to the participants. The instrument was comprised of two sections namely Consumer Environment (external factors) and Consumer Attributes. In addition, the pre-established definition of each domain and its respective subdomains were presented, along with the justification. Consensus was obtained from all the stakeholders prior to the presentation of questions.

3. Assessment of questions based on profiles and domains:

Participants were presented with the proposed questions for each section: the presentation began with the profiling questions and followed by the questions corresponded to each subdomains of each domain. Each session would be paused for collaborative discussion, that is – the participants were given time to validate and voice out their opinions and/or critiques based on their expertise. A conclusion and/or modification would only be made upon agreement from all parties.

After each segment the floor was opened for discussion, where participants were able to provide suggestions, feedback or seek clarification. The process resulted in a number of revisions to instrument agreed by consensus, which are compiled in Appendix 2. The revised instrument was sent to KPDNHEP for validation and finalized for the Pilot Study (Section 4).



CHAPTER 4

Pilot Study

- 4.1 Research Design
- 4.2 Research Instrument
- 4.3 Pilot Study – Index Results & Findings
- 4.4 Pilot Study – Instrument Validation & Recommendations
- 4.5 Summary of Proposed Changes

4. Pilot Study

The Pilot Study was commenced shortly after finalization of the draft instrument, with the purpose of providing a practical assessment and validation of the instrument prior to the nationwide roll-out. The results of the fieldwork were analysed using both quantitative (statistical) and qualitative methods, where the study proposed modifications to the questionnaire based on justification from the results.

4.1 Research Design

The fieldwork of the Pilot Study occurred over the course of 14 days starting from 23 December 2019 to 10 January 2020. A total of 415 individuals were interviewed nationwide, including 207 respondents from Klang Valley. Target respondents were Malaysians aged 18 years old and above, living in the five regions of Malaysia: North, East Coast, Central, South, Sabah and Sarawak. The coverage for the regions was market centres (urban areas) and rural areas. The survey used proportional quota sampling for the state and strata.

Data was collected via a face-to-face interview carried out in respondents' homes and/or mall interception by specially trained interviewers using Computer Assisted Personal Interviewing (CAPI). The surveys were conducted in either English or Malay. The interviewers would read the questions (in accordance to the language chosen by the respondent: English or Malay) and responses were keyed in directly onto a tablet. Explanation of certain terminologies might be required from the interviewers if the respondents did not understand the questions. The median survey completion time was around 32 minutes.

Besides that, statement rotation was employed during the fieldwork, where the order of the domains, subdomains and questions may appear in different orders to different respondent. As shown in Figure 8, this approach has the advantage of distributing the effects of respondent fatigue, and hence preventing accumulation of disengaged responses on questions near the end of the survey.

Figure 8: Example of the approach of Statement Rotation



4.2 Research Instrument

The pilot survey instrument consisted of 78 questions divided into three different domains comprising of three subdomains each examining the level of consumer empowerment of the respondents. The instrument also included 11 questions corresponding to the consumer environment. The full pilot instrument can be referred to in Appendix 3 (Section 8 for questions on the consumer environment). A summary of the three domains of the instrument is shown in Table 11.

Table 11: Overview of the pilot instrument

	 Financial Literacy	 Purchasing Decision	 Redress
Cognitive	➤ Understanding of inflation ➤ Understanding of interest rates ➤ Card fees and instalments ➤ Illegal lending	➤ Understanding of pricing ➤ Controlled goods ➤ Malpractices ➤ Labels	➤ General actions ➤ Avenues for redress
Affective	➤ Financial management & financial knowledge ➤ Consumption attitude & insurance	➤ Pre-purchase & during purchase ➤ Online purchase ➤ General	➤ Rights to redress ➤ Taking initiative
Practice	➤ Budgeting & saving ➤ Investing decision	➤ Pre-purchase & during purchase ➤ General	➤ Rights to redress ➤ Taking initiative

4.3 Pilot Study – Index Results & Findings

This section presents the index results of the Pilot Study and is intended to provide an indicative snapshot of the consumer empowerment landscape in Malaysia. Analysis of the pilot results relating to validation of the instrument is presented in Section 4.4.

The results are preliminary and for internal use, as substantial differences are expected between the pilot index results and the nationwide study due to:

1. The instrument used in the nationwide study will be different due to proposed changes and refinement of the questionnaire;
2. The domain and subdomain weights are assumed to be equal (0.33 for each subdomain, domain) as the weights have yet to be finalized;
3. No response weighting is applied to the data.

These results are based on all 415 samples obtained across all states in Malaysia conducted over the course of two weeks from 23 December 2019 to 10 January 2020.

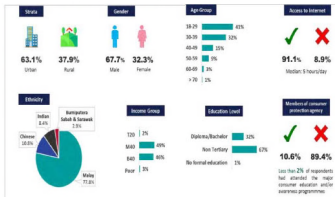
Overall, the preliminary index score achieved was 64.17 for the Pilot Study, where the Purchasing Decision domain scored the highest at 69.82, followed by Finance Literacy domain at 63.91 and Redress domain at 58.78.

4.3.1 Respondent Profile

Majority of the respondents lived in urban areas (63.1%), with a total of 281 (67.7%) of male respondents and 134 female respondents (32.3%). Besides that, most of the respondents were those aged between 18-29 years old (41%), followed by 30-39 years old (32%) and 40-49 years old (15%). A total of 323 respondents were Malay (77.8%), 45 respondents were Chinese (10.8%), 47 respondents were Indian and Bumiputera from Sabah and Sarawak (11.3%).

Most of the respondents belonged to the low and middle-income groups: B40 (46%) and M40 (49%). In terms of education, majority of the respondents received non tertiary education (67%). On the other hand, more than 90% of the respondents had access to the internet (five hours per day) and less than 2% of respondents had attended the consumer education and/or awareness programmes organized by KPDNHEP, more specifically Consumer Interactive Challenge for School Consumer Club (1.4%) and/or Graduate Student Consumer Movement (1.7%). A summary of the respondent profile is shown in Figure 9.

Figure 9: Summary of respondent profile for the Pilot Study



4.3.2 Index Calculation

Score mapping

Responses to all items were normalized for the purpose of score calculation, i.e. responses were mapped to a corresponding score between 0 and 1 (or 0% to 100%).

- i. Test-like questions - single choice

Response	Score
Correct	1
Wrong	0
Not Sure	0

Score +1 was granted to a correct response and 0 for a wrong or "Not Sure" response.

- ii. Test-like questions - multiple choices

Example 1: 4 correct answers

Number of correct responses	Score for each correct response (c)	Calculation Method (1-c)	Total Score
4	0.25 /	1	1
3		$1 - 0.25$	0.75
2		$1 - (0.25 \times 2)$	0.50
1		$1 - (0.25 \times 3)$	0.25
0 or Not Sure		0	0

Example 2: 3 correct answers

Number of correct responses	Score for each correct response (c)	Calculation Method (1-c)	Total Score
3	1/3	1	1
2		$1 - 1/3$	2/3
1		$1 - (1/3 \times 2)$	1/3
0 or "Not Sure"		0	0

Based on the examples above, questions were awarded 1 point if answered correctly. Scores for partially correct responses were calculated by subtracting the number of correct responses (c) from the total number of correct answers (score 1). Score 0 was given to all the wrong and/or "Not Sure" responses.

iii. 4-point scale questions

Points of Scale / Type of Questions	Score	
	Positive	Negative
4	1	0.25
3	0.75	0.50
2	0.50	0.75
1	0.25	1

Scores were calculated by dividing the number of scale items (4) by 1 and were increased (by points of scale: +0.25/point) in an ascending (positive statement: *"I understand all the product information on the item packaging."*) or descending order (negative statement: *"I think it is a waste of money to buy health insurance and/or Takaful."*) based on the type of questions and/or statements.

iv. 5-point scale questions

Points of Scale / Type of Questions	Score	
	Positive	Negative
5	1	0.20
4	0.80	0.40
3	0.60	0.60
2	0.40	0.80
1	0.20	1

Each point of scale was granted a score of 0.20. Similar to the 4-point scale questions, scores were increased in an ascending or descending order based on the type of questions and/or statements.

Index Formula

The current index calculation applies an equal weightage (0.33) for each subdomain in the domain score, and a similarly equal weightage for each domain (0.33). The weightages are subjected to change pending stakeholder consultation on the final weightages to be applied on the nationwide study.

The calculation also assumes all questions have equal weightage, with the exception of DA7 and EA10 where they appear as multiple questions within the questionnaire. In each of these questions, all sub-questions were combined into a single normalized score.

$$\text{Subdomain Score} = \sum \frac{\text{Question Score}}{\text{Total Questions}}$$

$$\text{Domain Score} = \sum \text{Subdomain Score} \times \text{Weightage}$$

$$\text{Index Score} = \sum \text{Domain Score} \times \text{Weightage}$$

where weightage is 1/3 or 0.33

4.3.3 Index Score

Table 12: Overview of the index scores correspond to each subdomain

	 Cognitive	 Affective	 Practice	Overall CEI 2020 Score
Financial Literacy	62.6	64.8	64.4	64.2
Purchasing Decision	66.9	70.6	72.0	
Redress	49.3	56.3	70.9	

Overall, the preliminary CEI 2020 score achieved was 64.2 for the Pilot Study, where the Purchasing Decision domain scored the highest at 69.8, followed by Finance Literacy domain at 63.9 and Redress domain at 58.8.

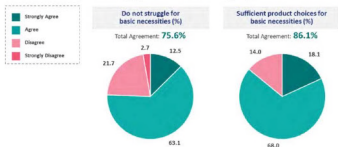
In general, respondents scored lowest in Cognitive subdomain of Redress domain, followed by Financial Literacy domain and Purchasing Decision domain. Besides that, the highest CEI 2020 score for Affective subdomain was found in Purchasing Decision domain, followed by Financial Literacy domain and Redress domain. In terms of Practice subdomain, respondents scored lowest in Financial Literacy domain, followed by Redress domain and Purchasing Decision domain.

4.3.4 Consumer Environment

The results in this section are preliminary and reserved for internal use, as substantial differences are expected between the Pilot Study and the nationwide field work because of refinement of the instrument; weightages applied to respective domains and subdomains; and response weighting applied to the data.

Basic Necessities

Figure 10: Percentage of Malaysian consumers who do not struggle to afford for basic necessities and possess enough product choices while shopping for basic necessities



Basic necessities are defined as food and beverages, housing, water, electricity, gas, fuels and transportation.

Figure 10 showed that in general, 75.6% of Malaysian consumers agreed (including strongly agree) that they do not struggle to afford basic necessities, with no significant difference between urban (with 71.0% of agreement) and rural respondents (with 83.7% of agreement). In addition, analysis demonstrated that 86.1% of Malaysian consumers agreed (including strongly agree) that they have enough product choices while shopping for basic necessities.

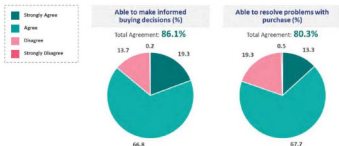
This result was consistent for both urban and rural respondents (with around 85.0% of agreement).

On the other hand, it was noted that respondents aged above 60 years old and those who belong to the “poor” category struggle to afford basic necessities. These groups of people also thought that they do not have enough product choices while shopping for basic necessities.

In general, most respondents do not face issues with basic necessities while a sizable proportion indicated that it is a struggle to afford basic necessities.

Consumer Confidence

Figure 11: Percentage of Malaysian consumers who are able to find enough information to make an informed buying decision and are able to resolve a problem with their purchase



Based on Figure 11, 86.1% of Malaysian consumers agreed that (including strongly agree) that they are able to find sufficient information to make an informed buying decision: with 88.6% agreement for urban consumers and 81.7% of agreement for rural consumers.

However, analysis showed that income level plays a significant role in this section: only 41.7% of “poor” consumers agreed that they have enough information to make an informed buying decision, in comparison to B40 group (82.2% of agreement), M40 group (92.1%) and T20 group (90.0%). Results also demonstrated that only 36.4% aged 60 years old and above agreed that they are able to find enough information to make an informed buying decision.

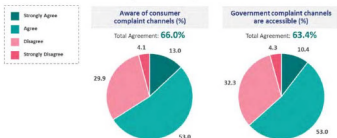
Besides that, analysis showed that 80.3% of Malaysian consumers agreed (including strongly agree) that they are able to resolve a problem with their purchase. Study also showed that education level and income level play an important role in this section: more than 85.0% of respondents with higher education (e.g. diploma level and above) and/or income level (e.g.

M40 and above) agreed that they are able to resolve a problem with their purchase and thought that it is important to buy or use environmentally friendly products.

Respondents generally felt they can make informed decisions and resolve the problems arising from those purchases.

Complaint Channels

Figure 12: Percentage of Malaysian consumers who are aware of all available complaint channels and think that government complaint channels are accessible



Results in Figure 12 showed that more than 60.0% of Malaysian consumers agreed (including strongly agree) that they are aware of all available complaint channels (with 66.0% of agreement) and generally think that government complaint channels are accessible (with 63.4% of agreement). No significant difference was discovered between urban and rural respondents (with around 1% of difference).

Nevertheless, analysis demonstrated that around 70% of respondents aged between 30-39 years old, with higher education (e.g. diploma and/or bachelor level) and/or income level (e.g. M40 group) agreed that they are aware of all the complaint channels and generally think that government complaint channels are accessible.

In general, awareness of consumer complaint channels and perception of the accessibility of government channels are relatively lower, indicating that there are room of improvement for the accessibility of the complaint channels.

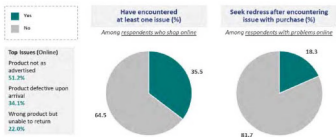
Online Shopping

Figure 13: Percentage of Malaysian consumers who shop online and the ones who shop on social media platform



The results in Figure 13 showed that there were 55.7% of Malaysian consumers who shopped online. In addition, 58.9% of the respondents who shopped online purchased products from sellers on social media platform. In general, more than half of respondents shopped online, and many of them also purchased products on social media despite the risks.

Figure 14: Percentage of Malaysian consumers who encountered problem with their online purchase in the past 12 months and those who seek redress



The results in Figure 14 showed that there were 35.5% of Malaysian consumers who shopped online encountered problems with their purchase in the past 12 months, but analysis showed that only 18.3% of them sought redress for their purchase. The most frequent problems encountered were “product is not as advertised” (51.2%; 42 cases), followed by “product defective upon arrival” (34.1%; 28 cases) and “wrong product but unable to return” (22.0%; 18 cases).

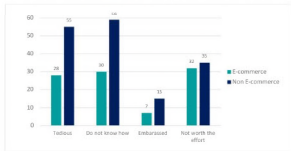
Non-E-Commerce

Figure 15: Percentage of Malaysian consumers who encountered problem with their offline purchase in the past 12 months and those who seek redress



Based on the Figure 15, 30.4% of Malaysian consumers who shopped offline encountered problems with their purchase in the past 12 months, but analysis showed that only 15.1% of them sought redress for their purchase. Among respondents who encountered problem with their purchase, the most frequent problems encountered were “product is not as advertised” (39.7%; 50 cases), followed by “product defective” (38.0%; 48 cases) and “price not same as price tag” (37.3%; 47 cases).

Figure 16: Reasons of not seeking redress for the problems encountered during online and/or offline purchase



Based on Figure 16, the most common reasons given by the respondents were: “Do not know how” (for offline purchase) and “Not worth the effort”. In addition, “Tedious” was also one of the most common reasons that prohibited respondents from filing their complaints.

4.4 Pilot Study – Instrument Validation & Recommendations

This section presents an analysis of the validity of the measuring instrument, based on the Pilot Study, as well as recommendations by the study on items to remove from their respective domain. It is divided into the following subsections:

- i. **4.4.1 Methodology** – explanation of the quantitative and qualitative methods used in the analysis;
- ii. **4.4.2-4.4.4 Descriptive Statistics and Analysis by Domains** – analysis and recommended changes to the instrument for each of the subdomains within their respective domains (4.4.2 Financial Literacy, 4.4.3 Purchasing Behaviour, 4.4.4 Redress);
- iii. **4.4.5 Summary of Proposed Changes** – summary of proposed modifications to the instrument.

The full instrument used in the Pilot Study can be referred to in Appendix 3.

4.4.1 Methodology

Subset of Responses

The analysis in this section uses a subset of the responses gathered during the Pilot Study fieldwork. Specifically, the analysis relies only on respondents within the Klang Valley (Selangor and WP Kuala Lumpur), totalling 206 respondents out of a total of 415 gathered.

This subset was chosen as part of the design of the Pilot Study, as it was posited that a more localized set of consumer responses would be a more accurate subdomain of the validity of the instrument. This is due to the substantial expected (and eventually observed) variations in the consumer landscape between different regions within Malaysia (e.g. Peninsular Malaysia vs Sabah and Sarawak, West vs East Coast, Central region rural vs Eastern region rural, etc.). These regional characteristics could skew the analysis of responses for individual items, in particular their variances, which in turn could affect the validity of proposed modifications. As such, the fieldwork was also designed with a disproportionate focus on the Klang Valley.

Instrument Validation

The analysis of responses is principally divided into two parts: 1) for the Cognitive subdomain, 2) for the Affective and Practice subdomains. This division is primarily due to differences in questioning method for the subdomains – for the Cognitive subdomain, only test-like questions were used; while for the Affective and Practice subdomains, only self-report questions were used. The choice of question types was endemic to the objectives of each subdomain, e.g. the Cognitive subdomain had to be test-like as the subdomain was set up to

assess the respondent's knowledge, while the Affective and Practice subdomains had to be self-report as these attributes were mostly unverifiable. A discussion on the use of each question type can be referred to in section 6 (Conclusions - Construct Measurement) of the Inception Report.

In recommending modifications to the instrument, the study uses both quantitative and statistical methods, as well as qualitative reasoning. For example, some items could show an insufficient fit according to statistical methods but could be justifiably retained due to stakeholder concerns and insights obtained during consultation. In this case, the justification will be provided in the respective subsections.

For the Cognitive subdomain where the questions are test-like, remapped responses are mostly binary (true or false) as they are single-response questions where the resulting score can only be 0 or 1. This results in significant less variation in responses (compared to remapped scale, self-report questions) for the same sample size. Furthermore, by definition, the Cognitive subdomain aims to assess knowledge in multiple areas, and hence are not expected to be unidirectional or factor adequately. Hence, the quantitative analysis primarily relies on:

- i. Communalities – where each item is checked for relevance (extraction >0.4) with those less than the threshold being candidates for removal;
- ii. Question understanding & relevance – where the percentage of respondents responding “not sure” for each question is measured. All test-like questions have an option for “not sure” to minimize respondent guessing, and a high proportion of respondents answering “not sure” could signal the question as a candidate for removal.

For the Affective and Practice subdomains where the questions are self-report, the primary quantitative method is through Reliability Testing, where calculation of Cronbach's Alpha (“Alpha”) is used to determine if the subdomain is unidirectional, where the alpha coefficient is ideally above 0.6.

Kindly refer to Appendix 4 for the statistical analysis of the Pilot Study.

4.4.2 Financial Literacy

Financial Literacy – Cognitive

Table 13: Summary of responses for Financial Literacy domain, Cognitive subdomain

Question No.	Question Details	Correct (%)	Not Sure (%)
CA1	The same products cost more due to high inflation, compared with few years ago (before inflation).	74.40	14.01
CA2*	Which of the following represents the best interest rate if you were taking a RM 300,000 fixed-rate mortgage of 30 years?	44.44	29.47
CA3*	For a 10-year loan, flat interest rate is lower than a reducing principal rate (monthly rest).	23.67	31.88
CA4	Suppose you put RM 100 in the bank at an interest rate of 10% per year. Will you receive more interest in the 2nd year compared to the 1st year?	61.84	13.53
CA5	Retailers can charge me a fee for using my debit / credit card to pay for a purchase.	64.25	6.76
CA6	If I would need to buy a refrigerator, which would be the lower amount I would pay?	82.61	2.90
CA7	I can provide my ATM card as a collateral for a loan.	93.24	2.90
CA8	Illegal money lenders (e.g. Ah Long) can be approached as a last resort for financial problems.	95.65	0.48

*Items not conforming to analysis

Table 14: Communalities for Financial Literacy domain, Cognitive subdomain

Question No.	Initial	Extraction
CA1	1.000	0.628
CA2	1.000	0.668
CA3	1.000	0.653
CA4	1.000	0.618
CA5	1.000	0.683
CA6	1.000	0.619
CA7	1.000	0.697
CA8	1.000	0.719

Extraction method: Principal Component Analysis

According to Table 14, the extracted communalities were above 0.40 for all items. However, questions CA2 (29.5%) and CA3 (31.9%) had a high proportion of “not sure” responses,

indicating potential issues with these two items. With regards these two questions, this study proposes:

- i. For **CA2**: Fieldwork has identified that some respondents were confused with the wording of the questions, specifically the word 'mortgage' and 'gadai janji'. Hence, this can question may be rephrased:

Old	Rephrased
Which of the following represents the best interest rate if you were taking a RM 300,000 fixed-rate mortgage of 30 years? <i>Antara berikut, yang manakah mewakili kadar faedah terbaik untuk gadai janji (kadar tetap) yang berjumlah RM 300,000 selama 30 tahun?</i>	For a RM 300,000 housing loan for 30 years, which of the following represents the best interest rate? <i>Bagi pinjaman perumahan yang berjumlah RM 300,000 selama 30 tahun, antara berikut yang manakah mewakili kadar faedah terbaik?</i>

- ii. For **CA3**: The study proposes to retain the question without modification, as stakeholders have indicated that the understanding of different interest-rate calculation methods is considered important financial knowledge, and hence a high-proportion of 'not sure' responses corresponding to a lower score is a correct interpretation.

