

Profiling consumers within a corporate South African context according to their decision-making, physical and psycho-social well-being

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ABSTRACT

Consumers regularly engage in decision-making to address needs and desires, but this process is complicated by globalisation and urbanisation. Decision-making is often guided by different consumer decision-making styles and the possible immediate and future consequences of decisions. However, consumers' social environment also influences product choices, such as household equipment (HE), which often involves status-infused products. Socially encouraged purchases can result in uninformed decision-making due to the desire for social acceptance and increased psycho-social well-being. In addition, uninformed decisions regarding higher-risk products such as HE, can result in undesired high levels of stress. Longitudinal high stress levels that are not managed effectively can contribute to lowered physical well-being.

This study aimed to use correlational research with a cross-sectional survey to quantitatively describe consumers' decision-making (namely decision-making styles and consideration of future consequences) regarding medium to high risk purchases (i.e. appliances and furniture, referred to as *household equipment*). Possible associations of decision-making with the consumers' physical and psycho-social well-being while working in an urban corporate setting were also determined.

A total sample population of 391 respondents from urban settings in South Africa was included. Respondents completed an online questionnaire consisting of various validated scales that formed part of the first step of the study focusing on consumer decision-making. The second step entailed using existing subjective and objective physical wellness data from respondents who also took part in step one. This data from a running wellness study in the participating organisation were obtained with permission from the respondents as well as the organisation.

The head offices were relatively evenly represented by the number of respondents. Respondents were mostly females, younger than 50 years of age and represented different ethnic groups. Correlations between consumers' decision-making styles (DMS) and consideration of future consequences (CFC) of HE purchases indicated that future-oriented respondents' DMS were mostly perfectionistic and high-quality driven. Immediate-oriented respondents' DMS were both emotionally and performance driven. Their physical well-being was not ideal, but the majority of respondents flourished in terms of their overall mental well-being. Tendencies of practically significant correlations emerged between consumers' DMS and CFC with the different variables of physical health and psycho-social well-being. Findings from the structural equation modelling pointed out positive as well as negative associations between decision-making and physical and psycho-social well-being.

Results indicated that the decision-making of respondents regarding higher-risk products such as HE might be associated with their physical and psycho-social well-being. These findings may be useful to various role-players in the industry, health care sector and academia. Recommendations are made for the application of employee-assisted programmes for informing urban consumers in terms of informed decision-making, in an attempt to improve physical and psycho-social well-being and to build on current theory. Findings can serve as ground work for future multi-disciplinary research to gain a more holistic understanding of consumer behaviour and high-risk purchases by integrating different disciplines. The knowledge can also be valuable in a developing country context, such as South Africa, with its unique economic and social challenges.

OPSOMMING

Besluitneming word dikwels gelei deur verskillende verbruikersbesluitstyle en die moontlike onmiddellike en toekomstige gevolge van besluite. Die verbruikers se sosiale omgewing beïnvloed egter ook produkkeuses, soos huishoudelike toerusting (HT), wat dikwels produkte behels wat geassosieer word met status. Sosiaal gemotiveerde aankope kan lei tot oningeligte besluitneming as gevolg van die begeerte na sosiale aanvaarding en verhoogde psigososiale welstand. Daarbenewens kan oningeligte besluite rakende hoër-risikoprodukte soos HT tot ongewenste hoë stresvlakke aanleiding gee. Langdurige hoë stresvlakke wat nie effektief bestuur word nie, kan bydra tot verlaagde fisiese welstand.

Hierdie studie het ten doel gehad om korrelasionele navorsing met 'n deursnee-opname te gebruik om verbruikers se besluitneming kwantitatief te beskryf (naamlik besluitnemingstyle en oorweging van toekomstige gevolge) rakende medium- tot hoërisiko-aankope (m.a.w. toestelle en meubels, waarna verwys word as *huishoudelike toerusting*). Moontlike assosiasies van verbruikers se besluitneming met hulle fisiese en psigososiale welstand terwyl hulle in 'n stedelike korporatiewe omgewing gewerk het, is ook bepaal.

'n Totale steekproefbevolking van 391 respondente uit stedelike instellings in Suid-Afrika is ingesluit. Respondente het 'n aanlynvraelys voltooi wat bestaan het uit verskeie gevalideerde skale wat deel vorm van die eerste stap van die studie, wat op verbruikersbesluitneming fokus. Die tweede stap behels die gebruik van bestaande subjektiewe en objektiewe fisiese welstandsdata van respondente wat ook aan stap een deelgeneem het. Hierdie data van 'n lopende welstandstudie in die deelnemende organisasie is verkry met die toestemming van die respondente sowel as die organisasie.

Die hoofkantore is relatief eweredig verteenwoordig deur die aantal respondente. Respondente was meestal vroue, jonger as 50 jaar en verteenwoordigend van verskillende etniese groepe. Korrelasies tussen verbruikers se besluitnemingstyle (BNS) en die oorweging van toekomstige gevolge (OTG) van HT-aankope het aangedui dat toekomsgeoriënteerde respondente se BNS meestal gerig is deur perfeksionisme en hoë gehalte. Onmiddellikgeoriënteerde respondente se BNS was beide emosioneel en prestasiegedrewe. Hulle fisiese welstand was nie ideaal nie, maar die meerderheid respondente het gefloreer ten opsigte van hulle algemene psigososiale welstand. Tendense van prakties beduidende korrelasies is bevind tussen verbruikers se BNS en OTG met die verskillende veranderlikes van fisiese gesondheid en psigososiale welstand. Bevindinge van die strukturele vergelyking modellering het positiewe sowel as negatiewe assosiasies tussen besluitneming en fisiese en psigososiale welstand uitgewys.

Resultate het aangedui dat die besluitneming van respondente ten opsigte van hoër-risikoprodukte soos HT geassosieer kan word met hulle fisiese en psigososiale welstand. Hierdie bevindinge kan nuttig wees vir verskeie rolspelers in die industrie, gesondheidsorgsektor en akademie. Aanbevelings word gemaak vir die toepassing van werknemerondersteuningsprogramme om stedelike verbruikers in te lig ten opsigte van ingeligte besluitneming, in 'n poging om fisiese en psigososiale welstand te verbeter en die huidige teorie verder te ontwikkel. Bevindinge kan ook dien as 'n basis vir toekomstige multidissiplinêre navorsing om 'n meer holistiese begrip van verbruikersgedrag en hoërisiko-aankope te verkry deur verskillende dissiplines te integreer. Die kennis kan voorts waardevol wees in die konteks van 'n ontwikkelende land, soos Suid-Afrika, met sy unieke ekonomiese en sosiale uitdagings.

KEYWORDS

- Consumer decision-making
- Consumer decision-making styles
- Consideration of future consequences
- Psycho-social well-being
- Physical health and well-being
- Household equipment

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May this study lead to great and exciting research adventures!

*“I have been impressed with the urgency of doing. Knowing is not enough, we must apply.
Being willing is not enough, we must do” – Leonardo Da Vinci*

TABLE OF CONTENTS

	Page
Abstract	i
Opsomming	iii
Keywords	v
Acknowledgements	vi

CHAPTER 1: INTRODUCTION

	1
1.1 Background and motivation	1
1.1.1 Consumers as decision makers in a complex environment	1
1.1.1.1 Consumer decision-making approaches and influences	2
1.1.2 Theoretical perspectives to this study	3
1.1.2.1 Consumer decision-making styles and consumer style index	4
1.1.2.2 Immediate and future consequences of decision-making	6
1.1.3 Consumption as the goal of consumer decision-making	7
1.1.3.1 Risks involved during consumption	8
1.1.3.2 Consumption of household equipment as medium to high risk purchases	8
1.1.3.3 Impulse consumption and financial suppression	9
1.1.3.4 Consumption of the urban consumer and related stress	11
1.1.4 Consumer stress and health in the South African corporate work environment	12
1.1.4.1 Stress and well-being of consumers in the corporate work environment	12
1.1.5 Well-being and health of consumers in the corporate work environment	13
1.1.5.1 Psycho-social well-being of consumers	14
1.1.5.2 Physical well-being of consumers	15
1.1.6 Role of employee-assisted programmes in organisations towards physical and psycho-social well-being	16
1.2 Problem statement	17
1.3 Aim and objectives of the study	19
1.3.1 Aim	19
1.3.2 Objectives of the study	19
1.3.2.1 Literature related objective	19
1.3.2.2 Empirical objectives	20
1.3.2.3 Implication-related specific objectives	20

1.4	Conceptual framework of the study	21
1.5	Outline of the study	22
1.6	Authors' contributions	23
1.7	Reporting of results	23
1.8	Declaration by authors of articles	24
1.9	References	25

CHAPTER 2: LITERATURE REVIEW: PART 1

CONSUMER DECISION-MAKING AND PSYCHO-SOCIAL WELL-BEING: TWO COMPLEMENTARY PERSPECTIVES? A NARRATIVE REVIEW

Abstract	35
Introduction	35
Methodology of the present study	37
Consumption in a saturated retail environment	37
Influences on consumer decision-making and different approaches thereto	38
Influences on decision-making	38
Consumer decision-making styles and the consumer style index	39
Immediate and future consequences of decision-making	40
Consumption as the goal of consumer decision-making	40
Consumption of household equipment and accompanying risks	41
Impulse consumption – the origin of financial suppression	42
Well-being in the South African urban environment	43
The effect of consumption on the well-being of consumers	43
Psycho-social well-being of consumers regarding consumption	44
Conclusion	44
Acknowledgements	45
References	45

CHAPTER 3: LITERATURE REVIEW: PART 2

A REVIEW OF URBAN CONSUMER DECISION-MAKING RELATED TO HEALTH AND WELL-BEING

Acknowledgments	50
Research highlights	51
Abstract	51
Keywords	52
1. Introduction	52

2.	Psycho-social context of urban consumers' health	54
2.1	Social pressure as a purchasing driver	55
2.2	The influence of psychosocial well-being on consumer decision-making	56
2.3	Consumers' health-related to psychological and physical factors	59
3.	Consumer decision-making and physical well-being	63
4.	Conclusion	64
	References	66

CHAPTER 4: METHODOLOGY

		72
4.1	Introduction	72
4.2	Research design	72
4.2.1	Analysis of the literature	72
4.2.2	Empirical investigation	73
4.3	Target population and sampling	73
4.4	Measuring instruments	75
4.4.1	Measuring instrument for step one of this study (CDM and psycho-social well-being)	75
4.4.2	Measuring instrument for step two of this study (physical well-being)	76
4.4.3	Validity and reliability of measuring instruments	77
4.4.3.1	Validity of measuring instruments	77
	Conceptualisation: Theoretical validity	
	Internal and external validity of measuring instruments	
	Construct validity of measuring instruments	
4.4.3.2	Reliability of measuring instruments	79
4.5	Data collection process	79
4.5.1	Data collection for step one of this study	79
4.5.2	Data collection for step two of this study	80
4.6	Data analysis	82
4.7	Ethical considerations	85
4.7.1	Approval	85
4.7.2	Informed consent	85
4.7.3	Risks and benefits	85
4.7.3.1	Direct risks and benefits	85
4.7.3.2	Indirect risks and benefits	86
4.7.4	Informed consent	87

4.7.5	Confidentiality and right to privacy	87
4.7.6	Competence of researchers	87
4.8	Conclusion	88
4.9	References	89

CHAPTER 5: RESULTS ARTICLE 1

URBAN CONSUMERS' DECISION-MAKING REGARDING HIGH-INVOLVEMENT PURCHASES 92

Title	93
Abstract	93
Introduction	93
Research method	96
Measuring instrument and data collection	96
Validity and reliability	97
Statistical analysis	98
Results and discussion	98
Influential characteristics during the selection of HE	100
Consumer DMS when selecting HE	101
Comparison with original and South African tested CSI model	104
Consideration of immediate and future consequences during HE decision-making	106
Associations between respondents' DMS and CFC of decisions	108
Conclusion	109
Acknowledgments	111
References	112

CHAPTER 6: RESULTS ARTICLE

URBAN CONSUMERS' DECISION-MAKING AS ASSOCIATED WITH PHYSICAL WELL-BEING 115

Authors	115
Word count	116
Title	116
Abstract	116
Keywords	116
1. Introduction	117
2. Materials and methods	119
2.1 Research design	119

2.2	Measuring instruments	119
2.3	Ethical considerations	120
2.4	Validity and reliability	120
2.5	Statistical analysis	120
3.	Results	121
3.1	Consumer decision-making and CFC	122
3.2	Respondents' subjective physical well-being	122
3.3	The relationship between respondents' decision-making and lifestyle habits	122
3.4	Associations between consumer decision-making (DMS and CFC) and physical well-being (objective and subjective)	125
4.	Discussion	128
5.	Conclusion	130
	Acknowledgements	130
	Appendix A: Supplementary data	131
	References	138

CHAPTER 7: RESULTS ARTICLE 3

AN ASSOCIATION BETWEEN CONSUMER DECISION-MAKING AND PSYCHO-SOCIAL WELL-BEING IN AN URBAN CONTEXT	141
Authors	141
Keywords	142
Word count	142
Title	143
Abstract	143
Introduction	143
Research methods and design	150
Study design	150
Setting	150
Data collection	150
Data analysis	152
Ethical considerations	153
Results	153
Demographic data	153
Urban respondents' decision-making regarding household equipment	154
Psycho-social well-being of urban consumers	155

Differences among levels of well-being as measured with the MHC-SF regarding satisfaction with life and CDM components	157
Ethnographic and location differences between respondents with respect to psycho-social well-being	158
Correlations between CDM and psycho-social well-being	159
Discussion	162
Levels of well-being of urban consumers of HE	163
The associations between CDM and psycho-social well-being	163
Conclusion	166
Acknowledgments	167
Competing interests	167
Authors' contributions	167
References	167

CHAPTER 8: RESULTS PART 4

TOWARDS AN URBAN CORPORATE PROFILE OF CONSUMERS' DECISION-MAKING, PHYSICAL AND PSYCHO-SOCIAL WELL-BEING

8.1	Conceptual background	181
8.2	Methodological background	183
8.3	Structural equation modelling as a prediction of the relationships between consumer decision-making, physical well-being and psycho-social well-being	185
8.3.1	Consumer decision-making variables which uniquely contribute toward predicting diastolic blood pressure	188
8.3.2	Consumer decision-making variables which uniquely contribute toward predicting lifestyle habits	190
8.3.3	Consumer decision-making variables which uniquely contribute toward predicting psycho-social well-being	190
8.4	Discussion and conclusion	191
8.5	References	193

CHAPTER 9: SUMMARY AND CONCLUSION

9.1	Introduction	197
	Literature related objectives	198
	Empirical related objectives	198

	Implication related objectives	199
9.2	Literature-related objective	199
9.3	Empirical objectives	200
9.3.1	Objective 1: Demographic background of the urban corporate sample group	200
9.3.2	Objective 2: Consumer decision-making styles and consideration of future consequences	201
9.3.2.1	Decision-making styles used by consumers during the selection of household equipment	201
9.3.2.2	Respondents' consideration of future consequences during household equipment decision-making	202
9.3.3	Objective 5(i): The associations between respondents' decision-making styles and consideration of future consequences of household equipment decisions	202
9.3.4	Consumer decision-making and physical well-being	203
9.3.4.1	Objective 3: The objective and subjective physical well-being of consumers working within a corporate setting	203
9.3.4.2	Objective 5(ii): The association between consumer decision-making (decision-making styles and consideration of future consequences) and their physical well-being (objective and subjective well-being)	204
9.3.5	Consumer decision-making and psycho-social well-being	205
9.3.5.1	Objective 4: The psycho-social well-being of consumers working in a corporate setting in terms of their satisfaction with life as well as feeling good and functioning well	205
9.3.5.2	Objective 5(iii): The associations between consumer decision-making (decision-making styles and consideration of future consequences) and psycho-social well-being (satisfaction with life and degree of functioning well and feeling good)	206
9.3.6	Objective 6: An urban corporate consumer profile regarding consumer decision-making, physical well-being and psycho-social well-being	207
9.3.6.1	A descriptive overview of urban corporate consumers	207
9.3.6.2	The influence of consumer decision-making on diastolic blood pressure as a variable of physical well-being	208
9.3.6.3	The influence of consumer decision-making on lifestyle habits as a variable of physical well-being	208
9.3.6.4	The influence of consumer decision-making on psycho-social well-being	209

9.3.6.5	The integrated relationships between consumer decision-making and physical and psycho-social well-being	209
9.4	Implication related objectives for both consumers (employees) and the organisation (employer)	210
9.5	Conclusion, limitations and recommendations	211
9.6	References	214

LIST OF TABLES

	Page
CHAPTER 1: INTRODUCTION	
Table 1.1: Authors' contributions	23
Table 1.2: Articles written as result of the research	23
CHAPTER 4: METHODOLOGY	
Table 4.1: Summary of data analysis	84
CHAPTER 5: RESULTS ARTICLE 1	
Table 1: Demographic profile of the study population (N=391)	99
Table 2: Summary of exploratory factor analysis of decision-making styles	102
Table 3: Consumer decision-making styles: A comparison of factors and internal reliability between studies	105
Table 4: Summary of exploratory factor analysis of CFC	107
Table 5: Correlations between respondents' DMS and CFC (<i>r</i>)	109
CHAPTER 6: RESULTS ARTICLE 2	
Table 1: Consumer decision-making related to lifestyle habits	124
Table 2: Correlation between decision-making, objective and subjective physical well-being (<i>r</i>)	126
Table 3: Regression analysis between decision-making, objective and subjective physical well-being (N=65)	127
Supplementary table 1: Demographic profile of selected sample group	131
Supplementary table 2: Factor analysis of consumer DMS	132
Supplementary table 3: Factor analysis of CFC	136
CHAPTER 7: RESULTS ARTICLE 3	
Table 1: Demographic profile of the study population (N=391)	154
Table 2: The psycho-social mental health profile of respondents	156
Table 3: Group statistics on MHC-SF lower and upper quartiles	158
Table 4: Spearman's rank order correlations (<i>r</i>) between consumer decision-making (decision-making styles and immediate and future consequences and psycho-social well-being (mental health continuum short form and satisfaction with life scale)	161

Table 5: Regression analysis of decision-making components on psycho-social well-being facets (N=387)	162

CHAPTER 8: RESULTS PART 4

Table 8.1: The plain descriptive profile of urban corporate respondents	184
Table 8.2: The unique contribution of consumer decision-making variables to the prediction of psycho-social well-being variables	186

LIST OF FIGURES

	Page
CHAPTER 3: LITERATURE REVIEW: PART 2	
Figure 1: Theoretical framework of the relationship between decision-making, psycho-social well-being and stress as well as physical health	64
CHAPTER 6: RESULTS ARTICLE 2	
Figure 1: The relationship between lifestyle habits categories (healthy, moderate, poor) and consumer decision-making styles and consideration of future consequences	123
CHAPTER 8: RESULTS PART 4	
Figure 8.1: Conceptual framework of interrelationships between decision-making, physical and psycho-social well-being in the presence of urban corporate environmental stressors	183
Figure 8.2: Structural part of the structural equation model depicting the unique contributing influence of consumer decision-making variables on psycho-social well-being and physical well-being variables	188

LIST OF APPENDICES

	Page
APPENDIX 1	
Author guidelines	216
Chapter 3 – Literature review: part 2	217
Social Science and Medicine	
Chapter 5 – Results article 1	230
International Journal of Consumer Studies	
Chapter 6 – Results article 2	239
Preventive Medicine	
Chapter 7 – Results article 3	252
Journal of Consumer Psychology	
APPENDIX 2	
Ethical certificate and approved letter of consent	268
APPENDIX 3	
Proof of language editing	276
APPENDIX 4	279
Questionnaires	
Appendix 4.1	280
Step one (section A to E)	
Section A: Demographics	
Section B: Consumer decision-making styles	
Section C: Immediate and future consequence scale	
Section D: Mental health continuum – Short form	
Section E: Satisfaction with life scale	
Appendix 4.2	288
Step two (Physical well-being questionnaires)	
The coronary heart disease risk index	
The lifestyle habit questionnaire	
APPENDIX 5	
Tables: descriptive statistics, factor analysis, t-tests and ANOVA	291
APPENDIX 6	
Turn-it-in report	312

CHAPTER 1

INTRODUCTION

1.1 Background and motivation

Every person is seen to be a consumer in some way or another; whether that person is a child, an adult or even a group of people or a large company (including employees), consuming various products or services in order to fulfil identified needs or desires (Solomon, 2013:31-32). These needs and desires range from physical needs such as hunger or thirst to emotional needs, such as love or status. In order to address these needs, consumers resort to a multitude of mental and physical processes that are associated with a consumer's decision-making, such as searching, selecting, purchasing, using, evaluating and the disposing of products, services, ideas or experiences (Mpinganjira *et al.*, 2013:12; Potgieter *et al.*, 2013:14; Schiffman & Kanuk, 2010:23; Solomon, 2013:31).

1.1.1 Consumers as decision makers in a complex environment

Consumer decision-making is a daily activity in which consumers engage to purchase goods or services and is often done without much thought (Potgieter *et al.*, 2013:13; Schiffman & Kanuk, 2010:478; Stanton, 2017:155). Globalisation has contributed to consumers not thinking purchases through since they are increasingly exposed to more stores, products, advertisements and experiences which collectively influence the manner in which decisions are made and the complexity of choices (Lysonski & Durvasula, 2013:75; Sinkovics *et al.*, 2010:1021). The globalisation of companies has furthermore contributed to an increase in promotional activities, which serves to make the decision-making process of consumers even more complex (Chong *et al.*, 2017; Walsh *et al.*, 2001b:73). This complexity is the result of the abundance of choices and retail stores with which consumers are faced, directly and online, resulting in a saturated retail environment where competitors are competing for the expenditure of the consumer (Chong *et al.*, 2017; Lysonski *et al.*, 1996:10; Mehta & Dixit, 2016:203).

Although many choices can be overwhelming and stressful to the consumer, it is also associated with autonomy and well-being (Markus & Schwartz, 2010:344-345) since freedom of choice in a Western democratic society is important for consumers and is seen to improve one's quality of life. Therefore, as the consumer market becomes progressively globalised, research

on consumer decision-making is gaining more attention, both nationally and internationally, in order to better understand consumers (Alavi *et al.*, 2016; Bae & Lee, 2010:70; Bao *et al.*, 2003:733). As a result, decision-making is more important and more complex to consumers today than in the past, as previous or current decisions affect consumers' future decisions and behaviour (Hui *et al.*, 2001:326; Potgieter *et al.*, 2013:13; Schiffman & Kanuk, 2010:505) and could have a possible effect on their well-being and health.¹

1.1.1.1 Consumer decision-making approaches and influences

Since consumer decision-making – as an integral part of consumer behaviour – is a multifaceted phenomenon, consumers are involved in different levels of decision-making when deciding on a product or service, depending on the importance or future consequence of the decision (Babin & Harris, 2011:213; Schiffman & Kanuk, 2010:478). Various approaches can be used to make decisions (Babin & Harris, 2011:218-219; Schiffman & Kanuk, 2010; Solomon, 2013:323-325), namely:

- *Extensive problem solving*, during which the consumer has no set criteria to narrow the choices down and consequently engage in an extensive information search (internal and external). This enables the consumer to establish a set of criteria on which to make a choice for the first time, such as in the case of expensive or technically complicated products or where the purchase risk involved is high.
- *Limited problem solving* usually occurs where there is a low level of product involvement and the purchase risk is relatively low. In this instance the consumer already has an established set of criteria to evaluate the product and does not engage in an extensive search for new information, but does not have a fully established preference towards a selected group of brands or product types.
- *Routinised response behaviour*, otherwise known as *habitual decision-making*, is applicable to consumers with previous experience of a product and a well-established set of criteria on which to evaluate the consideration set. They may, however, in some cases search for small amounts of additional information or review what they know. Consequently, choices are based on habit or routine and brand loyalty also comes into consideration (Babin & Harris, 2011:218-219; Schiffman & Kanuk, 2010:478-480;

¹ Even though a considerable amount of research has been done in the past years on consumer decision-making, a great deal of these findings is based on former research that serves as the basis for this study.

Solomon, 2013:323-325). Thus, consumer decision-making is not always only based on rational thoughts, but also often includes emotions, depending on the type of need or product being considered (Babin & Harris, 2011:216).

Even though many approaches towards consumer behaviour were based on rational decision-making, it was also realised that consumers are just as strongly influenced by their social group – such as family, friends and peer group – as by marketing efforts (Schiffman & Kanuk, 2010:36). As consumers rise in their social standing or social class, the intensity to satisfy certain needs increases as they tend to compare themselves to their peer groups; often finding satisfaction from fitting in with or doing better than their surrounding social group (Bookwalter & Dalenberg, 2010:354; Modi & Jhulka, 2012:528). This longing to belong to certain sought-after groups may influence consumers' subjective well-being (Bookwalter & Dalenberg, 2010:345; Lönngqvist & große Deters, 2016). Solomon (2013:17) notes that consumer behaviour (including decision-making) is more than just the buying of things, but that it also embraces a study of how the possession or lack of ownership of objects affects consumers' lives and influences the way they feel about themselves and others.

Consumers' shopping behaviours and decisions are evidently influenced by powerful attributes of prejudice, feelings, attitudes, opinions and beliefs, as well as several internal and external factors (Hiu *et al.*, 2001:326; Modi & Jhulka, 2012:527). When consumers make a purchasing decision, they find several dimensions important to consider simultaneously, such as the quantity of information collected, the time spent researching the product, the price, brand and quality; while also being influenced by their culture, sub-culture and social class (Fan & Xiao, 1998:277; Modi & Jhulka, 2012:528). As these various factors influence consumer decision-making, consumers make use of different decision-making styles reflecting the type of psychology in decision-making when they evaluate alternative products and services (Baoku *et al.*, 2010:630; Potgieter *et al.*, 2013:14; Sproles & Kendall, 1986:268). This will be discussed in 1.1.2.1.

1.1.2 Theoretical perspective to this study

This study leans towards a multidisciplinary study, implying that there are various perspectives from which this study can be approached. However, for the purpose of this study for a PhD in Consumer Sciences, the scope will be narrowed to include only consumer decision-making. Consumer decision-making will be studied by means of consumer decision-making styles

(CDMS) and immediate and future consequences of decision-making as a theoretical base, touching on other disciplines, too.

1.1.2.1 Consumer decision-making styles and consumer style index

The decision-making style of a consumer entails the mental or psychological orientation that characterises a consumer's approach to making choices while having cognitive (such as quality) and affective (such as fashionable) characteristics, even if they are not always consciously aware of it while making purchasing choices (Potgieter *et al.*, 2013:13; Sproles & Kendall, 1986:268). During the characterising of CDMS, the *consumer characteristics approach* that focuses on different cognitive and affective orientations related to consumer decision-making is regarded the ideal and explanatory approach to determine consumer decision-making styles as it entails mental orientations (Anic *et al.*, 2012:88; Fan & Xiao, 1998:276; Sproles & Kendall, 1986:268; Yang & Wu, 2007:86). Sproles and Kendall (1986) developed the Consumer Style Index (CSI), which represents a systematic attempt to create a strong methodology for measuring consumers' shopping orientations and behaviour (Bakewell & Mitchell, 2004:224; Mittal, 2017:1). The CSI has proven to be a useful tool as it contains both cognitive and affective features that are directly linked to consumer choices, and simultaneously provides a foundation for the standardised testing of CDMS (Sproles & Kendall, 1986:278; Walsh *et al.*, 2001b:74).