Financial Literacy – Affective

Table 15: Reliability Testing details for Financial Literacy domain, Affective subdomain

Question No.	Question Details	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
CB1	I think it is important to save from my monthly income.	4.367	0.663	0.488	0.359
CB2	I think it is important to set a short-term and long-term financial goal to do well in financial management.	4.374	0.674	0.392	0.384
CB3	I am confident with my general knowledge about financial matters.	4.467	0.665	0.413	0.376
CB4	I am confident that I can choose the right financial product (e.g. loan, fixed deposit, mutual fund, etc.) for myself.	4.491	0.692	0.294	0.416
CB5*	I am confident with my knowledge about Islamic financial products such as Islamic Banking and Takaful.	4.512	0.792	-0.019	0.537
CB6*	If I have extra money, I find it more satisfying to spend money than to save it for the future.	4.696	0.777	-0.019	0.549

As shown in Table 62, the Cronbach's Alpha value showed a high reliability score of 0.836, meaning that this subdomain has good reliability and construct validity. Nevertheless, the results showed that the reliability of the model could be improved by removing question DB8. In addition, the study also proposed to reduce the number of items for brevity (to reduce the length of the survey), as the number of questions in this subdomain is markedly higher than that of others:

- i. For **DB8**: Based on the feedback obtained from the in-depth interviews as well as the stakeholder workshop, this question is proposed to be retained as issues with social media purchases have high incidence for both government and NGO channels. Furthermore, the alpha coefficient for this subdomain already indicated good reliability.
- ii. For **DB1**: Suggest to remove for brevity as it is implied by question DB3, where DB3 also has a more practical context.
- iii. For **DB6**: Suggest to remove as it is implied by DB7, and may not be relevant to all consumers.
- iv. For **DB2**: Suggest to remove because this question does not provide correct information. For instance, most of the respondents would think that they are responsible consumers. This is also due to the number of questions in this subdomain.
- v. For **DB4** and **DB5**: Suggest to combine these two questions. This is because DB5 can be implied by DB4. Besides that, DB5 also has a slightly lower impact on the alpha coefficient compared to DB4. Hence, these two questions could be modified to:

Old	Rephrased
DB4: I think it is important to look at the terms and condition when buying and/or subscribing to a service. <i>Saya berpandangan ia adalah penting untuk melihat terma dan syarat semasa membeli dan/atau melanggan sesuatu perkhidmatan.</i> DB5: I understand all the product information on the item packaging. <i>Saya faham semua maklumat yang ada pada bungkusan produk.</i>	I think it is important to look at the terms and condition when buying and/or subscribing to services as well as understand all the product information on the item packaging. <i>Saya berpandangan ia adalah penting untuk melihat terma dan syarat semasa melanggan sesuatu perkhidmatan dan juga memahami semua maklumat yang ada pada bungkusan produk.</i>

4.4.4 Redress

Redress – Cognitive

Table 21: Summary of responses for Redress domain, Cognitive subdomain

Question No.	Question Details	Correct (%)	Not Sure (%)
EA1	Suppose you order a home appliance online; do you think you have the right to return it without giving any reason?	45.41	3.38
EA2*	Items purchased through door-to-door sales (direct sales) can be returned within 10 working days.	38.65	34.30
EA3	If a product purchased has a defect causing a bodily injury, the business and / or manufacturers can be sued.	65.70	13.04
EA4	Boycott is an act of consumerism against unethical business (e.g. unreasonable pricing, cheating).	76.81	7.73
EA5	Which are the courts that the consumers can go to when they want to seek redress? "Redress" covers remedy, compensation and repayment.	47.34	10.63
EA6	Which of the following channel(s) you can use to lodge complaints to KPDNHEP? Please select all that applies (multiple choices).	7.25	7.25
EA7a	Which government agency handles the complaints of overpricing of a product?	92.27	4.83
EA7b		42.51	6.76
EA7c		71.98	5.80
EA7d		73.91	5.80
EA7e		72.46	9.66
EA8	Which of the following is/are covered by legislation to protect consumers? Please select all that applies (multiple choices).	19.81	12.08
EA9*	Can you name an NGO that is involved in consumer protection?	4.83	94.69

*Items not conforming to analysis

Table 22: Communalities for Redress domain, Cognitive subdomain

Question No.	Initial	Extraction
EA1	1.000	0.746
EA2	1.000	0.671
EA3	1.000	0.466
EA4	1.000	0.488
EA5	1.000	0.421
EA6	1.000	0.591
EA7	1.000	0.654
EA8	1.000	0.557
EA9	1.000	0.746

Extraction method: Principal Component Analysis

Based on Table 22, the extracted communalities were above 0.40 for all items. According to Table 21, EA2 and EA9 had a high proportion of “not sure” responses at 34.3% and 94.69% respectively. The study proposed:

- i. For EA2: Given that door-to-door sales may not be as relevant in the advent of e-commerce channels, the study suggests to rephrase this question by replacing “door-to-door sales” with “direct sales”:

Old	Rephrased
Items purchased through door-to-door sales (direct sales) can be returned within 10 working days. <i>Produk yang dibeli melalui jualan pintu ke pintu (jualan langsung) boleh dikembalikan dalam tempoh 10 hari bekerja.</i>	Items purchased through direct sales can be returned within 10 working days. <i>Produk yang dibeli melalui jualan langsung boleh dikembalikan dalam tempoh 10 hari bekerja.</i>

- ii. For EA9: The high proportion is due to a lack of a “No” response in the question. It is suggested to add a “No” response within the answer field, and to retain the question as
 - 1) the question has been highlighted as important amongst stakeholders;
 - 2) the question could also serve as a profiling question for the relative awareness of NGOs.

Redress – Practice

Table 24: Reliability Testing details for Redress domain, Practice subdomain

Question No.	Question Details	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
EC1	If the seller refuses to exchange my purchase even though the product is defective (within the warranty period), I will file a complaint to consumer related institution.	3.959	1.792	0.697	0.892
EC2	I will follow-up with the complaint that I have made with the online seller if no action is taken within a certain period of time.	3.961	1.716	0.750	0.886
EC3	I will file a complaint if I think I am unfairly charged (e.g. mobile plan, etc.).	3.914	1.731	0.788	0.881
EC4	I share information about bad purchasing experiences with others.	3.914	1.868	0.654	0.896
EC5	I leave reviews for my online purchases.	4.005	1.788	0.652	0.898
EC6	I am willing to use a proper channel to file a complaint against an unethical business regardless of the price of the product.	3.933	1.804	0.769	0.885
EC7	If a company or a seller is selling a product at an unreasonable rate, I will share the information with my family and friends and boycott the company or seller.	3.904	1.856	0.713	0.891

For this subdomain, as shown in Table 69, the Cronbach's Alpha value demonstrated a high reliability score of 0.904, indicating good reliability and construct validity. No modification is required given that the number of questions is consistent with other subdomains.

4.5 Summary of Proposed Changes

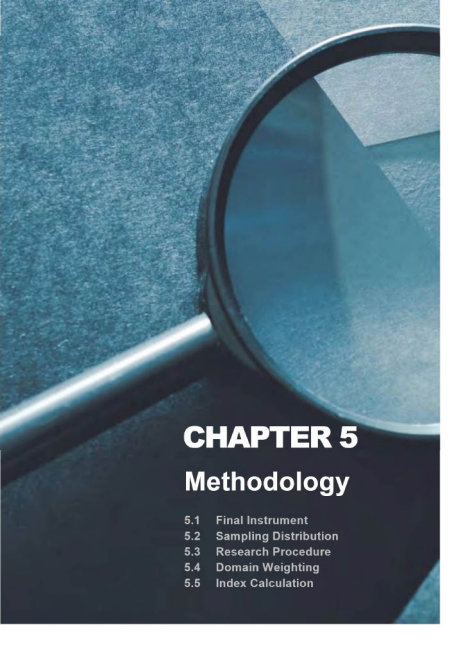
Table 25: Summary of proposed modifications for each subdomain

Domain	Subdomain	Modification
Financial Literacy	Cognitive	➤ Rephrase question CA2: "mortgage" to "housing loan".
	Affective	➤ Move question CB5 to Profiling Section (Section B). ➤ Rephrase question CB6: "satisfying" to "beneficial".
Purchasing Decision	Cognitive	➤ Replace the table (nutritional value) in question DA9 with a simplified table.
	Affective	➤ Remove question DB1. ➤ Remove question DB2. ➤ Combine questions DB4 and DB5. ➤ Remove question DB6.
Redress	Cognitive	➤ Rephrase question EA2: "door-to-door sales" with "direct sales". ➤ Add a "No" response to question EA9.
	Affective	➤ Remove question EB3.

Based on the input from stakeholders, the "Government Sector" option will be added to question A13. In addition, two profiling questions will also be added in Section B ("Consumer Environment" based on input from stakeholders) to understand the respondents' perspective on the current economic situation. These questions could contribute to future consumer policy direction:

	1 Deteriorate	2 Decline	3 Same	4 Good	5 Better
What do you think about the current economic situation compared to 3 years ago?					
How will the economic situation change in the next 3 years?					

Refer to Appendix 5 for the finalized questionnaire.



CHAPTER 5

Methodology

- 5.1 Final Instrument
- 5.2 Sampling Distribution
- 5.3 Research Procedure
- 5.4 Domain Weighting
- 5.5 Index Calculation

5. Methodology

5.1 Final Instrument

The final instrument consisted of 80 questions divided into three different domains comprising of three subdomains each examining the level of consumer empowerment of the respondents. The instrument also included 13 questions corresponding to the Consumer Environment. The full final instrument can be referred to in Appendix 5 (Section B for questions on the Consumer Environment). A summary of the three domains of the instrument is shown in Table 26.

Table 26: Overview of the instrument

	 Financial Literacy	 Purchasing Decision	 Redress
Definition	Ability to act as a prudent decision maker in managing household expenses, and in understanding basic financial issues relevant to most consumers.	Understanding and action on how to make an informed decision before and during a purchase.	Understanding of rights and assertiveness in seeking redress after a bad purchasing experience.
Examples	➤ Saving ➤ Budgeting ➤ Making payments on time ➤ Not falling for scams	Before purchase: research, compare prices During purchase: purchasing preferences, buying behaviour	➤ Knowledge about channel ➤ Propensity to share experiences
Number of Questions	➤ Cognitive: 8 ➤ Affective: 7 ➤ Practice: 8	➤ Cognitive: 13 ➤ Affective: 8 ➤ Practice: 7	➤ Cognitive: 13 ➤ Affective: 9 ➤ Practice: 7
Subdomains	Cognitive: <i>Knowledge and understanding of the consumer in managing household expenses and in understanding basic financial issues.</i> Affective: <i>Willingness to act of the consumer on their knowledge in managing household expenses and in understanding basic financial issues.</i>	Cognitive: <i>Knowledge and understanding of the consumer in making an informed purchasing decision.</i> Affective: <i>Willingness to act of the consumer on their knowledge in making an informed purchasing decision.</i>	Cognitive: <i>Knowledge and understanding of the consumer in seeking redress after a bad purchasing experience.</i> Affective: <i>Willingness to act of the consumer on their knowledge in seeking redress after a bad purchasing experience.</i>

	 Financial Literacy	 Purchasing Decision	 Redress
Subdomains	Practice: <i>Action and practice of the consumer in managing household expenses and in understanding basic financial issues.</i>	Practice: <i>Action and practice of the consumer in making an informed purchasing decision.</i>	Practice: <i>Action and practice of the consumer in seeking redress after a bad purchasing experience.</i>

5.2 Sampling Distribution

The quantitative survey was carried out using the final instrument as shown in Appendix 5, and the field work involved a combination of face-to-face (household and/or public intercept) and online interviews with consumers aged 18 and above across nationwide, in both urban and rural areas.

The detailed sampling was designed with social mapping in mind, where the objective was to provide adequate and representative sampling of districts. Hence, not all districts were covered to preserve sampling numbers, and the sampled districts were selected in such a way that they covered the different demographic characteristics of districts within the state. Kindly refer to Appendix 6 for the detailed sampling distribution.

5.3 Research Procedure

A number of 75 enumerators were involved in the face-to-face interviews. Each enumerator was equipped with a tablet, nametag, a set of questionnaires and a show card for the interview. In addition, they also carried an authorization letter endorsed by KPDNHEP.

Prior to interview, self-introduction accompanied with the explanation of the purpose of the study (including guidelines) was conducted by the enumerators. On the other hand, the enumerators would ensure that the respondents understood their participation in this study would be based on voluntary basis. There was a filter question for the respondents who had decided to join the survey in order to determine their eligibility (i.e. the respondents must be a Malaysian citizen). The nationwide fieldwork was launched during early March across all states and ended by the last week of August 2020.

During the MCO period Ipsos obtained the approval letter from the Ministry of International Trade and Industry (MITI) to continue to carry out face-to-face survey starting from 6 May 2020 by following the SOP established by the government.

5.3.1 Procedure during Movement Control Order (MCO)

Fieldwork was conducted via phone calls during the MCO period (including CMCO period) which was effective from 18 March 2020 to 9 June 2020. The potential respondents were recruited from Ipsos internal database based on the previous studies in which the respondent had given explicit consent to be re-contacted for future surveys. Calls were made by the enumerators to the potential respondents to check on their willingness to participate in the study. Prior to interview, self-introduction accompanied with the explanation of the purpose of the study (including guidelines) were conducted by the enumerators. For those who had opted to participate in this study, an appointment was set based on the availability of the respondent and the preference of interview platform (phone call or skype call).

Respondents were requested to download the Zoom / Skype application prior to the interview. The photo showcard was sent to the respondent right before the interview and the interview was conducted via the agreed platform and schedule. Similar to face-to-face interviews, explanation of certain terms was provided to the respondents during the interview to ensure the correct understanding of the questions.

5.3.2 Procedure during Conditional Movement Control Order (CMCO) and Recovery Movement Control Order (RMCO)

Face-to-face interviews were conducted during the period of CMCO and RMCO. Facemask, disposable glove and hand sanitizer were provided to the enumerators nationwide. The following precautionary measures were taken during the interviews:

1. Enumerators were required to wear facemasks all time during fieldwork;
2. Crowded places were avoided, and social distancing were practiced;
3. Frequent hand wash with soap or hand sanitizer before and/or after the survey;
4. Tablets were sanitized with antibacterial wet wipes after each interview session;
5. Respondents that looked sick (e.g. coughing or sneezing) were avoided;
6. The health of the enumerators was constantly monitored by prohibiting them from conducting interviews if they demonstrated any sign of sickness.

5.3.3 Quality Assurance (QA) Process

Level 1: Ensuring the interviewers quality

The interviewers were mostly highly experienced and had done similar nationwide fieldwork in other studies. They were also required to attend face-to-face briefing and training on quarterly basis. Interviewers also went through mock interviews and pilot tests prior to actual

fieldwork in order to understand the objective of the study and to familiarize with the interviewing process. A checklist of do's and don'ts was also provided to all interviewers.

Level 2: Data Collection Platform

A series of pilot tests and trials were conducted before the actual fieldwork to capture if there was any potential error with the data collection / interview platform. Logical checks and routings were also conducted to ensure the robustness of the platform.

Level 3: Quality Control (QC) team

Around 10%-20% of the total interviews were verified for QC purpose. The items being checked included:

- i. GPS / location of the interview;
- ii. length of interview; and
- iii. call-back to the respondents.

5.4 Domain Weighting

In calculating the index score, weights were applied at both the domain and subdomain levels. The weights were decided through balloting by government stakeholders, in line with benchmarked index studies in the EU and South Korea.

A total of 12 stakeholders submitted their proposed weights. The results of the balloting are shown in Table 27.

Table 27: Results of domain weighting exercise

Domain	Domain Weights			
	Normalized (Final)	Median	High	Low
Financial Literacy	30	30	50	10
Purchasing Decision	40	30	50	30
Redress	30	40	40	20

Domain	Subdomain	Subdomain Weights			
		Normalized (Final)	Median	High	Low
Financial Literacy	Cognitive	41	40	50	30
	Affective	31	30	40	10
	Practice	28	27.5	60	20
Purchasing Decision	Cognitive	41	40	70	33
	Affective	31	30	40	10
	Practice	28	27.5	33	20
Redress	Cognitive	33	34	40	25
	Affective	30	30	35	20
	Practice	37	37.5	50	30

5.5 Index Calculation

Score mapping

Responses to all items were normalized for the purpose of score calculation, i.e. responses were mapped to a corresponding score between 0 and 1 (or 0% to 100%).

- i. Test-like questions - single choice

Response	Score
Correct	1
Wrong	0
Not Sure	0

Score +1 was granted to a correct response and 0 for a wrong or "Not Sure" response.

- ii. Test-like questions - multiple choices

Example 1: Four correct answers

Number of correct responses	Score for each correct response (c)	Calculation Method (1-c)	Total Score
4	0.25 /	1	1
3		1 - 0.25	0.75
2		1 - (0.25 X 2)	0.50
1		1 - (0.25 X 3)	0.25
0 or Not Sure		0	0

Example 2: Three correct answers

Number of correct responses	Score for each correct response (c)	Calculation Method (1-c)	Total Score
3	1/3	1	1
2		$1 - 1/3$	2/3
1		$1 - (1/3 \times 2)$	1/3
0 or "Not Sure"		0	0

Based on the examples above, questions were awarded 1 point if answered correctly. Scores for partially correct responses were calculated by subtracting the number of correct responses (c) from the total number of correct answers (score 1). Score 0 was given to all the wrong and/or "Not Sure" responses.

iii. 4-point scale questions

Points of Scale / Type of Questions	Score	
	Positive	Negative
4	1	0.25
3	0.75	0.50
2	0.50	0.75
1	0.25	1

Scores were calculated by dividing the number of scale items (4) by 1 and were increased (by points of scale: +0.25/point) in an ascending (positive statement: *"I understand all the product information on the item packaging."*) or descending order (negative statement: *"I think it is a waste of money to buy health insurance and/or Takaful."*) based on the type of questions and/or statements.

iv. 5-point scale questions

Points of Scale / Type of Questions	Score	
	Positive	Negative
5	1	0.20
4	0.80	0.40
3	0.60	0.60
2	0.40	0.80
1	0.20	1

Each point of scale was granted a score of 0.20. Similar to the 4-point scale questions, scores were increased in an ascending or descending order based on the type of questions and/or statements.

Index Formula

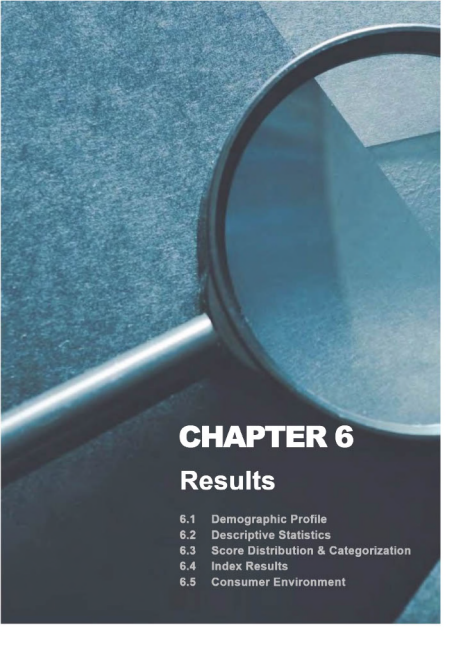
The calculation of the index scores follows the following formulas:

$$\text{Subdomain Score} = \frac{\sum \text{Question Score}}{\text{Total Questions}}$$

$$\text{Domain Score} = \sum \text{Subdomain Score} \times \text{Subdomain Weightage}$$

$$\text{Index Score} = \sum \text{Domain Score} \times \text{Domain Weightage}$$

where the domain and subdomain weights follow the finalized weights in the previous section



CHAPTER 6

Results

- 6.1 Demographic Profile
- 6.2 Descriptive Statistics
- 6.3 Score Distribution & Categorization
- 6.4 Index Results
- 6.5 Consumer Environment

6 Results

6.1 Demographic Profile

A total of 12,482 respondents participated in the CEI 2020 study – the unweighted demographic profile of the respondents is presented in Table 28.