As the CSI opened a new direction in consumer decision-making research (Bao *et al.*, 2003:734), it was used in various studies worldwide, such as the United States (Sproles & Kendall, 1986), United Kingdom (Bakewell & Mitchell, 2004; Bates, 1998), China (Fan & Xiao, 1998; Hiu *et al.*, 2001; Siu *et al.*, 2001; Zhou *et al.*, 2010; Zhu *et al.*, 2012), Germany (Mitchell & Walsh, 2004; Walsh *et al.*, 2001b), Iran (Hanzaee & Aghasibeig, 2008), Australia (Nayeem, 2012; Sinkovics *et al.*, 2010), Singapore (Bae & Lee, 2010), Malaysia (Alavi *et al.*, 2016), India (Lysonski & Durvasula, 2013), as well as South Africa (SA) (Potgieter *et al.*, 2013; Radder *et al.*, 2006) and in various cross-country studies (Anic *et al.*, 2012; Bauer *et al.*, 2006; Leng & Botelho, 2010; Leo *et al.*, 2005; Mittal, 2017; Wickliffe, 2004). During the development of the CSI, Sproles and Kendall (1986:271-274) identified eight basic styles of consumer decision-making in a shopping context:

- *Perfectionistic, high quality consumers* tend search for the best quality products and are applicable to consumers who are more perfectionistic, shop more carefully, systematically or by comparing products and who are not satisfied with products that are only 'good enough';

- *Brand conscious, 'price equals quality'*-oriented consumers often buy the more expensive, well-known national (or international) brands and are consumers who are more likely to believe that a higher price equals a higher quality product;
- *Novelty-fashion conscious* consumers are mostly fashion and novelty conscious. They gain great excitement and pleasure from seeking new things and having a variety of products to choose from and they are mostly fashionable;
- *Recreational and hedonistic shopping*-conscious consumers find shopping pleasant and often shop for enjoyment;
- *Price-conscious, 'value for money'*-oriented consumers are often on the look for sale prices and appear conscious of lower prices in general while also being concerned with best value for money products, by comparing products with one another;
- *Impulsive and careless* consumers do not plan their shopping and appear to be unconcerned about how much they spend or about buying the best possible product;
- *Confused by over-choice* consumers perceive many brands and stores from which to choose confusing and too much information creates an information overload; and
- *Habitual, brand-loyal* consumers have favourite brands and stores and habitual behaviour is typical of this group.

These eight decision-making styles can further be divided into **utilitarian** and **hedonistic** shopping styles (Zhou *et al.*, 2010:47). *Utilitarian* shopping styles (such as quality consciousness, price and value consciousness, confused by over-choice and impulsiveness) are mostly adapted by consumers who are focused on price, value and quality; therefore, these styles are more task oriented (Solomon, 2013:145; Zhou *et al.*, 2010:47). On the other hand, *hedonistic* shopping styles (such as brand consciousness, novelty and fashion consciousness, recreational and hedonistic shopping, as well as brand loyalty) reflect non-essential, non-product aspects of shopping behaviour and are thus regarded as personal gratification, desire and self-expression (Solomon, 2013:145; Zhou *et al.*, 2010:47) which can be linked to social status. This supports the theorem that consumers cannot all be regarded to make decisions in the same manner, but depending on the type of product purchased, consumers display relatively consistent decision-making styles by employing certain purchasing strategies and rules to guide their decisions (Bakewell & Mitchell, 2004:223; Potgieter *et al.*, 2013:14; Sproles & Kendall, 1986:277; Walsh *et al.*, 2001a:121). However, in addition to the product type and features, CDMS are also influenced by the marketing and social environment such as the store, culture and social group (Bakewell & Mitchell, 2004:223; Lysonski & Durvasula, 2013:75).

Although the CSI has been proven to be a useful tool to classify consumer shopping orientations into different decision-making styles (Siu *et al.*, 2001:31), some studies argue that the CSI is not an effective measuring instrument in all countries as variances occur between studies (Walsh *et al.*, 2001a:117). After thorough investigation of most studies employing the CSI, it became evident that various factors – such as the translation and interpretation of questions; cultural buying habits; purchasing power; media and social influences; available and known brands in a certain country; differences in age of used sample groups that lead to demographic and psychological differences – were not sufficiently taken into consideration and all contribute to inaccurate claims, suggesting that the model is ineffective and not well reasoned (Bao *et al.*, 2003:733; Fan & Xiao, 1998:286-293). All these factors create difficulties for applying recommendations for improvement of the CSI for studies done in one country to a study in another. Thus it is best to only take into consideration recommendations of improvement from studies done in the same country where future studies are going to be performed (Siu *et al.*, 2001:31). For that reason, only applicable recommendations of studies that took place in the South African setting or a similar environment will be taken into consideration for the purpose of this study.

1.1.2.2 Immediate and future consequences of decision-making

In the same way that consumers are not necessarily aware of their CDMS when making purchasing choices, they may also not be aware of or take into consideration the immediate and/or future consequences of their decisions. Consumers differ regarding the extent to which they take the consequences of their current behaviour into consideration, with the result that some consumers are willing to sacrifice immediate benefits such as gaining pleasure or social recognition from a purchase, in order to ensure desirable future conditions such as financial stability (Strathman *et al.*, 1994:742; Toepoel, 2010:951). Other consumers, on the other hand, do not consider the future consequences of their current behaviour but may be more concerned with experiencing high levels of current satisfaction or pleasure (Strathman *et al.*, 1994:742; Toepoel, 2010:951). According to Strathman *et al.* (1994:743) the extent to which consumers take the future consequences of their current behaviour into consideration are likely to have an influence on their attitudes, behaviours and information processing and possibly on their own current and future health and well-being.

Therefore, it is important to study the consideration of future consequences as this would focus on the extent to which a consumer experiences an intrapersonal struggle between present behaviour and immediate and future outcomes, and does not measure a general concern with

the future or specific events in the future (Toepoel, 2010:952). The consideration of future consequences theory is thus a suitable second theory through which this study will be approached, as it is especially applicable in healthcare or financial domains. These areas are increasingly recognising that current behaviour, such as an unhealthy lifestyle or irresponsible spending and consumption, can have an important influence on future well-being and health of consumers (Joireman & King, 2016; Rappange *et al.*, 2009:562; Tasdemir-Ozdes *et al.*, 2016).

1.1.3. Consumption as the goal of consumer decision-making

Consumption is considered an important part of consumers' lives and therefore the study of consumption is important in order to gain a better understanding of consumers (Ganglmair-Wooliscroft & Lawson, 2012:149; Jansson-Boyd, 2010:2). As consumers are exposed to different marketing efforts on a daily basis in a social context, these efforts often influence consumers' attitudes, beliefs and usage of certain products in order to express a certain lifestyle or to make a certain social impression in order to be regarded as part of a desired social group (Stanton, 2017:156; Wänke, 2009:9, 19). When consumers have a clear understanding of who they are and how they fit into society, they generally experience a sense of belonging and well-being (Jansson-Boyd, 2010:54). In order to achieve this sense of belonging and well-being, however, consumers often make use of possessions to express who they are and to categorise themselves by purchasing certain products or brands due to the material meaning attached to them (Jansson-Boyd, 2010:55-58; Wänke, 2009:8; Zhang *et al.*, 2016).

Consumers also have the tendency to judge one another by the material possessions they own, and seek out those similar to them who appear to be among the same social status group in order to make a social comparison which could be either an upward or downward comparison (Jansson-Boyd, 2010:54-57). A desire towards upward mobility serves as a strong motivator to consume products that would indicate status and social significance and therefore bring about changes to their lives in terms of what was previously regarded as satisfactory (Chancellor & Lyubomirsky, 2011:132; Erasmus *et al.*, 2011:53). Thus, as consumers are confronted with social expectations, they regard their current lifestyle not to be satisfactory anymore and therefore develop a need for newer and better products to fulfil these needs and desires which would better conform to the new set standards of the social group. This is especially the case for consumers living in urban environments in South Africa, as they tend to have a high level of status consciousness (Cronje *et al.*, 2016; Erasmus *et al.*, 2011:54).

This desire towards status in a social environment can encourage consumers to engage in purchases that explicitly indicate status and social significance, such as with household appliances and furniture (Erasmus *et al.*, 2011:53). Therefore these consumers are often more vulnerable towards marketing efforts which create the impression that certain products will enhance material and social life as well as give a greater sense of overall well-being by fulfilling those needs and purchasing products (Danziger, 2004:12; Zhong & Mitchell, 2012:590).

1.1.3.1 Risks involved during consumption

Depending on the type of products purchased, certain types and **levels of risks are involved** (Mpinganjira *et al.*, 2013:234). Although the level of risks experienced differ between consumers, the product purchased, the purchase environment and the type of product are strong indicators of the possible level of risks that consumers might experience (Schiffman & Kanuk, 2010:202; Schiffman & Wisenblit, 2015:143). If, for example, a consumer purchases a product that does not conform or fit in with the ideas of the social group, the consumer runs the psychological risk of being rejected by the desired social group (Solomon, 2013:30). These risks can be extended to functional risks (would the product function effectively?), physical risks (will the product possibly harm the consumer?), financial risks (will the purchase of the product have possible financial consequences?) or time risks (will the purchase or use of the product be time consuming?) (Mpinganjira *et al.*, 2013:234; Schiffman & Kanuk, 2010:202; Schiffman & Wisenblit, 2015:144). Home appliances and furniture are regarded to be medium to high risk purchases (Erasmus *et al.*, 2014:303) due to the financial risk (will they be able to afford the purchase?) and social risks (will the purchase be socially acceptable and improve their image among their social group?). Thus, for the purpose of this study, the scope will be narrowed to include only psychological, functional and financial risks concerning medium to high risk purchases such as household equipment. Furthermore, not all consumers in the South African setting purchase larger items, such as a car or house, but most consumers purchase items for their homes, such as furniture or appliances.

1.1.3.2 Consumption of household equipment as medium to high risk purchases

Among various durables, **household equipment** (such as appliances and furniture) are regarded essential for comfortable living (Danziger, 2004:11). Also, research indicates that consumers invest a large amount of their resources into their homes because of the assumption that well-being could be increased by means of bigger and better homes (Nakazato *et al.*, 2011:116). Household equipment items have also become social symbols to consumers,

indicating their socio-economic status to their social group along with indicators of progress and prosperity (Erasmus *et al.*, 2011:47; Sonnenberg *et al.*, 2011:154). Therefore, when consumers purchase household equipment, the emotional form of satisfaction that is gained by owning a certain type of product also serves as an important motivator for a purchase (Danziger, 2004:12).

Household equipment is also seen to influence consumers' view of the quality of their homes, and consequently affects their psychological well-being, identity or self-esteem either positively or negatively (Robinson & Adams, 2008:4). Therefore during these purchases, the product's features, usability and benefits are often primary drivers for sales of a certain item along with price, credit terms and conditions (Blasch *et al.*, 2017:4; Danziger, 2004), but value in terms of status and social affiliations may boost excessive and/or irrational consumption of these products (Erasmus *et al.*, 2011:47). Thus, should consumers find themselves not meeting the objective standards of their social group, they tend to seek ways in which they can diminish the feeling of being deprived (Sharma & Alter, 2012:545). These momentary moods can drive consumers to engage in compulsive and excessive buying (Zhong & Mitchell, 2012:588). Consequently these consumers experience an urgent need to possess products, which is driven by a quick act to fulfil this need (Blackwell *et al.*, 2006:150) resulting in unplanned or impulse purchases to reduce the level of perceived possible psycho-social risk.

1.1.3.3 Impulse consumption and financial suppression

Unplanned or impulse purchases are a common phenomenon in the modern retail and marketing environment, with marketers finding impulse purchases an important addition to their businesses and as a result are on a constant search for new ways to stimulate it (Chan *et al.*, 2017; Wood, 1998:298, 314). According to Rook (1987:189) impulses are stimulated on a biochemically and psychological manner, and these psychological impulses often occur suddenly, spontaneously and immediately while it can also be powerful, persistent and – depending on the consumer – irresistible (Darrat *et al.*, 2016; Rook & Fisher, 1995:306). Impulse purchases are furthermore often influenced by environmental factors and circumstances such as social groups, product features or the shopping environment such as in-store marketing or online stores (Olsen *et al.*, 2016; Rook, 1987:191; Rook & Fisher, 1995:312). Even though impulse purchasing is often regarded as a relaxing and fun way to lift one's mood and avoid negative psychological states (for example stress or depression) (Silvera *et al.*, 2008:24), this theorem should be reconsidered when a consumer engages in impulse purchasing too often. Unfortunately, impulse purchasing has become an epidemic among

consumers due to online purchases where consumers are not bound by store times or other store-related obstacles (Chan *et al.*, 2017:204).

Impulse purchasing often links with hedonic motives (for example gaining pleasure from a purchase) and if a consumer engages in impulse purchasing on a regular basis, this behaviour could be an indicator of a potential problem that needs attention due to the underlying link with negative emotions and consequences (Silvera *et al.*, 2008:29; Weinstein *et al.*, 2016). Impulse purchasing furthermore leads to a negative association with subjective well-being (Silvera *et al.*, 2008:24), due to buyers' dissatisfaction and regret following the heightened emotional state that drove to the unplanned and often unnecessary purchases (Lee *et al.*, 2016; Wood, 1998:298-299). This type of behaviour results in unplanned financial expenditures, financial problems (for example irresponsible use of credit), along with feelings of guilt or immaturity (Darrat *et al.*, 2016:108; Rook & Fisher, 1995:306). As burdensome debt increasingly places pressure on consumers, they tend to seek unique products to reduce the social pressure of being compared, since products may give a sense of pleasure and contribute to consumer satisfaction and quality of life (Schiffman & Kanuk, 2010:505; Sharma & Alter, 2012:545), such as modern or the newest household equipment. However, if this results in unplanned purchases or if inadequate efforts have been made to consult or acquire information sources during impulse purchases, these uninformed purchase decisions might result in post-purchase conflict or discomfort about the purchase made (Rousseau, 2007:269), which consequently leads to an unpleasant state of tension or cognitive dissonance (Kassin *et al.*, 2008:208; Schiffman & Kanuk, 2010:270). Cognitive dissonance can be described as a struggle that consumers experience after a purchase, for example whether it was a good or bad decision to purchase a certain product, which influences the level of regret experienced (Babin & Harris, 2011:258). This state of cognitive dissonance in the case of unnecessary purchases, might manifest as guilt about a purchase. Consumers who made superfluous purchases might also seek for explanations for their behaviour and as a result assign it to some cause (Hoyer *et al.*, 2013:277; Schiffman & Kanuk, 2010:272) in order to justify their impulse purchasing behaviour and to reduce the associated level of stress.

During purchasing, credit card use is progressively defining the meaning of consumption in order to easily acquire products, but although many consumers do not realise it, it is a form of burdensome debt as a result of unfulfilling purchases (Schiffman & Kanuk, 2010:387; Wood, 1998:295). Debt is a global phenomenon that carries different material, physiological and social meanings, depending on the context in which it occurs (Sweet *et al.*, 2013:99). Debt furthermore serves as a coping device which enables consumers to meet immediate needs, whether it is for

necessities, conveniences or luxuries in fluctuating economic conditions which require future repayment, usually with interest (Clayton *et al.*, 2015:57; Drentea & Reynolds, 2015:28; Hodson *et al.*, 2014:316). Although debt allows consumers to respond in a quick manner to current needs, the burden of unsecured debt can pose significant risks for their long-term financial situation and health (Clayton *et al.*, 2015:52; Hodson *et al.*, 2014:316). Therefore credit has both positive and negative consequences because it can satisfy current needs but, at the same time, can also contribute to financial risk and stress (Drentea & Reynolds, 2015:29; Hodson *et al.*, 2014:315).

The use of credit contributes to increased stress and anxiety as consumers often feel as if they do not have the ability to effectively manage their financial well-being – this tends to be more common among middle income borrowers (Drentea & Reynolds, 2015:18; Hodson *et al.*, 2014:333, 335). This perceived stress due to financial debt directly impacts on psychological and physical health in the sense of greater perceived stress levels, depression and decreased general health (Clayton *et al.*, 2015:52; Drentea & Reynolds, 2015:17; Yilmazer *et al.*, 2015:239). Therefore household debt as an important predictor of consumers' health is associated with worse self-reported physical health and blood pressure (Sweet *et al.*, 2013:98-99). This is especially a concern for consumers in urban environments, who are exposed to a wider range of products and higher levels of social pressure and who are consequently regarded to be more prone to experience a variety of stress-contributing factors in their lifestyles (Wagner & Brath, 2012:S40).

1.1.3.4 Consumption of the urban consumer and related stress

Urban consumers experience globalisation to a greater extent than their semi-urban and rural counterparts due to advanced technological goods and services, with a consequent impact on their type and extent of leisure activities, transportation and work (Wagner & Brath, 2012:S40). Consumers who find themselves in these urban environments also often experience increased levels of stress due to more pressure to perform at work, longer traveling times and social pressures to conform to (Erasmus *et al.*, 2011:54; Soni, 2013:34; Wener & Evans, 2011:111). These factors contribute to a build-up of stress if consumers are unable to escape from the stress from time to time and to relax (Tyrväinen *et al.*, 2014). Stress, sedentary lifestyles and poor health become prevalent among urban employees as a result of such pressure (Barnes *et al.*, 2008:663; Wagner & Brath, 2012:S40). Kolbe-Alexander *et al.* (2008:228) observe that lifestyle habits of employees in South Africa are placing them at increased risk for non-

communicable diseases (NCDs), which accounted for more than 39% of all deaths in South Africa by 2010 (Nojilana *et al.*, 2016:436).

1.1.4 Consumer stress and health in the South African corporate work environment

The corporate financial sector is characterised by companies that are experiencing problems due to the high level of stress among employees in the workplace (Bunn *et al.*, 2013:14). This stress is aggravated by urban lifestyle circumstances such as daily routines of long commuting distances and times in order to get to work, which is considered highly stressful and which results in poor activity levels and diets (Allen *et al.*, 2017:284; Wener & Evans, 2011:111). Due to these high levels of stress, depression has become more common among working consumers, resulting in employees either taking sickness absence or continuing to work while ill (Cocker *et al.*, 2011:231) – this is especially the case for employees in the corporate financial sector in SA (Bunn *et al.*, 2013). Consumers working in an urban corporate work environment can therefore be regarded as vulnerable in terms of their stress levels and health.

1.1.4.1 Stress and well-being of consumers in the corporate work environment

Stress is a prevalent and pervasive issue for many consumers due to the high pressure and demands of their daily lives such as finances, lifestyle circumstances, work load and social relationships which all often lead to burnout (Melamed *et al.*, 2006:327; Payne *et al.*, 2010:147). Since stress is unavoidable, however, consumers are required to make use of methods to effectively manage the stress they experience in order to maintain optimum health, since stressors can have negative implications for their physical health (Payne *et al.*, 2010:143, 193; Piazza *et al.*, 2013:118). Continued high levels of stress, which is often the result of on-going work pressure, lead to both psychological (distress, depression, anxiety) and physiological (elevated blood pressure, heart rate, cortisol response) stress responses (De Beer *et al.*, 2014; Payne *et al.*, 2010:148). Therefore, high levels of continuous stress, considered to be a contributing risk factor towards unhealthy lifestyles, increase a consumer's risk of NCDs, including heart disease, hypertension and stroke, diabetes mellitus and various forms of cancer, posing a physical health risk to consumers (Nishida *et al.*, 2010:2; Robbins *et al.*, 2009:312; Starcke & Brand, 2012:1229).

Stress is defined by Robbins *et al.* (2009:312) as a non-specific response of the human body to any demand made upon it to change accordingly, whether it is for example threat or excitement. Consumers are currently experiencing high levels of stress in their daily lives in the society they

find themselves, which result in their fight and flight response being constantly activated (Hammen *et al.*, 2009:718; Robbins *et al.*, 2009:312). Two types of stress, namely acute and chronic stress, are prevalent. Acute stress is the most general form of stress experienced and is mostly short term such as a response to danger or threat towards a recent or future event (Dhabhar, 2014; Robbins *et al.*, 2009:312). If a person experiences this type of stress regularly, it can lead to certain health problems. Chronic stress on the other hand which is continuous and prolonged, is often more than a person can handle, such as financial pressure and work stress (Hammen *et al.*, 2009:718; Robbins *et al.*, 2009:312). Too high levels of stress may result in mental and physical health problems as indicated by substantial empirical evidence which are mostly preventable by prudent behaviour and good lifestyle choices (Keyes, 2002:217; Melamed *et al.*, 2006:328; Robbins *et al.*, 2009:427). Thus stress, which is often unavoidable, can be seen as an important contributor to major health problems among consumers (Danna & Griffin, 1999:370; Dhabhar, 2014:193; Keyes *et al.*, 2008:189; Payne *et al.*, 2010:147). This subsequently influences their well-being along with the productivity of workers and the overall economic and social development (Cramm *et al.*, 2012:590; Ryff, 2013:20), such as in a corporate working environment.

1.1.5 Well-being and health of consumers in the corporate work environment

In general well-being is defined in various ways, as every individual defines it according to their own experiences and perspectives and it is made up of many dimensions, including physical, mental, social, intellectual and spiritual states (Bushman, 2011:79). The World Health Organisation (WHO) defines health as the state of complete physical, mental and social well-being and not only the absence of disease or infirmity (WHO, 2014). From a needs perspective, well-being can be described as being multidimensional and consisting of the satisfaction of various types of needs and wants, namely material, emotional, social and physical needs, and as a result the main goal of medicine and human-oriented disciplines is to assure and increase human well-being (Suranyi-Unger Jr, 1981:132). Well-being furthermore consists of various life or non-working related satisfactions that consumers enjoy or experience, such as a sense of satisfaction or dissatisfaction with their social life, family life, recreational activities, work-related aspects as well as their overall physical health (Danna & Griffin, 1999:359). Considering the multidimensionality of well-being, well-being is described on the one hand in terms of physical and biological terms such as one's physical health; and on the other hand as a state of happiness and subjective well-being or satisfaction with life (Suranyi-Unger Jr, 1981:132). These two constructs are influenced by a multitude of other aspects such as income, wealth,

accomplishments, and social status (Suranyi-Unger Jr, 1981:132). Therefore, well-being can be linked to the level of overall well-being which a consumer experiences in a social setting (Gibbs, 2004:7), but Wissing *et al.* (2014:5) note that there is great significance in understanding the importance of consumers 'feeling well' and experiencing satisfaction with life or happiness, as well as consumers 'functioning well' and living well in their communities. Although it is clear that well-being and health consist of a multitude of components, for the purpose of this study, the focus will be on **psycho-social** and **physical well-being**. Due to the relevance of CDM for consumers' need to conform to a social group, it is also important for their **psycho-social well-being**. CDM may also give rise to high levels of stress as a result of possible burdensome debt, which can influence **physical well-being**.

1.1.5.1 Psycho-social well-being of consumers

With regard to satisfaction with life, psycho-social well-being can be viewed from two perspectives, namely hedonic well-being (i.e. feeling well /satisfaction with life) and eudaimonic well-being (i.e. functioning well /experiencing meaning in life) (Keyes *et al.*, 2008:181; Wissing *et al.*, 2014:1). Hedonic well-being is concerned with a person's mental health and the overall happiness or extent to which a consumer feels good, while eudaimonic well-being is regarded as the extent to which consumers perceive their life to be meaningful and consequently have the ability to achieve the highest level of self-actualisation and satisfaction with life (Delle Fave *et al.*, 2011:197-202; Keyes *et al.*, 2008:181; Wissing *et al.*, 2014:7-9). According to a study by Delle Fave *et al.* (2011:197-202), these two perspectives have a positive relationship even though they are independent.

Happiness (or hedonic well-being) is described as being linked to the extent to which one is able to satisfy one's needs and desires (Baumeister *et al.*, 2013:507), along with one's feelings towards one's life (Keyes & Annas, 2009:198). Meaningfulness (or eudaimonic well-being), on the other hand, is found to be more complex than happiness, is culturally and socially influenced, and is concerned with the consideration of the past and future along with one's functioning in society (Baumeister *et al.*, 2013:507; Keyes & Annas, 2009:198). Thus, the purchase of a product, as a result of a need, is seen to increase happiness although the management of money by considering the future is seen to rather give a sense of meaningfulness (Baumeister *et al.*, 2013). Both perspectives refer to facets of psycho-social well-being and represent peoples' judgments of their quality of life (Keyes & Annas, 2009:198). Subjective well-being, which is seen to be personal evaluations of a person's life, is regarded to

be cognitive and affective in nature, and is influenced by a person's culture and society, which in turn influence goals and values (Diener, 2000:40) related to meaning and functioning well.

Nevertheless, when referring to the different terms related to well-being – namely wellness, quality of life or health – the overall goal is positive health (Payne *et al.*, 2010:11). Positive health can be described as an optimal state and not just as the absence of illness, meaning that in the different facets of well-being, a person with a chronic disease or disability can have a better quality of life in other facets of well-being than in physical well-being (Payne *et al.*, 2010:13). Well-being is thus not only measured on an objective level, but also on a subjective level in terms of how consumers experience their well-being to be (Danna & Griffin, 1999:362). This is mainly done by consumers comparing the present state of their lives to those of comparable others and to their own state earlier in life (Sharma & Alter, 2012:545).

1.1.5.2 Physical well-being of consumers

Physical health is promoted by a consumer's ability to carry out routine tasks of daily living and addresses fitness, body composition, nutrition, sleep, and a healthy approach to drug and alcohol use (Bushman, 2011:79). The choices consumers make on a daily basis regarding their diet, physical activity, the managing of stress levels, lifestyle choices and habits are important indicators of physical well-being (Aldana *et al.*, 2005:371; Lee *et al.*, 2012:228; Ryff, 2013:20). This includes physical inactivity (Kolbe-Alexander *et al.*, 2008:235; Wagner & Brath, 2012:S39), unhealthy diets with food high in saturated and trans-fats, salt and sugar (Aldana *et al.*, 2005:377; Wagner & Brath, 2012:S39), tobacco use (Agrawal *et al.*, 2016:317; Wagner & Brath, 2012:S39), sedentary lifestyles (Aldana *et al.*, 2005:377; Habib & Saha, 2010:42) and high levels of stress (Habib & Saha, 2010:46; Yilmazer *et al.*, 2015:235). Additional risk factors that have been identified include urbanisation, economic, environmental and political conditions that are not much controllable by the consumer (Habib & Saha, 2010:42; Wagner & Brath, 2012:S40) but also contribute significantly to consumers' physical health. If these risk factors are mismanaged, they can lead to health problems such as elevated cholesterol levels, greater BMI's and obesity, hypertension and stroke, high glucose levels and diabetes mellitus, risk states for cardio-vascular diseases and various cancers (Agrawal *et al.*, 2016:317; Narayan *et al.*, 2010:1196; Nishida *et al.*, 2010:2; Solomons *et al.*, 2017:71). Agrawal *et al.* (2016) points out that unhealthy lifestyles and NCDs have been proven to be associated with each other.

NCDs are a global growing burden which accounts for two-thirds of global deaths (Aboyade *et al.*, 2016). This burden is rapidly increasing in both developed and developing countries, with a

significant impact on low and middle income countries (Agrawal *et al.*, 2016:317; Kolbe-Alexander *et al.*, 2014:1094). SA is a developing country and is considered to be highly diverse: on the one hand there are cities that are highly industrialised and have advanced economic lifestyles, while on the other hand rural areas have a higher prevalence of traditional types of lifestyles, with a tendency towards urban development (SACN, 2016:29; Sliwa *et al.*, 2008:915). The urban population of SA is projected to grow by 10% every two decades (SACN, 2016:20; Tibazarwa *et al.*, 2009:238). This might be detrimental due to the negative effects of rapid urbanisation, influences of globalisation and accompanying sedentary lifestyles that add to the growth of NCDs among urban consumers (Aboyade *et al.*, 2016:2; Wagner & Brath, 2012:S40). This results in poor health and 36% of NCD-related deaths among consumers under the age of 60 years (Nojilana *et al.*, 2016:436) who are regarded as the workforce. From a global perspective there is great concern to reduce mortality from NCDs, as the rise in NCDs is increasingly placing pressure on acute and chronic health care services in both rural and urban areas (Agrawal *et al.*, 2016:317; Mayosi *et al.*, 2009:934). However, in SA attention to the prevention of lifestyle diseases and treatment of NCDs is shared with diseases such as HIV/AIDS and tuberculosis, thus dividing attention for prevention programmes (Mayosi *et al.*, 2009:934; Nojilana *et al.*, 2016:436). As many consumers already have several risk factors that can lead to lifestyle diseases, educational employee-assisted programmes can combat future illness and consequently increase the physical and psycho-social well-being of consumers (Arena *et al.*, 2016; Kolbe-Alexander *et al.*, 2008:236; Robbins *et al.*, 2009:427). It is, however, foreseen that unless combatted by for example increasing consumer awareness, the prevalence of NCDs will increase substantially in SA (Mayosi *et al.*, 2009; Nojilana *et al.*, 2016).

1.1.6 Role of employee-assisted programmes in organisations towards physical and psycho-social well-being

Employment forms an integral part of daily life for most consumers (De Beer *et al.*, 2014:1). Seeing that it is important for consumers to be educated concerning their consumption behaviour, along with physical and psycho-social well-being, the work environment is regarded as an ideal setting to reach a large number of consumers simultaneously (Kolbe-Alexander *et al.*, 2014:1094). By implementing employee-assisted programmes that address specific behaviour, both the consumer (employee) and employer will benefit (Kolbe-Alexander *et al.*, 2008:236). When consumers experience personal problems such as financial stress and other concerns, the overall productivity of an employee decreases and as a result presenteeism tend

to occur in the workplace (Callen *et al.*, 2013:1315; Merrill *et al.*, 2012:296), as is often the case in the corporate industry.

Presenteeism can be defined as a loss in productivity of an employee due to poor health and other personal issues, and this decrease in productivity is a result of employees struggling to concentrate in order to do their best at work (Merrill *et al.*, 2012:293). Presenteeism is often a result of various health issues, such as high blood pressure, cholesterol, being overweight or obese, or stress (home, work or financial origin), which (all) contribute to serious health problems, including coronary artery disease and stroke (Callen *et al.*, 2013:1312). Consumers (also referred to as *employees*) in a working environment who experience presenteeism, cost companies more than health care expenditures and absenteeism (being absent from work) combined. The provision of wellness programmes or educational material with regard to how to effectively manage these problems could reduce presenteeism by improving employee health as well as physical and emotional health (Cocker *et al.*, 2011:231; Merrill *et al.*, 2012:299).

Therefore, by developing suitable employee assisted programmes in the work environment with a focus on awareness and improvement of specific behaviour, companies could save money and time while also improving the mental and physical health of employees and reducing levels of presenteeism in the workplace (Callen *et al.*, 2013:1316; Guariguata *et al.*, 2012:44; Kolbe-Alexander *et al.*, 2014:1097). Employees will then be able to flourish (experience the presence of mental health) in the work environment (Keyes, 2002:207; Keyes, 2007:103). This will also ensure that the consumers would experience overall increased physical and psycho-social well-being in their lives, along with informed decision-making on medium to high risk purchases. Wissing *et al.* (2014) note that if employees flourish in the sense that they function well in their work environment and also feel good, they tend to be more productive, committed and positive in their work environment. Thus, if employee-assisted programmes are implemented accordingly by the employer, an increase in productivity will be assured due to a higher awareness of the importance of well-reasoned decision-making, which would consequently be to the advantage of both the employer and employee.

1.2 Problem statement

All people are consumers of goods at various stages in their lives and therefore engage in several **decision-making** processes on a daily basis, by selecting, purchasing and evaluating products and services. These decisions concerning the purchase of goods are made in response to needs and desires. As a result of globalisation and urbanisation, consumers –

especially those living in urban environments – are increasingly exposed to more products and services, which complicates decision-making. Consumers' decision-making is furthermore influenced by their social environment, such as their friends, family and work environment. They make use of different **consumer decision-making styles**, while also being influenced by the **immediate and future consequences** of their decisions. Because the social environment forms an important part of consumers' sense of well-being due to their need to belong, consumers engage in purchasing items, such as household equipment not necessarily for their utilitarian value, but also (if not more) for their hedonic value, namely what these items communicate to those around them about the consumer. This desire to possess household items which communicate the ideal message to consumers' social groups, lead to consumers purchasing products without thoroughly thinking through the purchase decision. As instalment schemes such as accounts and credit facilities are relatively easy to obtain, purchases are made more easily and without much thought. These financial options enable consumers to immediately obtain the desired items and pay it off over a set period. As a result, consumers can achieve the desired image needed to fit in with the favoured social group much more quickly, in order to experience a sense of increased **psycho-social well-being** and to reduce the possible psychological risks involved. However, the misuse of instalments through impulse or habitual purchases can cause excessive financial pressure leading to increased financial risks. Continuous social and financial pressure adds to stress levels and if not managed effectively, can cause acute stress that has been proven to increase the prevalence of lowered **physical well-being**.

The urban environment has an additional influence on a consumer's well-being by adding stress due to increased work pressure, long traveling times and social pressure. These stressors have been proven to motivate unhealthy lifestyles, such as smoking tobacco, inactivity, poor nutrition, and sedentary lifestyles. These lifestyle habits are described as risk factors associated with health problems, such as increased blood pressure, hypertension, cholesterol and diabetes mellitus, all contributing to NCDs. Currently NCDs are an alarming rising global problem that require immediate attention. Urban consumers have a high risk for developing NCDs due to lifestyle circumstances and habits, and therefore training and awareness programmes are of the utmost importance for this group of consumers. Since NCDs are more prevalent among working consumers, a work environment such as that in a corporate institution is ideal to address a large group of consumers about their decision-making, psycho-social well-being and physical well-being. Even though there is an abundance of literature concerning the extent to which impulse purchasing leads to stress as well as the effect of continuous stress on a consumer's health, no

study could be found by the researcher in the South African or international setting indicating the possible association between consumers' decisions-making (regarding CDMS and the consideration of future consequences of decisions regarding household equipment), psycho-social well-being and physical well-being. Consequently this study will aim to develop a consumer profile of consumers working in an urban corporate environment regarding their decision-making (namely consumer decision-making styles and consideration of future consequences), physical and psycho-social well-being. This findings may possibly lead to recommendations about the development of employee assistance programmes to inform consumers how to improve their well-being by making consumers aware of their purchasing decisions and the possible associations between purchasing decisions and physical and psycho-social well-being. The identified gap in the literature on this subject can consequently also be addressed.

1.3 Aim and objectives of the study

The following sections explain the aim and objectives that guided the research of this study.

1.3.1 Aim

The aim of this study is to quantitatively describe by means of correlational research with a cross-sectional survey, consumers' decision-making (namely decision-making styles and consideration of future consequences) regarding medium to high risk purchases (i.e. appliances and furniture) and the possible association with their physical and psycho-social well-being when working in a financial corporate setting. These results will be used to develop a profile of consumers who work in a corporate environment based on their decision-making as well as their physical- and psycho-social well-being in order to improve consumer well-being and productivity.

1.3.2 Objectives of the study

The following objectives state the parameters of this study:

1.3.2.1 Literature related objective

- To compile a narrative literature review of the current status of consumer decision-making as well as physical and psycho-social well-being of consumers working in a financial corporate organisation.

1.3.2.2 Empirical objectives

- To determine and describe the demographics of consumers working in a financial corporate setting.
- To describe the **decision-making** of consumers regarding medium to high risk purchases by means of:
 - Consumers' different types of decision-making styles;
 - Consumers' consideration of future consequences;
- To investigate and describe the **physical well-being** of consumers working in a corporate setting, in terms of their:
 - Objective physical well-being (BMI, blood pressure, cholesterol, random blood sugar);
 - Subjective physical well-being (lifestyle habits & heart disease risks);
- To investigate and describe the **psycho-social well-being** of consumers working in a corporate setting in terms of their:
 - Satisfaction with life;
 - Experience of meaningfulness in life;
- To determine the **possible extent of associations between**:
 - Consumers' shopping decision-making styles and consideration for immediate and future consequences;
 - Consumer decision-making (decision-making styles and consideration for immediate and future consequences) and physical well-being (objective and subjective);
 - Consumer decision-making (decision-making styles and consideration for immediate and future consequences) and psycho-social well-being (satisfaction with life and experience of meaningfulness in life);
- To combine the results of the demographic information, decision-making styles, consideration of future consequences, physical well-being and psycho-social well-being in order to construct a consumer profile in a specific urban corporate setting.

1.3.2.3 Implication-related specific objectives

The specific objectives related to the implications of the study will be to make preliminary recommendations which can form the foundation of a possible informative intervention programme to advise and inform:

- **Consumers (employees)** working in a corporate environment about the importance of knowing their style of decision-making in a shopping context; the consideration of future consequences of purchases as well as their level of physical and psycho-social well-being in order to ensure consumer well-being.
- The **organisation (employer)** of the importance of the wellness among employees (in terms of decision-making, physical and psycho-social well-being) and recommendations for the development of effective wellness intervention programmes or employee assistance programmes to address employees' wellness and ensure higher productivity among workers.

1.4 Conceptual framework of the study

As consumers are faced with various choices on a daily basis, consumers are subconsciously pressured to make use of different consumer decision-making styles when deciding between products. These choices have certain immediate and future consequences, in which case, some consumers consider the consequences while others might neglect them. If decisions are not well thought through to motivate purchases, it can lead to stress.

Stress is proven to influence health on both a psychological and physical level. In this study the focus will be on physical and psycho-social well-being as these components strongly influence a consumer's level of health. The physical well-being component will be measured at both an objective and subjective level, and psycho-social well-being on the extent to which a consumer experiences satisfactions with life and meaningfulness in life.

After each of the variables has been studied, statistical procedures will be used to study a possible association between consumer decision-making and physical and psycho-social well-being. In addition, these results will enable the researcher to compile a profile of the decision-making and physical- and psycho-social well-being of consumers working in the corporate sector in South Africa, as well as to make preliminary recommendations for the development of a programme to inform both consumers (employees) and organisations (employers) regarding consumer decision-making and well-being on a physical and psycho-social ground.

1.5 Outline of the study

This study consists of nine chapters, of which the content may be summarised as follows:

Chapter 1 serves as a background chapter to the dissertation as well as the aim, objectives and framework of the research study, presented as an introduction.

Chapter 2 includes a published literature review article on consumer decision-making and psycho-social well-being, namely:

- Le Roux, N., Van der Merwe, D., Wilders, C. & Wissing, M. 2017. Consumer decision-making and psycho-social well-being: Two complementary perspectives? A narrative review. *Journal of Consumer Sciences*, 45:12-26.

Chapter 3 entails a secondary literature review article on consumer decision-making and physical well-being entitled:

- A review of urban consumer decision-making related to health and well-being.

Chapter 4 is a detailed discussion on the research methodology of this study, including the research approach, population, sample selection, research setting, data collection and data analysis.

Chapters 5, 6 and 7 respectively focus on the different results that address a particular objective of this study. Each chapter is presented in an article format and written according to the author guidelines of the selected journal – addressing the particular style, formatting and referencing as required by each journal.

- Urban consumers' decision-making regarding high risk purchases
- Urban consumers' decision-making as associated with physical well-being
- An association between consumer decision-making and psycho-social well-being in an urban context

Chapter 8 entails a proposed model by means of structural equation modelling where the associations between different variables are presented.

Chapter 9 presents a summary of the study, conclusions, recommendations, limitations and implications for the industry, academia and consumers.

Since this dissertation is presented in article format, the references of each chapter are presented separately at the end of a chapter, according to the editorial style of the relevant journal.

1.6 Authors' contributions

This study, reported in this thesis, was planned and executed by a selected team of researchers. Each researcher's role and contributions is reported in Table 1.1.

Table 1.1: Authors' contributions

Author	Contribution
Mrs. N. Le Roux	Main Investigator
Prof. M. van der Merwe	Promoter and general project advisor and assisted with funding
Prof. C. Wilders	Co-promoter and project advisor on physical well-being, gave access to physical data
Prof. M. Wissing	Assistant promoter on psycho-social well-being
Prof. S.M. Ellis	Statistician

1.7 Reporting of results

The results of this study have been reported in five articles, which are presented in Table 1.2.

Table 1.2: Articles written as result of the research

	Article title	Authors
1	Literature review: Part 1 Consumer decision-making and psycho-social well-being: Two complementary perspectives? A narrative review <i>Journal of Consumer Sciences</i>	Mrs N. Le Roux Prof. M. van der Merwe Prof. C. Wilders Prof. M. Wissing
2	Literature review: Part 2 A review of urban consumer decision-making related to health and well-being <i>Social Sciences and Medicine</i>	Mrs N. Le Roux Prof. M. van der Merwe Prof. C. Wilders
3	Results article 1: Urban consumers' decision-making regarding high- involvement purchases <i>International Journal of Consumer Studies</i>	Mrs N. Le Roux Prof. M. van der Merwe Prof. C. Wilders Prof. M. Wissing Prof. S.M. Ellis
4	Results article 2: Urban consumers' decision-making as associated with physical well-being <i>Preventive Medicine</i>	Mrs N. Le Roux Prof. M. van der Merwe Prof. C. Wilders Prof. S.M. Ellis
5	Results article 3: An association between consumer decision-making and psycho-social well-being in an urban context <i>Journal of Consumer Psychology</i>	Mrs N. Le Roux Prof. M. van der Merwe Prof. C. Wilders Prof. M. Wissing Prof. S.M. Ellis

1.8 Declarations by authors of articles

The following is statements from the co-authors confirming their individual roles in this study and giving permission that the articles may form part of this thesis:

I declare that I have approved the articles included in this thesis, that my role in the study, as indicated above, is representative of my actual contribution, and that I hereby give my consent that it may be published as part of the Philosophiae Doctor in Consumer Sciences of Mrs N Le Roux.



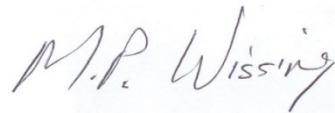
N Le Roux
Researcher



Prof. M. van der Merwe
Promotor and co-author



Prof. C. Wilders
Co-promoter and co-author



Prof. M. Wissing
Assistant promoter and
co-author



Prof. S.M. Ellis
Statistician and co-author of quantitative
research articles

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CHAPTER 2
LITERATURE REVIEW: PART 1

**CONSUMER DECISION-MAKING AND PSYCHO-SOCIAL WELL-BEING:
TWO COMPLEMENTARY PERSPECTIVES? A NARRATIVE REVIEW**

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CONSUMER DECISION-MAKING AND PSYCHO-SOCIAL WELL-BEING: TWO COMPLEMENTARY PERSPECTIVES? A NARRATIVE REVIEW.

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ABSTRACT

Globalisation contributes to an abundance of marketing, which stimulates unneeded and unplanned purchases. Research indicates that although consumers differ in terms of their purchasing styles and their consideration of immediate and future consequences of purchases, they are also strongly influenced by their social environment. This is even more applicable to consumers who reside in urban environments, since they are to a greater extent exposed to products, social and work pressures. Hence, in order to minimise pressures, consumers often purchase socially motivated products such as idealistic household equipment. Household equipment comprises products that strongly communicate social standing and status in a symbolic manner. Literature in different fields has been examined in order to compile a connection-focused informative literature review, which provides a unique argument of interpretation from these various texts and settings. This review therefore highlights the implications regarding decision-making and a consideration of future consequences of decisions on consumers' psycho-social well-being. To this end, the links between these fields of study are explored. To conclude, the importance of empirical research in the field is highlighted in order to empower consumers towards improved decision-making which could aid in their psycho-social well-being.

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INTRODUCTION

Consumers experience various physical and emotional needs and desires on a daily basis (Solomon, 2013). Ascribed to globalisation, consumers are confronted with an abundance of marketing information and product choices aimed at stimulating purchases, regardless of whether it represents actual needs (Sinkovics *et al.*, 2010; Lysonski & Durvasula, 2013). Consequently, consumers often make decisions

without much thought (Potgieter *et al.*, 2013; Schiffman & Kanuk, 2014), which contributes to the complexity and styles involved during consumer decision-making. Consumers therefore differ in terms of decision-making styles and their consideration of the immediate and future consequences of their decisions (Hui *et al.*, 2001; Potgieter *et al.*, 2013; Schiffman & Kanuk, 2014). Research indicates that consumers' decisions are strongly influenced by their social groups (Schiffman & Kanuk, 2014) – this is especially the case with consumers residing in urban environments (Erasmus *et al.*, 2011). These influences place consumers under social and emotional pressure in response to their need to conform and their desire to improve their self-esteem by consuming status-related products (Bookwalter & Dalenberg, 2010).

Social pressure, along with targeted marketing approaches, guides consumers towards directed purchases such as branded household appliances and furniture (hereafter referred to as household equipment¹), which gives the illusion that the desired lifestyle can be achieved and that it would make consumers equal to or better than their desired social group (Wänke, 2009; Jansson-Boyd, 2010). Consequently, household equipment plays an important role in the everyday functioning of a household, but also has an impact on the comfort, stylishness and social acceptability of a home (Donoghue *et al.*, 2008; Nakazato *et al.*, 2011; Wood & Hayes, 2012).

If consumers do not pay heed to the unspoken social expectations, they stand the risk to be socially rejected (Solomon, 2013). Many consumers therefore find it important to act quickly on desires by purchasing desirable items with the intention to increase their social standing (Erasmus *et al.*, 2011). This impulsive behaviour is often unconsciously driven since the consumption of certain products serves consumers with social, psychological and symbolic purposes by granting them the opportunity to express their identity and status (Carlisle *et al.*, 2008) and as a result to influence their psycho-social well-being.

However, irresponsible and impulsive purchases to satisfy the need to portray a certain identity

and to belong to desirable social groups can lead to unmanageable debt (Billieux *et al.*, 2008) and subsequent high levels of stress (Hodson *et al.*, 2014; Drentea & Reynolds, 2015). High levels of stress that continue over long periods, may jeopardise consumers' overall well-being (Clayton *et al.*, 2015; Drentea & Reynolds, 2015; Yilmazer *et al.*, 2015). Given the negative effects of stress, purchases that are generally regarded to give consumers satisfaction, may become unmanageable if it is not addressed effectively (Billieux *et al.*, 2008).

Although there is an abundance of research available on consumer decision-making (Starcke & Brand, 2012) as well as on stress and psycho-social well-being (Wood & Hayes, 2012; Sweet *et al.*, 2013), to the knowledge of the authors, little research has addressed the correlation between the ways in which consumers make decisions and the psycho-social well-being of consumers. This correlation is regarded as important since literature on consumer decision-making indicates that psycho-social aspects play a role during decision-making. The psychosocial field is for instance indicated to be integrated into the process of decision-making, but the correlation between consumer decision-making and psycho-social aspects does not seem to be explicitly indicated. Therefore, this review investigates how consumer decision-making literature can emphasise psycho-social well-being in addressing the correlation between the two constructs from both a consumer behaviour and psycho-social point of view. The aim of this article is to integrate the literature and contributions from various researchers in the fields in an informative theoretical narrative review. These fields include consumer behaviour, consumer decision-making – with a focus on consumer decision-making styles and consideration of immediate and future consequences of decisions – and psycho-social well-being in order to address the identified gap in literature concerning the relation between consumer decision-making and consumers' psycho-social well-being, as well as how these two constructs contribute to the stress levels experienced by consumers.

¹ Home appliances and furniture refer to household equipment used in different areas of the house to add to the lifestyle and living circumstances of the consumer. It includes products such as kitchen appliances (e.g. microwaves, dishwashers, washing machines) and other types of products such as television sets, stereo systems and furniture. This product category was chosen for the medium to high risks connected with this type of purchases and since not all consumers are able to purchase larger items such as a car or a house. Hereafter the term *household equipment* will be used for these items.

Methodology of the present study

The methodology was approached according to the guidelines of Onwuegbuzie and Frels (2016) for a comprehensive narrative review. Search words that were used included “consumer decision-making”, “decision-making styles”, “immediate and future consequences”, “psycho-social well-being”, “debt”, “household equipment”, “urban environment” and “consumption”. These search words were used in various combinations and in different search engines, including Science Direct, JSTOR, EbscoHost and Google Scholar. Field-specific books on these topics were also consulted in order to comprehensively address the objectives of this article. Due to the constantly changing nature of the retail environment and consumer purchases, the latest “grey” literature (which is described as unpublished literature) (McDonagh *et al.*, 2013), such as marketing review reports, were studied to gain more insight into this dynamic area and reduce possible bias. Reference lists of applicable articles were also consulted to identify relevant literature that deepened the search and ensure comprehensiveness. Furthermore, additional material was included upon recommendation of the different authors involved in different fields of study.

Inclusion and exclusion criteria for searches entailed that the articles had to be in English, be peer reviewed (except in the case of the latest grey literature), and fall within the main argument of the article according to the scope set out by the objectives. Although no specific time frame was set for the articles that were consulted, the authors started with the latest literature and worked backwards down the timeline towards originally published literature with authority regarding the constructs. Literature was excluded if it was not peer reviewed, if the abstracts gave the impression that the article would not fall within the scope of the study and if it was based on secondary sources.

Topics with controversial and rich backgrounds such as theories on consumer decision-making, consumer decision-making styles and consideration of immediate and future consequences, were summarised by means of tables that highlight the main findings, such as differentiation in contexts, countries and sample groups; and attention to the validity and reliability of studies and scales. After studying and combining the literature, the authors were

able to compile a unique argument of interpretation by following the CORE (critical examination, organisation, reflection and evaluation) process (Onwuegbuzie & Frels, 2016) to compile a comprehensive theoretical narrative review. The collaborating authors reduced possible individual bias by judiciously reviewing and discussing the applicability of the included literature. This process contributed to the CORE process being connection-focused and considering a culturally progressive and ethical approach (Onwuegbuzie & Frels, 2016).

CONSUMPTION IN A SATURATED RETAIL ENVIRONMENT

Consumers use different types of products to satisfy needs and desires (Solomon, 2013) through various mental and physical processes associated with decision-making. These processes involve activities such as the search for, selection and purchase of products that would satisfy identified needs, along with the evaluation and disposing of products after usage (Mpiganjira *et al.*, 2013; Potgieter *et al.*, 2013; Solomon, 2013; Schiffman & Kanuk, 2014). Consumer decision-making involve different levels of involvement and often various purchases are made without much prior thought (Sinkovics *et al.*, 2010; Lysonski & Durvasula, 2013; Potgieter *et al.*, 2013). Such unreasoned purchases are often attributed to globalisation that increasingly exposes consumers to an abundance of stores, products, advertisements and experiences competing for the expenditure of the consumer, which collectively influence the manner in which decisions are made as well as the complexity of choices (Lysonski *et al.*, 1996). Due to the development of technology, exposure to products is not just limited to stores or even to ‘business hours’ but consumers are able to view, search for and purchase products in comfort and privacy around the clock, with the consequence that decision-making concerning products is not limited to certain spaces or times (Hoyer *et al.*, 2013).

Although plentiful choices can be overwhelming and stressful to the consumer, it is associated with autonomy and well-being (Markus & Schwartz, 2010) since freedom of choice is seen as important to improve consumer quality of life in Western democratic societies. As the consumer market becomes progressively globalised, research on consumer decision-making is gaining more attention globally (Bao *et al.*, 2003; Bae & Lee, 2010). In order to address and serve in the constantly changing

needs and wants of consumers, a thorough understanding of consumers' behaviour and decision-making is required which can be achieved by studying consumers' patterns of cognition and behaviour (Gardarsdottir *et al.*, 2009; Workman & Cho, 2012).

INFLUENCES ON CONSUMER DECISION-MAKING AND DIFFERENT APPROACHES THERETO

Consumers engage in decision-making on a daily basis concerning every aspect of their lives. Some of these decisions involve high cognitive effort and others are made without consciously thinking about them (Schiffman & Kanuk, 2014). Consequently consumer decision-making – as an integral part of consumer behaviour – is regarded as a complex phenomenon during which consumers are involved in different levels of decision-making when they have to decide on a product or service, depending on the importance or future consequences of the decision, along with the type of purchase involved (Babin & Harris, 2011; Schiffman & Kanuk, 2014). These levels of decision-making have been classified by various researchers in certain categories. *Extensive problem solving* takes place when consumers have no set criteria to narrow down the available choices and they therefore engage in extensive internal and external information searches, as in the case of expensive or technically complicated products with high risks (e.g. household equipment). *Limited problem solving* usually occurs during relatively low-risk purchases, where consumers have established sets of criteria against which to evaluate products (e.g. replacing an outdated laptop or cell phone). These consumers do not engage in an extensive search for new information, but also do not have fully established preferences towards selected groups of brands or product types. Lastly, *routinised/habitual response behaviour* is applicable to consumers with previous experience of a product and well-established sets of criteria according to which to evaluate the consideration and to search for limited additional information or review known information (Babin & Harris, 2011; Solomon, 2013; Schiffman & Kanuk, 2014).

Although many researchers and marketers distinguish between decisions that are rational and decisions that are not (Starcke & Brand, 2012), it has been accepted that consumers do not always make well-calculated strategic decisions. Consumer decision-making is thus

not always only based on rational thoughts, but at times includes internal and external influences (Schiffman & Kanuk, 2014). Internal influences include emotions, depending on the type of needs or products that are being considered (Babin & Harris, 2011) while external influences include strong social influences from family, friends and peer groups, along with marketing efforts (Mpiganjira *et al.*, 2013). Even though various consumer behaviour theories explain decision-making to happen in a structured sequence of processes following upon each other, decision-making may also be explained to occur in a dual process. Dual process decision-making in both cognitive and social psychology is concerned with reasoning and related higher cognitive thinking (Evans & Stanovich, 2013; Alós-Ferrer & Strack, 2014). Dual process decision-making is described as the interplay of cognitive processing that add to observed behaviour, namely type 1 ('automatic', intuitive and naturally fast decision-making) opposed to type 2 (reasoned and reflective decision-making that requires working memory and that is therefore slower) (Evans & Stanovich, 2013; Alós-Ferrer & Strack, 2014). Although many researchers regard these two types of decision-making be two parallel main streams of decision-making, it is argued by Evans and Stanovich (2013) the two types are rather default-interventionist in structure. In other words, although type 1 processes, which are the default, control most of consumers' behaviour, type 2 will only occur during more complex and difficult decisions where a higher order of thinking is required. Consumers are thus not only influenced by certain specific internal and external factors, but also by various interactive brain systems that influence choice behaviour. Brocas and Carrillo (2014) contribute to consumers' decision-making ability to a default-interventionist manner which consequently will influence their ability to consider the implications of their current decisions.

Influences on decision-making

When confronted with a purchase decision, consumers unconsciously seek information from various internal factors, such as previous experiences, attitudes, opinions and beliefs, as well as external factors, i.e. the price, brand and quality along with cultural and social class influences, depending on the product type (Fan & Xiao, 1998; Hiu *et al.*, 2001; Sonnenberg *et al.*, 2011; Modi & Jhulka, 2012). However, apart from these internal and external factors, Hoyer

et al. (2013) argue that different characteristics of consumers (i.e. expertise, mood, time pressure, extremeness aversion and metacognitive experiences), the situation (i.e. information availability, information format and trivial attributes) and the group context and influence of the social group add to decision-making. Consumers therefore differ with regard to their level of psychological engagement with brands and products due to different needs, motives and goals, depending on whether decisions are utilitarian driven or psycho-socially motivated with the hope to achieve a sense of community (Schmitt, 2012). For that reason, consumers' social identities or acceptance by certain communities are strongly influenced by their consumption behaviour, with the result that rational decision-making and future consideration of decisions are often overridden by socially motivated decisions (Baumeister *et al.*, 2008; Carlisle *et al.*, 2008; Starcke & Brand, 2012). Consequently, consumers continuously strive towards upward mobility by spending more on products that will explicitly indicate their social standing and status (Chancellor & Lyubomirsky, 2011; Erasmus *et al.*, 2011).

As consumers rise in their social standing or social class, the intensity to satisfy certain needs increases as they tend to compare themselves to their peer groups and find satisfaction from fitting in or doing better (Bookwalter & Dalenberg, 2010; Modi & Jhulka, 2012). This longing to belong to certain sought-after groups, influences consumers' subjective well-being (Bookwalter & Dalenberg, 2010), seeing that the possession or lack of ownership of desired objects affect consumers' lives and influence the way they feel about themselves and others (Solomon, 2013). Due to the complexity of decision-making, consumers thus resort to different decision-making styles to reflect the type of psychology in decision-making when they evaluate alternative products and services (Baoku *et al.*, 2010; Potgieter *et al.*, 2013; Sproles & Kendall, 1986).

Consumer decision-making styles and the consumer style index

Consumer decision-making styles (CDMS) entail the mental and psychological orientation characterising consumers' subconscious approaches towards purchasing choices which focuses on the cognitive (such as quality) and affective (such as fashion) orientations of decision-making (Sproles & Kendall, 1986; Potgieter *et al.*, 2013). These orientations towards decision-making are regarded the most

ideal and explanatory to determine consumer decision-making styles (Yang & Wu, 2007; Anic *et al.*, 2012). Sproles and Kendall (1986) developed the Consumer Style Index (CSI), which represents a systematic attempt to create a strong methodology for measuring consumers' purchasing orientations and behaviour (Bakewell & Mitchell, 2004). The CSI proved to be a useful measuring tool by containing both the cognitive and affective features that are directly linked to consumer choices, while simultaneously providing a foundation for the standardised testing of CDMS (Walsh *et al.*, 2001).