Overall, the sampling by gender was close to parity, with a marginally higher proportion of male respondents (6,264, 50.2%) than female respondents (6,218, 49.8%). The average age was 38.3 years old, with the largest proportion falling within the 18-29-year-old age group (4,445, 35.6%). Ethnic Malays made up the largest percentage of respondents at 55.4% (6,914), followed by Chinese at 25.6% (3,198), Indians at 7.3% (911) and Other Bumiputera at 10.6% (Sabah 852, 6.8%, Sarawak 475, 3.8%). By design, a large majority of the respondents were from urban areas (8,173, 65.5%), and the rest from rural areas (4,309, 34.5%). The largest number of respondents were from Selangor (2,435, 19.5%), and the lowest were from WP Putrajaya (51, 0.4%).

In terms of education level, majority of respondents' highest educational attainment was at the SPM-equivalent level (6,600, 52.9%), followed by Diploma-equivalent (1,633, 13.1%) and PMR-equivalent (1,464, 11.7%). By household income, 66.1% or 8,253 respondents were from the B40 category, followed by 31.3% or 3,910 in the M40 category, and 2.6% or 319 in the T20 category. The full demographic profile of respondents is shown in Table 28.

Table 28: Respondents' demographic profile

Demographic Profile	n	%
Gender		
Male	6264	50.2%
Female	6218	49.8%
Age Group		
18-29	4445	35.6%
30-39	2711	21.7%
40-49	2261	18.1%
50-59	1626	13.0%
60-69	1266	10.1%
> 70	173	1.4%
Ethnicity		
Malay	6914	55.4%
Chinese	3198	25.6%
Indian	911	7.3%
Bumiputera Sabah	852	6.8%
Bumiputera Sarawak	475	3.8%
Others	132	1.1%
Strata		
Urban	8173	65.5%
Rural	4309	34.5%

Demographic Profile	n	%
Education level		
No Formal Education	419	3.4%
UPSR	883	7.1%
LCE/SRP/PMR	1464	11.7%
MCE/SPM/SPVM/O Level	6600	52.9%
STPM/STP/HSC/A Level	750	6.0%
Diploma	1633	13.1%
Bachelor's degree	668	5.4%
Masters/PhD	34	0.3%
Others	31	0.2%
Household Income		
B40 (RM 4,000 and below)	8253	66.1%
M40 (RM4,001 - RM10,000)	3910	31.3%
T20 (RM10,001 and above)	319	2.6%
State		
Perlis	100	0.8%
Kedah	808	6.5%
Penang	658	5.3%
Perak	1011	8.1%
Selangor	2435	19.5%
WP Kuala Lumpur	737	5.9%
WP Putrajaya	51	0.4%
Negeri Sembilan	399	3.2%
Melaka	354	2.8%
Johor	1396	11.2%
Pahang	617	4.9%
Terengganu	471	3.8%
Kelantan	715	5.7%
Sabah	1404	11.2%
WP Labuan	52	0.4%
Sarawak	1274	10.2%

6.2 Descriptive Statistics

Table 29 applies descriptive statistics to the input scores for each subdomain, which are eventually used to compute the domain and index scores. Attributes refer to the number of questions within each subdomain, and correspondents to the maximum attainable score. Minimum and Maximum refer to the minimum and maximum achieved scores by respondents in the study respectively.

Table 29: Results of Descriptive Statistics Analysis

Domains	Subdomains	Attributes	Minimum	Maximum	Mean	Std. Deviation	Skewness	Kurtosis
Financial Literacy	Cognitive	8	0.0	8.0	4.84	1.82	-0.60	-0.03
	Affective	7	1.0	7.0	4.61	1.01	0.20	-0.64
	Practice	8	0.0	8.0	4.82	1.46	-0.22	-0.26
Purchasing Decision	Cognitive	10	0.0	10.0	7.12	1.68	-1.21	1.66
	Affective	8	0.3	8.0	5.50	0.89	-0.20	0.98
	Practice	7	0.0	7.0	4.42	1.37	-0.38	-0.09
Redress	Cognitive	9	0.0	9.0	4.07	1.73	-0.34	-0.34
	Affective	9	0.0	9.0	6.49	1.12	-0.22	1.13
	Practice	7	0.0	7.0	3.61	1.75	-0.23	-0.73

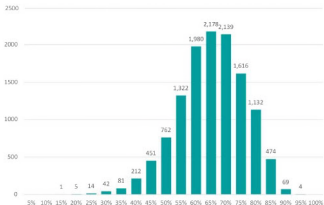
The Affective subdomains recorded the lowest standard deviation (1.01, 0.89 and 1.12 for Financial Literacy, Purchasing Decision and Redress respectively), implying the respondent scores in these subdomains have the least variation. Skew and kurtosis were most significant in the Cognitive subdomain in Purchasing Decision (-1.21 and 1.66 respectively), indicating there is a relatively large proportion of respondents scoring lower than the average for this subdomain.

Overall, skew and kurtosis are within acceptable parameters, indicating that the scores in each subdomain approximate a normal distribution, and provides justification that the questions within each subset are valid.

6.3 Score Distribution & Categorization

The scores achieved for the current study approximately follow a normal distribution, with the unweighted scores centred around an average of 62.6%. The maximum score achieved was 94.4% and the lowest score was 13.7%.

Figure 17: Unweighted distribution of index scores



The current study categorizes the total index score into the following categories, which are defined by their scoring brackets in Table 30.

Table 30: Categorization brackets and distribution

Scoring Bracket	Categorization Level of Empowerment	Percentage of Respondents (Unweighted)	Percentage of Respondents (Weighted)
0-29	Vulnerable	0.4%	0.4%
30-49	Low	10.7%	9.5%
50-69	Moderate	59.3%	59.2%
70-84	High	28.6%	29.9%
85-100	Very High	1.0%	1.0%

With the results segmented into the five categories, a general description of each category can be provided based on the profile of scores achieved by their respective respondents across all three domains of Financial Literacy ("F"), Purchasing Decision ("P") and Redress ("R"):

Table 31: Average domain scores under categorization and proposed descriptions

Level of Empowerment	Average			Description
	Fin (max 100%)	Pur (max 100%)	Red (max 100%)	
Vulnerable	26.6	28.2	18.4	Vulnerable consumer, has basic financial literacy and basic understanding on how to make an informed purchase, but has limited knowledge of consumer rights and channels for redress.
Low	42.9	48.5	36.3	Slightly vulnerable consumer, understands financial decisions and is able to make informed purchases, but is not able to assert his/her consumer rights or access channels for redress.
Moderate	59.6	66.6	52.1	Capable consumer, strong ability to make informed purchases and generally able to understand financial decisions but may not be able to assert his/her consumer rights through the right channels.
High	74.1	78.7	69.9	Slightly empowered consumer, understands how to make the best purchasing decisions, and has generally good knowledge on financial decisions and his/her consumer rights and channels for redress.
Very High	85.4	87.5	83.8	Empowered consumer, understands how to make the best financial and purchasing decisions, and understands his/her rights and how to obtain redress.

6.4 Index Results

The overall Consumer Empowerment Index score for Malaysia in 2020 is 63.1%, categorized as Moderate. Consumers are most empowered in making Purchasing Decisions, which achieved a score of 68.8%, followed by Financial Literacy at 62.5% and scored lowest in terms of Redress at 56.1%.

Figure 18: Overall weighted index scores for all respondents for CEI 2020



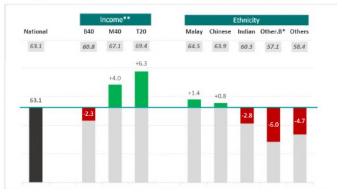
The results shown were after application of weights based on estimated state, strata and ethnic numbers for Malaysians aged 18 and above provided by Department of Statistics Malaysia (DOSM). The figures were compared against the achieved samples within the study and applied as post-stratification weights.

The breakdowns by key demographic subdomains are provided in Figures 19, 20 and 21.

Figure 19: CEI 2020 score compared to national average: gender and age group



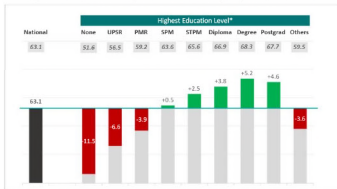
Figure 20: CEI 2020 score compared to national average: income and ethnicity



*Other Bumiputera, includes Bumiputera Sabah and Bumiputera Sarawak

**B40 group refers to monthly household income less than RM4,000; M40 group refers to monthly household income ranges from RM4,001 to RM10,000; T20 group refers to monthly household income above RM10,001

Figure 21: CEI 2020 score compared to national average: highest education level



*Levels include equivalent qualifications, e.g. PMR includes SCE/SRP, STPM includes STP/HSC/A Levels, etc.

At the national level, there are only marginal differences in score between male and female respondents, with the exception of Financial Literacy where male respondents have a slight (+0.8%) advantage. Other demographic indicators show large disparities, most notably in terms of education level, income group and age group, where the gaps in total empowerment scores range from +16.7% for education, +8.6% for income and +11.1% by age. These findings are in line with similar index studies done in the EU and South Korea, where vulnerable consumers are revealed by the same demographic indicators.

A detailed breakdown of the consumer empowerment scores by demographic profiles into domain scores is provided in Table 32.

Table 32: Index and domain scores by demographic profile

Demographic Profile	Index Score	Financial Literacy	Purchasing Decision	Redress
Gender				
Male	63.3	62.9	68.9	56.2
Female	62.9	62.1	68.7	56.0
Age Group				
18-29	63.7	62.3	69.4	57.4
30-39	64.8	63.7	70.7	58.1
40-49	63.5	63.2	69.0	56.6
50-59	62.2	62.4	67.8	54.4
60-69	58.6	60.1	64.0	49.7
> 70	53.7	57.1	59.3	43.0

Demographic Profile	Index Score	Financial Literacy	Purchasing Decision	Redress
Ethnicity				
Malay	64.5	63.9	70.4	57.1
Chinese	63.9	63.7	69.3	56.8
Indian	60.3	60.7	65.9	52.6
Other Bumiputera	57.1	55.2	62.2	52.2
Others	58.4	57.8	62.1	54.0
Strata				
Urban	63.8	63.3	69.4	56.9
Rural	60.6	59.8	66.6	53.3
Education level				
No Formal Education	51.6	51.8	56.7	44.7
UPSR	56.5	57.1	62.1	48.5
LCE/SRP/PMR	59.2	59.3	65.3	50.9
MCE/SPM/SPVM/O Level	63.6	62.7	69.4	56.6
STPM/STP/HSC/A Level	65.6	64.5	70.8	59.6
Diploma	66.9	66.0	72.1	60.7
Bachelor's degree	68.3	68.6	73.3	61.5
Masters/PhD	67.7	69.6	71.0	61.3
Others	59.5	58.1	63.7	55.3
Household Income				
B40 (RM 4,000 and below)	60.8	60.0	66.8	53.5
M40 (RM4,001 - RM10,000)	67.1	66.7	72.0	60.7
T20 (RM10,001 and above)	69.4	70.5	74.1	61.9
State				
Perlis	58.4	57.1	64.9	50.8
Kedah	58.8	55.1	65.5	53.6
Penang	66.3	64.7	72.2	60.0
Perak	60.5	61.0	67.4	50.8
Selangor	66.7	67.3	71.1	60.3
WP Kuala Lumpur	61.9	61.0	67.1	55.7
WP Putrajaya	66.0	62.6	71.5	62.2
Negeri Sembilan	65.3	64.9	70.3	59.0
Melaka	62.2	64.9	67.4	52.4
Johor	65.2	64.8	71.6	57.1
Pahang	64.9	63.8	72.7	55.5
Terengganu	68.8	69.0	73.5	62.4
Kelantan	61.8	63.0	68.4	51.7
Sabah	59.0	57.2	63.6	54.6
WP Labuan	61.2	54.5	65.0	62.9
Sarawak	58.1	56.2	63.8	52.3
Detailed Strata				
Peninsular Malaysia - Urban	64.5	64.2	70.2	57.2
Peninsular Malaysia - Rural	62.4	62.2	68.6	54.3
Sabah & Sarawak - Urban	59.8	58.1	64.8	55.1
Sabah & Sarawak - Rural	56.2	54.1	61.9	50.9

The follow subsections contain a more in-depth discussion of the results by key demographic indicators, in the following order:

6.4.1 Key Demographic Indicators – Education, Income Group, Age Group and Strata;

6.4.2 State-level Results – Key results by state.

6.4.1 Key Demographic Indicators

For ease of reference, the following abbreviations in Table 33 will be used when referring to the subdomains:

Table 33: Abbreviated subdomains

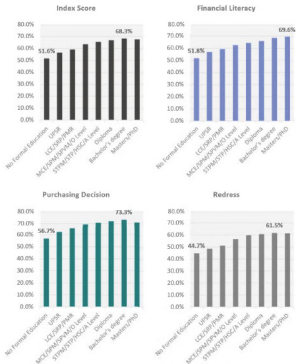
	Subdomain	Abbreviation
Financial Literacy	Cognitive	Fin-C
	Affective	Fin-A
	Practice	Fin-P
Purchasing Decision	Cognitive	Pur-C
	Affective	Pur-A
	Practice	Pur-P
Redress	Cognitive	Red-C
	Affective	Red-A
	Practice	Red-P

6.4.1.1 Education

The level of consumer empowerment closely tracks the respondents' level of educational attainment. This is unsurprising, as the instrument contains test-like sections in the form of the Cognitive subdomains in each domain, where the respondents' knowledge and numerical literacy is tested.

The spread of index and domain scores are shown in Figure 22, where the highest and lowest scores are labelled. The results for respondents answering 'Others', consisting of 31 respondents (unweighted) and 0.2% of the total sample size, has been omitted.

Figure 22: Index and domain scores by level of educational attainment



In terms of the total index score, the gap between the lowest scoring group (No Formal Education) and the highest scoring group (bachelor's degree) is -16.7%. The results also do not point to a particular domain warranting special attention, as the gaps are relatively consistent – Financial Literacy has the largest disparity at -17.9%, but Redress and Purchasing Decision are close at -16.8% and -16.6% respectively.

Figure 23: Gap in subdomain scores between respondents with no formal education and respondents with bachelor's degree



Comparing the results at the subdomain-level yields a different picture, where the largest gaps in score are within Cognitive subdomains where consumer skills and knowledge is tested. The disparity is largest in the Financial Literacy domain, with Fin-C at -25.7%, followed by Redress and Purchasing Decision with Red-C at -24.4% and Pur-C at -22.3% respectively. The scale of the difference shows the wide gap in consumer knowledge and skills due to a difference in level of education, and could highlight a pressing need, in particular within the already low-scoring Redress domain.

Meanwhile, the gaps in scores for the Affective subdomain are consistently the lowest, implying that consumers with a lower level of education still have good level of motivation and assertiveness towards consumer rights.

In terms of Practice, the gap in scores is lowest for the Financial Literacy domain, with Fin-P at just -11.2%. This suggests that consumers with a lower level of education are still able to make generally good savings and budgeting practices, even when compared to the highest-scoring groups. The gap is larger in Pur-P and Red-P at -17.3% and -16.5% respectively, and could highlight that consumers with a lower level of education on average act less on their skills and rights when it comes to making purchasing decisions or seeking redress.

6.4.1.2 Income Group

The respondent's household income is also a strong determinant of their total consumer empowerment score. At an intuitive level, more disposal income means more frequent purchasing behaviour and access to more choices at different price ranges, which in turn allows for more use of consumer knowledge and skills – individuals with higher household income are hence also expected to have higher scores, all else being equal.

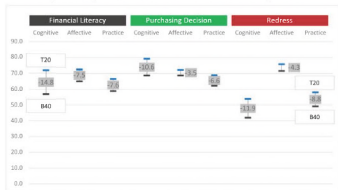
The spread of index and domain scores are shown in Figure 24, where the highest and lowest scores are labelled.

Figure 24: Index and domain scores by income level



Perhaps unsurprisingly, the largest gap in domain score is within the Financial Literacy domain, where respondents classified as B40 score significantly lower (-10.5%) compared to their T20 counterparts, as they are less likely to utilize or have high awareness of financial products due to market barriers. Encouragingly, the gap narrows in Purchasing Decision to the lowest at -7.3%, with B40 respondents also scoring relatively high at 66.8%. There are also substantial differences in Redress scores at -8.5%.

Figure 25: Gap in subdomain scores between B40 and T20 respondents



Referring to Figure 25, at the subdomain-level, the largest gaps between the B40 and T20 groups are consistently within the Cognitive subdomains, where it is highest in Financial Literacy at -14.8%, followed by Redress at -11.9% and Purchasing Decision at -10.6%. While the gaps in Financial Literacy and Purchasing Decision could be understood to be due to less engagement in purchasing behaviour and market-related barriers (e.g. limited choices due to income, not target consumer group for financial products, etc.), the gap in Redress is worrying – for consumers with lower disposable income, a purchase going wrong has a much larger impact on their finances as compared to a more affluent household.

For the Affective subdomain, the gaps are relatively low in Purchasing and Redress at -3.5% and -4.3% respectively. The largest disparity is in Financial Literacy, where it is understandably lower at -7.5% as consumers in the lower income household group are more likely compelled to live on a day-to-day basis, and hence are less likely to feel the need to make longer-term budgeting decisions.

For Practice, the gaps between the B40 and T20 groups are relatively constant, ranging from - 6.6% in Purchasing Decision to -8.8% in Redress. The large gap in Redress is similarly worrying, as bad purchases have a more significant impact on the B40 household finances, and hence these respondents would have benefited strongly from pursuing resolutions and engaging in advocacy amongst fellow consumers.

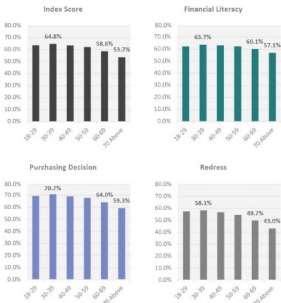
6.4.1.3 Age Group

The study also finds CEI 2020 scores to vary across respondent age groups - both index and domain scores peak with respondents in their 30s, before showing an accelerated decline towards older age group. While this is in line with similar indices in other countries, the current study finds the gap in Malaysia to be less pronounced, especially when the significantly smaller "70 and above" age group is omitted (1.4% of respondents unweighted, 1.2% weighted).

Decreasing scores with respondent age are expected, as the introduction of consumer rights as a concept has been relatively recent. Furthermore, older consumers are less likely to be tech-savvy and could face difficulties in accessing the wealth of information online for product purchasing and dispute resolution.

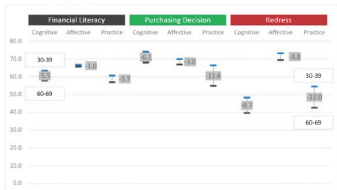
The spread of index and domain scores are shown in Figure 26, where the highest and lowest two scores are labelled (un-bolded figures refer to the less populous 70 and above group).

Figure 26: Index and domain scores by age group



The gap in index score is -11.1% between the 30-39 age group and those above 70 years old. Omitting the latter, the gap is one of the lowest amongst considered demographic indicators at -6.2% between the 30-39 age group and the 60-69 age group. Domain-wise, the gap is lowest in the Financial Literacy domain at -6.6% (with above 70s) and -3.6% (with 60-69), but far wider in Purchasing (11.4% / 6.7%) and Redress (15.2% / 8.4%).

Figure 27: Gap in subdomain scores between respondents aged 30-39 and aged 60-69



Results at the subdomain-level give a much better view of the origin of the gaps in score. Unlike education and income indicators, the main scoring differences between the younger 30-39 age group and the older 60-69 age group is in the Practice subdomains, with the exception of Financial Literacy (which has very narrow gaps). Pur-P and Red-P record differences of -11.6% and -12.0% respectively, and highlight the main challenges to consumer empowerment faced by older consumers. Similarly, a gap of -8.7% in Red-C also provides an indication that knowledge about redress channels and purchasing-dispute resolution is more limited and likely due to lack of access to information.

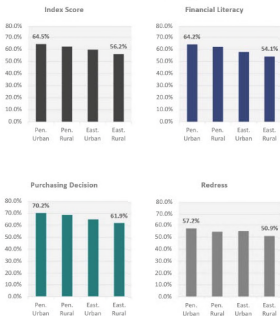
6.4.1.4 Strata

In order to provide a more in-depth discussion, this subsection further divides Strata into Peninsular Malaysia as well as Sabah and Sarawak.

On average, the level of consumer empowerment as measured by the index score is lower in rural areas compared to urban areas, and lower in Sabah and Sarawak compared to Peninsular Malaysia.

The spread of index and domain scores are shown in Figure 28, where the highest and lowest scores are labelled.

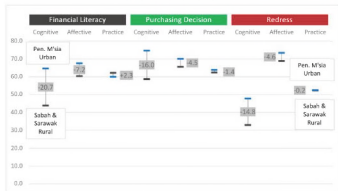
Figure 28: Index and domain score by strata



The disparities in empowerment scores between urban and rural are relatively consistent, but are markedly larger in Sabah and Sarawak compared to Peninsular Malaysia. In Peninsular Malaysia, the gap in scores between urban and rural respondents range between -1.6% to -2.9%, while in Sabah and Sarawak, the gap is markedly larger between -2.9% to -4.2%.