The CSI opened a new direction in consumer decision-making research (Bao *et al.*, 2003) and until recently was used in various studies worldwide, such as the United Kingdom (e.g. Bakewell & Mitchell, 2004), China (e.g. Zhu *et al.*, 2012), Germany (e.g. Mitchell & Walsh, 2004), Iran (e.g. Hanzaee & Aghasibeig, 2008), Australia (e.g. Nayeem, 2012), Singapore (e.g. Bae & Lee, 2010), India (e.g. Lysonski & Durvasula, 2013) and in various cross-country studies (e.g. Leng & Botelho, 2010; Anic *et al.*, 2012). The CSI was also used and adapted in South Africa (e.g. Radder *et al.*, 2006; Potgieter *et al.*, 2013). During the development of the CSI, Sproles and Kendall (1986) identified eight basic styles of consumer decision-making in a shopping context, which remain relevant:

1. *Perfectionistic, high quality orientated consumers* search for superior quality products that are not only 'good enough' and they shop more carefully, systematic or by comparing products;
2. *Brand conscious, 'price equals quality'* oriented consumers often buy the more expensive, well-known national (or international) brands and are thus more likely to believe that a higher price equals a higher quality product;
3. *Novelty-fashion conscious* consumers are mostly fashion and novelty conscious. They gain great excitement and pleasure from seeking new things and having a variety of products to choose from;
4. *Recreational and hedonistic shopping* conscious consumers find shopping pleasant and often shop for enjoyment;
5. *Price conscious, 'value for money'* oriented consumers are often on the outlook for sale prices and appear conscious of lower prices in general while also being concerned with best value for money products by comparing products to one another;

6. *Impulsive and careless* consumers do not plan their shopping and appear to be unconcerned about the amount spent or about buying the best possible product;
7. *Confused by over-choice* oriented consumers perceive many brands and stores from which to choose as confusing and too much information creates an information overload; and
8. *Habitual, brand-loyal* consumers have favourite brands and stores and habitual behaviour is typical of this group.

These decision-making styles can further be divided into **utilitarian** or **hedonistic** shopping styles (Zhou *et al.*, 2010). *Utilitarian* shopping styles (such as quality consciousness, price and value consciousness, confused by over-choice and impulsiveness) are mostly adapted by consumers who are focused on price, value and quality and therefore these styles are more task oriented (Zhou *et al.*, 2010; Solomon, 2013). Oppositely, *hedonistic* shopping styles (such as brand consciousness, novelty and fashion consciousness, recreational and hedonistic shopping, as well as brand loyalty) reflect non-essential, non-product aspects of shopping behaviour and are regarded as personal gratification, desire and self-expression (Zhou *et al.*, 2010; Solomon, 2013) linked to social status. Hence, all consumers cannot be regarded as making decisions in the same manner, but display relatively consistent individual decision-making styles guided by purchasing strategies and rules depending on the type of products while often being unconsciously influenced by the marketing and social environment such as stores, culture and social groups (Bakewell & Mitchell, 2004; Potgieter *et al.*, 2013). Due to the increasing availability of online shopping, the traditional definition of stores are being challenged as consumers are able to address needs in virtual shopping spaces with increased privacy, comfort and choices (Reinartz, 2016). Consequently, consumers who engage in impulsive purchasing due to personal gratification gained from addressing an identified need, may be more prone to resort towards online shopping because of its constant availability and they might not sufficiently take the consequences of their decisions into account, such as unmanageable debt.

Immediate and future consequences of decision-making

In the same way that consumers are unaware of their CDMS during purchases, they may also be

unaware of the immediate and/or future consequences of their decisions. Consumers form part of a large and complex society in which they have to abide by rules and at times need to make sacrifices for their own ultimate well-being (Baumeister *et al.*, 2008). However, consumers differ with regard to their consideration of the consequences of their current behaviour (Strathman *et al.*, 1994). In order to address this, Strathman *et al.* (1994) developed the 12-point consideration of future consequences scale to determine consumers' concern with future and immediate consequences of their decisions, which was later revised to a 14-point scale (Joireman *et al.*, 2012). As a result, future-orientated consumers will sacrifice immediate benefits – such as gaining immediate pleasure from a purchase or social recognition – in order to ensure desirable future conditions, such as financial stability or security (Strathman *et al.*, 1994; Pavia & Mason, 2004; Toepoel, 2010). Present-oriented consumers, on the other hand, do not consider the future consequences of their current behaviour and as a result are more concerned with experiencing high levels of current satisfaction or pleasure and will engage in impulsive purchases despite the future consequences that might occur (Strathman *et al.*, 1994; Pavia & Mason, 2004; Toepoel, 2010). Hence, the extent to which consumers take the future consequences of their current behaviour into consideration is likely to have an influence on their attitudes, behaviours and information processing and therefore contributes to their own well-being (Strathman *et al.*, 1994; Baumeister *et al.*, 2008). Thus the consideration of future consequences emphasise the focus on consumers' intrapersonal struggles between present behaviour and immediate and future outcomes, such as the effect of irresponsible spending on future well-being, which can be adapted by mastering self-control over consumption behaviour (Baumeister *et al.*, 2008; Rappange *et al.*, 2009; Toepoel, 2010).

Consumption as the goal of consumer decision-making

Consumption forms an important part of consumers' lives and by studying consumption, a better understanding of consumers can be gained (Jansson-Boyd, 2010; Ganglmair-Wooliscroft & Lawson, 2012). Consumers are exposed to different marketing efforts on a daily basis within a social context, and these efforts often influence consumers' attitudes, beliefs and usage of certain products in order to express a

certain lifestyle or make certain social impressions, to be regarded part of desired social groups (Wänke, 2009). Luxury purchases are thus often made to gain access to the benefits and rewards reserved for those of a high social group (Sivanathan & Pettit, 2010). Consequently, consumers generally experience a sense of belonging and well-being upon understanding their social placement in society, and in order to achieve this sense of belonging and well-being, possessions are used to express and categorise themselves based on the material meaning attached to those possessions (Wänke, 2009; Jansson-Boyd, 2010).

Consumers are social in nature and concerned with creating their identity according to the social group to which they belong – this guides their purchasing behaviour and contributes to the status they experience (Champriss *et al.*, 2015). Belonging to this group shapes consumers' social identity and the status they experience. Consumers therefore have shared meanings and judgments of products and seek out those in similar social status groups in order to make either upward or downward social comparisons (Jansson-Boyd, 2010). Consumers may pay a high price for not conforming with the ideas of relevant others, by being rejected or embarrassed by the group (Mpinganjira *et al.*, 2013; Solomon, 2013). This desire towards upward mobility and increased social standing serves as a strong motivator to consume newer and better products that will replace products that were previously regarded as satisfactory (Chancellor & Lyubomirsky, 2011; Erasmus *et al.*, 2011). As consumers are confronted with social expectations, their aspirations rise, with the result that the current lifestyle becomes unsatisfying and needs develop for newer and better products that would allow them to better conform to the new standards set by the social group (Pandelaere, 2016). This is especially applicable to consumers living in urban environments in South Africa, who tend to have high levels of status consciousness (Erasmus *et al.*, 2011).

The desire towards status in social environments therefore encourages consumers to engage in status-driven purchases, such as desirable and fashionable household equipment (Erasmus *et al.*, 2011). Accordingly, household equipment purchases are often motivated by marketing efforts that create the impression that certain products will enhance material, social and overall well-being due to increased quality

of living (Nakazato *et al.*, 2011; Zhong & Mitchell, 2012).

CONSUMPTION OF HOUSEHOLD EQUIPMENT AND ACCOMPANYING RISKS

Household equipment is regarded as essential for comfortable living (Danziger, 2004) and the demand for household equipment are continually increasing as more consumers in South Africa are gaining access to electrical supplies and have higher disposable incomes (Sonnenberg & Erasmus, 2013). Many consumers invest a large proportion of their resources in creating desirable homes with the hope of increasing their well-being (Nakazato *et al.*, 2011). Household equipment have accordingly become social symbols used by South African consumers to indicate socio-economic status and serve as indicators of progress and prosperity (Erasmus *et al.*, 2011; Sonnenberg *et al.*, 2011). Thus, when consumers purchase household equipment, the emotional satisfaction gained from owning certain types of products also serves as important purchase motivators (Danziger, 2004).

Consumers purchase certain household equipment as it is seen to influence the quality of a home and to affect their psychological well-being, identity or self-esteem (Robinson & Adams, 2008). During these purchases, products' features, usability and benefits are often primary drivers for sales, along with price, credit terms and conditions (Danziger, 2004), but value in terms of status and social affiliations may boost excessive and irrational consumption of these products (Erasmus *et al.*, 2011). Consumers may thus attribute the most value to the brand name, style, design and finish of the product due to the status that is related to exterior aspects and technological features (Erasmus *et al.*, 2011). Accordingly, many consumers display branded household equipment with desirable exterior design features in their homes to indicate their level of wealth and achievements to significant others and to reduce the possibility of various emotional and social risks (Nelissen & Meijers, 2011; Sonnenberg *et al.*, 2011).

Depending on the type of products purchased, certain types and levels of risks are involved during purchases, with either positive or negative consequences for the consumer (Bruyneel *et al.*, 2009; Mpinganjira *et al.*, 2013). Although the level of risk differs between consumers, the product type and purchase environment are strong indicators of the

possible level of risks pertaining to purchases that consumers might experience (Schiffman & Kanuk, 2014; Schiffman & Wisenblit, 2015). These risks include psycho-social risks (*will the purchase conform with the ideas of the social group?*) (Solomon, 2013), functional risks (*will the product function effectively?*), physical risks (*will the product possibly harm the consumer?*), financial risks (*will the purchase of the product have possible financial consequences?*) and time risks (*will the purchase or use of the product be time consuming?*) (Mpinganjira *et al.*, 2013; Schiffman & Wisenblit, 2015). Due to the financial and social risks connected with household equipment purchases it is regarded as medium to high-risk purchases (Erasmus *et al.*, 2014). However, if consumers find themselves exposed to possible psycho-social risks, such as not meeting the objective standards of their social group, they tend to seek ways in which they can diminish the feeling of being socially deprived (Sharma & Alter, 2012). Accordingly, these momentary moods can drive consumers to engage in compulsive and excessive buying (Zhong & Mitchell, 2012) due to the urgent need to possess certain products (Blackwell *et al.*, 2006), resulting in unplanned or impulse purchases to reduce the level of perceived possible psycho-social risk.

Impulse consumption – the origin of financial suppression

Impulse purchases are described as sudden, unplanned purchases because of strong urges, low cognitive control and accompanying feelings of pleasure and excitement (Billieux *et al.*, 2008; Sharma *et al.*, 2010). Furthermore, impulse purchases are driven by the spontaneity and achievement of hedonic goals (i.e. gaining pleasure from purchases) which are circumstantially motivated by factors such as social groups, product features or shopping environments, despite the long-term consequences (Rook & Fisher, 1995; Sharma *et al.*, 2010).

Although impulse purchasing is often regarded as a relaxing and fun means to alleviate one's mood and avoid negative psychological states (for example stress or depression) (Silvera *et al.*, 2008), this behaviour should be reconsidered when consumers engage in impulse purchasing too often. When consumers engage in impulse purchasing on a regular basis due to hedonic motives, this mostly problematic behaviour at times require self-control to avoid the underlying negative emotions and negative

association with subjective well-being (Billieux *et al.*, 2008; Silvera *et al.*, 2008). The heightened emotional state that drove the impulse purchases is commonly followed by buyers' dissatisfaction and regret (Wood, 1998), along with unplanned financial expenditures, financial problems (for example irresponsible use of credit), feelings of guilt or immaturity and a negative reaction from one's social group (Rook & Fisher, 1995; Billieux *et al.*, 2008).

Purchases that are relatively permanent due to a certain choice that was made or uninformed purchase decisions, might result in post-purchase conflict or discomfort about the purchase, which may subsequently result in an unpleasant state of tension (Kassin *et al.*, 2008; Parumasur & Roberts-Lombard, 2012). Cognitive dissonance refer to the internal tension or struggle that consumers experience after purchases, for example whether it was a good or bad decision to purchase a certain product, which instigate the regret and guilt that are experienced (Babin & Harris, 2011). Accordingly, consumers might seek explanations for their impulse behaviour and as a result may assign it to some cause (Hoyer *et al.*, 2013; Schiffman & Kanuk, 2014) in order to justify their impulse purchasing behaviour and lower the associated level of stress experienced.

During purchasing, credit cards are progressively used to easily acquire desired products, but for many consumers their unfulfilling purchases result in burdensome debt when credit card debt silently accumulates to problematic levels (Wood, 1998:295). Financial debt, which is a global phenomenon, carries different material, physiological and social meanings depending on the context in which it occurs (Erasmus & Mathunjwa, 2011; Sweet *et al.*, 2013). As a coping device, debt enables consumers to meet immediate needs regardless of whether it is for necessities, conveniences or luxuries amidst fluctuating economic conditions; but it requires future repayment, usually with interest (Hodson *et al.*, 2014; Clayton *et al.*, 2015; Drentea & Reynolds, 2015). Although debt allows consumers to respond to immediate needs, the burden of overspending and unsecured debt can simultaneously pose significant risks for consumers' long-term financial situation and contribute towards associated stress, which affects mental and physical health (Hodson *et al.*, 2014; Clayton *et al.*, 2015; Drentea & Reynolds, 2015).

This is especially a concern for consumers in urban environments, who are exposed to a wider range of products and higher levels of social pressure. They are more prone to experience a variety of stress-contributing factors in their lifestyles (Wagner & Brath, 2012). With increased urbanisation in South Africa in recent years due to a search for better living conditions, (McKenzie *et al.*, 2013; SAIRR, 2013), it can therefore be expected that higher levels of stress will also be experienced among these urban consumers.

Well-being in the South African urban environment

The urban populations in developing countries such as South Africa is rapidly and continually growing (Tibazarwa *et al.*, 2009). South Africa is regarded by the world bank as an upper middle income country and by various providers of index services as an emerging market (Bank, 2016; Investopedia, 2016). This explains the increasingly wider range of products to which consumers are exposed and which supplement their lifestyles. Consumers from all socio-demographic categories are concerned about status-related factors regarding household items (Erasmus *et al.*, 2011). According to the Living conditions survey of 2014/2015, 82.2% of the R1.72 trillion annual household consumption spend is in urban formal areas in South Africa (STATSSA, 2017). In addition, urban consumers experience globalisation more intensely than consumers who reside in semi-urban and rural parts of the country, due to the increased exposure to advanced technological goods and services and accompanying social pressure (Wener & Evans, 2011; Wagner & Brath, 2012). As a result, this exposure to social pressure – namely to be part of a desired social group by purchasing desirable products – influences urban consumers' well-being on a psychological level in particular (Dittmar *et al.*, 2014; Pandelaere, 2016).

In the culturally diverse South African social environment, the emerging black middle class is regarded as the largest spending group, often referred to as Black Diamonds, with a significant household income increase of 34.5% from 2005 to 2010, followed by Indian consumers (Donaldson *et al.*, 2013; Schiffman & Kanuk, 2014). South African consumers spend approximately 5.1% of their annual income on household equipment. Black middle class consumers – being neither affluent nor poor – spend most of their money on food, clothing and footwear and miscellaneous household products

and services, while white families tend to spend more money on household equipment (Schiffman & Kanuk, 2014; Cronje *et al.*, 2016; Lemanski, 2017). The social distribution in South Africa is diverse and unequal, with large numbers of consumers in the lower class and only 29% of consumers constituting the middle class. The latter group attach great meaning to status symbols in supporting their self-perception (Schiffman & Kanuk, 2014), with the result that consumers not only purchase products for an identified utilitarian need, but also to satisfy an emotional, socially motivated need (Cronje *et al.*, 2016). Therefore, purchases can contribute towards desired upward social class mobility, adding to increased well-being.

The effect of consumption on the well-being of consumers

Well-being is defined in various ways according to individuals' experiences and perspectives and entails several dimensions, including physical, mental, social, intellectual and spiritual (Bushman, 2011). The World Health Organisation (WHO) defines health as the state of complete physical, mental and social well-being and not only the absence of disease or infirmity (WHO, 2014). From a needs perspective, well-being is described as multidimensional and consisting of the satisfaction of material, emotional, social and physical needs and wants which are all assessed differently and with varying degrees of complexity (Suranyi-Unger Jr, 1981; Gardarsdottir *et al.*, 2009). Well-being furthermore involves various life or non-working related satisfactions which consumers enjoy or experience, such as a sense of satisfaction with their social life, family life, work-related aspects and overall physical health (Danna & Griffin, 1999). The multidimensionality of well-being can thus be described in terms of physical and biological terms (physical health) and as a state of happiness and subjective well-being or satisfaction with life (mental health) which a consumer experiences in a social setting (Suranyi-Unger Jr, 1981; Gibbs, 2004; Bond *et al.*, 2012). Wissing *et al.* (2014) stress the significance of understanding the importance of consumers 'feeling well' and experiencing satisfaction with life or happiness, and also consumers' 'functioning well' and 'living well' within their communities, which is associated with the experience of meaningfulness.

PSYCHO-SOCIAL WELL-BEING OF CONSUMERS REGARDING CONSUMPTION

As mentioned above, the WHO (2014) defines health in terms of well-being on several levels. However, when focusing on one's satisfaction with life, psycho-social well-being can be viewed from two perspectives, namely hedonic well-being (i.e. feeling well / satisfaction with life) and eudaimonic well-being (i.e. functioning well / experiencing meaning in life) (Keyes *et al.*, 2008; Wissing *et al.*, 2014). Hedonic well-being is concerned with a person's mental health and the overall happiness or extent to which consumers feel good about their life while also being linked to the extent to which they are able to satisfy their needs and desires (Keyes & Annas, 2009; Baumeister *et al.*, 2013). Eudaimonic well-being, on the other hand, is regarded as the extent to which consumers perceive their life to be meaningful and as having the ability to achieve the highest level of self-actualisation and satisfaction in life (Keyes *et al.*, 2008; Delle Fave *et al.*, 2011; Wissing *et al.*, 2014). Eudaimonic well-being is regarded to be more complex than hedonic well-being, but both are culturally and socially influenced and concerned with the consideration of the past and future, along with one's functioning in society (Keyes & Annas, 2009; Baumeister *et al.*, 2013; Baumeister, 2016). These two perspectives are seen to have a positive interdependent relationship (Delle Fave *et al.*, 2011), and should therefore be seen as complementary to each other.

During purchases, consumers' level of happiness is increased (hedonic well-being), although the management of money by considering the future is seen to give a sense of meaningfulness (eudaimonic well-being) as well (Baumeister *et al.*, 2013). Both these perspectives refer to facets of psycho-social well-being and represent peoples' judgments of their quality of life (Keyes & Annas, 2009). Subjective well-being is the personal evaluations of consumers' lives, which are regarded to be cognitive and affective in nature, influenced by one's culture and society and affecting goals and values relating to the meaning in a social environment and to and functioning well within that environment (Diener, 2000). Therefore, consumers' subjective well-being (i.e. how they see their life and their satisfaction with it) influences their spending on hedonic products (products giving feelings of satisfaction) in order to receive positive and pleasurable results from purchases, and accordingly add to affective

(emotional) and cognitive (social connectedness) well-being (Zhong & Mitchell, 2012; Alba & Williams, 2013).

Since the social environment plays an important role in motivating purchases that are often unnecessary or aimed at increasing social recognition and psychological well-being (Wood & Hayes, 2012; Champniss *et al.*, 2015), emotional distress may occur if consumers cannot really afford it (Starcke & Brand, 2012; Clayton *et al.*, 2015). Burdensome debt adds to stress, which lowers physical well-being (Sweet *et al.*, 2013). Therefore, even though impulse purchasing may be used to avoid negative psychological states – such as stress, depression and indecisiveness – or to achieve a feeling of social acceptance based on possession, regular impulse purchasing may indicate potential problems that may negatively affect future overall and psycho-social well-being due to poor decision-making (Silvera *et al.*, 2008; Arnold & Reynolds, 2012; Garðarsdóttir & Dittmar, 2012). The various choices consumers make on a daily basis, such as lifestyle choices, managing of stress and habits, are therefore not only important indicators of psycho-social well-being, but these choices can also influence their physical well-being in terms of general health (Aldana *et al.*, 2005; Lee *et al.*, 2012; Ryff, 2013). Consequently, consumers who find themselves in an urban environment, with exposure to a vast variety of in-store or online products, accompanied by high levels of social pressure, may resort to debt to satisfy their identified immediate needs and desires. Even though such purchases may seem sensible at the time to reduce social-related stress, it often leads to buyers' regret, which adds to lower psycho-social well-being and which may result in depression, anxiety, an inability to make well-thought-through decisions and lower overall physical health. An increase in consumers' awareness of their decision-making styles and consideration of consequences may accordingly contribute to greater coping flexibility and to a better health-related quality of life, especially for people in lower socio-economic contexts (Atal & Cheng, 2016).

CONCLUSION

Consumption is a critical part of consumer behaviour, seeing that consumers are confronted with different decisions regarding product purchases on a daily basis, of which some are strongly socially motivated such as

household equipment. Decision-making does not happen in isolation but is influenced by various factors, such as the social environment, consumers' decision-making styles and consideration of immediate and future consequences of purchases. All these factors are seen to play an important role in the well-being of consumers. Consumers, especially those residing in urban environments, are confronted with more choices and bigger social pressure to conform than semi-urban consumers. Because of this, urban consumers may often engage in unplanned and impulsive purchases of i.e. household equipment to address their need to conform to the standards of social groups. Purchases that are not well managed can result in the misuse of credit and burdensome debt. Unmanageable debt leads to high levels of stress that negatively influence their physical well-being, even though the consumer aimed to increase his or her immediate psycho-social well-being with the purchases of desirable products. Consequently, this connection-focused review addressed the identified gap between consumer decision-making and consumers' psycho-social well-being by combining literature and describing the link between the above-mentioned phenomena, as identified in literature. Literature indicates that there may be correlations between consumer decision-making and psycho-social well-being.

The article should be interpreted in the light of the following limitations. Bias could have occurred during the selection of articles, although the diverse contextual perspectives from authors from different disciplines and research expertise were incorporated to minimise the possibility of perspective bias. Furthermore, this review article was approached with the South African urban environment in mind, even though the scope can be broadened to an international context.

This article aims to stimulate future empirical studies on this subject that would assist in the improvement of the well-being of consumers, especially those living within urban environments, and it forms an integral part of the workforce of a country. If a link between the phenomena can be proven empirically, it would contribute to the development of consumer decision-making profiles, which would be beneficial to the development of training programmes such as employee wellness programmes. These programmes could address consumer education regarding decision-making and psycho-social well-being in order to increase overall well-being and lower rates of

presenteeism in the workplace. Future empirical work would usefully be tested by proposing a bio-psycho-social model to visually illustrate the complexity of how the different constructs influence one another. By applying this model in wellness programmes, consumers might be empowered towards well-informed decision-making that may contribute towards increased future psycho-social well-being. Research in this field would furthermore serve as baseline information for future research, by increasing the understanding in this unexplored field and adding to the literature on this phenomenon.

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CHAPTER 3

LITERATURE REVIEW: PART 2

A REVIEW OF URBAN CONSUMER DECISION-MAKING RELATED TO HEALTH AND WELL-BEING

Written according to guidelines of Social Science and Medicine

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Research highlights

- Globalisation, along with social and work pressure, contributes to uninformed decision-making, which often has negative future implications, such as financial difficulties, increased stress levels as well as possible social and psychological risks.
- High levels of stress adding to poor psychological well-being is detrimental to consumers' overall health and well-being.
- By addressing uninformed consumer decision-making, consumers can be educated on ways to improve their decision-making styles and stress can be managed more effectively to ensure increased psychological and physical well-being.
- This literature review aims to shed light on urban consumer decision-making by applying a unique and informative approach to address stress as related to decision-making and the association it has with the physical well-being of consumers.

Abstract

Urban consumers are confronted on a daily basis with an abundance of product choices, which is often influenced by various sources of pressure of a social and work-related nature. Because of these sources of stressors, consumers tend to make uninformed decisions which might have positive consequences in the immediate future, but entail negative future consequences which are often not taken into consideration during decision-making. These negative consequences often include high levels of unmanageable stress owing to overwhelming debt, caused by social pressure to conform. Ample research has proven that high levels of continuous stress relate to various risk factors of non-communicable diseases (NCD), which could be life-threatening if not addressed. This narrative literature review aims to shed light on the relationships between consumer decision-making, stress and physical health, and ultimately to establish whether consumer decision-making can be linked with physical well-being. Until recently limited research

has been available on the relationship between these constructs, with most studies focusing separately on consumer decision-making, stress as a result of decision-making and the relationship between stress and physical well-being. In this literature review, published literature has been integrated to address the question as to whether or not a relationship exists between the constructs. A conceptual framework is proposed along with recommendations for future empirical research on this subject, especially in context of developing countries.

Keywords

Consumer decision-making

Health

Physical well-being

Psychological well-being

Urban social environment

1. Introduction

Urban consumers experience high levels of stress due to work pressure, commuting and social expectations (Lederbogen et al., 2011, 498; McKenzie et al., 2013, 1020; Miles et al., 2012, 15). Due to increased social pressure and an abundance of products, urban consumers often find themselves in positions where they make decisions based on the social, psychological and symbolic significance of the choice (Carlisle et al., 2008, 633). Status-related products are thus often purchased to add to the consumer's self-image (Sivanathan & Pettit, 2010; Stanton, 2017, 156), as in the case of desirable branded items (Schmitt, 2012, 12; Solomon, 2013, 30). These types of purchases are applicable to consumers from various income groups who make uninformed decisions by purchasing products in the hope to instantly acquire a desirable level

of social status among their social group (Erasmus et al., 2011, 54; Nelissen & Meijers, 2011, 343). When consumers experience a need to obtain desirable products more quickly, they may resort to debt as a financial solution (Clayton et al., 2015, 57; Dunn et al., 2011, 120; Erasmus & Mathunjwa, 2011, 360). Financial difficulties that may follow due to high levels of unmanageable debt cause increased stress levels that directly affect consumers' physical health (Clayton et al., 2015, 52; Yilmazer et al., 2015, 239) and may ultimately have a negative impact on the overall health and well-being of consumers.

The use of health concepts and terminology like *stress levels*, *physical health* and *well-being* needs clarification for better understanding and application in this context. According to the World Health Organisation (WHO, 2014), "*Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.*" Health is therefore related to well-being or wellness of humans. For the purpose of this review, *consumer decision-making* will be used with reference to psycho-social (mentally and socially oriented behaviour) and physical health related to the well-being of consumers.

Consumer decision-making is a mental process consumers engage in on a daily basis to decide, purchase, use, evaluate and dispose products or services depending on the consumer or the level of involvement required from the product type (Potgieter et al., 2013, 13; Schiffman & Kanuk, 2010, 478). As a significant part of consumer behaviour, consumer decision-making as well as stress, physical health and well-being have each been extensively studied on their own by various international studies, such as Billieux et al. (2008); Clayton et al. (2015); De Beer et al. (2014); Starcke and Brand (2012); Sweet et al. (2013). However, it is unclear as to what the specific relationship between consumer decision-making and physical well-being is. To our knowledge this relationship has not previously been investigated, and therefore, this literature review has followed a CORE (critical examination, organisation, reflection and evaluation) approach to compile a connection-focused informative literature review (Onwuegbuzie & Frels, 2016). During this process, research from the different fields of interest

have been studied and combined to construct a unique argument of interpretation. This narrative review integrates the contributions of various researchers from academics as well as grey literature to investigate whether or not urban consumer decision-making relates to increased stress levels. Consequently, we attempt to assess if consumers' decision-making could possibly be associated with their physical well-being.

2. Psycho-social context of urban consumers' health

The rate of urbanisation has increased significantly in the past years, with the result that more than 50 percent of the global population are now living in urban environments, and it is expected that this figure will continue to grow (Rukumnuaykit, 2015, 99). Consequently, urbanity is regarded as a modern and exemplary way of living, working and socialising (Kourtiti et al., 2015, 5; McKenzie et al., 2013, 1020). This continual growth of urban environments creates a unique need for the exploration and understanding of the overall well-being of urban consumers.

Urban consumers experience globalisation to a greater extent than their semi-urban and rural counterparts, considering the availability of wide ranges of products, as well as advanced technological goods and services (Wagner & Brath, 2012, S40). This increased exposure to goods and services affect consumers' type and extent of leisure activities, transportation, as well as work and social environments (Soni, 2013, 36; Wagner & Brath, 2012, S40; Wener & Evans, 2011, 115). As a result, urban consumers often experience increased levels of psychological stress due to more demanding and stressful social environments (Soni, 2013, 34; Wener & Evans, 2011, 111). Various international researchers conducted studies among urbanites and found that they experienced elevated stress levels along with poorer mental and physical health (Lederbogen et al., 2011, 498; McKenzie et al., 2013, 1020). To address this identified problem, stress-relieving environments were created by opportunistic retailers to encourage consumers to use purchases as an escape from daily stressors and to engage in the

stimulation and excitement of idealistic lifestyles, adding towards the acquisition of desired social identities and status (Arnold & Reynolds, 2012, 399; Champniss et al., 2015, 90).