The gap in scores is also more noticeable between Peninsular Malaysia and Sabah and Sarawak, where the average urban respondent in Sabah and Sarawak scores lower than the average rural respondent in Peninsular Malaysia, with the exception of Redress.

Figure 29: Gap in subdomain scores between urban areas in Peninsular Malaysia and rural areas in Sabah and Sarawak



Comparing results as shown in Figure 29 at the subdomain-level between the highest-scoring group (Peninsular M. Urban) and the lowest-scoring group (Sabah & Sarawak Rural), the gaps are most evident in the Cognitive subdomain across all three domains – Fin-C has the largest gap at -20.7%, followed by Pur-C at -16.0% and Red-C at -14.8%. This could highlight an urgent need to raise consumer skills and knowledge amongst this group of consumers.

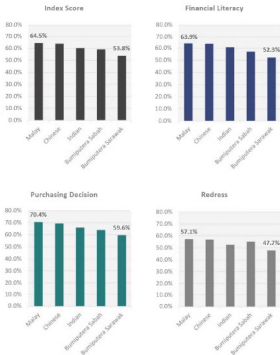
Gaps in the Affective subdomain are also relatively significant, with Fin-A have the largest difference at -7.2%. However, this trend does not persist in the Practice subdomains, where the gaps narrow with Fin-P reversing the trend with +2.3%. This trend is in fact the characteristic of consumers in Sabah and Sarawak, where urban consumers in Sabah and Sarawak also score even higher than their urban counterparts in Peninsular Malaysia at +3.7%, and could point to more longer-term household budgeting and capacity to save amongst the consumers in Sabah and Sarawak.

6.4.1.5 Ethnicity

There are also significant disparities in score by ethnicity. However, there are also strong drivers from other factors – for example, respondents who are non-Malay Bumiputera from Sabah and Sarawak tend to score lower, but this is more likely due to regional drivers (i.e. the gap in scores between Peninsular Malaysia and Sabah & Sarawak) as seen in the previous section.

The spread of index and domain scores are shown in Figure 30, where the highest and lowest scores are labelled.

Figure 30: Index and domain score by ethnicity



Between Malay, Chinese and Indian respondents, Malay respondents consistently score higher for both the index and its domains. On the other hand, respondents from the Indian community have the lowest scores among the three, in particular in Purchasing and Redress where the gap is -4.5% and -4.6% respectively. The source of this difference in score is further explored in Figure 31.

Figure 31: Gap in subdomain scores between Malay respondents and Indian respondents



At the subdomain-level, the largest gap in scores between the highest-scoring Malay community and Indian community is in the Pur-P at -8.3% followed by Fin-P at -5.4%. Within the Redress domain, there are large gaps in both Red-C and Red-P at -4.9% and -4.8% respectively, which could point to issues with the community in knowing the available channels for redress, and consequently to access them when faced with consumer issues.

6.4.2 State-level Results

Figure 32: CEI 2020 score compared to national average by region



Figure 32 shows that on average, respondents in Peninsular Malaysia (except in northern region) score higher than the respondents in Sabah and Sarawak. A more detailed view shows significant discrepancies at the state level, as shown in Figure 33.

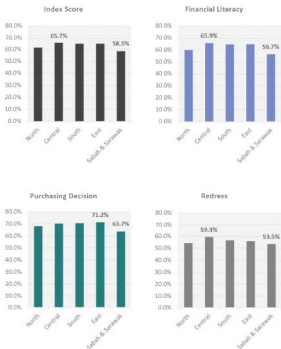
Figure 33: CEI 2020 score compared to national average by state



Notably, there are large discrepancies between states in Peninsular Malaysia, and an overall comparison of index scores will lead to three groupings – states which score above the national average, states with scores between 0 to -3% of the national average, and states with scores less than -3% compared to the national average.

To simplify the results at the state-level, the states are grouped into their respective regions and the spreads between index and domain scores provided in Figure 34, with the highest and lowest scores highlighted.

Figure 34: Index and domain score by region



Respondents in the Central, South and East Peninsular regions achieve domain and index scores which are relatively consistent, and there is a persistent gap between the highest scoring Peninsular region compared to Sabah and Sarawak. The differences in scores are largest in Financial Literacy at -9.1%, followed by Purchasing Decision at -7.5%, and further narrowing to -5.7% in Redress, where in the Redress domain all regions score consistently low compared to other domains.

Figure 35: Gap in subdomain scores between central region and Sabah & Sarawak



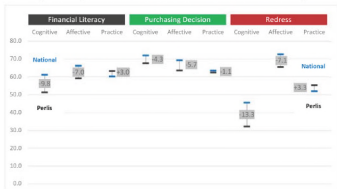
Comparing results at the subdomain level between the highest-scoring central region and Sabah and Sarawak show a similar result to the view by strata, where the disparities are concentrated in the Cognitive subdomain with Fin-C at -19.0%, Pur-C at -15.1% and Red-C at -14.2%. One key difference is the results within the Practice subdomain, where respondents in Sabah and Sarawak score higher in Fin-P (+1.8%) and Pur-P (+1.3%), while recording a narrow gap in Red-P (-0.8%). With the gap in Affective subdomains ranging between -2.3% to -6.3%, the results indicate some focus could be warranted to bring consumer skills and knowledge in Sabah and Sarawak up to par with consumers in the Klang Valley.

The following subsections provide more detailed state-level results, and includes a breakdown of scores by demographic profile. However, due to state-level results relying on a substantially smaller subset of samples, and the significant impact of population weights on results within smaller subsets, these results should be used with caution.

6.4.2.1 Perlis

Perlis achieved a total index score of 58.4% compared to the national average of 63.1%. The comparison of subdomain scores is provided in Figure 36.

Figure 36: Gap in subdomain scores between Perlis and the national average



Between Perlis and the national average, the largest gaps are in the Cognitive subdomain, where the differences range between -13.3% for Red-C and -4.3% for Pur-C. The Practice subdomain has performed well, with Red-P and Fin-P scoring above the national average at +3.3% and +3.0% respectively, while there is small gap in Pur-P at -1.1%.

The results by demographic profile for Perlis are shown in Table 34. However, due to the low sample size for Perlis, a number of demographic categories (age group, ethnicity, education level and household income) will be highly variable.

Table 34: Perlis: Index and domain scores by demographic profile (weighted)

Total respondents: 100

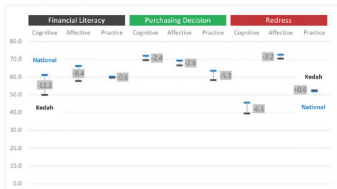
* Categories with limited sampling

Demographic Profile	Index Score	Financial Literacy	Purchasing Decision	Redress
Perlis	58.4	57.1	64.9	50.8
Gender				
Male	59.3	59.1	65.1	51.6
Female	57.8	55.8	64.8	50.3
(Max – Min)	1.5	3.3	0.4	1.2
Age Group*				
18-29	60.5	60.5	64.7	55.0
30-39	58.8	57.1	67.8	48.7
40-49	56.6	54.5	64.5	48.2
50-59	62.3	57.1	68.8	59.0
60-69	53.1	54.3	60.4	42.2
> 70	51.0	54.6	59.6	35.8
(Max – Min)	11.4	6.2	9.2	23.2
Ethnicity*				
Malay	58.8	57.0	65.4	51.7
Chinese	54.7	58.7	60.8	42.5
Indian	58.1	58.2	63.4	50.9
Other Bumiputera	-	-	-	-
Others	56.1	57.9	61.5	47.0
(Max – Min)	4.1	1.8	4.6	9.2
Strata				
Urban	58.5	56.9	65.3	51.0
Rural	58.1	57.6	64.2	50.5
(Max – Min)	0.4	0.7	1.1	0.5
Education level*				
No Formal Education	50.8	52.1	57.3	40.8
UPSR	58.0	57.0	64.8	50.0
LCE/SRP/PMR	56.7	53.9	64.7	48.7
MCE/SPM/SPVM/D Level	57.9	57.5	63.9	50.2
STPM/STP/HSC/A Level	66.8	60.2	74.6	62.8
Diploma	67.5	64.0	72.3	64.5
Bachelor's degree	69.7	74.4	72.0	62.0
Masters/PhD	-	-	-	-
Others	-	-	-	-
(Max – Min)	19.0	22.3	17.4	23.7
Household Income				
B40	58.4	57.2	65.1	50.7
M40	56.8	56.1	59.3	54.1
T20	-	-	-	-
(Max – Min)	1.6	1.1	5.8	3.4

6.4.2.2 Kedah

Kedah achieved a total index score of 58.8% compared to the national average of 63.1%. The comparison of subdomain scores is provided in Figure 37.

Figure 37: Gap in subdomain scores between Kedah and the national average



Between Kedah and the national average, the largest gaps are in the Cognitive subdomain, where the differences range between -11.2% for Fin-C and -2.4% for Pur-C. The smallest gaps are in the Practice subdomain, where Red-P is higher than the national average at +0.6%, and range from -5.2% in Pur-P to -0.6% in Fin-P.

The results by demographic profile for Kedah are shown in Table 35.

Table 35: Kedah: Index and domain scores by demographic profile (weighted)

Total respondents: 808

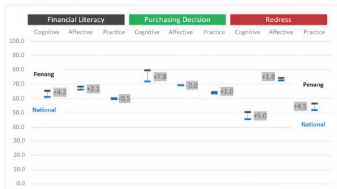
* Categories with limited sampling

Demographic Profile	Index Score	Financial Literacy	Purchasing Decision	Redress
Kedah	58.8	55.1	65.5	53.6
Gender				
Male	58.7	55.0	65.6	53.2
Female	59.0	55.2	65.4	54.1
(Max – Min)	0.3	0.2	0.1	0.9
Age Group				
18-29	60.3	55.6	67.3	55.5
30-39	60.0	55.6	66.2	56.1
40-49	58.9	55.6	65.8	53.1
50-59	56.8	53.8	63.6	50.7
60-69	55.6	54.1	61.1	49.8
> 70*	52.5	50.5	60.9	43.2
(Max – Min)	7.8	5.1	6.4	12.9
Ethnicity				
Malay	59.4	55.3	65.9	54.6
Chinese	58.6	56.1	65.6	51.7
Indian	54.7	51.8	61.5	48.4
Other Bumiputera	-	-	-	-
Others*	49.4	50.2	55.5	40.5
(Max – Min)	10.0	6.0	10.5	14.2
Strata				
Urban	58.9	54.8	65.7	54.1
Rural	58.5	55.9	65.0	52.6
(Max – Min)	0.4	1.1	0.7	1.5
Education level				
No Formal Education	51.8	53.8	56.8	43.3
UPSR	52.6	49.3	59.8	46.3
LCE/SRP/PMR	56.6	52.8	63.1	51.6
MCE/SPM/SPVM/O Level	58.3	54.7	65.8	52.0
STPM/STP/HSC/A Level	64.1	58.8	70.8	60.5
Diploma	64.8	60.1	69.8	62.8
Bachelor's degree	61.6	56.3	67.2	59.5
Masters/PhD*	64.9	66.3	67.2	60.6
Others*	58.4	58.0	61.3	55.1
(Max – Min)	13.1	17.0	14.0	19.5
Household Income				
B40	57.8	53.9	64.8	52.2
M40	64.2	61.4	68.8	60.7
T20*	62.7	55.2	69.9	60.6
(Max – Min)	6.4	7.5	5.1	8.5

6.4.2.3 Penang

Penang achieved a total index score of 66.3% compared to the national average of 63.1%. The comparison of subdomain scores is provided in Figure 38.

Figure 38: Gap in subdomain scores between Penang and the national average



Penang has an edge of the national average for most subdomains, with the Cognitive subdomain being the best-performing ranging from +4.2% for Fin-C to +7.8% in Pur-C. The positive edge is least in the Affective subdomain.

The results by demographic profile for Penang are shown in Table 36.

Table 36: Penang: Index and domain scores by demographic profile (weighted)

Total respondents: 658

* Categories with limited sampling

Demographic Profile	Index Score	Financial Literacy	Purchasing Decision	Redress
Penang	66.3	64.7	72.2	60.0
Gender				
Male	66.4	65.4	72.4	59.3
Female	66.2	64.0	72.0	60.6
(Max – Min)	0.2	1.3	0.4	1.3
Age Group				
18-29	65.6	63.2	71.4	60.2
30-39	67.7	65.5	73.8	61.8
40-49	68.9	67.2	74.7	62.8
50-59	67.4	65.8	74.1	60.1
60-69	60.7	62.3	66.0	52.2
> 70*	58.1	58.7	64.3	49.1
(Max – Min)	10.8	8.5	10.4	13.8
Ethnicity				
Malay	70.4	69.2	75.8	64.3
Chinese	62.7	60.1	69.7	56.1
Indian	64.9	66.2	68.6	58.6
Other Bumiputera	-	-	-	-
Others	-	-	-	-
(Max – Min)	7.6	9.1	7.2	8.2
Strata				
Urban	66.5	65.0	72.5	60.1
Rural*	61.9	59.0	67.0	58.1
(Max – Min)	4.6	6.0	5.4	2.0
Education level				
No Formal Education*	60.0	59.2	63.6	55.9
UPSR	63.0	62.3	67.3	58.1
LCE/SRP/PMR	61.3	61.3	67.5	53.0
MCE/SPM/SPVM/D Level	66.4	64.2	72.8	60.2
STPM/STP/HSC/A Level	69.3	69.0	73.9	63.6
Diploma	70.6	71.4	75.6	63.2
Bachelor's degree	69.9	65.9	74.9	67.1
Masters/PhD*	74.1	79.2	78.1	63.5
Others	-	-	-	-
(Max – Min)	14.1	20.0	14.5	14.1
Household Income				
B40	66.6	65.1	72.1	60.7
M40	65.7	64.2	72.0	58.9
T20	68.3	65.4	75.0	62.2
(Max – Min)	2.6	1.2	3.1	3.3

6.4.2.4 Perak

Perak achieved a total index score of 60.5% compared to the national average of 63.1%. The comparison of subdomain scores is provided in Figure 39.

Figure 39: Gap in subdomain scores between Perak and the national average



Compared to the national average, the scores within the Cognitive and Affective subdomains are relatively even, ranging between -2.1% in Pur-C to +1.2% in Pur-A. The gap in scores are most significant in the Practice subdomain, where the gap is largest in Red-P at -12.6%, followed by Fin-P at -6.2% and Pur-P at -2.9%.

The results by demographic profile for Perak are shown in Table 37.

Table 37: Perak: Index and domain scores by demographic profile (weighted)

Total respondents: 1,011

* Categories with limited sampling

Demographic Profile	Index Score	Financial Literacy	Purchasing Decision	Redress
Perak	60.5	61.0	67.4	50.8
Gender				
Male	60.3	61.1	67.1	50.4
Female	60.7	60.9	67.7	51.3
(Max – Min)	0.5	0.2	0.6	0.9
Age Group				
18-29	62.8	62.6	69.5	54.1
30-39	65.3	65.1	72.5	55.8
40-49	59.9	59.8	66.7	50.7
50-59	58.9	60.3	65.7	48.5
60-69	54.8	56.8	62.1	43.1
> 70*	48.5	51.3	54.0	38.5
(Max – Min)	16.8	13.9	18.5	17.3
Ethnicity				
Malay	61.5	62.6	68.8	50.8
Chinese	61.2	61.1	67.4	53.2
Indian	57.8	57.9	65.6	47.4
Other Bumiputera*	41.8	40.8	46.1	37.1
Others	-	-	-	-
(Max – Min)	19.7	21.8	22.7	16.2
Strata				
Urban	61.6	62.1	68.5	52.0
Rural	56.8	57.3	64.0	46.8
(Max – Min)	4.8	4.9	4.5	5.2
Education level				
No Formal Education*	50.5	54.6	56.1	39.0
UPSR	53.4	55.9	59.8	42.3
LCE/SRP/PMR	53.8	54.4	60.8	43.9
MCE/SPM/SPVM/D Level	62.5	62.7	69.6	52.8
STPM/STP/HSC/A Level	68.5	66.8	75.1	61.2
Diploma	67.2	66.8	74.1	58.4
Bachelor's degree	65.3	65.6	71.8	56.5
Masters/PhD*	69.7	68.2	73.0	66.7
Others*	52.6	66.4	57.6	32.1
(Max – Min)	19.1	13.7	19.0	34.6
Household Income				
B40	58.5	58.9	65.6	48.7
M40	67.0	67.8	73.3	57.8
T20*	72.1	77.5	77.5	59.4
(Max – Min)	13.6	18.7	12.0	10.7

6.4.2.5 Selangor

Selangor achieved a total index score of 66.7% compared to the national average of 63.1%. The comparison of subdomain scores is provided in Figure 40.

Figure 40: Gap in subdomain scores between Selangor and the national average



Selangor has an edge of the national average for most subdomains, with the Cognitive subdomain being the best-performing ranging from +9.3% for Fin-C to +6.6% in Pur-C. The positive edge is least in the Affective subdomain.

The results by demographic profile for Selangor are shown in Table 38.

Table 38: Selangor: Index and domain scores by demographic profile (weighted)

Total respondents: 2,435

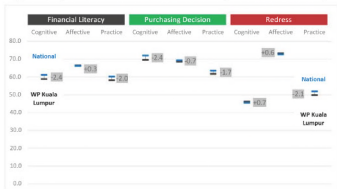
* Categories with limited sampling

Demographic Profile	Index Score	Financial Literacy	Purchasing Decision	Redress
Selangor	66.7	67.3	71.1	60.3
Gender				
Male	67.0	67.3	71.6	60.7
Female	66.4	67.2	70.6	59.9
(Max – Min)	0.7	0.1	1.0	0.8
Age Group				
18-29	67.5	67.0	71.9	62.1
30-39	67.3	67.4	72.3	60.7
40-49	67.0	68.2	71.0	60.5
50-59	65.6	67.2	69.9	58.2
60-69	62.6	65.8	66.8	53.8
> 70*	65.7	71.9	67.3	57.3
(Max – Min)	4.9	6.1	5.4	8.3
Ethnicity				
Malay	67.0	67.4	71.3	60.9
Chinese	67.9	68.5	72.6	60.9
Indian	62.6	63.6	67.1	55.8
Other Bumiputera*	69.9	71.0	71.9	66.2
Others	-	-	-	-
(Max – Min)	7.3	7.4	5.6	10.4
Strata				
Urban	67.1	67.7	71.4	60.7
Rural	61.7	61.7	67.1	54.4
(Max – Min)	5.4	6.0	4.3	6.3
Education level				
No Formal Education*	65.4	67.6	69.7	57.5
UPSR	65.1	67.0	69.3	57.8
LCE/SRP/PMR	64.4	66.1	68.6	57.2
MCE/SPM/SPVM/D Level	66.3	66.2	70.7	60.4
STPM/STP/HSC/A Level	69.2	68.2	73.9	63.9
Diploma	67.0	67.6	71.7	60.2
Bachelor's degree	70.2	73.6	73.9	61.7
Masters/PhD*	69.3	77.4	70.7	59.1
Others*	67.0	81.8	63.3	57.2
(Max – Min)	5.7	15.7	10.7	6.7
Household Income				
B40	64.7	65.5	69.1	58.0
M40	67.8	68.0	72.3	61.6
T20*	72.5	75.1	75.6	65.7
(Max – Min)	7.8	9.6	6.4	7.7

6.4.2.6 WP Kuala Lumpur

WP Kuala Lumpur achieved a total index score of 61.9% compared to the national average of 63.1%. The comparison of subdomain scores is provided in Figure 41.

Figure 41: Gap in subdomain scores between WP Kuala Lumpur and the national average



While WP Kuala Lumpur has scored lower compared to the national average, there are no sizable gaps and the subdomain scores broadly track the national-level scores. The differences are in a tight range between -2.4% in both Fin-C and Pur-C to +0.7% in Red-C.

The results by demographic profile for WP Kuala Lumpur are shown in Table 39.