2.1 *Social pressure as a purchasing driver*

A stronger desire towards status consumption is noted among urban consumers, who are often encouraged by marketing strategies to purchase products which consumers believe would add meaning and purpose to their lives as well as contribute to their social identities (Baumeister et al., 2008, 6; Carlisle et al., 2008, 633). Champniss et al. (2015, 91) point out that a social identity is shaped by the social group and contributes to the level of status experienced among consumers. Social identities therefore influence consumers' consumption behaviour and are regarded an important part of a person's self-concept (Champniss et al., 2015, 92; Wood & Hayes, 2012, 324). Self-concept thus represents the impressions consumers have of themselves in response to perceived membership of a group, which guides desirable consumption behaviour in order to avoid rejection by the group (Carlisle et al., 2008, 634; Champniss et al., 2015, 91). As a result, products that carry shared meanings and ideas are essential for consumers in order to be part of distinctive social environments (Champniss et al., 2015, 90; Mpinganjira et al., 2013, 14; Wood & Hayes, 2012, 328). Because of the desires consumers have towards psycho-social well-being and their need to belong, consumption thus serves social, psychological and symbolic purposes that go beyond the mere satisfaction of basic needs (Carlisle et al., 2008, 633).

Consumers use products and brands to not only signify their own identity but also their social identity, such as a social group, society, or culture along with achieving the desired social status (Nelissen & Meijers, 2011, 343; Schmitt, 2012, 12). Because of the importance of brand names among consumers, certain products serve as symbols of prosperity (Erasmus et al., 2011, 47; Stanton, 2017, 157). When consumers wish to project the ideal image, they engage in emotionally motivated irrational and often uninformed decision-making, where certain brands or

exterior design features of products might be more significant to them than functional attributes (Sonnenberg et al., 2011, 154). Consequently, consumers may purchase certain branded products merely based on the reputation and the status they communicate along with the desired lifestyle and image (Nelissen & Meijers, 2011, 343; Solomon, 2013, 30). Accordingly it is not only consumers from higher income groups who engage in the purchase of status-infused products, but also consumers from all social levels who wish to acquire status by purchasing desirable products which fall within their limitation of incomes (Erasmus et al., 2011, 54). As a result, consumers often purchase products merely to signify their social standing and gain a sense of satisfaction with life (Gardarsdottir et al., 2009, 1106; Hudders & Pandelaere, 2012, 411; Sivanathan & Pettit, 2010, 564). Similarly, some consumers purchase status-infused products to protect their self-image, sooth their egos and serve their psychological needs when they are experiencing social threats, while also hoping to gain access to benefits that are normally reserved only for those who are part of desirable social groups (Sivanathan & Pettit, 2010, 564).

2.2 *The influence of psycho-social well-being on consumer decision-making*

Consumers function within social environments and therefore their decision-making in terms of products and purchases is influenced and encouraged by the shared meanings among those belonging to a social group (Champniss et al., 2015, 90; Mpinganjira et al., 2013, 14; Sharma et al., 2010, 277). Unfortunately, when consumers find themselves desiring approval from significant others, they are encouraged to purchase increasingly more products, irrespective of possible negative long-term future consequences (Chancellor & Lyubomirsky, 2011, 132; Sharma et al., 2010, 277). These consequences can entail increased stress due to social expectations or unmanageable debt because of uninformed or compulsive decision-making, which is interrelated with psycho-social and physical well-being in the context of consumer behaviour.

Consumers often engage in decision-making and purchasing behaviour in order to explicitly indicate status and social acceptance, but consumers who experience this constant need to purchase socially acceptable products never seem to reach a point of being sufficiently satisfied (Chancellor & Lyubomirsky, 2011, 132; Sharma et al., 2010, 277). A study by Pandelaere (2016, 33) shows that as new and exciting products become older and ordinary over time, any improvement in living standard may quickly become the new set standard that consumers subsequently want to surpass. Although this type of consumption may hold positive consequences for the immediate future, the possible negative future consequences of irrational and uninformed decisions are not always considered (Hudders & Pandelaere, 2012, 428; Starcke & Brand, 2012, 1230). If consumers do not effectively control and manage their excessive buying behaviour, it can become problematic and result in overspending, borrowing and indebtedness (Billieux et al., 2008, 1441; Chancellor & Lyubomirsky, 2011, 132). Since consumers who reach this point often engage in compulsive buying to avoid and relieve immediate negative emotions, the negative future consequences of, for example, debt and financial difficulties due to uninformed decision-making may lead to a deterioration in health outcomes (Clayton et al., 2015, 52).

The negative future consequences of debt are a globally concerning phenomenon which has been well documented (Carlisle et al., 2008, 634; Erasmus & Mathunjwa, 2011, 360; Sweet et al., 2013, 99). When difficulties with repayments are experienced, consumers may become unable to manage the negative consequences of uninformed decision-making, such as financial problems, which adds to the psychological stress of constant concerns and anxiety about negative outcomes, such as ruined credit and repossession of possessions (Chancellor & Lyubomirsky, 2011, 133; Drentea & Reynolds, 2015, 18; Garðarsdóttir & Dittmar, 2012, 473). Even though many decisions provoke stress, decisions that involve financial consequences and indebtedness may lead to extensive psychological stress (Billieux et al., 2008, 1433; Starcke & Brand, 2012, 1228-1229), which then again influences consumers' decision-making abilities as well as their functioning in their social environment (Garðarsdóttir & Dittmar, 2012, 480; Starcke

& Brand, 2012, 1229). The constant stress owing to compulsive and uninformed decision-making as well as social expectations often results in increased anxiety and amplified depressive symptoms, which is detrimental to consumers' health and well-being (Bridges & Disney, 2010, 402; Drentea & Reynolds, 2015, 17; Hodson et al., 2014, 333,335; Lederbogen et al., 2011, 498).

Uninformed decision-making and socially-driven stress have a direct impact on consumers' psychological and physical well-being (Dittmar et al., 2014, 883; Yilmazer et al., 2015, 239), and serve as an important predictor of total health and consumer well-being outcomes (Sweet et al., 2013, 94). Stress, being a state of mind, is described as a non-specific response of the human body to any demand made upon it to change accordingly, which results in various behavioural and physiological changes (Harris, 2015, R250; McEwen, 2012, 17180; Robbins et al., 2009, 312). Consumers who thus experience high levels of stress in their social environment on a daily basis may find themselves in a continuous need to psychologically protect themselves (Hammen et al., 2009, 718; Robbins et al., 2009, 312). Both acute and chronic stress then become prevalent. Acute stress is the most general form of stress that is experienced and is mostly short term, such as a response to immediate danger or threats, and at times it may be useful to manage difficult daily situations or stressors (McEwen, 2012; Robbins et al., 2009, 312). Longitudinal stress (also referred to as chronic stress), on the other hand, is continuous and entails prolonged exposure to cumulative loads of 'daily stressors' and therefore becomes more than a person can handle over the long term if not addressed successfully (e.g. financial pressure and continues work-related stress) (Hammen et al., 2009, 718; Stein & Smith, 2015, 129). Substantial empirical evidence shows that too high levels of stress may result in mental and physical health problems, which are mostly preventable by prudent behaviour and good lifestyle choices (Keyes, 2002, 217; Melamed et al., 2006, 328; Tsigos et al., 2016).

Billieux et al. (2008, 1440) confirm that compulsive buying as a result of uninformed decision-making has a positive relationship with depressive symptoms. If negative consequences of

uninformed decision-making, such as financial difficulties, occur due to high levels of unmanageable debt, stress levels increase; and this in turn has a direct impact on physical health (Clayton et al., 2015, 52; Yilmazer et al., 2015, 239). It ultimately has a negative impact on the overall health and well-being of the consumer. Therefore, the following hypothesis is proposed:

H₁: Poor consumer decision-making contributes to increased stress levels.

Stress, which is often unavoidable, can be regarded as an important contributor to major health problems among urban consumers (Danna & Griffin, 1999, 370; De Beer et al., 2014; Keyes et al., 2008, 189; Payne et al., 2010, 147). In addition, stress will subsequently influence consumers' well-being and productivity in the workplace (Cramm et al., 2012, 590; Ryff, 2013, 20). To account for prior psycho-social, socioeconomic and health conditions, it is critical to understand the relationship between decision-making abilities, e.g. financial and social well-being, as well as potential health consequences (Billieux et al., 2008, 1440; Sweet et al., 2013, 95). The inability to account for compulsive and uninformed decision-making results in higher levels of perceived stress and poorer self-reported general health such as elevated blood pressure, heart rate and cortisol response (Clayton et al., 2015, 52; Payne et al., 2010, 148). Therefore, high levels of longitudinal stress, which contribute to poor health and is related to unhealthy lifestyles, increase a consumer's risk of various lifestyle diseases, with associated physical health risks (McEwen, 2012; Nishida et al., 2010, 2; Starcke & Brand, 2012, 1229).

2.3 Consumers' health related to psychological and physical factors

Physical health is determined by a consumer's ability and functionality to carry out routine daily tasks, along with fitness, body composition, nutrition, sleep and a healthy approach to drug and alcohol use (Bushman, 2011, 79). The choices consumers make on a daily basis regarding their lifestyle, as well as their managing of their stress levels and habits, are important indicators of

physical health and well-being (Lee et al., 2012, 288; Ryff, 2013, 20; Solomons et al., 2017). In general, poor lifestyle choices include physical inactivity (Agrawal et al., 2016, 319; Wagner & Brath, 2012, S39), unhealthy diets (Solomons et al., 2017, 71; Wagner & Brath, 2012, S39), tobacco use (Habib & Saha, 2010, 42; Wagner & Brath, 2012, S39) and sedentary lifestyles (Arena et al., 2016, 5; Habib & Saha, 2010, 42). However, although the extent to which consumers experience stress in their daily lives varies, high levels of stress also have a negative impact on physical well-being (Habib & Saha, 2010, 46; McEwen, 2012; Yilmazer et al., 2015, 235).

Although there are lifestyle choices over which consumers have control, consumers also are often confronted with less manageable factors such as urbanisation, and economic and social conditions (Habib & Saha, 2010, 42; Wagner & Brath, 2012, S40). These factors also contribute significantly to the psychological well-being (stress, depression and anxiety) and physical health of consumers (De Beer et al., 2014; Sweet et al., 2013, 95). Seeing that economic and social factors often serve unknowingly as stressors, consumers who are negatively influenced by these, may find themselves in a constant state of fight-or-flight mode, during which cortisol and other glucocorticoid hormones are produced by the body in order to handle the situation (Boardman, 2004, 2474; Tyrväinen et al., 2014, 2). Although these hormones are important in order to take action in cases of emergencies, the constant release of these hormones have an unintended negative impact on a consumer's physical health by breaking down important physiological processes, better known as allostasis (Boardman, 2004, 2474; Tsigos et al., 2016, 1).

Urban consumers, who experience increased and constant exposure to stressors, should be able to control their stress levels in order to ensure an equilibrium between coping with different environmental demands to avoid unmanageable high stress and still maintain good health (Tyrväinen et al., 2014, 1; Yang & Wu, 2007, 808). Unfortunately, when consumers become unable to cope with demands, a state of emotional distress is often reached during which

mental and physical health is affected in various ways (Yang & Matthews, 2010, 808; Yilmazer et al., 2015, 235). Worldwide, however, depression is a major common illness known to influence the whole body in terms of physical, cognitive and behavioural functioning and does not merely involve a magnitude of feelings such as hopelessness, helplessness and sadness (Bassett & Moore, 2013, 96; Hawkey, 2014, 31). Richardson et al. (2013, 1149) note that certain parts of society tend to be more affected by mental and other health problems. Consumers from lower socio-economic statuses reported higher levels of depression, anxiety, anger or stress in the workplace, which are risk factors for physical health problems (De Beer et al., 2014, 8; Habib & Saha, 2010, 46). Consequently stress and depression, apart from influencing health, have a significant impact on consumers' productivity in the workplace and interaction in the social environment (Barnes et al., 2008, 657; Hawkey, 2014, 32). In addition, untreated depression and stress may diminish a consumer's quality of life and social functioning, while increasing the risk for other illnesses such as cardiovascular, psychiatric and psychosomatic diseases, as well as encouraging unhealthy lifestyles (Miles et al., 2012, 2; Starcke & Brand, 2012, 1229).

As a result of unhealthy and inactive lifestyles accompanied by various stressors and risk factors, 1.3 billion people globally suffer from obesity, which if unmanaged can lead to serious health problems in the future (Wagner & Brath, 2012, S39). Risk factors such as obesity, physical inactivity and stress are strongly correlated with higher risks for non-communicable diseases (NCDs), along with coronary heart diseases and strokes, increased cholesterol levels, hypertension, high glucose levels, diabetes mellitus and various cancers, to name a few (Agrawal et al., 2016; Habib & Saha, 2010, 46; Lee et al., 2012, 219; Nishida et al., 2010, 2). Unfortunately, consumers often only become aware of these life-threatening NCDs after significant organ damage has already occurred (Sliwa *et al.*, 2008:920).

NCDs are a rapidly global growing burden in both developed and developing countries and are considered as among the leading causes of death, with approximately 16 million deaths among

consumers younger than 70 years due to, for example, premature heart disease, stroke, type two diabetes and cancers (Kolbe-Alexander et al., 2014, 1094; Narayan et al., 2010, 1196; Nojilana et al., 2016; Owolabi et al., 2014, 134). It is furthermore estimated that in the next 20 years, half of the global burden of disease in developing countries will be due to NCDs (Habib & Saha, 2010, 41). From a global perspective great concern has been shown to reduce mortality from NCDs as the rise in NCDs is increasingly placing pressure on acute and chronic health care services in both rural and urban areas (Agrawal et al., 2016, 322; Mayosi et al., 2009, 934). For most developing countries, NCDs are a growing public health issue on top of the ongoing hazards of undernutrition and communicable diseases which are affecting consumers in the prime of their lives while adding pressure on healthcare systems, governments and family budgets (Horton, 2013, 510; Narayan et al., 2010, 1196; Tibazarwa et al., 2009, 233). In order to address this rising problem, the World Health Assembly aims to reduce avoidable mortality from NCDs by 2025 with 25% to ensure that chronic NCDs which currently threaten the global future of human health and well-being, receive the much needed attention (Horton, 2013, 509).

Similarly, developing countries, which have a two-thirds death rate due to NCDs and which are highly susceptible to high levels of NCDs among people, can lower deaths due to NCDs through addressing risk factors and encouraging healthy lifestyle habits (Agrawal et al., 2016; Narayan et al., 2010, 1196; Solomons et al., 2017). As many consumers already have several risk factors that can lead to NCDs, educational employee-assisted programmes can combat future illness and consequently increase the physical and psycho-social well-being of consumers (Kolbe-Alexander et al., 2008, 236; Robbins et al., 2009, 427) by addressing stress in urban environments.

Therefore it is evident from literature that continuous high levels of stress, as in the case of urban consumers, may have indirect effects on health. In addition, stress may be mediated by the individuals' suboptimal decisions, which may offer immediate rewards but could result in long-term negative consequences (Starcke & Brand, 2012, 1229). As a result of the well-

documented detrimental effects of stress on consumers' health, the following hypothesis is proposed:

H₂: Continuous high stress levels contribute to reduced physical health and well-being.

This exploration between different fields of research suggests that important relationships may exist between consumer decision-making and stress as well as stress and physical health and well-being. It is therefore proposed that a relationship may exist between consumer decision-making and physical well-being. Consequently, the following general conceptual hypothesis is proposed, supported by the previous sub-hypotheses which were justified by former literature.

H: Poor consumer decision-making correlates with reduced physical health and well-being among consumers.

3. Consumer decision-making and physical well-being

Taking the discussed literature into consideration, it is evident that relationships between the various constructs may exist, because uninformed decision-making results in higher levels of stress, and that continuous high stress levels result in lowered physical well-being. Therefore, a theoretical framework is proposed to visually represent the proposed relationships between consumer decision-making in an urban environment, stress (psychological health) and physical health (Figure 1).

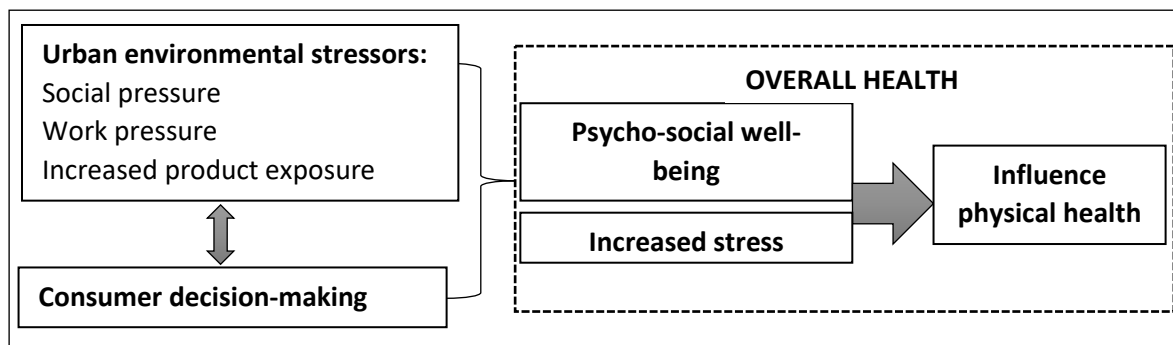


Fig. 1. Theoretical framework of the relationship between decision-making, psycho-social well-being and stress as well as physical health.

4. Conclusion

Consumers in urban environments experience various work and social related stressors on a daily basis. These stressors contribute to the level of stress experienced. To relieve the stress experienced, consumers may resort to shopping in order to escape from reality and add towards desired idealistic status infused lifestyles. Although social and emotional purchases at the time seem to give a sense of immediate satisfaction and social cohesion, uninformed and compulsive decision-making may lead to burdensome levels of unmanageable debt and financial stress, in the long run, producing negative consequences regarding psychological stress. This review proposes that uninformed decision-making contributes to increased psychological stress (H_1). High levels of continuous stress are identified and proven by various studies to serve as an important contributor towards overall and physical health problems (De Beer et al., 2014; McEwen, 2012; Payne et al., 2010, 147). Health problems prohibit consumers from functioning at optimal levels at work and in their social environments; therefore, negatively influencing their overall health. As a result, the proposed hypothesis that high levels of continuous stress contribute towards reduced physical well-being (H_2), can be proven by the integration of various literature sources.

Stress-related physical health problems such as elevated blood pressure, heart rate and cortisol response, as well as poor lifestyle habits add to the possibility for NCDs to occur. The relentless worldwide increase of NCDs offers an opportunity for low-, middle- and high income countries to join forces in addressing a major global challenge that threatens health and economies alike (Agrawal et al., 2016, 322; Narayan et al., 2010, 1196). In developing countries such as South Africa – which is considered diverse in terms of highly industrialised cities with advanced economic lifestyles opposed to rural areas (Sliwa et al., 2008, 915) – an increased focus on NCDs and well-being can be of great advantage to the urban workforce of the population. This focus is important because in most developing countries, such as South Africa, much attention is paid to communicable diseases such as HIV/AIDS and tuberculosis, while NCDs are often placed in the background (Mayosi et al., 2009). This is despite the high numbers of consumers who already display several risk factors that may lead to NCDs (Kolbe-Alexander et al., 2014).

Seeing that stress-related health problems are connected with physical health problems such as NCDs, which pose to be a rising major global health problem, a need was identified to focus on the relationship between decision-making and physical health since social pressure to conform could have such an important impact (Sweet et al., 2013, 95). It is therefore proposed that future empirical research should be done to determine whether or not consumer decision-making correlates with physical well-being (*H*). Empirical research on this matter may serve well in understanding the association between consumer decision-making, psycho-social wellbeing and physical health. This knowledge can contribute to empowering consumers towards informed decision-making and overall increased health and well-being within their daily social and work environments which will also be of significant value for employers.

Word Count

6416 words

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CHAPTER 4

METHODOLOGY

4.1 Introduction

In this chapter, the methodology and the research design used in this study will be described. A non-experimental correlational research design was followed in order to address the aim and objectives of this study. A more detailed description of the overall research process will provide a better explanation of the study and the process followed. A short description of the applicable research methodology also is given in each research article.

4.2 Research design

4.2.1 Analysis of the literature

Despite the array of available knowledge on consumer decision-making (Starcke & Brand, 2012:1230), it was uncertain if any correlations were previously addressed between consumer decision-making, psycho-social well-being and physical well-being, which is the aim of this study. Therefore, the researcher found it necessary to conduct a thorough literature study in order to obtain a comprehensive view of the study field. The most recent literature was studied first, and from there the timeline was followed to the original published literature on the constructs. Due to the wide scope of the subject, two comprehensive narrative reviews were compiled according to the guidelines of Onwuegbuzie and Frels (2016). Various search words were used in different combinations in an array of search engines and books, including (but not limited to) “consumer decision-making”, “decision-making styles”, “immediate and future consequences”, “household equipment”, “urban environment”, “psycho-social well-being”, “physical well-being” and “consumption”. The most recent grey literature – such as unpublished literature and marketing review reports – was also consulted, due to the fast-changing nature of consumer purchases and retail markets (McDonagh *et al.*, 2013:13). This grey literature provided additional insight and reduced possible bias.

Following a thorough study of available literature, the CORE process was followed to compile a unique argument of interpretation and to compile comprehensive theoretical narrative reviews, which involved critical examination and organisation of the literature, as well as reflection and evaluation of relevant literature (Onwuegbuzie & Frels, 2016). This process supported the research study by assisting the researcher in effectively conceptualising the research process and appropriately analysing the findings.

4.2.2 Empirical investigation

The objectives of the research confined the study to a non-experimental endeavour (Creswell, 2014:4), using a cross-sectional survey and previously collected physical measurement data. This study can furthermore be described as correlational research, which describes the extent of association or the relationship between two phenomena (Walliman, 2006:116), which in this case are consumer decision-making and well-being. Correlational research, as a form of quantitative research and relational studies, is considered applicable for research where possible associations/correlations are studied between phenomena; and to describe the extent to which they are associated with one another (Walliman, 2006:117; Walliman, 2011:10). Therefore, this type of research design is suitable for this study, where the importance and strength of relationships between variables are to be determined (De Vos *et al*, 2011:96), namely consumer purchase decision-making styles, consideration of future consequences and physical, as well as psycho-social well-being.

If a correlation is found between consumer purchase decision-making styles, consideration of future consequences and physical- as well as psycho-social well-being, consumers can be informed about the possible contribution that the different variables may make to their overall well-being. However, it is important to note that even though some constructs correlate with one another, it does not mean that they are dependent upon one another (Malhotra, 2010:728). This research attempts to develop a profile of decision-making and physical and psycho-social well-being of consumers working within the corporate sector in South Africa.

4.3 Target population and sampling

The target population for this study consisted of adults aged 18 to 65 years, both male and female, who were permanently employed at one of the three head offices (as identified by the company) of a selected multi-cultural corporate financial company, situated in suitable urban environments, namely Tshwane (Pretoria), Cape Town and EThekweni (Durban), South Africa. The total number of employees at these head offices are approximately 1 800 employees. This population was regarded ideal since literature indicates that urban consumers (employees) are more susceptible to social pressure, more influenced by globalisation and urbanisation and consequently have a higher chance to develop non-communicable diseases (NCDs) due to the high levels of stress in the urban environment (Starcke & Brand, 2012). Furthermore the banking sector is one of the largest employers of higher-qualification labour in South Africa, employing approximately 161 000 people according to an analysis done in 2013 (BANKSETA, 2015; Oluwajodu *et al.*, 2015); thus making banking an important contributor in the corporate sector. In addition there was already a cooperative collaboration between the Prof. C. Wilders (co-promoter) and the South African corporate financial company involved (Ethics reference

number: NWU-00109-12-S1 “WAH-project (Activities for Health)”). This cooperative relationship involves an on-going employee wellness study (also referred to as physical health risks assessments) during which employees can participate in the programme if they wish to do so, granting the researchers of this study access to these participants.

This employee wellness study involves annual clinical health assessments along with subjective well-being questionnaires which are completed during the clinical health assessment sessions (referred to as personal health risks assessments among employees). For the current PhD study, access to specific sections of the physical well-being data was available with the consent of the respondents, the financial company and Prof. C. Wilders. This enabled the researcher to reach the aim of this particular study by using specific sections of the data from the Personal Health Risks Assessments (PHRA) along with additional data that were collected from the same respondents at a separate occasion.

Respondents were from different ethnic groups, as employed by the corporate financial institution with a Black Economic Empowerment (BEE) grading of Level 2 (a system implemented by the government among businesses in South Africa to uplift previously disadvantaged South Africans). Demographic variables such as gender and ethnicity are regarded important influential factors of consumer behaviour and are often used to better describe study populations in the field of consumer studies (El Banna *et al.*, 2018; Sobol *et al.*, 2018); therefore the demographic profile of the sample group was included as a section in the questionnaire. Furthermore, respondents had to have access to a computer with an internet connection in order to complete the online questionnaire. Respondents also should have taken part in the PHRA and should have had previous experience with medium to high risk purchases, namely household appliances or furniture.

Approximately two weeks before the electronic questionnaire was distributed, advertisements in the form of posters were placed on the notice boards in the different office buildings to inform employees of the survey. The electronic questionnaire was distributed to all employees at these head offices by the personal assistants of the building management's CEOs for completion. As all employees did not necessarily want to complete the questionnaires, this resulted in the occurrence of non-probability convenience sampling (Creswell, 2014:158). A total of 391 respondents participated in the study, allowing the researchers to perform meaningful factor analysis. However, only 65 responses between the online questionnaire (step one of the study) and the PHRA (step two of the study), as described in 4.4, were linkable during data analysis. This smaller sample size was due to respondents who completed the online questionnaire, but did not participate in the latest annual PHRA. Therefore, certain sections of the results have a much smaller sample size, although this sample size is still acceptable taking into consideration

the type of data analysis that was performed on the data. The results are also reported with caution, taking into account the smaller sample size.

4.4 Measuring instruments

As mentioned previously, this study consisted of two steps. Although the physical data had been gathered first during the annual running PHRA in the company mainly for another study, this physical data were used during the second step of this study. Therefore, step one of this study addressed the consumer decision-making and psycho-social well-being component and step two addressed the physical well-being component, forming part of the current running PHRA at the company.

4.4.1 Measuring instrument for step one of this study (CDM and psycho-social well-being)

Step one entailed an online test battery questionnaire which consisted of five sections. Section one addressed demographic data and the other four sections were comprised of previously validated scales (Appendix 4.1). These scales included:

- **The Consumer Style Index (CSI)** model by Sproles and Kendall (1986) as adapted by Potgieter *et al.* (2013). Three statements were altered by (Potgieter *et al.*, 2013) for clarity for South African respondents, but without changing the basic meaning of the statements. This section of the questionnaire consisted of introductory questions and 40 five-point Likert type scale items ranging from 1 (strongly disagree) to 5 (strongly agree). The items were placed in random order to eliminate bias (Potgieter *et al.*, 2013:19). This questionnaire attained an internal reliability with Cronbach alpha values ranging from $\alpha=0.50$ to $\alpha=0.80$ in previous studies (Potgieter *et al.*, 2013) and a reliable range between $\alpha=0.74$ to $\alpha=0.87$ in the current study.
- **The Consumers' consideration of immediate and future consequences scale** from Joireman *et al.* (2012), which consists of 14 items, was used in this section. This instrument focused on the immediate and future consequences of decisions, which forms an important part of decision-making within the scope of this study. The results of this section provide data on the extent to which consumers take future consequences of their decisions into consideration (Joireman *et al.*, 2012:1272). This served as an extended explanation of consumers' decision-making styles and the possible association decision-making has with physical and psycho-social well-being. The 14-item consideration of future consequences (CFC) Likert scale ranged from 1 (extremely uncharacteristic) to 5 (extremely characteristic). Joireman *et al.* (2012) reported an

internal reliability of $\alpha=0.70$ and $\alpha=0.74$ on the distinctive factors that emerged with analysis, while in the current study, the scale scored an internal reliability of between $\alpha=0.85$ and $\alpha=0.88$, which is regarded as good and confirmed internal reliability (Field, 2009).

- **The Mental Health Continuum Short form (MHC-SF)** measures general mental health and consists of six items of psychological well-being (PWB), three items of emotional well-being (EWB) and five items of social well-being (SWB). This six-point scale contains 14 items. Participants indicated how frequently each of the statements in the items occurred in the past six months by responding on a Likert scale ranging from 0 (never) to 5 (almost every day). This scale was validated in the South African context and manifested good internal consistency in previous studies ($\alpha=0.74$) (Keyes *et al.*, 2008:185; Lamers *et al.*, 2011; Joshanloo *et al.*, 2013) plus a good overall result ($\alpha=0.80$) in this current study.
- **The Satisfaction with Life Scale (SWLS)** measures the extent to which an individual experiences satisfaction in his/her life using a seven-point Likert type scale ranging from 1 (strongly disagree) to 7 (strongly agree). According to Diener *et al.* (1985:71), evaluation of life satisfaction is a “cognitive judgmental process” during which people compare their present state of affairs against standards that they have personally set. This scale has been used in various studies to measure a person’s general satisfaction with life and has proved to be valid and reliable in the South African context, noting a Cronbach alpha reliability index of 0.69 in previous studies (Keyes *et al.*, 2008:184; Jang *et al.*, 2017) and a value of $\alpha=0.91$ in the current study.

4.4.2 Measuring instrument for step two of this study (physical well-being)

Step two consisted of selected sections from the existing running annual PHRA of respondents employed at the three head offices of the company serving as the study location. Only certain applicable sections of the measuring instruments were used and were relevant to this study for addressing the set objectives. The applicable sections/instruments included the following:

- **The Coronary heart disease risk index** of Bjurstrom and Alexiou (1978) was used to assist in the calculation of the risk for coronary heart disease among respondents. This questionnaire is comprised of 14 recognised risks for the development of heart disease and the severity grading of each of the risk factors is reflected numerically. The sum of the number allocated to each of the 14 risk factors reflects a total value that indicates a low, moderate or high risk for the development of heart disease (Kriel, 2004; Grove & Wilders, 2009).
- **The Lifestyle habit questionnaire** of Belloc and Breslow (1972) was regarded as suitable to determine the lifestyle habits of respondents which influence general health.

Within this questionnaire respondents were asked to answer either 'yes' or 'no' to seven questions of basic lifestyle habits, such as whether or not they smoke, their level of intensity of exercise, alcohol intake, amount of sleep, body weight and their dietary habits, which – depending on the number of 'yes' answers – gave an indication of their lifestyle (Belloc & Breslow, 1972). According to Belloc and Breslow (1972:411), "the questionnaire items have been found highly reliable" and were used effectively in other studies (Grové & Wilders, 2009).

The above-mentioned questionnaires addressed the subjective physical well-being of respondents; while the objective physical well-being was measured by means of clinical health assessments (see 4.5.2).

4.4.3 Validity and reliability of measuring instruments

According to Zikmund and Babin (2010:250), it is important that the measure used during a study needs to be both precise and accurate. Thus, *reliability* represents the preciseness and consistency of a measure; whereas *validity* deals with the accuracy of the measure and whether or not it is measuring what is required.

4.4.3.1 Validity of measuring instruments

Conceptualisation: Theoretical validity

For this study a wide spectrum of literature on consumer behaviour was studied, especially with regard to consumer decision-making, immediate and future consequences of behaviour and physical as well as psycho-social well-being. This served as a good base from which a conceptual framework was instigated (Bowling, 2009:167). To the best knowledge of the researcher, limited research is available on a profile or the associations between consumer decision-making and physical and psycho-social well-being in the South African setting. Therefore, the study was shaped in accordance with the problem identified and the objectives stated.

From the literature, suitable questionnaires were incorporated in the study to best address the aim (also see 4.4.1 and 4.4.2). This involved the consumer style index (CSI) of Sproles and Kendall (1986), which focused on the ways consumers make decisions and the different decision-making styles they apply, which have been used extensively in various other studies. The consideration of future consequences (CFC) scale of Joireman *et al.* (2012) served as a reliable measure to determine the extent to which consumers take the immediate and future consequences of their decisions into account during decision-making. Both the CSI and CFC scales served as good instruments to explore consumers' decision-making behaviour.

Regarding the psycho-social well-being of consumers, the mental health continuum short form (MHC-SF) was used, as it addresses the emotional, social and psychological well-being of a consumer. The satisfaction with life scale (SWLS) served as a good and reliable instrument to gain insight into the extent to which consumers experience satisfaction in their lives.

In order to address the physical component of the study, only selected variables were used from the current running PHRA in the company, as described in 4.4.2.

Internal and external validity of measuring instruments:

Internal validity involved experimental procedures such as the clinical health assessments that were performed or the experiences of the respondents that could possibly threaten the accuracy of the data (Malhotra, 2010:255; Creswell, 2014:175). Therefore, the following measures were taken to reduce the threat to internal validity, as threats of internal validity can negatively influence external validity (Malhotra, 2010:255; White & Mc Burney, 2013:148):

- Data for step one were gathered within a two month time frame to avoid maturation among respondents, which could influence the validity of the results, for example stressful periods/events at work;
- The data for step two were from the most recent annual PHRA period closest to the time frame of data collection for step one.
- Respondents were able to complete the online questionnaire in their own time in order to avoid unreliable data;
- Biokineticists were independent, qualified, registered and trained to perform the physical tests correctly and capture the data in a suitable manner for analysis;
- Respondents were assured that their information would be kept confidential and that their identities would at no stage be linked to the results avoiding a regression effect, whereby respondents do not answer honestly as they fear they might be penalised negatively in their work environment (White & Mc Burney, 2013:149);
- A relatively large group was recruited, to make provision for possible dropouts.

External validity threats might occur when incorrect inferences are drawn from a sample and results are generalised beyond the experimental margins (White & Mc Burney, 2013:145; Creswell, 2014:175). Therefore reported results were not generalised outside the set parameters.

Construct validity of measuring instruments:

According to (Creswell, 2014:236), it is important for a measuring instrument to be refined and go through scale developments in order to assure that the instrument is well developed and has a good level of construct validity. All the questionnaires used for this study had previously been

used in different settings by different researchers, and they had been tested and adapted for improved construct validity. Due to the difference in setting, population group and product type, construct validity was determined by means of exploratory factor analysis (EFA) and confirmatory factor analysis (CFA).

4.4.3.2 Reliability of measuring instruments

During step one, the questions (section B to E, of which section A was demographic data in Appendix 4.1) that had to be answered online were from previously validated questionnaires. These questions were discussed with the statistician to ensure that all the objectives would be answered satisfactorily. The questionnaires of step two (Appendix 4.2) had been tested among employees at this company in previous years, and had delivered reliable results in the past. However, Chronbach alpha was again calculated on the different applicable scales (CSI, CFC, MHC-SF and SWLS) and reported in the results to ensure internal consistency within the factors (Zikmund & Babin, 2010:436).

4.5 Data collection process

Because the questionnaires for step one of data analysis are existing validated scales, no pilot study was necessary. Reliability and validity as previously determined are reported in 4.4. This also applies to the scales of step two, which had previously been implemented with success at the financial company. The following section provides an overview of the process that was followed.

4.5.1 Data collection for step one of this study

Firstly, posters were placed on the general notice boards in the buildings of the relevant business units approximately two weeks before the electronic link to the questionnaires for **step one** was distributed. These posters aimed to inform employees of the study that was going to take place and the e-mail they would receive concerning the study. Following the poster, a link to an electronic questionnaire (compiled from the validated questionnaires (Appendix 4.1) and focusing on consumer decision-making and psycho-social well-being) was sent to all employees by the personal assistants of the CEOs at the selected head offices for completion. Ideally, participants would already have taken part in the clinical assessments and physical well-being questionnaires of the existing PHRA that was performed previously. In order to achieve the proposed objectives, the online questionnaire of step one comprised the following:

- **Section A:** Demographic data, namely personnel number, business unit, participation in the personal health risks assessment of the company, purchase experience with household

appliances or furniture, age, gender, ethnicity, type of housing, salary bracket, marital status as well as the number of children under 18 who lives with the participant in the same household;

- **Section B:** CSI model of Sproles and Kendall (1986) as adapted by Potgieter *et al.* (2013);
- **Section C:** Consumers' consideration of future consequences of Joireman *et al.* (2012);
- **Section D:** MHC-SF scale by Keyes *et al.* (2008);
- **Section E:** SWLS as developed by Diener (2000).

The results from section D and section E were both used to provide a holistic idea of the respondents' psycho-social well-being. Assistance was received for the analysis of these sections by Prof. M.P. Wissing, who is a qualified and experienced psychologist in the field of psycho-social well-being.

4.5.2 Data collection for step two of this study

Step two of data analysis, based on applicable previously collected data which were part of another running study (the PHRA) made use of the existing questionnaire, which is composed of different sections. Only the following sections are applicable to the current study (Appendix 4.2):

- **The Coronary heart disease risks index** of Bjurstrom and Alexiou (1978); and
- **The Lifestyle habit questionnaire** of Belloc and Breslow (1972).

In addition to the paper-based questionnaire, clinical personal health risk assessments were conducted by independent registered biokineticists in the three study location cities with whom there was a corporative relationship, and who are suitably qualified and experienced to do this measurements for this company on a contracted basis. These biokineticists were fully informed and trained experts who are familiar with the correct procedures and protocols for any assessments to take place. Respondents were asked to pay a visit to one of the identified biokineticists in order to have the clinical health assessments done. These results added to the classification of respondents' Coronary heart disease risk index results (classified as high-, moderate- or low-risk) as far as possible on actual measurements. The following clinical measurements obtained in the running PHRA project were also applicable to the present PhD study:

- Respondents' **height** was measured according to the protocol as stipulated by the International Society for the Advancement of Kinanthropometry (ISAK) (2001);
- Respondents' **weight** was measured with a *Dynavit* electronic scale, according to the protocol stipulated by ISAK (2001);

- **Blood pressure** was taken with an aneroid sphygmomanometer after the respondent had been seated for 5 minutes, refraining from smoking cigarettes or ingesting caffeine during the 30 minutes preceding the measurements, as advised by the American College of Sports Medicine (ACSM, 2014:45);
- The total **cholesterol and random blood sugar** were tested with a Roche *Accutrent® Plus* meter to quantitatively measure glucose and cholesterol in the capillary whole blood of respondents. All measurements were taken according to the manufacturer's manual of Roche *Accutrent® Plus* (Roche Diagnostics, 2010).

Before participating in the online questionnaire, respondents were requested to read through the letter of informed consent in which they were also asked to give their consent that the researcher may use the stipulated sections of their physical data from their PHRA. In addition, consent to participate in the online questionnaire was given by the participant once the participant had clicked on the relevant box indicating agreement with the letter of consent. Consent to use sections of the physical data from the PHRA was obtained from the company and the gatekeepers (CEOs) beforehand and a letter of collaboration was issued to confirm that this permission had been obtained. Respondents were assured that neither the company, their CEOs nor any personal assistants involved would be informed whether or not a specific individual had participated in the study.

All the questionnaires were only available in English as this is the general and official language spoken in corporate environments (Casale & Posel, 2011:385; Posel & Casale, 2011:499), as well as this particular corporate financial setting, and it was therefore believed that all employees are fluent in this language. The electronic questionnaire of step one was made available between February 2016 and March 2016 through Question Pro®, an electronic survey programme which is self-administered and took approximately 20 minutes to complete.

Some screening questions that formed part of section A (demographic questions) in step one, were used to ensure that all respondents met the inclusion criteria (see 4.5.1, section A). If they did not qualify to participate in the study, the questionnaire closed and thanked respondents for their time. Remuneration for time and effort was in the form of vouchers as approved by the Health Research Ethics Committee of the NWU. Each participant was remunerated with a token of appreciation in the form of a R50 cafeteria voucher, which was redeemable at the cafeteria in the head office buildings. The voucher numbers were entered into the online questionnaire programme and upon completion of the questionnaire the programme would present the voucher number immediately, which respondents could then print and present to receive their cafeteria vouchers.

Feedback would be given by the researcher after completion of the research to inform employees at the participating head offices of the overall CDM and psycho-social well-being of respondents. All questionnaires and data were handled with confidentiality, to ensure that respondents did not feel exposed when they had to answer honestly (Walliman, 2006:282), as described in 4.7. The researcher was also available by means of e-mail or telephone if the respondents had any questions during the data collection. The data of step one and two were linked by the researcher by means of the respondents' provided personnel numbers. After the data had been linked, a copy of the data was made in which the personnel numbers were deleted before being sent to the Statistical Consultation Services of the NWU. This ensured that only the researcher had access to the data which could be linked to an individual, in the case that a respondent would withdraw. However, to date no respondents have withdrawn from the study.

4.6 Data analysis

Following data collection, data were imported from the data base of the web-based questionnaire (Question Pro®) and coded in accordance with the predetermined data definitions. The researcher checked the data for possible errors before the statistician proceeded with the various statistical procedures and analyses of the data. IBM SPSS® (Statistical Package for Social Sciences) Version 24 was used for data analyses by a statistician from Statistical Consultation Services of the North-West University. Because the physical and psycho-social well-being constructs were from other discipline fields, the data from sections D and E (Appendix 4.1) as well as those for physical well-being (Appendix 4.2) were analysed with the assistance of experts in the relevant fields, namely Prof. C. Wilders and Prof M.P. Wissing. This ensured that conclusions would not be drawn outside the scope of the fields in question. For a comprehensive summary of the analysis and the objectives, refer to Table 4.1

Data were interpreted by means of **descriptive statistics, such as percentages, means, and frequencies**. This included section A (demographics), section B (influential characteristics during the selection of household equipment and the CSI model), section D (MHC-SF), section E (SWLS) and physical well-being variables (the coronary heart disease risk index; the lifestyle habit questionnaire and clinical assessments). Using **Oblimin rotation, exploratory factor analysis (EFA)** with principal axis, factoring, was done on opinion-based questions with the Likert type scales, namely section B (influential characteristics during the selection of household equipment). For the second part of section B (CSI model) and section C (consideration of future consequences) **confirmatory factor analysis (CFA)** was also performed to confirm the factor structure. CFA was also performed on sections D and E.

T-tests and one-way analysis of variance (ANOVA) with Cohen's *d*-values as effect sizes were employed on the factor scores of sections B and C and the lifestyle habits questionnaire as well as on sections D and E to determine practical significance in differences of demographic groups.

Spearman's two-tailed correlation coefficients were performed to determine the associations between sections B (CSI model) and section C, section B, C and physical well-being variables as well as between sections B, C, D and E (see table 4.1). **Linear regression analysis** was furthermore performed to confirm various relationships, namely between sections B, C and physical well-being variables as well as between sections B, C, D and E.

Structural equation modelling was performed to further explore the various relationships, namely between identified constructs, which included the decision-making variables (sections B and C) and selected physical well-being variables (diastolic blood pressure and lifestyle habits) and a total of the psycho-social variables (sections D and E).

A summary of data analysis is provided on the next page in Table 4.1.

Table 4.1: Summary of data analysis

Empirical objectives		Relevant data	Statistical procedure
1)	To determine and describe the demographics of consumers working within a financial corporate setting.	Section A	Descriptive statistics: Percentages, means, standard deviations, frequencies.
2)	To determine and describe the decision-making of consumers regarding medium- to high-risk purchases by means of:		Descriptive statistics: Percentages, means, standard deviations, frequencies, exploratory factor analysis with principal axis factoring using Oblimin rotations with Cronbach alpha's. Cohen's <i>d</i> -values were employed as effect sizes to derive practical significance in differences with biographic variables. Spearman's two-tailed correlation coefficients.
a)	Consumers' different types of decision-making styles (CSI);	Section B	
b)	Consumers' consideration of immediate and future consequences (CFC);	Section C	
3)	To determine and describe the physical well-being of consumers working in a corporate setting, in terms of their:		Descriptive statistics: Percentages, means, standard deviations, frequencies, one-way analysis of variance (ANOVA).
a)	Objective physical well-being;	Clinical health assessments	
b)	Subjective physical well-being.	Coronary heart disease risk index, Lifestyle habit questionnaire	
4)	To determine and describe the psycho-social well-being of consumers working within a corporate setting in terms of their: • Satisfaction with life (SWLS); • Experience of meaningfulness in life (MHC-SF)	Section D & E	Descriptive statistics: Percentages, means, frequencies, t-tests.
5)	To determine extent of possible associations between:		Group statistics, t-tests, one-way analysis of variance (ANOVA) was conducted between constructs and Cohen's <i>d</i> -values employed as effect sizes to derive practical significance in differences with demographic variables. Spearman's two-tailed correlation coefficients and linear regression analysis.
a)	Consumers' shopping decision-making styles and consideration for immediate and future consequences;	Sections B & C	
b)	Consumer decision-making and physical well-being;	Sections B, C & Coronary heart disease risk index, Lifestyle habit questionnaire Clinical health assessments	
c)	Consumer decision-making and psycho-social well-being.	Sections B, C, D & E	
6)	To combine the results of the decision-making styles, consideration of immediate and future consequences, physical well-being and psycho-social well-being in order to construct a profile in a specific corporate setting.	Sections A to E Coronary heart disease risk index, Lifestyle habit questionnaire Clinical health assessments	Structural equation modelling.

4.7 Ethical considerations

4.7.1 Approval

Before commencing with field work, approval was obtained from the Health Research Ethics Committee (HREC) of the faculty of Health Sciences of the NWU (NWU-00191-15-A1). The necessary permission to conduct the research and employ the additional questions in the survey was also gained from various role players as discussed in 4.3. This included the Strategic Human Resources department of the corporate financial company in question, who issued a letter of collaboration, and Prof. C. Wilders as well as the consent of respondents.

4.7.2 Informed consent

For this **study (step one)**, the personal assistants of the CEOs of the particular business units distributed the link of the questionnaire. The e-mail served as the informed consent and information letter communicating the necessary information about the study. Respondents also were informed that they could close the e-mail for 24 hours or as necessary, to think about their participation, and that they could continue with the questionnaire if they were sure that they would like to participate, in accordance with ethical guidelines.

For **step two** – the PHRA – consent was obtained upon data collection during the previous data collection opportunity, as described in 4.4, where the test procedures were explained to each respondent and respondents were asked to sign a letter of consent before assessments took place. The letter explained that all information would be handled confidentially by not exposing it to any other third party; that the information/data obtained from this study would be used for publication and research purposes and the possible development of a wellness programme; and that none of the data would be linked to any individual. Participation was also voluntary and respondents could have withdrawn at any time, whether during the measurements or afterwards, if they wished to do so.

4.7.3 Risks and benefits

4.7.3.1 Direct risks and benefits

Direct risks of participating in step one of this study might have included a low level of physical harm, such as discomfort if the questions could not be answered in private. Therefore it was emphasised to the respondents that they had to consider their answers in private and complete the survey on their own. If they did not follow the above instruction, they could experience some level of emotional harm or embarrassment, along with social harm. They could feel stigmatised if they themselves or their social group were to regard their true answers as deviant from the ideal form of consumer decision-making. Respondents' personnel numbers were available to no

one but the researcher, and were only used by the researcher to link data from step one and step two. Respondents' identities were treated confidentially at all times. It was also made clear to respondents that by participating in this study, they would be contributing to the subject matter being studied, enabling the researchers to make recommendations for development of suitable or adapting existing employee wellness programmes, in an effort to help consumers (employees) to better manage their decision-making. It was explained that this could positively contribute to their health at a physical and psycho-social level.

Direct risks during the data gathering of the physical risks assessments data used for step two were prevented and/or kept to the minimum. The greatest care was taken to ensure that respondents were not harmed and that discomfort would be limited. With regard to the physical measurements (that were taken as part of the previous PHRA), participants could have experienced some physical discomfort (blood pressure measurement) or slight pain from the pricking of a finger for the total cholesterol and random blood sugar test. Participants could also have experienced low levels of psychological harm, such as fear of the pricking of their finger for the cholesterol or blood sugar test. Emotional harm might also have been experienced by participants in terms of the measurement of their weight, if participants regarded their own weight as not being ideal or as being overweight. To prevent or reduce the risks, trained biokineticists were therefore used to perform the tests. During the tests, they clearly explained the procedures to the participants and assured the participants that all information would be handled confidentially to prevent possible social harm, such as stigmatisation or discrimination. The direct benefits from these tests were that participants received immediate feedback from the biokineticists regarding the status of their individual physical tests. This would have enabled participants to pay immediate attention to their own health, if it was found to be alerting. Furthermore, participants would benefit from the measurements to participate in a corporate wellness programme presented in the company for all employees (respondents). Clinical therapists were also part of the corporate multi-disciplinary team for referral of any respondent by the biokineticist, if necessary. Therefore the benefits outweighed the risks in this study.

Should it, however, have become evident during data analysis that a certain respondent was at high risk concerning his/her physical or psycho-social health, the researcher would bring it to the attention of the employee assistance programme manager of the institution in question, who would then handle the situation according to the protocol of the institution.

4.7.3.2 Indirect risks and benefits

This study might have caused temporary lower productivity to the company since the employees might have completed the survey in work time. But as a result of this study, the

company would benefit in the future since this data will contribute to the development of a wellness programme aimed at training/informing employees on their decision-making behaviour regarding consumption and physical and psycho-social well-being. The recommendations to future programmes will assist employees to make more informed and responsible decisions in their private lives, which would consequently influence their health and ability to be productive and present in the working environment. Therefore the benefits outweighed the risks in this study.

4.7.4 Informed consent

As explained previously in 4.7.2, the letter of consent for **step one** was in the form of an e-mail which explained all the necessary information to the respondents. This letter of consent informed the respondents that by clicking on the provided link to the questionnaire, they acknowledge that they had read it and understood the information provided in the e-mail. By doing so they consequently gave their consent to participate in the study, and gave the researcher permission to access sections of their PHRA data for analysis during step 2. During the data collection of the PHRA which was used in **step two**, respondents were given a hardcopy of the letter of consent that they were required to sign before completing the paper-based questionnaire of the running study and before any physical assessments were performed.

4.7.5 Confidentiality and right to privacy

Confidentiality of both the company and the respondents were assured during this study. The name and details of the company in question will not be revealed to any third party or during publications. Respondents were requested to provide their personnel numbers to enable the researcher to link the data of steps one (CDM and psycho-social well-being electronic questionnaires) and two (PHRA). After the data had been linked by the researcher, the personnel number was replaced with a random number for data analysis purposes. Therefore, only the researcher was able to identify a respondent, in case a respondent would request to withdraw during the research. The raw data would furthermore be handled according to the guidelines of HREC. All information was managed in a strictly professional and confidential manner and neither the company in question, its CEOs nor personal assistants of CEOs would be informed of whether or not a specific employee had participated in this study.

4.7.6 Competence of researchers

The researcher had the necessary knowledge and skills to successfully gather data for step one and to link the data of both steps one and two. The researcher was also constantly under the

supervision of skilled and experienced promoters, who included Prof. M. van der Merwe (consumer behaviour), Prof. C. Wilders (physical health and well-being), Prof. M. Wissing (psycho-social well-being) and Prof. S. Ellis (statistical procedures and analysis). During data analysis, Prof. M van der Merwe assisted with data related to consumer behaviour as well as with compiling the manuscript; Prof. C. Wilders assisted with data related to physical health and well-being; and Prof. M. Wissing assisted with data related to psycho-social well-being.

4.8 Conclusion

This chapter provided an overview of the methodological process that was followed in this research study. In the following chapters the research questions will be addressed in the form of research articles. This will be followed by a results chapter, which focuses on a proposed model to address the issue.

4.9 References

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CHAPTER 5

RESULTS ARTICLE 1

URBAN CONSUMERS' DECISION-MAKING REGARDING HIGH-RISK PURCHASES

Written according to guidelines of International Journal of Consumer Studies

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Title

Urban consumers' decision-making regarding high-risk purchases

Abstract

Household equipment (HE) is pivotal towards improvement of living conditions and is therefore described as high-risk purchases due to the complexity of the decision-making involved. Consumers' decision-making styles (DMS) along with consumers' consideration of future consequences (CFC) of HE purchases were studied to explain the extent of associations between the two phenomena, namely DMS and CFC. A cross-sectional electronic survey was administered among urban consumers (N=391) who fit specific inclusion criteria. Respondents indicated various HE characteristics to be important when selecting these products, but differences among ethnic groups occurred. Correlations between consumers' DMS and CFC of household equipment purchases indicated that future-oriented respondents' decision-making styles were mostly perfectionistic and high quality driven, while immediate-oriented respondents' decision-making styles were both emotionally and performance driven. Results concerning the purchasing behavior of urban consumers' HE purchases were insightful and may serve useful to various role-players in the industry and academia by shedding light on what urban consumers find important during certain purchases and how they make these decisions.

Introduction

Decision-making is an integral part of consumers' functioning in societies (Schmitt, 2012). Needs and desires are experienced by all consumers daily and the fulfilling of these needs through effective decision-making are essential to consumers' well-being (Solomon, 2013, Le Roux *et al.*, 2017, Christie *et al.*, 2016). Consequently, consumers express themselves through image and lifestyle related purchases which are affected by psychological, sociological and demographical factors (Tatic and Cinjarevic, 2016, Deka, 2016). Faced with various choices, products, marketing exposure and expectations — from social environments due to globalization and proliferation of media — consumers often find themselves in

situations of over-exposure and pressurized decision-making (Nieftagodien and Van Der Berg, 2007, Kartik *et al.*, 2016). This over-exposure often contributes towards compulsive buying, which has become a growing phenomenon in today's postmodern consumer culture (Tatic and Cinjarevic, 2016). Decision-making has become increasingly complex due to the abundance of products consumers are faced with in saturated market environments; hence depending on the level of risk relevant to the decision, consumers often face difficulties during decision-making (Lysonski and Durvasula, 2013, Walsh *et al.*, 2001, Lysonski *et al.*, 1996). The ability to make informed decisions are important for consumers in order to improve and assure quality of life and therefore consumer behavior and decision-making are gaining increasingly attention and importance world-wide (Bae and Lee, 2010, Anic *et al.*, 2016).

During purchasing decisions of products and services, consumers are confronted with various influential factors which differ in importance amongst consumers, such as quality, price, brand, time, social class and culture. (Modi and Jhulka, 2012, Hiu *et al.*, 2001). Seeing that consumers differ in shopping decision-making styles, Sproles and Kendall (1986) identified eight well acknowledged decision-making styles (DMS) through the Consumer Style Inventory (CSI), namely *perfectionistic and high quality consumers*, *brand conscious consumers*, *novelty-fashion conscious consumers*, *recreational and hedonistic shopping conscious consumers*, *price conscious / value for money*, *impulsive and careless*, *confused by over-choice* and *habitual*, *brand-loyal consumers* (Lysonski and Durvasula, 2013, Rezaei, 2015, Mehta and Dixit, 2016). The above DMS are cognitive and affective orientations characterizing the approaches consumers use to make choices, which relate to rational or impulsive purchases (Sproles and Kendall, 1986, Mehta and Dixit, 2016, Anic *et al.*, 2016). These eight DMS are dichotomized into utilitarian decision-making styles, being task or performance oriented; or hedonic decision-making styles, being more concerned with self-indulgence and pleasure (Arnold and Reynolds, 2003, Jones *et al.*, 2006, Zhou *et al.*, 2010, Garau-Vadell and De-Juan-Vigaray, 2017). Although the CSI is an effective way to classify consumers' general decision-making styles, consumers also differ regarding consideration of future consequences (CFC) of their decisions (Pavia and Mason, 2004), for example, during the purchase of more expensive household appliances and furniture (hereafter referred to as household equipment), which requires more intensive consideration (Christie *et al.*, 2016).

Depending on the product type involved during decision-making, the extent to which consumers take future implications of their decisions into consideration, differs (Strathman *et al.*, 1994, Dassen *et al.*, 2015). Consumers who are more concerned with immediate satisfaction of needs are immediate-oriented and disregard the future implications of decisions (Joireman *et al.*, 2012), for example enjoying the immediate satisfaction and joy of owning a certain product despite the future debt that may have negative consequences. Oppositely, future-oriented consumers find it more important for decisions to

hold future benefits even if they have to sacrifice the immediate pleasure they might gain from the purchases (Strathman *et al.*, 1994); such as choosing products that will serve good in the long run although the consumer might not be rewarded as much with social admiration. Therefore, in order to gain a more holistic understanding of consumers' decision-making process during high-risk purchases such as household equipment (HE), both DMS and CFC of choices served as the theoretical framework for this study.