Table 39: WP Kuala Lumpur: Index and domain scores by demographic profile (weighted)

Total respondents: 737

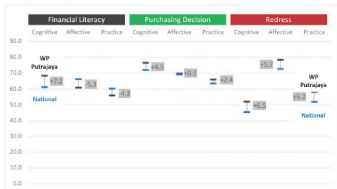
* Categories with limited sampling

Demographic Profile	Index Score	Financial Literacy	Purchasing Decision	Redress
WP Kuala Lumpur	61.9	61.0	67.1	55.7
Gender				
Male	62.0	61.2	67.1	55.9
Female	61.8	60.8	67.1	55.6
(Max – Min)	0.2	0.4	0.0	0.2
Age Group				
18-29	62.8	61.1	68.1	57.4
30-39	63.7	62.5	68.9	57.8
40-49	62.8	62.1	67.9	56.8
50-59	59.9	60.9	65.1	52.1
60-69	55.7	56.2	60.8	48.4
> 70*	51.7	53.9	57.0	42.4
(Max – Min)	11.9	8.6	11.9	15.4
Ethnicity				
Malay	64.3	62.3	69.9	58.6
Chinese	61.0	61.1	65.8	54.6
Indian	56.5	55.9	61.9	50.0
Other Bumiputera*	55.2	58.1	59.2	46.8
Others	-	-	-	-
(Max – Min)	9.1	6.4	10.7	11.8
Strata				
Urban	61.9	61.0	67.1	55.7
Rural	-	-	-	-
(Max – Min)	-	-	-	-
Education level				
No Formal Education*	54.8	53.9	63.4	44.4
UPSR	56.6	59.2	60.9	48.3
LCE/SRP/PMR	57.3	57.4	62.7	50.1
MCE/SPM/SPVM/D Level	61.5	60.4	67.0	55.2
STPM/STP/HSC/A Level	60.7	59.7	66.0	54.6
Diploma	69.2	67.6	73.5	65.1
Bachelor's degree	65.6	63.6	70.4	61.1
Masters/PhD*	60.4	67.3	62.0	51.2
Others*	50.0	45.7	55.4	47.1
(Max – Min)	19.2	21.9	18.1	20.7
Household Income				
B40	59.6	59.1	65.2	52.6
M40	64.8	63.6	69.4	59.9
T20*	68.4	67.2	73.1	63.2
(Max – Min)	8.8	8.2	7.9	10.5

6.4.2.7 WP Putrajaya

WP Putrajaya achieved a total index score of 66.7% compared to the national average of 63.1%. The comparison of subdomain scores is provided Figure 42:

Figure 42: Gap in subdomain scores between WP Putrajaya and the national average



WP Putrajaya has recorded above average scores for most subdomains, with the exception of Fin-A and Fin-P with a gap of -5.3% and -4.3% respectively. The positive edge is largest in the Redress domain, where the advantages range between +5.7% for Red-A to +6.5% for Red-C.

The results by demographic profile for WP Putrajaya are shown in Table 40. However, due to the low sample size for WP Putrajaya, all demographic categories will be highly variable.

Table 40: WP Putrajaya: Index and domain scores by demographic profile (weighted)

Total respondents: 51

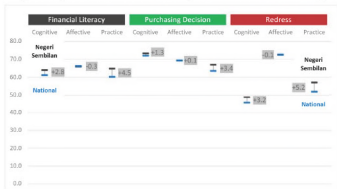
* Categories with limited sampling

Demographic Profile	Index Score	Financial Literacy	Purchasing Decision	Redress
WP Putrajaya	66.0	62.6	71.5	62.2
Gender*				
Male	65.5	61.8	71.0	61.7
Female	66.5	63.3	71.8	62.6
(Max – Min)	1.0	1.5	0.8	0.9
Age Group*				
18-29	67.1	63.3	71.5	65.1
30-39	65.0	61.1	71.7	60.0
40-49	64.8	64.1	70.0	58.7
50-59	64.9	60.1	72.6	59.5
60-69	65.4	63.7	71.4	59.2
> 70	-	-	-	-
(Max – Min)	2.3	4.0	2.6	6.4
Ethnicity*				
Malay	66.4	63.1	71.7	62.7
Chinese	-	-	-	-
Indian	46.8	38.1	60.8	36.9
Other Bumiputera	-	-	-	-
Others	-	-	-	-
(Max – Min)	19.6	25.0	10.9	25.8
Strata				
Urban	66.0	62.6	71.5	62.2
Rural	-	-	-	-
(Max – Min)	-	-	-	-
Education level*				
No Formal Education	37.0	45.4	40.5	23.7
UPSR	47.2	46.4	56.5	35.4
LCE/SRP/PMR	62.3	59.9	71.3	52.6
MCE/SPM/SPVM/O Level	65.1	61.4	69.9	62.5
STPM/STP/HSC/A Level	72.9	67.0	78.7	70.9
Diploma	71.9	67.3	76.8	70.0
Bachelor's degree	57.9	59.7	67.7	43.0
Masters/PhD	55.7	58.9	60.2	46.4
Others	-	-	-	-
(Max – Min)	35.9	21.9	38.2	47.2
Household Income*				
B40	58.1	56.7	64.5	51.0
M40	70.6	65.9	75.4	69.0
T20	63.7	61.8	70.6	56.2
(Max – Min)	12.5	9.2	10.9	18.0

6.4.2.8 Negeri Sembilan

Negeri Sembilan achieved a total index score of 65.3% compared to the national average of 63.1%. The comparison of subdomain scores is provided in Figure 43.

Figure 43: Gap in subdomain scores between Negeri Sembilan and the national average



Negeri Sembilan has recorded above average scores for most subdomains, with the exception of Fin-A and Red-A with a gap of -0.3% and -0.1% respectively. The state recorded high scores in the Practice subdomain, ranging between +3.4% in Pur-P to +5.2% in Red-P.

The results by demographic profile for Negeri Sembilan are shown in Table 41.

Table 41: Negeri Sembilan: Index and domain scores by demographic profile (weighted)

Total respondents: 399

* Categories with limited sampling

Demographic Profile	Index Score	Financial Literacy	Purchasing Decision	Redress
Negeri Sembilan	65.3	64.9	70.3	59.0
Gender				
Male	65.9	65.0	70.0	61.2
Female	64.7	64.8	70.5	57.0
(Max – Min)	1.1	0.2	0.5	4.2
Age Group				
18-29	65.3	61.4	70.9	61.6
30-39	67.1	68.6	71.7	59.6
40-49	64.4	65.1	69.4	57.0
50-59	65.5	66.7	68.6	60.1
60-69	64.3	66.1	70.5	54.1
> 70*	59.4	59.5	69.9	45.1
(Max – Min)	7.8	9.2	3.1	16.5
Ethnicity				
Malay	65.0	63.8	70.2	59.3
Chinese	68.0	67.8	72.3	62.5
Indian	61.9	64.0	67.4	52.4
Other Bumiputera*	-	-	-	-
Others	-	-	-	-
(Max – Min)	7.8	9.2	3.1	16.5
Strata				
Urban	64.8	65.5	70.2	57.1
Rural	66.6	63.0	70.7	64.8
(Max – Min)	1.8	2.5	0.5	7.7
Education level				
No Formal Education*	65.6	65.0	80.0	47.1
UPSR*	58.3	64.2	64.4	44.3
LCE/SRP/PMR	58.1	61.3	66.5	43.7
MCE/SPM/SPVM/D Level	65.0	64.3	70.1	59.0
STPM/STP/HSC/A Level	67.3	65.0	70.6	65.1
Diploma	68.6	66.8	73.0	64.7
Bachelor's degree	66.4	67.9	69.1	61.3
Masters/PhD*	66.7	64.7	69.9	64.5
Others	-	-	-	-
(Max – Min)	10.5	6.6	15.6	21.4
Household Income				
B40	62.3	62.3	68.5	54.0
M40	68.0	67.2	72.0	63.4
T20*	67.1	65.9	69.6	65.0
(Max – Min)	5.7	4.9	3.5	11.1

6.4.2.9 Melaka

Melaka achieved a total index score of 62.2% compared to the national average of 63.1%. The comparison of subdomain scores is provided in Figure 44.

Figure 44: Gap in subdomain scores between Melaka and the national average



Compared to the national average, Melaka scores relatively lower in the Cognitive subdomain, with Red-C and Pur-C at -12.6% and -3.2% respectively reducing the overall index score. Performance in the other subdomains are relatively even with the national average, with a positive edge in Fin-A at +6.6%.

The results by demographic profile for Melaka are shown in Table 42.

Table 42: Melaka: Index and domain scores by demographic profile (weighted)

Total respondents: 354

* Categories with limited sampling

Demographic Profile	Index Score	Financial Literacy	Purchasing Decision	Redress
Melaka	62.2	64.9	67.4	52.4
Gender				
Male	63.9	67.3	69.4	53.0
Female	60.5	62.6	65.4	51.8
(Max – Min)	3.4	4.8	4.0	1.2
Age Group				
18-29	63.4	65.9	68.9	53.5
30-39	63.9	66.2	70.1	53.4
40-49	64.8	68.0	69.7	55.2
50-59	58.7	62.6	62.7	49.4
60-69	52.9	56.1	56.7	44.8
> 70*	53.8	56.3	59.2	44.1
(Max – Min)	11.9	11.9	13.4	11.1
Ethnicity				
Malay	61.7	63.6	67.2	52.5
Chinese	65.2	69.8	70.4	53.4
Indian	53.1	56.8	55.6	46.1
Other Bumiputera	-	-	-	-
Others*	56.9	71.4	69.8	25.1
(Max – Min)	12.0	14.6	14.9	28.3
Strata				
Urban	62.2	65.1	67.4	52.3
Rural*	61.2	61.6	67.2	52.9
(Max – Min)	1.0	3.6	0.2	0.6
Education level				
No Formal Education*	37.0	38.3	38.1	34.3
UPSR*	52.6	55.8	56.3	44.4
LCE/SRP/PMR	58.5	62.0	63.8	48.0
MCE/SPM/SPVM/D Level	62.2	64.7	67.7	52.4
STPM/STP/HSC/A Level*	66.7	73.1	69.7	56.3
Diploma	66.3	68.2	72.3	56.5
Bachelor's degree	70.9	73.5	76.4	60.8
Masters/PhD*	54.9	59.1	61.0	42.4
Others	-	-	-	-
(Max – Min)	33.9	35.3	38.3	26.5
Household Income				
B40	60.7	63.1	66.1	51.2
M40	64.9	67.5	69.8	55.7
T20*	74.5	84.1	79.1	58.6
(Max – Min)	13.7	21.0	13.0	7.4

6.4.2.10 Johor

Johor achieved a total index score of 65.2% compared to the national average of 63.1%. The comparison of subdomain scores is provided in Figure 45.

Figure 45: Gap in subdomain scores between Johor and the national average



Subdomain scores in Johor are consistently higher than the national average. With the exception of Red-P and Fin-P scoring -3.3% and -2.9% lower than the national score respectively, the rest of the subdomain records higher scores in a tight range between +0.9% and +4.0%.

The results by demographic profile for Johor are shown in Table 43.

Table 43: Johor: Index and domain scores by demographic profile (weighted)

Total respondents: 1,396

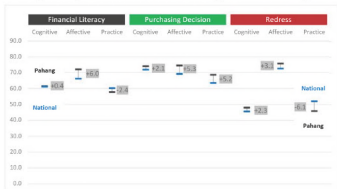
* Categories with limited sampling

Demographic Profile	Index Score	Financial Literacy	Purchasing Decision	Redress
Johor	65.2	64.8	71.6	57.1
Gender				
Male	64.0	64.1	70.0	55.8
Female	66.4	65.4	73.2	58.3
(Max – Min)	2.4	1.4	3.2	2.5
Age Group				
18-29	65.7	65.2	71.9	57.8
30-39	67.3	65.3	74.1	60.3
40-49	66.9	65.9	73.4	59.1
50-59	63.4	63.7	69.9	54.3
60-69	60.4	62.3	66.5	50.3
> 70	54.2	60.4	58.8	41.9
(Max – Min)	13.1	5.5	15.3	18.4
Ethnicity				
Malay	66.3	65.6	73.3	57.8
Chinese	64.6	64.8	70.0	57.1
Indian	59.1	58.6	65.8	50.5
Other Bumiputera	-	-	-	-
Others	-	-	-	-
(Max – Min)	7.3	6.9	7.5	7.4
Strata				
Urban	65.1	64.4	71.7	56.9
Rural	65.6	66.1	71.2	57.6
(Max – Min)	0.5	1.7	0.5	0.7
Education level				
No Formal Education	51.3	57.4	55.4	39.8
UPSR	58.1	59.1	64.4	48.5
LCE/SRP/PMR	62.2	62.2	69.5	52.5
MCE/SPM/SPVM/D Level	65.7	64.9	72.1	58.0
STPM/STP/HSC/A Level	67.9	66.7	74.5	60.3
Diploma	69.8	68.7	76.2	62.5
Bachelor's degree	68.7	69.5	74.1	60.8
Masters/PhD*	78.7	77.7	82.0	75.5
Others*	67.0	61.4	78.2	57.8
(Max – Min)	27.4	20.3	26.6	35.7
Household Income				
B40	63.3	62.9	70.2	54.5
M40	67.3	66.7	73.3	60.0
T20	67.8	69.3	72.7	59.9
(Max – Min)	4.5	6.4	3.1	5.5

6.4.2.11 Pahang

Pahang achieved a total index score of 64.9% compared to the national average of 63.1%. The comparison of subdomain scores is provided in Figure 46.

Figure 46: Gap in subdomain scores between Pahang and the national average



Subdomain scores in Pahang are consistently higher than the national average. With the exception of Red-P and Fin-P scoring -2.4% and -6.1% lower than the national score respectively, the rest of the subdomain records higher scores in a tight range between +0.4% and +5.3%.

The results by demographic profile for Pahang are shown in Table 44.

Table 44: Pahang: Index and domain scores by demographic profile (weighted)

Total respondents: 617

* Categories with limited sampling

Demographic Profile	Index Score	Financial Literacy	Purchasing Decision	Redress
Pahang	64.9	63.8	72.7	55.5
Gender				
Male	65.7	65.0	73.8	55.8
Female	64.1	62.7	71.7	55.2
(Max – Min)	1.7	2.3	2.1	0.6
Age Group				
18-29	67.2	65.6	74.9	58.6
30-39	66.8	63.8	75.2	58.7
40-49	64.0	64.3	71.3	54.0
50-59	64.6	64.4	72.4	54.3
60-69	55.9	57.2	63.7	44.2
> 70*	57.1	57.2	66.3	44.8
(Max – Min)	11.3	8.4	11.5	14.4
Ethnicity				
Malay	66.4	64.4	74.5	57.4
Chinese	59.8	62.3	65.7	49.5
Indian*	60.1	60.0	69.4	47.8
Other Bumiputera	-	-	-	-
Others	-	-	-	-
(Max – Min)	6.6	4.5	8.9	9.6
Strata				
Urban	64.7	63.5	72.2	56.0
Rural	65.1	64.3	73.6	54.7
(Max – Min)	0.4	0.8	1.4	1.3
Education level				
No Formal Education*	56.0	56.7	63.9	44.8
UPSR	55.9	56.4	63.0	46.0
LCE/SRP/PMR	62.2	62.4	70.2	51.3
MCE/SPM/SPVM/D Level	66.0	64.1	74.1	57.2
STPM/STP/HSC/A Level	70.4	68.7	78.3	61.4
Diploma	68.0	67.4	74.8	59.5
Bachelor's degree	70.1	69.4	79.8	57.8
Masters/PhD*	81.2	74.8	87.8	79.0
Others*	75.9	74.5	75.5	77.8
(Max – Min)	25.3	18.4	24.8	34.2
Household Income				
B40	64.3	62.6	72.3	55.2
M40	66.6	67.3	73.4	56.8
T20*	73.7	77.2	85.5	54.4
(Max – Min)	9.4	14.6	13.2	2.4

6.4.2.12 Terengganu

Terengganu achieved a total index score of 68.8% compared to the national average of 63.1%. The comparison of subdomain scores is provided in Figure 47.

Figure 47: Gap in subdomain scores between Terengganu and the national average



Terengganu has achieved one of the highest index scores in the country, and at the subdomain level it consistently outperforms the national average. The difference is largest in the Cognitive subdomain, where it ranges from +3.7% in Pur-C to +10.2% in Red-C.

The results by demographic profile for Terengganu are shown in Table 45.

Table 45: Terengganu: Index and domain scores by demographic profile (weighted)

Total respondents: 471

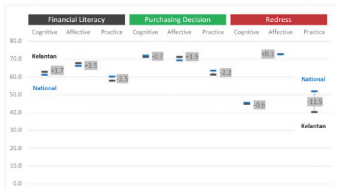
* Categories with limited sampling

Demographic Profile	Index Score	Financial Literacy	Purchasing Decision	Redress
Terengganu	68.8	69.0	73.5	62.4
Gender				
Male	69.5	70.4	74.0	62.7
Female	68.2	67.7	73.1	62.1
(Max – Min)	1.4	2.8	0.9	0.6
Age Group				
18-29	69.1	68.9	73.8	63.1
30-39	69.1	69.2	73.5	63.1
40-49	69.3	69.3	73.7	63.3
50-59	69.4	70.8	74.6	61.1
60-69	66.6	67.1	71.5	59.6
> 70*	58.5	59.8	67.3	45.5
(Max – Min)	10.9	11.0	7.3	17.8
Ethnicity				
Malay	68.8	68.9	73.4	62.5
Chinese*	70.2	72.6	76.7	59.0
Indian	-	-	-	-
Other Bumiputera	-	-	-	-
Others	-	-	-	-
(Max – Min)	1.4	3.7	3.2	3.5
Strata				
Urban	68.7	68.8	73.7	61.8
Rural	69.2	69.5	73.2	63.6
(Max – Min)	0.5	0.6	0.5	1.7
Education level				
No Formal Education*	51.2	48.9	59.3	42.6
UPSR*	67.2	67.2	74.7	57.2
LCE/SRP/PMR*	67.0	66.9	74.0	57.8
MCE/SPM/SPVM/O Level	67.9	68.0	72.1	62.2
STPM/STP/HSC/A Level*	67.6	70.8	71.7	58.8
Diploma	72.4	73.0	77.7	64.6
Bachelor's degree	73.3	72.7	77.8	68.1
Masters/PhD*	73.6	85.0	76.8	58.1
Others*	75.4	73.5	80.2	71.0
(Max – Min)	24.3	36.0	20.9	28.4
Household Income				
B40	67.6	67.9	72.9	60.2
M40	71.5	71.4	75.0	67.0
T20*	66.6	67.5	70.2	61.1
(Max – Min)	4.9	4.0	4.8	6.8

6.4.2.13 Kelantan

Kelantan achieved a total index score of 61.8% compared to the national average of 63.1%. The comparison of subdomain scores is provided in Figure 48.

Figure 48: Gap in subdomain scores between Kelantan and the national average



Scores in Kelantan have been dragged lower by the Practice subdomain under Redress, where the gap is a wide -11.5% compared to the national average. Other subdomains score consistently close to the national average, ranging between -2.5% to +1.9%.

The results by demographic profile for Kelantan are shown in Table 46.

Table 46: Kelantan: Index and domain scores by demographic profile (weighted)

Total respondents: 715

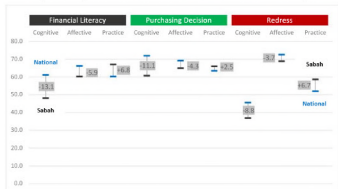
* Categories with limited sampling

Demographic Profile	Index Score	Financial Literacy	Purchasing Decision	Redress
Kelantan	61.8	63.0	68.4	51.7
Gender				
Male	62.0	63.5	68.0	52.5
Female	61.6	62.5	68.9	50.8
(Max – Min)	0.4	1.0	0.9	1.7
Age Group				
18-29	63.2	62.5	70.7	53.8
30-39	65.8	66.0	72.6	56.5
40-49	61.3	62.8	67.2	51.9
50-59	61.4	64.9	67.7	49.4
60-69	53.3	56.8	59.2	41.9
> 70*	53.7	62.3	60.0	36.6
(Max – Min)	12.5	9.2	13.4	19.9
Ethnicity				
Malay	61.8	63.1	68.6	51.4
Chinese*	61.8	60.8	65.8	57.4
Indian*	53.2	54.7	57.5	46.0
Other Bumiputera	-	-	-	-
Others	-	-	-	-
(Max – Min)	8.6	8.4	11.1	11.4
Strata				
Urban	62.7	63.3	69.4	53.0
Rural	60.8	62.6	67.4	50.2
(Max – Min)	1.8	0.7	1.9	2.8
Education level				
No Formal Education*	47.0	52.3	54.2	32.1
UPSR	52.4	57.5	59.9	37.5
LCE/SRP/PMR	57.6	60.6	65.5	44.1
MCE/SPM/SPVM/D Level	63.7	64.3	70.1	54.5
STPM/STP/HSC/A Level	60.6	62.3	67.2	50.2
Diploma	63.1	62.1	69.2	56.1
Bachelor's degree	69.7	70.0	76.8	60.0
Masters/PhD*	75.3	81.9	77.2	66.0
Others*	71.0	60.0	80.0	70.0
(Max – Min)	28.3	29.6	25.8	37.8
Household Income				
B40	61.4	62.8	68.2	50.9
M40	63.9	64.5	69.4	56.2
T20*	63.0	60.9	71.2	54.1
(Max – Min)	2.6	3.5	2.9	5.3

6.4.2.14 Sabah

Sabah achieved a total index score of 59.0% compared to the national average of 63.1%. The comparison of subdomain scores is provided in Figure 49.

Figure 49: Gap in subdomain scores between Sabah and the national average



The profile of subdomain scores in Sabah is significantly different compared to the national average, where there are large swings in scores from -13.1% in Fin-C to +6.8% in Fin-P. In general, Practice subdomains score higher compared to the average, between +2.5% in Pur-P to +6.7% in Red-P and +6.8% in Fin-P. Cognitive subdomains score markedly lower, and is a main contributor to the lower scores, ranging between -8.8% in Red-C to -11.1% in Pur-C to -13.1% in Fin-C.