Higher risk products, such as high-priced HE, entail higher levels of cognitive involvement by consumers upon purchase decision-making (Schiffman and Kanuk, 2014). This may be attributed to the possible risks that can accompany high-risk purchases such as financial consequences, failure to perform as expected, social disapproval or psychological 'ego bruising' risks that aggravate the decision (Schiffman and Wisenblit, 2015, Christie *et al.*, 2016, Schiffman and Kanuk, 2014). However, HE is important to ensure effective functioning of households and comfortable living while often being associated with prosperity due to the emotional and social connotations (Donoghue *et al.*, 2008, Danziger, 2004, Sonnenberg *et al.*, 2011). Therefore, since HE forms an important part of consumers' lives, it is regarded as a product category with which most consumers have had some sort of previous decision-making experience when purchasing, seeing that HE has to be replaced or there is a desire for newer products that develops over time.

Household equipment is associated with fast developmental processes, where new products constantly evolve (Cabeza *et al.*, 2014); signifying possible future financial, functional psychological and social risks that consumers might associate with these products. Consumers are constantly confronted with newer, better and more stylish products through easily assessable retail environments such as online shopping platforms, where they can stay ahead of product trends and easily compare products (Grewal *et al.*, 2017). However, even though the new product development process occurs at a fast pace, it is assumed that these types of higher-risk products should last for a relatively long time when purchased (Sonnenberg and Erasmus, 2013, Grewal *et al.*, 2017). In addition, HE as a product category plays an important social communication role as it is mostly placed in social zones of homes to be displayed to guests (Erasmus *et al.*, 2016). Therefore, the decision-making of higher-risk purchases are based on both utilitarian qualities – such as performance, price and quality – as well as hedonic motives – such as shopping enjoyment, social acceptance and emotional proliferation for owning desirable products (Hennies and Stamminger, 2016, Arnold and Reynolds, 2012). The possession or lack of ownership of objects affects consumers' lives and influences the way consumers feel about themselves and others (Solomon, 2013). Therefore, ownership of certain socially significant products can influence consumers' sense of belonging due to the material meanings attached (Jansson-Boyd, 2010, Wänke, 2009).

Urban consumers are often more influenced by social and marketing pressure than their semi-urban counterparts (Erasmus *et al.*, 2011). Consequently, consumers' city of residence serves as strong influencers on decision-making (Starcke and Brand, 2012). Likewise, consumers' social environment – such as friends, family and work environment – influences their decision-making (Mpinganjira *et al.*, 2013, Wood and Hayes, 2012), adding to social comparison regarding spending and consumption (Braun Santos *et al.*, 2016). These social influences and pressure that evolve by being confronted with different choices may in turn also influence the ways in which consumers function in their social environments (Solomon, 2013). Accordingly, consumers can be empowered towards better decision-making by enabling them to understand the association between their decision-making and their overall well-being. This will enable consumers to function more effectively by being informed and responsible in the market place as well as in their social environment. Therefore, this article aims to investigate and describe the importance of certain HE product characteristics, as well as urban consumers' DMS and CFC of decisions regarding high-risk HE purchases. The extent of associations between consumers' DMS and their CFC of decisions was also determined.

Research method

This study used correlational research and applied a cross-sectional survey to explore and describe the extent of association between DMS and CFC. Though, this study did form part of a larger project which included various other components that are not within the focus of this article. The sample consisted of permanent employees at three head offices of a multi-cultural corporate financial organization situated in three different urban settings in South Africa, namely Pretoria, Cape Town and Durban. Respondents between 18 and 65 years of age, with previous purchasing experience of HE and with internet access to complete the online questionnaire, were recruited through convenience sampling. This study was voluntary for all employees in the selected head offices and was conducted within the ethical requirements as prescribed and approved by the Health Research Ethics Committee of the North-West University (NWU-00191-15-A1).

Measuring instrument and data collection

The sections of the questionnaire pertaining to this article include demographics, HE characteristics regarded as important during purchases, DMS regarding HE, and CFC of decision-making. Apart from basic demographic questions, the DMS questionnaire consisted of a list of characteristics adapted from Potgieter *et al.* (2013), representative of factors that are regarded as important when considering the purchase of HE, where 1 = 'not at all important' and 4 = 'very important'. The section on decision-

making consisted of the 40-item consumer style index (CSI) model of Sproles and Kendall (1986), as adapted by Potgieter *et al.* (2013) for a South African context. This 5-point Likert scale focused on decision-making styles, where 1 = 'strongly disagree' and 5 = 'strongly agree'. The authors subsequently determined consumers' CFC of decisions by means of the standardized 14-item consideration of future consequences (CFC) 14-scale by Joireman *et al.* (2012), where 1= 'extremely uncharacteristic' and 5= 'extremely characteristic'. Data (N=391) were collected by means of an electronic online questionnaire designed and administered via QuestionPro®.

Validity and reliability

All scales used in this study were previously validated with construct validity. Exploratory factor analysis (EFA) was again performed for this study to ensure construct validity and internal consistency, since the scales were applied in a different context pertaining to medium to high-risk products. Principal component analysis (PCA) was employed as factor extraction method, using Oblimin with Kaiser Normalization as rotation method. In order to confirm construct validity for the extracted factors of EFA of the CSI scale, the models that made the most theoretical sense were subjected to confirmatory factor analysis (CFA) to confirm the factor structure. Accompanying the CFA, the goodness of the model's fit was measured by means of three statistical indices, namely the Chi-square statistic divided by degree of freedom (χ^2/df), root mean error of approximation (RMSEA) and comparative fit index (CFI), as recommended by Hancock and Mueller (2010). To be regarded as acceptable, the χ^2/df value should be <5, CFI above 0.9 (Mueller (1996), and the RMSEA value below 0.1 to confirm a good fit (Blunch, 2008). Construct validity can thus be ensured if two of the three indices used indicated a good fit.

All three EFAs scales reported Kaiser-Meyer-Olkin measures of sampling adequacy (KMO) values above 0.7, where 0.7-0.8 is regarded good, 0.8-0.9 as great; and above 0.9 as superb (Field, 2009). Using Kaiser's criterion, factors with eigenvalues higher than one were extracted and the lowest percentage variance explained was more than 57%, which is higher than the acceptable minimum of 50% (Field, 2009). The mean inter-item correlations for the three reported EFAs were between 0.343 and 0.534, which is within the required margins of 0.15 and 0.55 as prescribed by Clark and Watson (1995).

All extracted factors had Cronbach alpha values above 0.7, which is regarded as acceptable (Field, 2009), except for two factors (Table 2) with values of $\alpha=0.53$ and $\alpha=0.67$ respectively. According to Pallant (2010) scales such as these with less than ten items can be difficult to yield good Cronbach alpha values and therefore the mean inter-item correlation should also be reported. In Table 2 it is clear that the

mean inter-item correlations fall within the desired range of 0.15 and 0.55, as required (Clark and Watson, 1995).

Statistical analysis

Data were analyzed using IBM®SPSS® Version 24. Descriptive analysis was performed, namely percentages and means together with t-tests, correlations and effect sizes. Spearman's rank order correlation coefficient was interpreted as follows: $r=0.10$ as small, $r=0.30$ as medium reflecting a tendency and $r=0.5$ as a large effect size. Only tendencies (medium) and practically significant (large) correlations were reported. For all factors, Cohens' d -values were calculated for the difference in means of demographic sub-groups and were interpreted as follows: $d=0.2$ as small; $d=0.5$ as medium and $d=0.8$ as large effect sizes. Seeing that effect sizes of Cohen's d -values may vary among disciplines, the values referred to are not absolute and relate to a subjective average effect size magnitude in the field of behavioral sciences (Thompson, 2001, Wilkinson, 1999). For this study only medium (interpreted as $d=0.45 - d=0.69$) and large ($d> 0.7$) effect sizes are reported since they are indicative of tendencies and practical significance respectively. Although p -values were determined, these were not reported, because a convenient sample group was used. However, effect sizes were used to determine any practically meaningful associations or differences in means of the data.

Results and discussion

The sample ($N=391$) were relatively evenly distributed between the three head offices of the corporate organization (Table 1), with the majority being female and younger than 50 years (84.1%, $n=329$) and with 30-39 years (34.0%, $n=133$) being the best represented age group. Therefore mostly younger to middle-aged employees, who are in the prime developmental phase of their career, were well represented. A third of the respondents were Black-African (32.8%, $n=128$) followed by Indian (23.1%, $n=90$) and colored¹ respondents (22.1%, $n=86$). The income level of respondents was mainly between R144 000 and R420 000 (73.3%, $n=286$), which is an approximate monthly income of R12 000 to R35 000, where R15 equals approximately US \$1. This level of income places the respondents on average in a living standard measurement (LSM) between 7 and 10, which is regarded as a medium to higher income group in South Africa. The LSM scale segments South Africans into different living standards, taking income level and ownership of products such as cars and various HE into consideration (Mpinganjira *et al.*, 2013, SAARF, 2016). Therefore respondents were financially able to purchase higher-

¹ Coloured is a socially accepted term referring to a culture of mixed origin unique to South Africa.

risk products such as HE and able to evaluate and decide between various options before making decisions.

More than half the respondents indicated that they reside in loose-standing houses in suburbs followed, by respondents residing in flats or apartments (Table 1). Residing in a type of residence which is more than just a basic housing structure, indicates that respondents have moved towards the next level of satisfying basic needs by making a house comfortable and personalizing it with HE (Sonnenberg and Erasmus, 2013).

Table 1: Demographic profile of the study population (N=391)

Variable	Frequency (n)	Percentage (%)
Demographic location		
Pretoria	135	34.5
Durban	134	34.3
Cape Town	122	31.2
Age*		
18-29	95	24.3
30-39	133	34.0
40-49	101	25.8
50-59	60	15.3
60-65	2	0.5
Gender		
Male	104	26.6
Female	287	73.4
Ethnicity*		
Black-African	128	32.8
Colored	86	22.1
White	76	19.5
Indian	90	23.1
Asian	7	1.8
Other	3	.8
Income bracket (annually)*		
R144 000 and less	46	11.8
R144 001 - R252 000	149	38.2
R252 001 - R420 000	137	35.1
R420 001 - R960 000	35	9.0
> R960 000	2	0.6
Non-disclosure	21	5.4
Type of housing		
Loose standing house in Suburb	219	56.2
Townhouse in an estate / security village	45	11.5
Plot / Farm	7	1.8
House in an estate / security village	17	4.4
Flat / apartment	80	20.5
Informal settlement	6	1.5
Other	16	4.1

*Due to rounding of percentages, some of the totals might not add up to 100%.

Influential characteristics during the selection of HE

EFA on the characteristics of HE extracted three factors, which explained 64.4% of the variance: 'utilitarian properties', 'financial accessibility' and 'stylishness'. These three factors therefore represent characteristics that respondents considered as important for HE. The EFA yielded a KMO of 0.79, which is good according to Field (2009).

Under 'utilitarian properties', respondents indicated according to the mean factor score of 3.58, that on average, they find it very important (1 = 'not at all important'; 2 = 'not important'; 3 = 'important'; 4 = 'very important') that HE should be easy to use and comfortable, durable, of good quality, affordable and have satisfactory warranty periods. When purchasing HE, respondents found it very important that product performance should be excellent and that HE must be of good quality, offer value for money and last the expected service life, which confirms similar findings by (Sonnenberg and Erasmus, 2013). A medium effect size was nevertheless noted, indicating a tendency of utilitarian properties to be more important for colored respondents (mean = 3.66) when selecting HE than for white (mean = 3.46; $d = 0.45$) respondents.

'Financial accessibility' may be applicable to respondents who find themselves setting up homes because features such as cheap and down payment options were important to them (mean factor score = 2.71). Black-African (mean = 2.82, $d = 0.74$), colored (mean = 2.83, $d = 0.68$) and Indian (mean = 2.80, $d = 0.74$) respondents found financial accessibility practically significantly more important than White respondents (mean = 2.26).

Lastly, 'stylishness' of HE focuses on the importance of unique and fashionable products that emerged as an important feature when selecting HE, probably since these high-risk purchases are strongly influenced by social symbols indicating progress and prosperity (Erasmus *et al.*, 2011). Black-African respondents (mean = 3.03) found stylishness practically significantly more important than white respondents (mean = 2.53, $d = 0.69$). This is confirmed by Donoghue *et al.* (2016) who stated that Black-African consumers from South African find satisfaction in the hedonic aspects of products and favor household equipment that communicates style and status more so than white South African consumers. Indian respondents (mean = 2.96, $d = 0.56$) also tend to attach a somewhat greater importance to stylishness of HE than white respondents. These findings are in line with literature that confirms consumers' social nature and the phenomenon that one's social group (including one's ethnic group) plays an important role during decision-making by adding to consumers' social identities (Champriss *et al.*, 2015). These differences in findings therefore highlight important dissimilarities of factors that are

regarded important during HE selection among respondents residing in a multi-cultural country. This can serve as valuable information for the marketing of a significant product category, such as HE, in the South African retail industry.

Consumer DMS when selecting HE

Exploratory factor analysis was performed on the 40-item CSI model using various rotations in order to find the best fit and establish whether or not the results fit previous studies regarding consumers' DMS during HE purchases. Seven factors extracted with Oblimin rotation with Kaiser normalization represented the best fit within this study (Table 2), in contrast with the eight factors of Sproles and Kendall (1986) and the ten factors of Potgieter *et al.* (2013). Our seven-factor analysis yielded a KMO of 0.906, indicating that the data is well suited for factor analysis and accounted for 61.27% of the variance. A CFA was performed using all extracted factors and confirmed the factor structure. The goodness of fit measures were $\chi^2/df = 3.65$; CFI = .767; RMSEA = 0.081. Both the χ^2/df and RMSEA values indicated a good fit.

The differences between the factor structure of the present study and those of studies by Potgieter *et al.* (2013) and Sproles and Kendall (1986) may be explained by the difference in focus regarding product category. Our study focused on HE as a high-risk purchase, as opposed to general purchases used by both Sproles and Kendall (1986) and Potgieter *et al.* (2013). However, the seven-factor pattern indicated a strong association with the original Sproles and Kendall CSI model. The seven factors extracted with EFA revealed acceptable Cronbach alpha values ranging between 0.742 and 0.869 (Table 2), which indicates good reliability (Field, 2009).

Table 2: Summary of exploratory factor analysis of decision-making styles

Items:	Factor loadings					
	Image / Brand consciousness	Impulsive purchases	Confused by over- choice	Recreational / Novelty	Habitual	Perfectionistic / High quality products Value for money
I prefer buying the best-selling brands.	.79					
The more expensive brands are usually my choice.	.77					
The most advertised brands are usually my choice.	.75					
The well-known brands are usually my choice.	.69					
I keep my home up-to-date with the changing fashion.	.68					
The higher the price of a product, the better its quality.	.63					
Fashionable, attractive styling is very important to me.	.50			-.40		
Nice department and speciality stores offer me the best products.	.37					.39
Shopping at different stores wastes my time.		.54	.38			
I am impulsive when purchasing products.		.52		-.39		
I often make careless purchases I later regret.		.46	.46			
I shop quickly buying the first product or brand.		.39	.32		.29	
All the information I get of different products confuses me.			.90			
The more I learn about different products, the harder it is for me to choose the best.			.84			
There are so many brands to choose from that I often feel confused.			.83			
Sometimes it is hard to choose which stores to shop at.			.50			
I regularly change brands.			.49			
Shopping is one of the enjoyable activities in my life.				-.81		
Shopping is a pleasant activity for me.				-.74		
I enjoy shopping just for the fun of it.				-.62		
It's fun to buy something new and exciting.				-.47		
I usually have one or more pieces of furniture or appliances in the very latest style.	.37			-.41		
To get variety, I shop at different stores and brands.		-.29		-.34		
I make my shopping trips as fast as possible.					.79	
I go to the same stores each time I shop.					.67	
The lower price products are usually my choice.			.31		.59	
I have favorite brands that I buy over and over.				-.35	.57	
Once I find a product or brand that I like, I tend to stick to it.					.52	
I buy as much as I can of my products at sale prices.		-.36		-.38	.45	
In general, I usually try to buy the best overall quality.						.77
I look carefully to find the best value for money.						.77
I carefully watch how much I spend.		-.30				.66
I should plan my shopping more carefully than I do.						.49
I take the time to shop carefully for the best buys.		-.37	.30			.34
						.31

Items:	Factor loadings						
	Image / Brand consciousness	Impulsive purchases	Confused by over- choice	Recreational / Novelty	Habitual	Value for money	Perfectionistic / High quality products
I have very high standards and expectations of the products I aim to buy.							.74
A product should be perfect or the best of the range to satisfy me.							.68
I make special effort to choose the very best quality of products.							.66
Getting very good quality is important to me.						.30	.61
I give my purchases much thought or care.		-.35					.60
When it comes to purchasing products, I try to get the best.						.54	.31
<i>Inter item correlation</i>	.46	.49	.51	.41	.34	.39	.53
<i>Cronbach alpha values</i>	.87	.79	.84	.81	.76	.74	.87
<i>Mean factor score</i>	3.21	2.81	3.19	3.58	3.56	4.11	3.99
<i>Standard Deviation</i>	.78	.89	.81	.74	.65	.60	.65

*Factor loadings from principal components analysis

Likert scale: 1 = Strongly disagree, 5 = Strongly agree;

Mean factor scores: ≥ 2.5 and < 3.5 = neither agree nor disagree, ≥ 3.5 and < 4.5 = agree and ≥ 4.5 = strongly agree. Shaded loadings indicated items that loaded meaningful on more than one factor and therefore discretion was used based on literature to determine on which factor a shared loading would be appointed.

According to the mean factor scores, on average, respondents neither agreed nor disagreed that ‘image and brand consciousness’, ‘impulsive purchases’ and ‘confused by over choice’ are typical of their decision-making styles during the selection of HE (Table 2). This explores the importance respondents assign to brand names when purchasing HE since this attribute is often synonymous to quality, value for money, image and product life-expectancy (Sonnenberg and Erasmus, 2013, Diedericks and Erasmus, 2014). Furthermore, the respondents did not necessarily engage in impulsive decision-making styles within this product category; and although some respondents might feel overwhelmed by taking into consideration the technicalities, the extent of information and the product ranges involved during the purchase of HE, this did not apply to respondents on average. Consequently it seems that the respondents carefully think their HE purchases through, which is important since a study by Christie *et al.* (2016) found that the consumers’ decisions can have consequences on various aspects of their lives such as economic, environmental and social as well as their well-being.

‘Recreational or novelty’ is a factor with which respondents on average agreed (Table 2). This type of decision-making style may be somewhat surprising for a higher-risk product category. However, this

finding indicates that respondents enjoy shopping for this product category and shopping for unique HE from varieties of products, which might be explained by the level of risk in a product that will serve as amelioration to their living environment. Conversely, respondents on average agreed that their DMS within this product category can entail 'habitual' purchases (Table 2) such as trusting certain preferred products and stores, or finding themselves guided by lower prices or sales out of habit.

Respondents furthermore on average agreed (Table 2) that their DMS regarding HE might be based on 'value for money' supporting the importance of utilitarian properties of HE characteristics. Similarly, on average they agreed that they made HE purchases in a perfectionistic manner while also being concerned that products should be of high quality (Table 2). This is typical behavior associated with high-risk purchases, which are usually more expensive and should last longer. Therefore, respondents indicated that their DMS within this product category are guided by high quality for the high prices often paid resulting in perfectionistic driven decisions.

Comparison with original and South African tested CSI model

Since the CSI model by Sproles and Kendall (1986) and Potgieter *et al.* (2013) guided the DMS section of this study, Table 3 depicts a comparison of the factor structure of this study with those extracted during the development and adaption of the original scales. Six of the seven factors of the present study were similar to those of the original factors suggested by Sproles and Kendall (1986), of which 'recreational and novelty' emerged as a single factor. 'Price consciousness' and 'impulsiveness' could not be identified as separate factors in this study, even though they were identified as separate factors by Potgieter *et al.* (2013). These differences might be ascribed to the shift in product category from general purchases towards HE.

Table 3: Consumer decision-making styles: A comparison of factors and internal reliability between studies

Original CSI study <i>Sproles & Kendal 1986</i> (8 factor model)	α	South African Study <i>Potgieter et al., 2013</i> (10 factor model)	α	Results of current study on HE (7 factor model)	α
1. Perfectionistic , High quality conscious consumer	0.69	1. Perfectionism	0.78	1. Perfectionistic / High quality products	0.87
2. Brand conscious consumer - price equals quality consumer	0.63	2. Brand conscious	0.70	2. Image / Brand consciousness	0.87
3. Novelty fashion conscious consumer	0.76	3. Novelty / Fashion consciousness	0.70	3. Recreational / Novelty	0.81
4. Recreational hedonistic consumer	0.71	4. Recreational	0.75		
5. Price conscious / "Value for money" consumer	0.48	5. Value consciousness	0.73	4. Value for money	0.74
6. Impulsive , careless consumer	0.41	6. Carelessness	0.58	5. Impulsive purchases	0.79
7. Confused by over-choice consumer	0.51	7. Confused by over-choice	0.80	6. Confused by over-choice	0.84
8. Habitual , brand loyal consumer	0.54	8. Habitual and brand loyalty	0.59	7. Habitual	0.76
		9. Price consciousness	0.62		
		10. Impulsiveness	0.50		

Likert scale: 1 = Strongly disagree, 5 = Strongly agree
 α = chronbach alpha

Mean factor scores show that in the South African setting of the present study, urban respondents' DMS regarding HE are guided by 'value for money' (mean = 4.11), 'perfectionistic and high quality products' (mean = 3.99), 'recreational and novelty' (mean = 3.58) as well as 'habitual' (mean = 3.56) DMS. Although 'image and brand consciousness' (mean = 3.21), 'confused by over-choice' (mean = 3.19) and 'impulsive purchases' (mean = 2.81) emerged as factors, on average it was not agreed to as features of DMS during high-risk product purchases.

The factors extracted regarding the DMS were further categorized into hedonistic shopping styles (emotionally-driven consumption) and utilitarian shopping styles (performance-driven consumption) according to previous theoretical conceptualizations (Arnold and Reynolds, 2003, Jones *et al.*, 2006, Zhou *et al.*, 2010). Hedonistic shopping styles included 'image and brand consciousness', 'recreational / novelty' and 'habitual'; all of which can be associated with emotional consumption behavior. Utilitarian

shopping styles included 'impulsive purchases', 'confused by over-choice', 'value for money', 'perfectionistic / high quality products', which relate more to the performance of physical attributes of HE.

Consideration of immediate and future consequences during HE decision-making

EFA showed all 14 items testing the CFC of decision-making to load statistically meaningful by means of principal component analysis by means of Oblimin rotation with Kaiser normalization. Two extracted factors emerged, namely 'future-oriented respondents' and 'immediate-oriented respondents' (Table 4), showing a good fit with the original CFC 14-scale by Joireman *et al.* (2012). The item, '*my convenience is a big factor in the decisions I make or the actions I take*', unexpectedly loaded under 'future-oriented respondents', which might be ascribed to the convenience that often accompanies the ownership of most HE, such as kitchen or laundry appliances that save time and effort. The factor analysis yielded a KMO of .864, indicating that the data are well suited for factor analysis and accounted for 57.917% of the variance explained. Good internal reliability of the factors 'future-oriented respondents' ($\alpha = 0.845$) and 'immediate-oriented respondents' ($\alpha = 0.883$) were confirmed (Table 4).

Table 4: Summary of exploratory factor analysis of CFC

Items:	Factors	
	Future-oriented consumers	Immediate-oriented consumers
When I make a decision, I think about how it might affect me in the future.	.85	
My behavior is generally influenced by future consequences.	.83	
I consider how things might be in the future, and try to influence those things with my day-to-day behavior.	.77	
I am willing to sacrifice my immediate happiness or wellbeing in order to achieve future outcomes.	.66	
I think it is more important to perform a behavior with important distant consequences than a behavior with less important immediate consequences.	.66	
I think it is important to take warnings about negative outcomes seriously even if the negative outcomes will not occur for many years.	.66	
Often I engage in a particular behavior in order to achieve outcomes that may not result for many years.	.60	
My convenience is a big factor in the decisions I make or the actions I take.	.52	
I only act to satisfy immediate concerns, figuring that I will take care of future problems that may occur at a later date.		-.90
I think that sacrificing now is usually unnecessary since future outcomes can be dealt with at a later time.		-.86
I generally ignore warnings about possible future problems because I think the problems will be resolved before they reach crisis level.		-.83
I only act to satisfy immediate concerns, figuring the future will take care of itself.		-.83
My behavior is only influenced by the immediate (i.e. a matter of days or weeks) outcomes of my actions.		-.76
Since my day-to-day work has specific outcomes, it is more important for me than behavior that has distant outcomes.		-.68
<i>Inter item correlation</i>	.44	.51
<i>Cronbach alpha values</i>	.85	.88
<i>Mean factor score</i>	3.75	3.04
<i>Standard Deviation</i>	.70	.92

*Factor loadings from principal components analysis; *Likert scale: 1 = Extremely uncharacteristic, 5 = Extremely characteristic*; **Interpretation on values:** Inter-item correlations (*r*): 0.1 = small, 0.3 = medium, 0.5 = large; Cronbach alpha: 0.5 = accepted with caution, >0.7 = acceptable, >0.8 = good; Mean factor scores and means: <2 = extremely uncharacteristic, ≥2 and <3.0 = uncharacteristic, ≥3.0 and <3.5 = neither agree nor disagree; ≥3.5 and <4.5 = characteristic and ≥4.5 = extremely characteristic.

According to the mean factor scores of the CFC scale, it was on average characteristic of respondents to consider the future consequences of their decisions when purchasing HE, while neither agreeing nor disagreeing about considering immediate consequences (Table 4). Therefore, it is evident that these urban respondents working in the corporate financial industry were more future-oriented regarding high-risk purchases and not as much immediate-oriented towards HE purchases. This might be ascribed to the longer life expectancy of this product category.

Associations between respondents' DMS and CFC of decisions

Spearman's correlations were conducted to determine the associations between DMS and CFC (Table 5) and was interpreted as follows: $r \geq 0.25$ = medium effect size / tendencies and $r \geq 0.44$ = large effect size or practically significant. Results indicated tendencies for 'future-oriented respondents' to correlate with 'image/brand consciousness', 'recreational/novelty' and 'habitual' DMS respectively, all of which are hedonistic in nature. Similarly, tendencies for correlations were noted between 'immediate-oriented consumers' and hedonistic shopping styles of HE, namely 'recreational / novelty' and 'habitual' shopping styles, but a practically significant correlation is shown with 'image and brand consciousness' ($r = 0.44$). These results might imply that immediate-oriented respondents are more strongly influenced by the image and brand of HE during purchases of these products than future-oriented respondents. This finding can be supported by a study of Erasmus *et al.* (2011) which indicates that consumers are increasingly attaching more importance to brand names of HE as it serves as symbols of prosperity. Furthermore, a study by Mehta and Ma (2012) found that consumers attach great value to symbols and brands as this communicates prosperity and wealth to others. Therefore, results indicated that immediate-oriented respondents may find the immediate satisfaction they gain from owning certain brands of HE that communicate a desired image more important than the potential future implications which might arise later as a result of purchasing these products. It does not appear that future-oriented respondents regard image and brand names of HE as an important purchasing driver.

Table 5: Correlations between respondents' DMS and CFC (*r*)

Consumer DMS		CFC	
Orientation towards shopping styles	Factors:	Future-oriented respondents	Immediate-oriented respondents
Hedonistic shopping styles (emotional)	Image / Brand consciousness	.29*	.44**
	Recreational / Novelty	.33*	.42*
	Habitual	.34*	.39*
Utilitarian shopping styles (performance)	Impulsive purchases	.09	.47*
	Confused by over-choice	.22	.48*
	Value for money	.29*	.11
	Perfectionistic / High quality products	.41*	.18

Interpretation of effect sizes for Spearman's two-tailed correlation coefficients:

$r \geq 0.25$ = medium effect or tendency (*) and $r = 0.44$ = large effect or practically significant (**).

A clear distinction was noted between the CFC groups regarding utilitarian shopping styles. Immediate-oriented respondents showed practically significant correlations with 'impulsive purchases', and 'confused by over-choice'. Those who are more immediate-oriented seem to resort more towards impulsive DMS and find themselves confused by the over-choice of products and information available regarding the utilitarian aspects of HE due to their need to satisfy immediate desires. Oppositely, respondents who are more future-oriented tend to make HE purchasing decisions based on DMS that ensure perfect and high quality products that also serve to be value for money.