The results by demographic profile for Sabah are shown in Table 47.

Table 47: Sabah: Index and domain scores by demographic profile (weighted)

Total respondents: 1,404

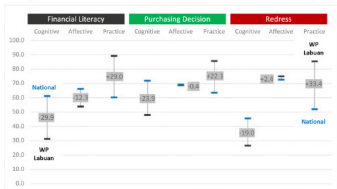
* Categories with limited sampling

Demographic Profile	Index Score	Financial Literacy	Purchasing Decision	Redress
Sabah	59.0	57.2	63.6	54.6
Gender				
Male	58.9	57.5	63.5	54.0
Female	59.1	57.0	63.6	55.1
(Max – Min)	0.2	0.5	0.1	1.0
Age Group				
18-29	58.6	56.4	63.4	54.3
30-39	60.3	58.2	65.3	55.9
40-49	58.4	57.0	62.4	54.3
50-59	58.8	57.1	63.5	54.4
60-69	58.8	60.2	62.0	53.2
> 70*	48.9	49.5	51.3	45.1
(Max – Min)	11.4	10.7	14.0	10.7
Ethnicity				
Malay	54.6	53.6	57.9	51.1
Chinese	59.2	58.6	64.1	53.4
Indian*	57.7	53.4	61.7	56.8
Other Bumiputera	59.4	57.3	64.1	55.1
Others	59.4	58.7	62.7	55.8
(Max – Min)	4.8	5.3	6.2	5.7
Strata				
Urban	59.9	58.6	64.3	55.5
Rural	57.0	54.6	62.1	52.7
(Max – Min)	2.9	4.0	2.2	2.9
Education level				
No Formal Education	52.2	49.7	55.7	49.9
UPSR	56.0	51.5	60.3	54.8
LCE/SRP/PMR	56.7	56.2	60.9	51.5
MCE/SPM/SPVM/D Level	60.3	58.9	65.1	55.3
STPM/STP/HSC/A Level	59.7	57.6	63.9	56.1
Diploma	59.3	56.4	64.6	55.1
Bachelor's degree	65.9	65.0	70.7	60.3
Masters/PhD*	54.9	41.0	64.6	56.1
Others*	56.4	54.8	61.2	51.5
(Max – Min)	13.7	24.0	15.0	10.4
Household Income				
B40	57.4	54.9	61.9	53.9
M40	64.2	65.1	69.1	56.7
T20*	68.5	70.2	73.1	60.6
(Max – Min)	11.1	15.3	11.2	6.8

6.4.2.15 WP Labuan

WP Labuan achieved a total index score of 61.2% compared to the national average of 63.1%. The comparison of subdomain scores is provided in Figure 50.

Figure 50: Gap in subdomain scores between WP Labuan and the national average



Compared to the national average, there are noticeable contrasts in the subdomain scoring profiles. Cognitive subdomains in particular, score markedly lower with Fin-C at -29.9%, Pur-C at -23.9% and Red-C at -19.0%. Conversely, Practice subdomains are higher by almost the same quantum, at +33.4% for Red-P, +29.0% for Fin-P and +22.1% for Pur-P.

The results by demographic profile for WP Labuan are shown in Table 48. However, due to the low sample size for WP Labuan, all demographic categories will be highly variable.

Table 48: WP Labuan: Index and domain scores by demographic profile (weighted)

Total respondents: 52

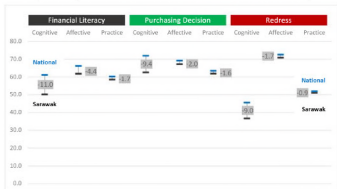
* Categories with limited sampling

Demographic Profile	Index Score	Financial Literacy	Purchasing Decision	Redress
WP Labuan	61.2	54.5	65.0	62.9
Gender*				
Male	62.4	56.1	66.1	63.8
Female	60.1	53.0	63.9	62.0
(Max – Min)	2.3	3.1	2.2	1.7
Age Group*				
18-29	61.9	55.0	65.3	64.3
30-39	63.2	55.1	68.9	63.7
40-49	58.9	54.1	61.1	60.7
50-59	59.4	54.2	61.9	61.2
60-69	56.6	48.7	61.9	57.5
> 70	-	-	-	-
(Max – Min)	6.6	6.4	7.8	6.8
Ethnicity*				
Malay	63.5	58.5	67.0	63.9
Chinese	55.8	49.2	58.3	58.9
Indian	68.2	82.1	61.8	62.7
Other Bumiputera	60.7	52.0	65.3	63.2
Others	63.4	58.4	66.8	63.9
(Max – Min)	12.4	32.8	8.6	5.0
Strata				
Urban	61.2	54.5	65.0	62.9
Rural	-	-	-	-
(Max – Min)	-	-	-	-
Education level*				
No Formal Education	60.9	52.6	65.2	63.6
UPSR	59.1	51.4	62.2	62.8
LCE/SRP/PMR	54.6	44.3	60.0	57.7
MCE/SPM/SPVM/D Level	60.7	53.7	64.4	62.8
STPM/STP/HSC/A Level	61.3	54.8	64.4	63.8
Diploma	67.4	65.5	71.9	63.3
Bachelor's degree	70.6	68.1	71.9	71.3
Masters/PhD	-	-	-	-
Others	-	-	-	-
(Max – Min)	16.0	23.8	11.9	13.6
Household Income*				
B40	59.5	51.8	63.1	62.2
M40	71.1	69.6	75.5	66.8
T20	-	-	-	-
(Max – Min)	11.7	17.8	12.4	4.6

6.4.2.16 Sarawak

Sarawak achieved a total index score of 58.1% compared to the national average of 63.1%. The comparison of subdomain scores is provided in Figure 51.

Figure 51: Gap in subdomain scores between Sarawak and the national average



Compared to the national score, the scores in Sarawak for the Cognitive subdomains are significantly lower, with Fin-C at -11.0%, followed by Pur-C at -9.4% and Red-C at -9.0%. The other subdomains score consistently lower compared to the average, ranging between -4.4% in Fin-A to -1.6% in Pur-P.

The results by demographic profile for Sarawak are shown in Table 49.

Table 49: Sarawak: Index and domain scores by demographic profile (weighted)

Total respondents: 1,274

* Categories with limited sampling

Demographic Profile	Index Score	Financial Literacy	Purchasing Decision	Redress
Sarawak	58.1	56.2	63.8	52.3
Gender				
Male	58.5	56.5	63.9	53.4
Female	57.7	55.9	63.8	51.5
(Max – Min)	0.8	0.6	0.1	2.0
Age Group				
18-29	58.2	56.2	64.2	52.0
30-39	57.9	56.1	64.2	51.4
40-49	59.4	57.6	64.9	53.8
50-59	58.5	56.0	63.2	54.7
60-69	56.6	54.8	61.5	51.9
> 70*	42.9	43.4	46.3	37.9
(Max – Min)	16.5	14.2	18.6	16.8
Ethnicity				
Malay	60.6	58.4	66.8	54.7
Chinese	64.1	62.0	69.6	58.9
Indian*	78.1	79.2	81.9	72.1
Other Bumiputera	53.7	52.0	59.4	47.7
Others*	62.5	60.1	68.2	57.4
(Max – Min)	24.5	27.2	22.5	24.4
Strata				
Urban	59.7	57.7	65.3	54.2
Rural	55.6	53.8	61.6	49.4
(Max – Min)	4.1	3.9	3.6	4.8
Education level				
No Formal Education	44.8	42.0	50.1	40.6
UPSR	51.3	49.2	56.0	47.0
LCE/SRP/PMR	57.3	55.8	62.8	51.3
MCE/SPM/SPVM/O Level	58.9	57.0	65.4	52.1
STPM/STP/HSC/A Level	59.7	58.9	64.1	54.7
Diploma	62.4	59.4	67.3	58.6
Bachelor's degree	67.2	65.4	71.7	62.9
Masters/PhD*	63.0	61.8	65.5	61.0
Others*	56.4	50.6	58.9	58.9
(Max – Min)	22.4	23.4	21.6	22.3
Household Income				
B40	55.5	53.5	61.8	49.1
M40	69.6	68.0	73.0	66.7
T20*	66.7	66.5	69.1	63.7
(Max – Min)	14.1	14.5	11.2	17.6

6.5 Consumer Environment

The Consumer Environment considers the context and circumstances around the individual consumer, and adds a complementing perspective to the empowerment scores measured by the index.

This separate measure is driven by the understanding that the Consumer Environment can often act as a constraint, where the individual's consumer skills and knowledge are made relevant by market factors. For example, there is no room for decision-making when the product choice is limited to a single option, especially if it is a basic necessity (this scenario occurs relatively frequently in rural areas).

6.5.1 Methodology

For this study, Consumer Environment is mainly profiled through five lenses, and each respondent is asked to rate their level of agreement towards statements on these five aspects, as detailed in Table 50.

Table 50: Measures of Consumer Environment

Element	Abbreviation	Statement
Affordability of basic necessities	Affordability	I do not struggle to afford basic necessities.
Sufficient product choices for basic necessities	Choices	I have enough product choices when shopping for basic necessities.
Access to information (to make purchasing decisions)	Information	I am able to find enough information to make an informed buying decision.
Awareness and accessibility of consumer channels	Channels	- I am aware of all the channels to make consumer complaints in Malaysia. - I think government channels for consumer complaints are accessible.
Able to resolve issues with purchases	Resolution	If I encounter a problem with my purchase, I am generally able to resolve it.

Respondents are provided four options ranging from "Strongly Disagree" to "Strongly Agree" to signal their level of agreement with the statements. In the interest of providing a more succinct representation of the results, these options are converted into numerical scores, as follows in Table 51.

Table 51: Conversion of level of agreement to numerical value

Option	Value
Strongly Agree	+ 1.0
Agree	+ 0.5
Disagree	- 0.5
Strongly Disagree	- 1.0

Using the above map, the score for each element ranges from -1.0 to 1.0, with 0.0 denoting parity where there is an approximately equal level of sentiment agreeing and disagreeing with the statement. As the Consumer Environment scores are meant to be a supplementary measure and an indicative result, no normalization is applied to the conversion map.

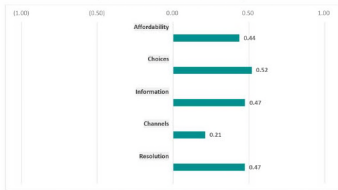
As the Consumer Environment is more relevant to households than individuals (especially in the context of affordability), in calculating the results, a separate set of population weights are applied. These are based on estimated state and strata Malaysian household numbers, provided by Department of Statistics Malaysia (DOSM). The figures were compared against the achieved samples within the study and applied as post-stratification weights.

6.5.2 National-Level Results

The Consumer Environment is generally viewed as favourable in Malaysia, where scores for all five elements are larger than zero, denoting a net positive sentiment.

Overall, Malaysian consumers feel that basic necessities are affordable (0.44) and there are sufficient choices (0.52). They are less positive about redress channels (0.21) but generally feel that if they do encounter issue with their purchases, they are able to resolve it (0.47). The scores are shown in Figure 52.

Figure 52: Consumer Environment in Malaysia



The breakdown of scores at the national level is provided in Table 52, and further elaborated in the following subsections. As Consumer Environment is understood at the household level, the breakdown by gender is excluded (the results also show almost no variation, between -0.01 and +0.01 between male and female). Age group is retained as it has some indication on the composition of the household, while education is excluded as it is an individual-level profile.

Table 52: Consumer Environment scores by demographic profile

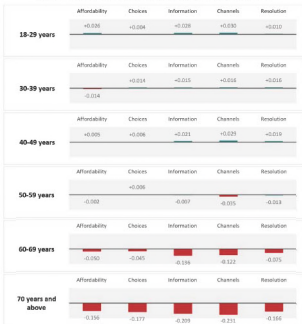
Demographic Profile	Affordability	Choices	Information	Channels	Resolution
Age Group					
18-29	0.46	0.52	0.50	0.24	0.49
30-39	0.42	0.53	0.49	0.23	0.49
40-49	0.44	0.52	0.50	0.24	0.49
50-59	0.43	0.53	0.47	0.18	0.46
60-69	0.39	0.47	0.34	0.09	0.40
> 70	0.28	0.34	0.27	-0.02	0.31
Ethnicity					
Malay	0.49	0.55	0.50	0.31	0.50
Chinese	0.36	0.49	0.45	-0.01	0.45
Indian	0.41	0.49	0.44	0.19	0.47
Other Bumiputera	0.34	0.43	0.40	0.27	0.40
Others	0.37	0.40	0.41	0.31	0.44
Strata					
Urban	0.45	0.53	0.48	0.21	0.49
Rural	0.39	0.47	0.43	0.22	0.43
Household Income					
B40 (RM 4,000 and below)	0.39	0.50	0.45	0.21	0.45
M40 (RM4,001 - RM10,000)	0.50	0.55	0.52	0.21	0.51
T20 (RM10,001 and above)	0.57	0.60	0.56	0.15	0.58
Score Categorization					
Vulnerable	-0.15	-0.10	-0.17	-0.30	-0.16
Low	0.19	0.29	0.21	0.06	0.22
Moderate	0.41	0.49	0.45	0.19	0.46
High	0.56	0.63	0.60	0.32	0.59
Very High	0.68	0.77	0.74	0.48	0.78
State					
Perlis	0.31	0.31	0.41	0.30	0.31
Kedah	0.51	0.53	0.53	0.49	0.54
Penang	0.44	0.51	0.48	0.04	0.52
Perak	0.42	0.55	0.42	-0.12	0.44
Selangor	0.51	0.55	0.51	0.28	0.51
WP Kuala Lumpur	0.34	0.47	0.45	0.16	0.42
WP Putrajaya	0.42	0.49	0.42	0.28	0.49
Negeri Sembilan	0.52	0.56	0.51	0.27	0.53
Melaka	0.38	0.51	0.38	0.01	0.44
Johor	0.43	0.54	0.50	0.22	0.48
Pahang	0.38	0.58	0.55	0.23	0.52
Terengganu	0.55	0.60	0.59	0.48	0.55
Kelantan	0.46	0.53	0.39	0.27	0.47
Sabah	0.36	0.40	0.39	0.30	0.39
WP Labuan	0.62	0.60	0.57	0.62	0.60
Sarawak	0.31	0.43	0.42	0.09	0.38

6.5.3 Key Demographic Indicators

6.5.3.1 Age Group

At the national level, consumers between 18-59 years of age have generally positive sentiments about the Consumer Environment. The differences in their scores compared to the national average are shown below in Figure 53.

Figure 53: Difference compared to national average by age group



In particular, the younger group (18-29 years) have a more positive sentiment compared to the national average, ranging from between +0.004 in Choices to +0.026 in Affordability and +0.030 in Channels. The better sentiment for affordability could be due to these household being on average, young or single households. The other age groups up to 59 years of age also score relatively close to the national average.

However, sentiment noticeably falls off past 60 years of age, where a sizable gap in numerical scores develop by at least an order of magnitude. Even amongst the relatively large 60-69 age group, scores are significantly lower, ranging from -0.136 in access to information to -0.045 to availability of product choices. This could indicate issues with the Consumer Environment as a combination of information bottlenecks and suitable products for older consumers for these age groups.

6.5.3.2 Strata

The strata section will further divide the rural-urban classification between Peninsular Malaysia and Sabah and Sarawak to provide a more meaningful discussion. The differences in scores are provided below in Figure 54.

Figure 54: Difference compared to national average by strata



Sentiment on the Consumer Environment broadly follows trends in the index score, where Peninsular Malaysia respondents score relatively close to the national average regardless of whether they are from urban or rural areas (ranging between -0.012 to +0.024), but respondents in Sabah and Sarawak generally have less positive scores.

Rural respondents in Sabah and Sarawak in particular, indicate that they have more difficulty affording basic necessities (-0.143) and have less access to choices (-0.125). Despite sentiment on redress channels close to the average, they are likely to feel less able to access information

(-0.103) and less able to resolve a problem with their purchases (-0.133). These results could underscore the need to improve access to basic necessities for rural communities in Sabah and Sarawak, as well as improve accessibility for resolving disputes.

6.5.3.3 Ethnicity

At the national level, Malay consumers tend to have a more favourable view about the Consumer Environment. The differences in the scores by ethnicity compared to the national average are shown below in Figure 55.

Figure 55: Difference compared to national average by ethnicity



In line with their index scores, Malay respondents generally have more positive sentiments about the Consumer Environment, in particular in Channels (+0.097), where only Bumiputera Sabah (+0.139) has a higher score.

Notably, while Chinese respondents had index scores close to the Malay respondents, their views on the Consumer Environment are significantly worse, in particular for Channels (-

0.220). Respondents from the Indian community have scores which are generally close to the national average.

For Bumiputera Sarawak respondents, the key issue appears to be affordability of basic necessities at -0.228. In line with their index scores, other elements within Consumer Environment also come below the national average, with the exception of Channels at -0.065.

6.5.3.4 Income Group

The differences in Consumer Environment scores between groups classified by income group are generally expected. The breakdown in differences is given below in Figure 56.

Figure 56: Difference compared to national average by income group

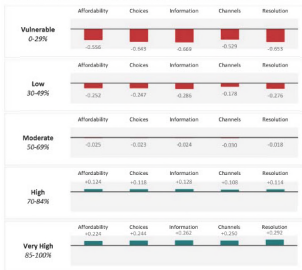


In particular in Affordability and Choices elements, the trends are expected – higher income households are less likely to have issues. There is also some variation in access to information, where T20 households generally have a much more positive sentiment (+0.088) compared to B40 households (-0.029). While differences in Channels scores are relatively minor with all three categories achieving relatively close results, T20 households are significantly more confident in resolving issues with their purchases (+0.101), and likely points to higher level of merchant ethics for higher-end product choices. The challenge will be to replicate this level of ethics at all tiers of product ranges.

6.5.3.5 Consumer Empowerment Score

This section shows the Consumer Environment results based on the achieved index scores of the respondents. The differences in scores compared to the national average are provided below in Figure 57.

Figure 57: Difference compared to national average by index score classification

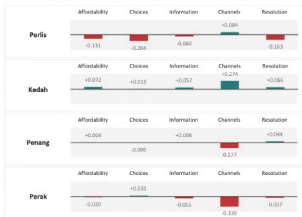


The Consumer Environment results are generally in line with expectations – individuals with low level of consumer empowerment are likely to find the consumer environment to be more challenging, due to a lower level of consumer skills, knowledge and assertiveness. However, the Affordability and Choices elements remain concerning, as these items are related to basic necessities, and the gap in scores for Vulnerable and Low scores are -0.556/-0.643 and -0.252/-0.247 respectively. Regardless of their actual level of consumer empowerment, the government's aspiration is that all consumers should have good and affordable access to basic necessities.

6.5.3.6 Region - North

In terms of the Consumer Environment scores, the Northern states collectively are ranked fourth among the four regions in Peninsular Malaysia. The differences in scores compared to the national average are provided below in Figure S8.

Figure S8: Difference compared to national average by region - North



Individually, there is some degree of variation between states – Perlis and Kedah for example, have Channels scores which are much higher than the national average, with Kedah having the second highest score for Channels in Malaysia, and Perlis with its relatively close proximity to urban centres in Kedah could be a beneficiary. Apart from Channels, consumer environment scores for Perlis are significantly lower than the national average. Penang and Perak, while scoring relatively close to the national average, have much larger gaps in the Channels scores at -0.177 and -0.330 respectively.

6.5.3.7 Region - Central

In terms of the Consumer Environment scores, the Central states collectively are ranked second among the four regions in Peninsular Malaysia. The differences in scores compared to the national average are provided below in Figure 59.

Figure 59: Difference compared to national average by region – Central



On average, Selangor consistently outperform the national score in all elements of the Consumer Environment, where the performance is strongest in perceived affordability of basic necessities, relative to their incomes. However, despite the geographical proximity, respondents in WP Kuala Lumpur indicate that affordability is an issue, and could highlight challenges amongst the urban poor. WP Putrajaya, while recording one of the highest consumer empowerment scores, do not see the performance translated into the consumer environment, with the exception of the Channels element where awareness and accessibility to those channels are regarded as above the national average.

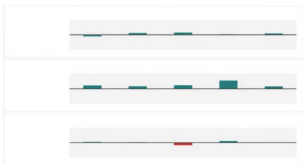
6.5.3.8 Region - South

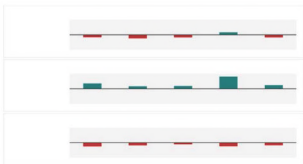
In terms of the Consumer Environment scores, the Southern states collectively are ranked third among the four regions in Peninsular Malaysia. The differences in scores compared to the national average are provided below in Figure 60.

Figure 60: Difference compared to national average by region – South



At the state level, scores for Johor are relatively close to the national average. However, perception of the Consumer Environment in Melaka is markedly less than the national average, where respondents indicate more difficulty in accessing channels (-0.199) and getting access to information (-0.095). Negeri Sembilan on the hand, record higher scores, with best results in Affordability at +0.084 and access to channels at +0.039.







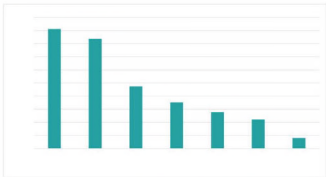
[illegible]

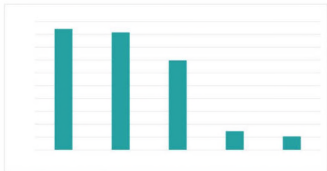
[illegible]

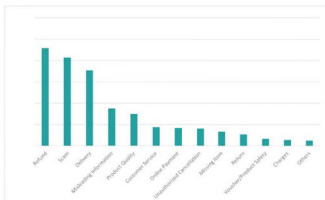
[illegible]



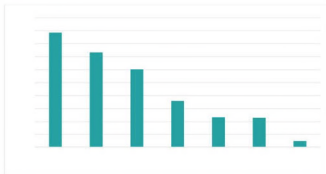


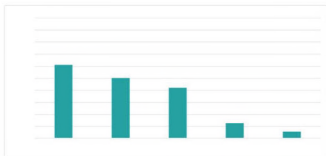


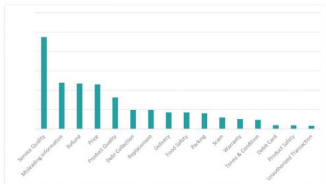


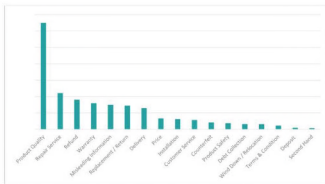


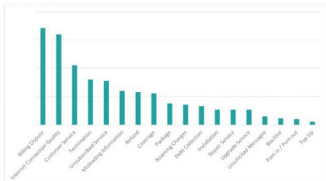


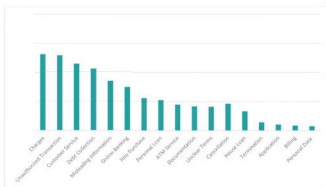


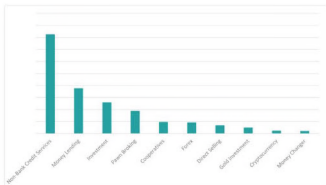








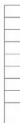














[illegible]



—









[illegible]

--	--	--	--	--	--	--







BARKIBAT PENAKLAMAN / NUTRITIONAL INFORMATION			
Jumlah Hidangan / Serving Per Package: 60		33g	
Saiz Hidangan / Serving Size:			
Perala Komposisi / Average Composition		Selang Per 100g	Selang Selai/ Per Serving 330ml
Penaga / Energy	Kcal / kJ	605 / 1043	155 / 340
Lemak / Fat	g	20.0	6.6
Protein	g	16.0	5.2
Karbohidrat / Carbohydrate	g	56.2	18.0
Natrium / Sodium	mg	330	116
Kalsium / Calcium	mg	70	23
Kalium / Potassium	mg	600	190
Magnesium	mg	30	11
Vitamin A	100,000 IU	2000/900	1000/312
Vitamin E	1.0, 100g IU	6.7/4.5	2.2/1.5
Vitamin C	mg	16.0	5.5
Vitamin B1	mg	1.1	0.4
Vitamin B2	mg	0.3	0.1
Vitamin B6	mg	1.5	0.5
Vitamin B12	ug	2.2	0.8
Biotin	ug	1.0	0.3
Zat Besi / Iron	mg	8.0	2.6
Zink / Zinc	mg	4.0	1.3
Seling Selai / Per Serving 330ml = 30g (200ml air / water)			









MC

[illegible]





EB: AFFECTIVE / EB: AFERTIF

On a scale of 1 to 4, where 1 stands for strongly disagree and 4 stands for strongly agree, how would you rate each of the following statements?

Dari skala 1 hingga 4, di mana 1 bermaksud sangat tidak setuju dan 4 bermaksud sangat setuju, bagaimana anda menilai pernyataan yang berikut?

	1 Strongly Disagree Sangat tidak setuju	2 Disagree Tidak setuju	3 Agree Setuju	4 Strongly Agree Sangat setuju
EB1. As a consumer, I feel well protected by the consumer laws. <i>Sebagai pengguna, saya rasa dilindungi oleh undang-undang pengguna.</i>	1	2	3	4
EB2. In general, I feel the industry protects consumer rights. <i>Pada umumnya, saya rasa hak saya sebagai pengguna dilindungi oleh perusahaan.</i>	1	2	3	4
EB3. I think it is my right to receive appropriate compensation on the loss if there is defect and/or faulty on the product and/or service during its warranty period. <i>Saya rasa ia adalah hak saya untuk menerima pampasan yang sewajarnya jika terdapat kecacatan dan/atau kerosakan pada produk dan/atau perkhidmatan semasa tempoh jaminan.</i>	1	2	3	4
EB4. I am firm in requesting for an exchange and/or refund if I am entitled to it. <i>Saya berpegang meminta pertukaran dan/atau ganti rugi sekiranya ini adalah hak saya sebagai pengguna saya.</i>	1	2	3	4
EB5. I think it is important to advocate consumer rights to my friends and families. <i>Saya berpandangan ia adalah penting untuk menyebarkan advokasi hak pengguna kepada rakan-rakan dan ahli-ahli keluarga saya.</i>	1	2	3	4
EB6. I think it is important to give reviews of the experiences I have with a seller and/or service provider. <i>Saya berpandangan ia adalah penting untuk memberikan ulasan tentang pengalaman saya dengan penjual dan/atau pembekal perkhidmatan.</i>	1	2	3	4
EB7. I think it is important to make a report if I get cheated or scammed. <i>Saya berpandangan ia adalah penting untuk membuat laporan jika saya ditipu.</i>	1	2	3	4
EB8. I think it is important to take sellers and/or service providers to the court over unethical practices. <i>Saya berpandangan ia adalah penting untuk membawa penjual dan/atau pembekal perkhidmatan ke mahkamah atas amalan tidak beretika.</i>	1	2	3	4

On a scale of 1 to 5, where 1 stands for never and 5 stands for always, how would you rate the following statement?

Dari skala 1 hingga 5, di mana 1 bermaksud tidak pernah dan 5 bermaksud sentiasa, bagaimana anda menilai pernyataan yang berikut?

	1 Never Tidak pernah	2 Rarely Jarang	3 Sometimes Kadang-kala	4 Often Kerap	5 Always Sentiasa
EB9. I think it is important for me to file a complaint about a misleading advertisement. <i>Saya berpandangan ia adalah penting untuk membuat aduan atas sesuatu iklan yang mengelirakan.</i>	1	2	3	4	5

EC: ACTION / EC: TINDAKAN

On a scale of 1 to 5, where 1 stands for never and 5 stands for always, how would you rate the following statement?

Dari skala 1 hingga 5, di mana 1 bermaksud tidak pernah dan 5 bermaksud sentiasa, bagaimana anda menilai pernyataan yang berikut?

	1 Never Tidak pernah	2 Rarely Jarang	3 Sometimes Kadang-kala	4 Often Kerap	5 Always Sentiasa
EC1. If the seller refuses to exchange my purchase even though the product is defective (within the warranty period), I will file a complaint to consumer related institution. <i>Jika penjual tidak mahu menukar produk saya walaupun rosak (dalam tempoh jaminan), saya akan membuat aduan kepada badan-badan pengguna.</i>	1	2	3	4	5
EC2. I will follow-up with the complaint that I have made with the online seller if no action is taken within a certain period of time. <i>Saya akan membuat panggilan susulan tentang status aduan dengan penjual dalam talian jika tiada tindakan diambil dalam tempoh masa tertentu.</i>	1	2	3	4	5
EC3. I will file a complaint if I think I am unfairly charged (e.g. mobile plan, etc). <i>Saya akan membuat aduan sekiranya dikenakan caj tidak adil (contoh: plan mudah alih dan lain-lain).</i>	1	2	3	4	5
EC4. I share information about bad purchasing experiences with others. <i>Saya berkongsi pengalaman pembelian yang buruk dengan orang lain.</i>	1	2	3	4	5
EC5. I leave reviews for my online purchases. <i>Saya memberi ulasan untuk pembelian dalam talian saya.</i>	1	2	3	4	5
EC6. I am willing to use a proper channel to file a complaint against an unethical business regardless of the price of the product. <i>Saya bersedia menggunakan saluran yang betul untuk membuat aduan terhadap</i>	1	2	3	4	5

perdagangan yang tidak beretika tanpa mengira harga produk yang diberikan. EC7: If a company or a seller is selling a product at an unreasonable rate, I will share the information with my family and friends and boycott the company or seller. Sekiranya syarikat atau penjual menjual sesuatu produk pada harga yang tidak munasabah, saya akan memberitahu ahli-ahli keluarga dan kawan-kawan saya dan memboikot syarikat atau penjual tersebut.					
	1	2	3	4	5

SECTION F

1. How can KPDNHEP improve their handling of complaints and channels for redress (e.g. e-aduan)? "Redress" covers remedy, compensation and repayment.

Bagaimana pihak KPDNHEP boleh membantu menambah baik proses pembelesaian bagi pengguna (contoh: e-aduan)? "Pembelesaian" merangkumi pemulihan, pampasan dan bayaran semula.

2. How can consumer education programmes be improved?

Bagaimanakah program Pendidikan Konsumer boleh diperbaiki lagi?

3. In which areas the current laws and regulations are lacking in protecting consumers?

Pada pandangan anda, apakah kekurangan terhadap undang undang yang sedia ada untuk menjaga hak pengguna?

Appendix 4: Statistical Analysis of the Pilot Study

Financial Literacy Domain

Table 56: Descriptive Statistics for Financial Literacy domain, Cognitive subdomain

Question No.	Question Details	Mean	Standard Deviation	Skewness	Kurtosis
CA1	The same products cost more due to high inflation, compared with few years ago (before inflation).	0.743	0.438	-1.119	-0.756
CA2	Which of the following represents the best interest rate if you were taking a RM 300,000 fixed-rate mortgage of 30 years?	0.447	0.498	0.216	-1.972
CA3	For a 10-year loan, flat interest rate is lower than a reducing principal rate (monthly rest).	0.238	0.427	1.240	-0.466
CA4	Suppose you put RM 100 in the bank at an interest rate of 10% per year. Will you receive more interest in the 2nd year compared to the 1st year?	0.617	0.487	-0.483	-1.784
CA5	Retailers can charge me a fee for using my debit/credit card to pay for a purchase.	0.641	0.481	-0.591	-1.667
CA6	If I would need to buy a refrigerator, which would be the lower amount I would pay?	0.830	0.376	-1.771	1.147
CA7	I can provide my ATM card as a collateral for a loan.	0.932	0.252	-3.458	10.059
CA8	Illegal money lenders (e.g. Ah Long) can be approached as a last resort for financial problems.	0.956	0.205	-4.498	18.407

Table 57: KMO and Reliability Tests of Financial Literacy domain, Affective subdomain

Kaiser-Meyer-Olkin		0.681
	Approx. Chi-Square	507.982
Bartlett's Test of Sphericity	df	28
	Sig.	0.000
Cronbach's Alpha		0.478

Table 58: Descriptive Statistics for Financial Literacy domain, Affective subdomain

Question No.	Question Details	Mean	Standard Deviation	Skewness	Kurtosis
CB1	I think it is important to save from my monthly income.	0.779	0.191	-0.266	-1.032
CB2	I think it is important to set a short-term and long-term financial goal to do well in financial management.	0.772	0.208	-0.523	-0.267
CB3	I am confident with my general knowledge about financial matters.	0.680	0.211	-0.365	0.114
CB4	I am confident that I can choose the right financial product (e.g. loan, fixed deposit, mutual fund, etc.) for myself.	0.655	0.223	-0.477	0.063
CB5	I am confident with my knowledge about Islamic financial products such as Islamic Banking and Takaful.	0.635	0.260	-0.461	-0.369
CB6	If I have extra money, I find it more satisfying to spend money than to save it for the future.	0.450	0.291	0.263	-0.704
CB7	If I cannot afford an expensive mobile phone, I think it is okay to buy it through a loan.	0.602	0.327	-0.172	-1.200
CB8	I think it is a waste of money to buy health insurance and / or Takaful.	0.573	0.250	-0.220	-0.241

Table 59: KMO and Reliability Tests of Financial Literacy domain, Action subdomain

Kaiser-Meyer-Olkin		0.779
	Approx. Chi-Square	456.955
Bartlett's Test of Sphericity	df	28
	Sig.	0.000
Cronbach's Alpha		0.771

Table 60: Descriptive Statistics for Financial Literacy domain, Action subdomain

Question No.	Question Details	Mean	Standard Deviation	Skewness	Kurtosis
CC1	I track my expenses regularly.	0.720	0.212	-0.584	0.374
CC2	I have no difficulties in paying my monthly bills.	0.712	0.237	-0.769	0.681
CC3	I comply with credit card and loan payment deadlines to avoid extra charges and/or fees.	0.795	0.294	-1.476	1.308
CC4	In the past 6 months, I have saved more than 10% of my income.	0.650	0.268	-0.472	-0.456
CC5	I have enough savings to cover three months of household expenses.	0.646	0.263	-0.578	-0.135
CC6	I regularly check on which banks have the highest interest rate for savings.	0.519	0.333	-0.193	-1.182
CC7	When considering an investment scheme from a non-bank, I do detailed checks and/or research to see if it is a scam.	0.559	0.351	-0.453	-1.126
CC8	How many percent of your monthly income is for your monthly commitment?	0.720	0.212	-0.584	0.374

Purchasing Decision Domain

Table 61: Descriptive Statistics for Purchasing Decision domain, Cognitive subdomain

Question No.	Question Details	Mean	Standard Deviation	Skewness	Kurtosis
DA1	Stores A and B sell the same model of flat-screen televisions. Which store sell at a lower price?	0.629	0.329	-2.408	3.837
DA2	If a pair of RM 100 jeans is offered at 50% plus 20% discount, how much is the final price?	0.883	0.322	0.137	-2.001
DA3	Which of the following is/are full price-controlled goods? Please select all that applies (multiple choices)?	0.466	0.500	0.030	-1.729
DA4	Which of the following example(s) are considered as misleading advertising? Please select all that applies (multiple choices).	0.444	0.403	-0.476	-1.019
DA5	Suppose you receive two books that you have not ordered, together with a RM 100 invoice. Are you obliged to pay?	0.636	0.347	-3.458	10.059
DA6	When you purchase an electrical appliance, which of these should be included? Please select all that applies (multiple choices).	0.932	0.252	-2.219	4.213
DA7	The weighing machine used by the seller must have a verification sticker to indicate that the weighing machine has been calibrated.	0.910	0.199	-1.408	-0.018
DA8	Could you tell by which date you should consume this product by looking at the picture?	0.786	0.411	-4.809	21.334
DA9	Could you tell how many grams of fat there are in 100 grams of this product by looking at the picture?	0.961	0.194	0.874	-1.248
DA10	Could you select the statement that correspond to the meaning of the logo?	0.301	0.460	-0.056	-0.122

Table 62: KMO and Reliability Tests of Purchasing Decision domain, Affective subdomain

Kaiser-Meyer-Olkin		0.884
	Approx. Chi-Square	910.490
Bartlett's Test of Sphericity	df	66
	Sig.	0.000
Cronbach's Alpha		0.836

Table 63: Descriptive Statistics for Purchasing Decision domain, Affective subdomain

Question No.	Question Details	Mean	Standard Deviation	Skewness	Kurtosis
DB1	I can choose the best products by doing research.	0.709	0.174	0.090	0.512
DB2	I am a responsible consumer.	0.717	0.186	-0.006	0.081
DB3	I think comparison of products and / or services will help me make the best purchase.	0.743	0.211	-0.254	-0.559
DB4	I think it is important to look at the terms and condition when buying and / or subscribing to a service.	0.738	0.200	-0.296	0.281
DB5	I understand all the product information on the item packaging.	0.665	0.201	-0.045	-0.194
DB6	I understand the risks of ordering from overseas.	0.711	0.196	-0.366	1.136
DB7	When buying products online, I think it is important to check the ratings and profile of the seller.	0.722	0.194	-0.228	0.524
DB8	I trust the product descriptions provided by sellers on social media.	0.371	0.233	0.304	0.030
DB9	I think knowing consumer rights is important.	0.791	0.195	-0.485	-0.640
DB10	I think whenever possible, we should buy local products.	0.743	0.196	-0.195	-0.763
DB11	I can tell the difference between products which I need and products which I want.	0.778	0.207	-0.680	0.161
DB12	When buying a product, I think quality is more important than brand.	0.785	0.192	-0.507	-0.376

Table 64: KMO and Reliability Tests of Purchasing Decision domain, Action subdomain

Kaiser-Meyer-Olkin		0.902
	Approx. Chi-Square	582.051
Bartlett's Test of Sphericity	df	21
	Sig.	0.000
Cronbach's Alpha		0.870

Table 65: Descriptive Statistics for Purchasing Decision domain, Action subdomain

Question No.	Question Details	Mean	Standard Deviation	Skewness	Kurtosis
DC1	I look for information (e.g. via internet, newspaper, friends etc.) before buying a product.	0.709	0.217	-0.216	-0.532
DC2	Whenever I sign-up for a service package, I read the terms and conditions carefully.	0.732	0.224	-0.476	-0.156
DC3	I read the product information (e.g. nutritional value, materials, etc.) before buying a product.	0.732	0.219	-0.426	-0.361
DC4	I compare the price and quality of the product that I wish to buy with similar products.	0.745	0.221	-0.648	0.394
DC5	I read consumer related articles and / or news in newspapers or internet.	0.721	0.218	-0.400	-0.307
DC6	If two products are similar in quality, I will choose the local product.	0.716	0.214	-0.300	-0.382
DC7	If a company and / or seller has an unreasonable pricing for a product, I will look for alternatives.	0.756	0.214	-0.889	1.124





[illegible]

[illegible]













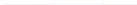






--	--	--	--	--	--

[illegible]





FAKTA NUTRISI / NUTRITIONAL INFORMATION

Saiz Hidangan / Serving Size : 100 g

Komposisi / Composition

Lemak / Fat : 10 g

Karbhidrat / Carbohydrate : 30 g

Protein : 6 g







MC

[illegible]



[illegible]



[illegible]

[illegible]

State	District	Local Authority Area	Stratum*	Target Sample Size
Negeri Sembilan	SEREMBAN	Mantin	R	25
		Pantai	R	25
	TAMPIN	Tampin	U	50
	TOTAL			400
Melaka	ALOR GAJAH	Alor Gajah	U	50
		Durian Tunggal	R	25
		Machap Baru	R	25
	JASIN	Bemban	U	50
		Jasin	R	25
		Merlimau	R	25
	MELAKA TENGAH	Ayer Keroh	U	25
		Bandar Melaka	U	50
		Paya Rumpit	R	25
		Tangga Batu	R	25
		Tanjong Kling	R	25
	TOTAL			350
Johor	BATU PAHAT	Bandar Penggaram	U	50
		Parit Raja	U	25
		Sri Gading	R	25
		Tongkang Pechah	R	50
	JOHOR BAHRU	Gelang Patah	R	100
		Kangkar Pulai	R	100
		Lima Kedai	MC	50
		Masai	MC	50
		Pelentong	MC	50
		Sekudai	MC	50
		Johor Bahru	MC	100
		Pasir Gudang	MC	50
	KLUANG	Machap	R	25
		Rengam	R	25
		Kluang	U	50
	KOTA TINGGI	Kota Tinggi	U	50
		Penawar	R	50
	KULAJAYA	Kulai	U	50
		Saleng	R	25
		Sedenak	R	25
	LEDANG	Tangkak	U	50
	MERSING	Mersing	U	50
	MUAR	Bandar Maharani	U	50
		Bukit Pasir	R	25
		Parit Jawa	R	25
	PONTIAN	Pontian Kecil	U	50
	SEGAMAT	Jementah	R	50
		Segamat	U	50
	TOTAL			1,350

State	District	Local Authority Area	Stratum*	Target Sample Size
Pahang	BENTONG	Bentong	U	90
	BERA	Teriang	R	90
	CAMERON HIGHLANDS	Tanah Rata	R	90
	JERANTUT	Jerantut	U	90
	KUANTAN	Beserah	U	25
		Gambang	U	25
		Kuantan	U	90
	LIPIS	Kuala Lipis	U	90
	MARAN	Bandar Pusat Jengka	U	90
	PEKAN	Pekan	U	90
	RAUB	Raub	U	90
	ROMPIN	Muadzam Shah	R	90
Terengganu	TEMERLOH	Temerloh	U	90
	TOTAL			600
	BESUT	Jertih	U	90
	DUNGUN	Dungun	U	90
	HULU TERENGGANU	Kuala Berang	R	90
	KEMAMAN	Kemaman (Chukai)	U	90
		Kijal	R	90
	KUALA TERENGGANU	Kuala Terengganu	U	100
	MARANG	Marang	U	90
	SETIU	Caluk	R	90
	TOTAL			450
Kelantan	BACHOK	Bachok	R	30
		Jelawat	R	40
		Pauh Lima	R	30
	GUA MUSANG	Gua Musang	U	90
	JELI	Air Panas	R	25
		Jeli	R	25
	KOTA BHARU	Kota Bharu	U	90
		Mulong	R	90
	KUALA KRAI	Kuala Krai & Guchil	U	90
		Machang	R	25
	MACHANG	Pulai Chondong	R	25
		Pasir Mas	U	90
		Rantau Panjang	R	25
	PASIR MAS	Tok Uban	R	25
		Cherang Ruku	R	25
		Pasir Puteh	R	25
Sabah	TANAH MERAH	Tanah Merah	U	90
	TUMPAT	Tumpat	U	90
	TOTAL	Wakaf Baru	U	90
	TOTAL			700
	BEAUFORT	Beaufort	U	90
	KENINGAU	Keningau	R	100
	KUALA PENYU	Kuala Penyu	U	90
	SIPITANG	Sipitang	U	90
	TENOM	Tenom	U	90

State	District	Local Authority Area	Stratum*	Target Sample Size
Sabah	LAHAD DATU	Lahad Datu	U	100
	SANDAKAN	Sandakan	U	100
	TAWAU	Tawau	R	100
	SEMPORNA	Semporna	R	50
	KOTA MARUDU	Kota Marudu	U	50
	KUDAT	Kudat	U	50
	KOTA BELUD	Kota Belud	R	50
	BELURAN	Beluran	U	50
	RANAU	Ranau	U	50
	TAMBUNAN	Tambunan	U	50
	NABAWAN	Nabawan	U	50
		Inanam	U	50
	KOTA KINABALU	Kota Kinabalu	U	100
		Menggatal	R	50
	PAPAR	Papar	R	50
	PENAMPANG	Kepayan	U	50
	PUTATAN	Putatan	R	50
	TUARAN	Tuaran	R	50
	TOTAL			1400
W.P. LABUAN	W.P. LABUAN	Labuan	U	50
	TOTAL			50
Sarawak	ASAJAYA	Asajaya Townland	R	50
	LUNDA	Lundu Townland	R	50
	SIMUNJAN	Simunjan Townland	R	50
	SRI AMAN	Sri Aman Townland	U	50
	BETONG	Betong Townland	R	50
	BINTULU	Bintulu Townland	U	100
	TATAU	Tatau Townland	U	50
	MARUDI	Marudi Townland	R	50
		Kuala Baram Bazaar	R	25
		Lambir Bazaar	R	25
	MIRI	Miri Townland	U	50
		Saratok Townland	R	50
		Sarikei Townland	R	50
	SIBU	Bandar Sibu	R	100
	KANOWIT	Kanowit Townland	R	50
	KAPIT	Kapit Townland	U	50
	SONG	Song Townland	U	50
	LAWAS	Lawas Townland	R	50
	LIMBANG	Limbang Townland	U	50
	BAU	Bau Townland	R	50
		Bandaraya Kuching	U	50
		Kota Sentosa (Batu Tujoh Bazaar)	R	25
	KUCHING	Siburan Bazaar	R	25
		Kota Samarahan Townland	U	50
	SAMARAHAN	Kota Samarahan Townland	U	50
	SERIAN	Serian Townland	R	50
	TOTAL			1250
TOTAL				12300

* U: Urban

MC: Market Centre

R: Rural

Appendix 7: Respondents' Profile for Focus Group Discussion

Focus Group Discussion 1

Location: Kota Kinabalu (Urban)

Date: 5 August 2020

Time: 10AM - 12 Noon

Moderator: Nadihan Mohamed

Participants' Criteria: 18 years old to 30 years old

Single, married with kids and/or without kids

Bumi ethnicity (i.e. indigenous group)

Participants' Details:

No	Age	Ethnicity	Gender	Highest Educational Attainment	Monthly Household Income	Marital Status
1	26	Kadazan	Female	SPM	5,000	Single
2	27	Kadazan	Female	Diploma	4,000	Single
3	24	Rungus	Male	SPM	3,000	Single
4	22	Dusun	Male	SPM	6,000	Single
5	24	Dusun	Male	Diploma	3,000	Single
6	19	Bajau	Female	SPM	5,000	Single
7	24	Dusun	Male	SPM	4,000	Single
8	18	Murut	Male	SPM	5,000	Single
9	23	Irranun	Female	SPM	3,000	Married with kids

Focus Group Discussion 2

Location: Kota Kinabalu (Urban)

Date: 5 August 2020

Time: 10AM - 12 Noon

Moderator: Wan Nuradiah

Participants' Criteria: 31 years old to 45 years old

Single, married with kids and/or without kids

Bumi ethnicity (i.e. indigenous group)

Participants' Details:

No	Age	Ethnicity	Gender	Highest Educational Attainment	Monthly Household Income Range	Marital Status
1	39	Rungus	Female	SPM	7,000	Married with kids
2	35	Bajau	Female	SPM	6,000	Married with kids
3	40	Dusun	Male	Diploma	7,000	Married with kids
4	38	Murut	Female	SPM	3,000	Married with kids
5	42	Bajau	Male	Diploma	6,000	Married with kids
6	33	Bajau	Female	STPM	3,000	Married with kids
7	37	Kadazan	Male	Diploma	5,000	Married with kids
8	36	Kadazan	Male	SPM	6,000	Single

Focus Group Discussion 3

Location: Kundasang (Rural)

Date: 6 August 2020

Time: 10AM - 12 Noon

Moderator: Wan Nuradiah

Participants' Criteria: 18 years old to 45 years old

Single, married with kids and/or without kids

Bumi ethnicity (i.e. indigenous group)

Participants' Details:

No	Age	Ethnicity	Gender	Highest Educational Attainment	Monthly Household Income	Marital Status
1	22	Dusun	Female	Diploma	5,000	Single
2	38	Kadazan	Female	SPM	5,000	Married with kids
3	33	Dusun	Male	Diploma	5,000	Married with kids
4	27	Murut	Female	SPM	3,000	Married with kids
5	24	Dusun	Female	SPM	5,000	Single
6	23	Dusun	Female	Bachelor's Degree	6,000	Single
7	35	Dusun	Male	SPM	5,000	Married with kids
8	27	Dusun	Male	Diploma	3,000	Single

Focus Group Discussion 4

Location: Klang Valley (Urban)

Date: 11 August 2020

Time: 11AM – 1 PM

Moderator: Nadihan Mohamed

Participants' Criteria: 31 years old to 50 years old

Single, married with kids and/or without kids

Mixed ethnicity

Participants' Details:

No	Age	Ethnicity	Gender	Highest Educational Attainment	Monthly Household Income Range	Marital Status
1	33	Malay	Female	Diploma	4,600	Married with kids
2	36	Indian	Male	Bachelor's Degree	5,000	Married without kids
3	41	Chinese	Male	Master	2,700	Married with kids
4	41	Chinese	Female	Diploma	2,500	Single
5	47	Malay	Male	Bachelor's Degree	5,500	Married with kids
6	31	Malay	Male	Diploma	2,900	Married with kids
7	40	Chinese	Female	SPM	2,800	Married with kids

Focus Group Discussion 5

Location: Taiping (Rural)

Date: 12 August 2020

Time: 12 PM – 2 PM

Moderator: Nadihan Mohamed

Participants' Criteria: 18 years old to 45 years old

Single, married with kids and/or without kids

Malay ethnicity

Participants' Details:

No	Age	Ethnicity	Gender	Highest Educational Attainment	Monthly Household Income	Marital Status
1	43	Malay	Male	Diploma	6,000	Married with kids
2	33	Malay	Female	SPM	4,000	Married with kids
3	24	Malay	Female	SPM	3,000	Single
4	18	Malay	Female	SPM	7,000	Single
5	34	Malay	Male	SPM	4,000	Married with kids
6	38	Malay	Male	SPM	2,000	Married with kids
7	26	Malay	Female	SPM	2,000	Married with kids
8	29	Malay	Female	SPM	2,000	Married with kids

Focus Group Discussion 6

Location: Batu Pahat (Rural)

Date: 14 August 2020

Time: 2 PM – 4 PM

Moderator: Nadihan Mohamed

Participants' Criteria: 18 years old to 45 years old

Single, married with kids and/or without kids

Mixed ethnicity

Participants' Details:

No	Age	Ethnicity	Gender	Highest Educational Attainment	Monthly Household Income	Marital Status
1	33	Malay	Male	SPM	2,800	Single
2	39	Indian	Male	STPM	3,500	Married with kids
3	25	Malay	Female	SPM	2,000	Single
4	28	Malay	Male	SPM	4,400	Single
5	21	Chinese	Male	SPM	4,400	Single
6	31	Chinese	Male	SPM	6,500	Married with kids
7	40	Malay	Female	SPM	4,500	Married with kids
8	37	Malay	Female	Bachelor's Degree	6,000	Married with kids
9	34	Indian	Male	SPM	4,200	Single
10	23	Malay	Female	Bachelor's Degree	4,300	Single

Focus Group Discussion 7

Location: Kota Bharu (Urban)

Date: 15 August 2020

Time: 11 AM – 1 PM

Moderator: Wan Nuradiah

Participants' Criteria: 18 years old to 45 years old

Single, married with kids and/or without kids

Malay ethnicity

Participants' Details:

No	Age	Ethnicity	Gender	Highest Educational Attainment	Monthly Household Income	Marital Status
1	21	Malay	Female	SPTM	3,000	Married with kids
2	37	Malay	Female	Diploma	3,000	Married with kids
3	34	Malay	Male	SPM	5,000	Married with kids
4	26	Malay	Female	SPM	4,000	Married with kids
5	31	Malay	Female	Diploma	6,000	Married with kids
6	36	Malay	Male	SPM	7,000	Married with kids
7	27	Malay	Female	Diploma	4,000	Married with kids
8	40	Malay	Male	SPM	4,000	Married with kids
9	36	Malay	Female	Diploma	5,000	Married with kids
10	34	Malay	Female	SPM	3,000	Married with kids

Focus Group Discussion 8

Location: Kuala Terengganu (Urban)

Date: 17 August 2020

Time: 11 AM – 1 PM

Moderator: Wan Nuradiah

Participants' Criteria: 18 years old to 45 years old

Single, married with kids and/or without kids

Malay ethnicity

Participants' Details:

No	Age	Ethnicity	Gender	Highest Educational Attainment	Monthly Household Income	Marital Status
1	37	Malay	Male	Diploma	6,000	Married With kids
2	23	Malay	Male	Diploma	3,500	Single
3	39	Malay	Female	Bachelor's Degree	2,200	Married With kids
4	27	Malay	Male	SPM	3,500	Single
5	45	Malay	Female	Diploma	2,400	Married With kids
6	35	Malay	Female	SPM	3,000	Married With kids
7	44	Malay	Male	Bachelor's Degree	2,800	Married With kids
8	23	Malay	Female	Professional Cert in Culinary Art	1,900	Single
9	25	Malay	Female	SPM	2,100	Single

Focus Group Discussion 9

Location: Klang Valley (Urban)

Date: 18 August 2020

Time: 11 AM – 1 PM

Moderator: Nadihan Mohamed

Participants' Criteria: 18 years old to 30 years old

Single, married with kids and/or without kids

Mixed ethnicity

Participants' Details:

No	Age	Ethnicity	Gender	Highest Educational Attainment	Monthly Household Income	Marital Status
1	25	Malay	Male	Bachelor's Degree	7,000	Single
2	30	Chinese	Male	Bachelor's Degree	6,500	Single
3	26	Indian	Female	Bachelor's Degree	6,000	Single
4	23	Indian	Female	Bachelor's Degree	2,800	Single
5	27	Indian	Male	Bachelor's Degree	2,500	Single
6	26	Malay	Female	Bachelor's Degree	2,500	Single

Focus Group Discussion 10

Location: Kuantan (Urban)

Date: 18 August 2020

Time: 3 PM – 5 PM

Moderator: Nadihan Mohamed

Participants' Criteria: 18 years old to 45 years old

Single, married with kids and/or without kids

Malay ethnicity

Participants' Details:

No	Age	Ethnicity	Gender	Highest Educational Attainment	Monthly Household Income	Marital Status
1	28	Malay	Female	Diploma	3,500	Married with kids
2	42	Malay	Male	Diploma	5,600	Married with kids
3	26	Malay	Female	Bachelor's Degree	4,100	Single
4	28	Malay	Male	Bachelor's Degree	5,000	Single
5	31	Malay	Male	Diploma	5,700	Single
6	31	Malay	Male	Bachelor's Degree	6,800	Married without kids
7	33	Malay	Female	SPM	4,100	Married without kids

Focus Group Discussion 11

Location: Penang (Urban)

Date: 19 August 2020

Time: 11 AM – 1 PM

Moderator: Atticus Poon

Participants' Criteria: 18 years old to 30 years old

Single, married with kids and/or without kids

Non-Malay ethnicity

Participants' Details:

No	Age	Ethnicity	Gender	Highest Educational Attainment	Monthly Household Income	Marital Status
1	24	Chinese	Female	Diploma	5,000	Single
2	26	Chinese	Female	Diploma	5,000	Single
3	28	Chinese	Male	Diploma	2,500	Married without kids
4	26	Chinese	Male	Diploma	6,000	Single
5	23	Chinese	Female	STPM	3,000	Single
6	29	Chinese	Male	Diploma	5,000	Married without kids

Focus Group Discussion 12

Location: Penang (Urban)

Date: 19 August 2020

Time: 3 PM – 5 PM

Moderator: Atticus Poon

Participants' Criteria: 31 years old to 45 years old

Single, married with kids and/or without kids

Non-Malay ethnicity

Participants' Details:

No	Age	Ethnicity	Gender	Highest Educational Attainment	Monthly Household Income	Marital Status
1	39	Chinese	Female	Diploma	6,000	Married with kids
2	43	Chinese	Male	Diploma	2,800	Single
3	36	Chinese	Female	Diploma	2,800	Married with kids
4	35	Chinese	Female	Master's degree	7,000	Married with kids
5	34	Chinese	Male	STPM	3,000	Married with kids
6	43	Chinese	Female	Bachelor's Degree	5,000	Single

Focus Group Discussion 13

Location: Johor Bahru (Urban)

Date: 20 August 2020

Time: 11 AM – 1 PM

Moderator: Nadihan Mohamed

Participants' Criteria: 18 years old to 30 years old

Single, married with kids and/or without kids

Mixed ethnicity

Participants' Details:

No	Age	Ethnicity	Gender	Highest Educational Attainment	Monthly Household Income	Marital Status
1	27	Malay	Male	Diploma	4,500	Single
2	24	Chinese	Male	Diploma	6,000	Single
3	22	Chinese	Female	Bachelor's Degree	2,500	Single
4	26	Malay	Male	Diploma	2,200	Married with kids
5	22	Malay	Male	SPM	5,000	Single
6	22	Indian	Female	SPM	5,200	Single
7	27	Malay	Female	Diploma	2,500	Single

Focus Group Discussion 14

Location: Johor Bahru (Urban)

Date: 20 August 2020

Time: 3 PM – 5 PM

Moderator: Nadihan Mohamed

Participants' Criteria: 31 years old to 45 years old

Single, married with kids and/or without kids

Mixed ethnicity

Participants' Details:

No	Age	Ethnicity	Gender	Highest Educational Attainment	Monthly Household Income	Marital Status
1	40	Chinese	Male	Diploma	5,000 – 7,000	Married with kids
2	38	Malay	Male	Bachelor's Degree	6,000	Married with kids
3	37	Malay	Male	Bachelor's Degree	6,000	Married with kids
4	45	Chinese	Female	SPM	2,800	Married with kids
5	37	Indian	Male	SPM	5,500	Married with kids
6	38	Indian	Female	SPM	2,700	Married with kids
7	42	Malay	Female	SPM	5,400	Married with kids

Focus Group Discussion 15

Location: Kuching (Urban)

Date: 21 August 2020

Time: 11 AM – 1 PM

Moderator: Nadihan Mohamed

Participants' Criteria: 18 years old to 45 years old

Single, married with kids and/or without kids

Bumi ethnicity (i.e. indigenous group)

Participants' Details:

No	Age	Ethnicity	Gender	Highest Educational Attainment	Monthly Household Income	Marital Status
1	38	Male	Iban	Diploma	7,000	Married with kids
2	21	Male	Murut	Bachelor's Degree	1,000	Single
3	30	Female	Bidayuh	Diploma	2,000	Married with kids
4	35	Female	Bidayuh	Bachelor's Degree	3,000	Married with kids
5	23	Female	Bidayuh	Bachelor's Degree	7,000	Single
6	40	Female	Iban	Bachelor's Degree	6,000	Single

Focus Group Discussion 16

Location: Kuching (Urban)

Date: 21 August 2020

Time: 3 PM – 5 PM

Moderator: Atticus Poon

Participants' Criteria: 18 years old to 45 years old

Single, married with kids and/or without kids

Non-Bumi ethnicity (i.e. Non-Malay and Non-Indigenous Groups)

Participants' Details:

No	Age	Ethnicity	Gender	Highest Educational Attainment	Monthly Household Income	Marital Status
1	38	Chinese	Female	Bachelor's Degree	7,000	Married with kids
2	34	Chinese	Female	SPM	6,000	Married with kids
3	31	Chinese	Female	Bachelor's Degree	2,000	Married without kids
4	31	Chinese	Male	Diploma	3,000	Married without kids
5	28	Chinese	Male	Bachelor's Degree	5,000	Single
6	21	Chinese	Female	Diploma	5,000	Single

Focus Group Discussion 17

Location: Ipoh (Urban)

Date: 24 August 2020

Time: 11 AM – 1 PM

Moderator: Atticus Poon

Participants' Criteria: 18 years old to 30 years old

Single, married with kids and/or without kids

Non-Malay ethnicity

Participants' Details:

No	Age	Ethnicity	Gender	Highest Educational Attainment	Monthly Household Income	Marital Status
1	24	Chinese	Female	SPM	2,500	Single
2	20	Chinese	Male	Diploma	5,000	Single
3	26	Chinese	Female	STPM	4,000	Single
4	21	Chinese	Male	Diploma	6,000	Single
5	27	Chinese	Female	Bachelor's Degree	5,000	Single
6	20	Chinese	Male	SPM	3,000	Single

Focus Group Discussion 18

Location: Ipoh (Urban)

Date: 24 August 2020

Time: 3 PM – 5 PM

Moderator: Atticus Poon

Participants' Criteria: 31 years old to 45 years old

Single, married with kids and/or without kids

Non-Malay ethnicity

Participants' Details:

No	Age	Ethnicity	Gender	Highest Educational Attainment	Monthly Household Income	Marital Status
1	34	Chinese	Male	SPM	5,500	Married with kids
2	43	Chinese	Female	SPM	3,500	Married with kids
3	35	Chinese	Male	Bachelor's Degree	6,000	Single
4	37	Chinese	Female	Diploma	5,000	Single
5	35	Chinese	Female	Diploma	2,800	Married with kids
6	33	Chinese	Male	SPM	3,500	Single

Focus Group Discussion 19

Location: Jelebu (Rural)

Date: 27 August 2020

Time: 11 AM – 1 PM

Moderator: Nadihan Mohamed

Participants' Criteria: 18 years old to 45 years old

Single, married with kids and/or without kids

Malay ethnicity

Participants' Details:

No	Age	Ethnicity	Gender	Highest Educational Attainment	Monthly Household Income	Marital Status
1	44	Malay	Male	SPM	5,000	Married with kids
2	30	Malay	Male	SPM	4,000	Single
3	28	Malay	Female	STPM	2,500	Single
4	20	Malay	Male	SPM	4,000	Single
5	24	Malay	Male	SPM	2,000	Single
6	31	Malay	Male	SPM	2,500	Married with kids
7	36	Malay	Female	SPM	900	Married with kids
8	19	Malay	Male	STPM	1,800	Single
9	28	Malay	Male	SPM	1,900	Single

Focus Group Discussion 20

Location: Sibul (Rural)

Date: 28 August 2020

Time: 11 AM – 1 PM

Moderator: Nadihan Mohamed

Participants' Criteria: 18 years old to 45 years old

Single, married with kids and/or without kids

Bumi ethnicity (i.e. indigenous group)

Participants' Details:

No	Age	Ethnicity	Gender	Highest Educational Attainment	Monthly Household Income	Marital Status
1	28	Kayan	Female	SPM	2,000	Married with kids
2	33	Iban	Female	SPM	1,500	Married with kids
3	19	Iban	Female	Diploma	4,000	Single
4	28	Iban	Female	STPM	3,000	Married with kids
5	31	Iban	Male	SPM	1,600	Married with kids
6	22	Iban	Male	SPM	2,500	Single