Conclusion

Consumers face various decisions daily and due to their desires toward amelioration and well-being, they engage in the purchases of higher-risk products, such as HE, to bring comfort and ease to life at home. This study investigated the importance of certain HE product features, urban consumer DMS and CFC of decisions regarding higher-risk HE purchases and the extent of associations between consumers' DMS and their CFC, which yielded thought-provoking results.

Results revealed that utilitarian properties are very important purchase drivers while tendencies to differ emerged, with colored respondents finding utilitarian properties more important than white respondents. In general a pattern was observed that Black-African respondents most considered financial and stylishness properties, followed by colored and Indian respondents – financial accessibility was a more important factor for these groups than for white respondents. In addition, stylishness of HE was regarded more important by Black-African and Indian respondents than white respondents. Black-African consumers are currently holding the largest purchasing power in South

Africa and the need among Black-African respondents for products to communicate prosperity and wealth is an important marketing factor in the retail industry (e.g. (Donoghue et al., 2016). Therefore, financial and stylish elements are important HE features, but the importance of these factors differ among ethnic groups. These differences are insightful in a culturally diverse country such as South Africa, where marketing strategies often focus on specific marketing segments.

It is evident that the DMS model in this study showed a good fit in the product category of HE as an instrument to test consumers' DMS pertaining to high-risk purchases, despite criticism by Lysonski *et al.* (1996) that the CSI model will have little applicability in developing countries such as in Africa. Even though the model differed from the original CSI model of Sproles and Kendall (1986), as well as from the model proposed by Potgieter *et al.* (2013), six of the seven extracted factors matched with the original model. The extracted factors of the present study can therefore be insightful in the retail industry to better understand consumer decision-making of household equipment. The results from this study on consumer DMS revealed that the CSI model is also applicable in a developing country context. Therefore this study contributed to the development of the CSI model to be used with both developed and developing countries, as recommended by Anic *et al.* 2012. The seven DMS that emerged from EFA were subsequently categorized into either hedonistic shopping styles or utilitarian shopping styles. Utilitarian DMS (value for money and perfectionistic/high quality products) served as purchasing drivers of HE purchases among the respondents. This might be due to the higher financial risks involved with HE purchases and the longer life expectancy. However, HE should also give a sense of emotional satisfaction, since 'recreational and novelty' and 'habitual' purchases are DMS respondents resort to during HE purchases. These results contribute to current literature, indicating that HE purchases are both hedonistic and utilitarian driven and that urban respondents are future-oriented. This can be expected from urban respondents who are working in the financial sector, since they might be more confronted with the consequences of financial decision-making in their work environment. A report by PWC (2016) indicating that South Africans are in general seeking greater value for money with all their purchases, supports the findings in this study.

Correlations between respondents' DMS and CFC indicated tendencies along with practical significances between both future- and immediate-oriented respondents and DMS. Future-oriented respondents showed tendencies towards both selected hedonistic and utilitarian DMS. However, tendencies to correlate were also noted among immediate-oriented respondents with similar hedonistic DMS namely 'recreational and novelty' and 'habitual' DMS, but a practically significant correlation emerged with 'image and brand' as well as with two utilitarian DMS namely 'impulsive' and 'confused by over-choice'. This confirms that immediate-oriented respondents may more often engage in impulsive purchases and be confused by over-choice of products available due to the

importance they attach to hedonistic needs, such as image and brand. This result is in line with Christie *et al.* (2016), who found consumers who value immediate rewards may make decisions that satisfy current needs despite the future implications that the decision may hold. Thus, it is clear from the results that although future-oriented urban respondents are more strongly influenced by perfectionistic / high quality products during their decision-making, in this high-risk product category, immediate-oriented respondents residing in urban environments are both hedonistically and utilitarian guided during their decision-making.

Thus, these findings offer valuable contributions to the high-risk product category and shed light on the DMS of urban respondents. Although the sample group and product category limited the generalization of the results, this knowledge can be applied during HE product development and marketing to address specialized target marketing. It would be beneficial for future studies to include a larger sample group from different strata of the population. Moreover, the knowledge gained can inform and educate consumers on decision-making of HE and consequently empower them towards more effective decision-making and consumption behavior. Marketers and retailers can also apply this knowledge as these results indicate market specific HE decision-making in the context of a diverse culturally rich country such as South Africa. This knowledge furthermore builds on current literature regarding consumer behavior in a developing country context with unique economic and social challenges, in contrast with developed countries. This knowledge is of value for researchers and scholars in the field of consumer sciences and serves as indicators for future research in this unexplored phenomenon of consumer decision-making and well-being.

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CHAPTER 6

RESULTS ARTICLE 2

URBAN CONSUMERS' DECISION-MAKING AS ASSOCIATED WITH PHYSICAL WELL-BEING

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TITLE

Urban consumers' decision-making as associated with physical well-being

ABSTRACT

Urban consumers are often confronted with many decisions in addition to functioning under pressure, which might be detrimental to their physical well-being. Despite most health-related researchers' attempts to shed light on well-being in a holistic manner, this study attempts to expand the view on perceived health risk factors by incorporating a behavioral component to increase consumer well-being. This research accordingly aimed to quantify correlations between consumers' decision-making and their physical well-being. Forming part of a larger cross-sectional and correlational study, 391 employees from three head offices of a South African national financial organization were recruited during 2016 to complete an online questionnaire that formed part of step one of this study, focusing on consumer decision-making when purchasing household equipment. Step two entailed collecting subjective and objective physical wellness data from a running wellness study in the participating organization. Results revealed respondents' overall physical health to be mediocre, although they seemed to resort to informed decision-making styles and future-oriented decision-making. The extent of decision-making correlated on certain factors with physical health, revealing that respondents who tended to exercise more control over the subjective side of their physical well-being by maintaining good lifestyle habits, might also do so in terms of decision-making, even though it might negatively influence their physical well-being at times. These findings indicated that behavior of consumers may contribute towards a better understanding of risk factors that might negatively impact on consumers' physical well-being. Therefore, this information may be valuable to various role players in the health industry and academia. The novelty of this paper lies in the additional insight provided for an under-researched area of consumer decision-making and the association with physical health in an attempt to improve consumer well-being.

KEYWORDS

consumer decision-making

coronary heart disease

lifestyle habits

physical well-being

1. INTRODUCTION

All consumers make various decisions on a regular basis and even though the type, intensity and influential factors (e.g. external or internal causal factors) differ, these decisions may have various consequences, such as affecting one's overall well-being (Le Roux et al., 2017). A social environment, like an urban setting creates various unavoidable stressors, such as work pressure, and traffic or commuting, along with financial, social, work-family balance and health factors (Gong et al., 2016; Soni, 2013). More than half the world's population resides in urban areas and this figure is projected to increase to two-thirds by 2050 (Kourtiti et al., 2015; WUP, 2014). Globalization also affects urban consumers to an increasing extent due to the availability of wide ranges of products and continuous and sustained marketing (Diedericks and Erasmus, 2014; Kartik et al., 2016; Wagner and Brath, 2012).

Opportunistic retailers direct their strategies to take advantage of the consumer's shopping experience. In this regard shopping experiences are presented as a recreational and leisure activity by creating stress-relieving shopping environments where consumers can escape from stressors they experience, by purchasing products that confer status and create the desired social identity (Arnold and Reynolds, 2012; Champniss et al., 2015; Tatic and Cinjarevic, 2016). Social identities are important for social acceptance and consequently consumers often attach great importance to certain attributes of products, such as brand names, to signify their social identity and prosperity in life (Nelissen and Meijers, 2011; Schmitt, 2012).

However, consumers differ in terms of the ways they engage in shopping, as they adopt different consumer decision-making styles (DMS), and they vary in terms of the extent to which they consider the future consequences (CFC) of their purchasing decisions. These decision-making strategies are not always well-calculated strategic decisions based on rational thoughts, but at times include internal influences such as different emotions as well as external influences, for example social and marketing influences (Mpinganjira et al., 2013; Schiffman and Kanuk, 2014). Such decision-making and consumption behavior may lead to impulse purchases (Blackwell et al., 2006).

Impulse purchases are spontaneous psychological impulses which are stimulated in biochemical and psychological manners and were found to be, depending on the consumer, quite powerful, persistent and influenced by environmental factors such as marketing efforts and social groups (Bossuyt et al., 2017; Rook, 1987). Frequent impulse purchases may become problematic if it results in negative associations with subjective well-being and post-purchase regret (Silvera et al., 2008; Wood, 1998), overspending, borrowing and indebtedness

(Chancellor and Lyubomirsky, 2011). Such negative consequences of debt and financial difficulties lead to a deterioration in health outcomes due to continuous high levels of stress (Clayton et al., 2015). In the end, consumers might experience a sense of learned helplessness, with the result that they tend to accept negative circumstances and situations because they feel unable to change or improve the negative situations in which they find themselves (Cherry, 2017).

Scientific evidence has shown that longitudinal high-stress levels have negative consequences, which include both psychological (distress, depression, anxiety) and physiological (elevated blood pressure, heart rate, cortisol response) responses (Agrawal et al., 2016; Payne et al., 2010). The negative consequences of physiological, environmental and behavioral factors add to the development of non-communicable diseases (NCDs) posing physical health risks, such as heart disease, hypertension and stroke, diabetes mellitus and various forms of cancer, as well as a decrease in overall well-being (Starcke and Brand, 2012; WHO, 2017). The increase of NCD related morbidity and mortality among urban consumers account for 80% deaths globally and more than a third (37%) of all deaths in South Africa (Aboyade et al., 2016; Allen et al., 2017; WHO, 2017).

Literature indicates that continuous high levels of stress, as in the case of urban consumers, may have indirect effects on health; and stress may be mediated by the individuals' suboptimal decisions, which might offer immediate rewards but result in long-term negative consequences (Starcke and Brand, 2012). Taking into account the World Health Organization's definition of health, being "the state of complete physical, mental and social well-being and not only the absence of disease or infirmity" (WHO, 2014), it is clear that most health-related researchers aim to provide a holistic view of lifestyle habits that serve as risk factors. However, our study would like to expand the view on perceived risk factors to decision-making behavior concerning purchases by incorporating a behavioral component to improve well-being. It is thus proposed that by better managing decision-making behavior through informed decision-making, chronic high stress levels and poor lifestyle habits could be reduced or avoided, and with a consequent improving of lifestyles that contribute to an increase urban consumers' health (Aboyade et al., 2016; Tyrväinen et al., 2014). This research accordingly aimed to quantify correlations between consumers' decision-making regarding medium- to high-risk purchases (e.g. household appliances and furniture) and physical well-being in an urban setting. We believe that studies on consumer decision-making have been confined to only describing consumers' styles and profiles, and with this study it is aimed to expand that view and gain additional insight into an under-researched area of consumer decision-making and how this behaviour may relate to one's physical health.

2. MATERIALS AND METHODS

2.1 Research design

This article forms part of a larger cross-sectional and correlational study. Data were gathered among permanent employees at three urban head offices of a South African corporation. A total of 391 respondents 18 to 65 years of age, with previous experience of purchasing household equipment, were recruited to complete an online questionnaire which formed part of step one of this study which focused on consumer decision-making. Step two entailed collecting subjective and objective physical wellness data from a running wellness study in the participating company. In order for the researchers to have access to the data in step two, consent was required from the respondents during step one. A sample of 65 respondents was included for this purpose as their data from both steps could be linked by means of employee numbers for correlational purposes.

2.2 Measuring instruments

During step one, consumer DMS as well as their CFC of decisions regarding medium- to high-risk purchases – such as relatively expensive household equipment – were determined by means of an online questionnaire designed and administered via QuestionPro®. For consumer DMS, the 40-item consumer style index (CSI) model of Sproles and Kendall (1986) as adapted by Potgieter et al. (2013) for a South African context, was used. The CSI survey instrument which incorporates a 5-point Likert scale, focused on DMS in which respondents had to indicate the extent to which they agreed with the statements (1 = strongly disagree and 5 = strongly agree). The CSI model is used to explain the basic consumer personality by means of consumer DMS (Hui et al., 2001). The standardized 14-item CFC scale of Joireman et al. (2012) was also employed to determine the extent to which respondents take into account the outcome of their decision-making. They were asked to indicate the extent to which the statements applied to them, where 1 = extremely uncharacteristic and 5 = extremely characteristic, in order to categorize respondents. Because this article is part of a larger study, only selected sections (i.e. DMS and CFC) from step one, as mentioned above, are reported discussed within this article.

During step two, the objective physical data included clinical measures of body mass index (BMI) (calculated from height and weight), resting blood pressure (consisting of systolic and diastolic measures), as well as total cholesterol and random blood glucose adding to the classification of respondents' coronary heart disease risk (CHDR) index results. All objective physical measures were recorded according to protocols and manuals stipulated by the

International Standards for Anthropometric Assessment (ISAK, 2001), the American College of Sports Medicine (ACSM, 2014:45) and Roche Accutrent® Plus (Roche Diagnostics, 2010). The subjective physical measures incorporated the CHDR index of Bjurstrom and Alexiou (1978), which comprised 14 recognized risks for the development of heart disease by reflecting the severity grading of each risk numerically according to low, moderate or high-risk categories. In addition, the questionnaire of Belloc and Breslow (1972b) was used to determine lifestyle habits index (LHI) that influence general health, to which respondents had to answer either “yes” or “no” to seven applicable questions. Registered health professionals (biokineticists) collected the objective and subjective physical data.

2.3 Ethical considerations

This study was approved and conducted within the ethical requirements of the Health Research Ethics Committee of the North-West University (NWU-00191-15-A1).

2.4 Validity and reliability

All questionnaires achieved a good level of construct validity in previous studies, with Cronbach alpha values above 0.7, which are regarded as acceptable (Field, 2009). For the present study exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) were performed on the factors identified in both the CSI model and the CFC scale. This ensured current construct validity, and was used as a reference for further analysis within this study. The mean factor scores were determined by taking into account the means of all the items that contributed to the specific factors. Mean factor scores of the CSI were interpreted as follows: ≥ 2.5 and < 3.5 = neither agree nor disagree, ≥ 3.5 and < 4.5 = agree and ≥ 4.5 = strongly agree; and the mean factor scores of the CFC scale are as follows: < 2 = extremely uncharacteristic, ≥ 2 and < 3.0 = uncharacteristic, ≥ 3.0 and < 3.5 = neutral; ≥ 3.5 and < 4.5 = characteristic and ≥ 4.5 = extremely characteristic.

2.5 Statistical analysis

IBM® SPSS Version 24 was used to analyze all data. Descriptive analysis was performed to provide percentages and means together with correlations and effect sizes. Non-parametric relationships were determined with Spearman's two-tailed correlation coefficients, followed by regression analysis to determine associations between the consumer decision-making variables (namely consumer DMS and CFC) and physical well-being variables (namely objective and subjective well-being).

The data from both questionnaires on physical well-being were analyzed according to the authors' instructions (Belloc and Breslow, 1972b; Bjurstrom and Alexiou, 1978) and categorized

as follows. The CHDR index was interpreted as ≤ 18 = low risk, 19-28 = moderate risk and ≥ 29 = high risk to develop coronary heart diseases (Bjurstrom and Alexiou, 1978). The LHI questionnaire categorized respondents according to their scores as follows: 1-3 = poor/unhealthy lifestyle, 4-5 = fair/moderately healthy lifestyles, 6-7 = good/healthy lifestyle (Belloc and Breslow, 1972b). One-way analysis of variance (ANOVA) was conducted between constructs and Cohen's *d*-values employed as effect sizes to derive practical significance in differences. Cohen's *d* = 0.2 was interpreted as small, *d* = 0.5 as medium and *d* = 0.8 as large effect sizes. According to Thompson (2001) and Wilkinson (1999) typical effect sizes of Cohen's *d*-values vary greatly across disciplines; therefore a descriptor medium in Cohen's guidelines relates to a subjective average effect size magnitude in the field of behavioral sciences (Thompson, 2001) and the values which are referred to, are thus not absolute values. Only medium and large effect sizes are reported, since they indicate practically significant and tendencies to differ respectively. To investigate the possibility of correlations between constructs, Spearman's rank order two-tailed correlation coefficients were calculated and for the purpose of this study interpreted as approximate values of $r = 0.10$ as small, $r = 0.30$ as medium, and $r = 0.5$ as large effect sizes. However, only practically significant correlations and correlations indicating tendencies (large and medium effects respectively) are reported. In order to determine the unique contribution of selected items towards physical well-being, regression analysis was performed. During this analysis, practical significance on a 5% and 10% level was determined due to the small sample size (Ellis and Steyn, 2003).

3. Results

The sample group was fairly young, with a mean age of 36 years, and with a rather high standard deviation (± 9.57), which was to be expected as this research forms part of a wellness program at an organization with a broad spectrum of employees of various employable ages. The population presents an average BMI of 29.4 kg/m² (± 6.94), which could be classified as pre-obese. A healthy BMI is reported between 18.5 and 23.5 kg/m² (Nishida et al., 2010). However, the mean resting blood pressure (systolic 119.7 mmHg ± 13.30 and diastolic 75.9 mmHg ± 7.87) is regarded as good, with 120/80 being regarded as ideal (HSFSA, 2018a; Tibazarwa et al., 2009). The cholesterol (4.6 mmol/L ± 1.11) for this sample group fell within the normal range, with 5.0 mmol/L being regarded as good; although the mean score for glucose (5.8 mmol/L ± 1.74) was at the upper limit of a normal range, with 5.5 mmol/L being regarded as normal, even though this number can fluctuate throughout a day (HSFSA, 2018b; Tibazarwa et al., 2009). A moderate coronary heart disease risk was noted (CHDR index = 22.0 ± 7.08) and the LHI of the respondents were regarded as fair (4.8 ± 1.25) (Belloc and Breslow, 1972a;

Bjurstrom and Alexiou, 1978). Refer to supplementary Table 1 for more information on the physical data of the sample group.

3.1 Consumer decision-making and CFC

Seven reliable factors from the 40-item CSI (which guide decision-making) were extracted with EFA¹. These seven factors were categorized into hedonic (emotionally driven) or utilitarian (performance driven) shopping styles to address the mental orientation of decision-making. The hedonic shopping styles included “image and brand consciousness”, “recreational/novelty” and “habitual” DMS; whereas utilitarian shopping styles included “impulsive purchases”, “confused by over-choice”, “value for money”, “perfectionistic/high-quality products” (see supplementary Table 2). In addition, EFA revealed with the CFC scale of Joireman et al. (2012) two reliable factors, named “future-orientated respondents” and “immediate-orientated respondents” (see supplementary Table 3).

3.2 Respondents' subjective physical well-being

The CHDR index revealed that the majority of the sample group were moderately at risk of developing coronary heart diseases (52.3%, n=34), while only 29.2% (n=19) of respondents were at low risk. Furthermore, the LHI questionnaire indicated that the majority had a fair/moderately healthy lifestyle (58.5%; n=38) although only 27.7% (n=18) followed a healthy lifestyle.

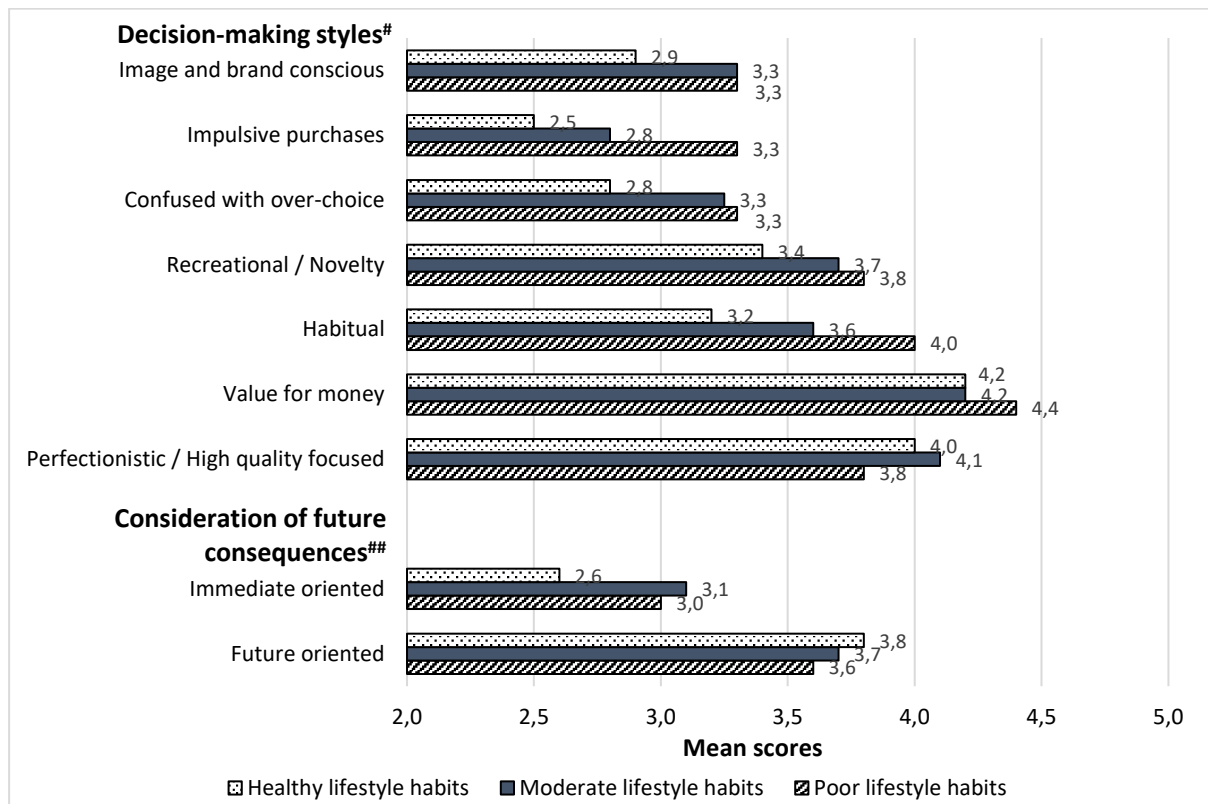
3.3 The relationship between respondents' decision-making and lifestyle habits

Differences were noted between the lifestyle habits categories and decision-making (Fig. 1). All lifestyle habit groups were neutral towards image and brand, as well as confused by over-choice as DMS; while those with a healthy lifestyle indicated that they did not make use of impulsive DMS. However, respondents with moderate to poor lifestyle habits indicated that they made decisions using more recreational/novelty and habitual styles, while those from the healthy lifestyle habit group were neutral on this item. All groups agreed that they sought value for money and perfectionist/high-quality DMS.

Although all lifestyle habit groups described themselves as future oriented, there were slight differences regarding the consequences of decision-making. Despite the minor differences in means, a trend became visible in Fig. 1, indicating differences between the groups. Healthy lifestyle habit respondents seemed to describe themselves more as future oriented (mean = 3.8)

¹ This analysis regarding consumer decision-making styles and CFC only serves as background information to contextualize the results to follow, and is not the main focus of this study. Supplementary tables can be consulted in Addendum 1 for more information.

than those with moderate (mean = 3.7) and poor (mean = 3.6) lifestyle habits; and to support this, healthy lifestyle respondents also seemed to describe themselves as being less immediate oriented.



[#]Decision making styles: 1 = strongly disagree; 2 = disagree; 3 = neither agree nor disagree; 4 = agree; 5 = strongly agree.

^{##}Consideration of future consequences: 1 = extremely uncharacteristic; 2 = uncharacteristic; 3 = neutral; 4 = characteristic; 5 = extremely characteristic.

Fig. 1. The relationship between lifestyle habits categories (healthy, moderate, poor) and consumer decision-making styles and consideration of future consequences.

Table 1 illustrates the relationships between DMS and lifestyle habits by means of Cohen's *d*-values, indicating that healthy lifestyle respondents tended to be less image and brand conscious than those with a moderate healthy lifestyle. Respondents with poor lifestyle habits resorted practically significantly more to impulsive purchases than those with a healthy lifestyle; while respondents who reported moderate and poor lifestyles tended to be more confused by over-choice than healthy lifestyle respondents. However, respondents within both poor and moderate lifestyle habits groups also resorted to a greater extent to recreational and novelty DMS than those with a healthy lifestyle.

Despite the tendencies to differ in DMS among lifestyle habit groups regarding habitual purchasing, a practical significant difference was noted between respondents with poor lifestyle

habits, who purchase more out of habit, as opposed to those with a healthy lifestyle. Respondents with a moderate healthy lifestyle also tended to make more perfectionistic and high-quality decisions than did those with poor lifestyle habits. Being immediate orientated was reported to be practically significantly more characteristic among respondents with moderate lifestyle habits as opposed to healthy lifestyle respondents, while poor lifestyle habits respondents also tended to differ from healthy lifestyle habit respondents in a similar way. However, respondents from all groups described themselves possessing the characteristic to be future oriented.

Table 1: Consumer decision-making related to lifestyle habits.

Consumer decision-making	Descriptive data for LHI groups (mean score $\pm$ standard deviation)				Practical Significance within LHI groups (Cohen's <i>d</i> -values)		
	Poor	Moderate	Healthy	Anova (<i>P</i>)	Poor/Moderate	Moderate/Healthy	Poor/Healthy
Image and brand consciousness	3.3 $\pm$ 1.0	3.3 $\pm$ 0.7	2.9 $\pm$ 0.8	0.196	0.06	0.52	0.35
Impulsive purchases	3.3 $\pm$ 0.9	2.8 $\pm$ 1.0	2.5 $\pm$ 0.8	0.101	0.47	0.36	0.86**
Confused by over-choice	3.3 $\pm$ 0.8	3.25 $\pm$ 0.8	2.8 $\pm$ 0.7	0.137	0.10	0.51	0.64*
Recreational / Novelty	3.8 $\pm$ 0.6	3.7 $\pm$ 0.6	3.4 $\pm$ 0.5	0.175	0.14	0.48	0.59*
Habitual	4.0 $\pm$ 0.5	3.6 $\pm$ 0.7	3.2 $\pm$ 0.6	0.019**	0.55*	0.53	1.19**
Value for money	4.4 $\pm$ 0.5	4.2 $\pm$ 0.5	4.2 $\pm$ 0.5	0.489	0.42	0.01	0.44
Perfectionistic / High quality	3.8 $\pm$ 0.6	4.1 $\pm$ 0.5	4.0 $\pm$ 0.7	0.237	0.54*	0.26	0.24
Immediate oriented	3.0 $\pm$ 0.5	3.1 $\pm$ 0.7	2.6 $\pm$ 0.7	0.022**	0.17	0.78	0.62*
Future oriented	3.6 $\pm$ 0.6	3.7 $\pm$ 0.7	3.8 $\pm$ 0.6	0.810	0.16	0.09	0.29

Mean score interpretation: Consumer DMS: ≤ 1 = strongly disagree; >1 and <2.5 = disagree; ≥ 2.5 and <3.5 = neither agree nor disagree; ≥ 3.5 and <4.5 = agree; ≥ 4.5 = strongly agree. CFC scale interpretation: <2 = extremely uncharacteristic; ≥ 2 and <3.0 = uncharacteristic; ≥ 3.0 and <3.5 = neutral; ≥ 3.5 and <4.5 = characteristic; ≥ 4.5 = extremely characteristic.

Cohen's *d*-values: 0.2 = small; 0.5* = medium and 0.8** as large effect size.

P-value: $P \geq 0.05$ = statistical significance

3.4 Associations between consumer decision-making (DMS and CFC) and physical well-being (objective and subjective)

Only a few medium effect size correlations between the decision-making style factors and physical well-being variables were evident in Table 2. Tendencies of correlations of diastolic blood pressure with 'value for money' as well as with 'perfectionistic/high-quality products' focused DMS were shown. Respondents' lifestyle habits also indicate negative tendencies to correlate with 'habitual' and 'impulsive' DMS.

The regression analysis shows (Table 3), diastolic blood pressure to be the only objective measurement that made a statistically significant contribution to the total regression analysis (explaining 16% of the variance), of which recreational / novelty ($\beta = -0.343$; $P \leq 0.05$), perfectionistic/high quality ($\beta = 0.367$; $P \leq 0.05$) as well as future oriented ($\beta = -0.262$; $P \leq 0.05$) made unique contributions. Results revealed that respondents who seemed to be more confused by the over-choice ($\beta = 0.359$; $P \leq 0.1$) of products available, also seemed to have a higher BMI. In addition, those who were more immediate oriented ($\beta = 0.367$; $P \leq 0.05$) when considering the consequences of their decisions also had a higher BMI. Confused by over-choice ($\beta = 0.326$; $P \leq 0.1$) and recreational / novelty ($\beta = -0.319$; $P \leq 0.1$) as DMS made significant contributions towards systolic blood pressure.

Table 2: Correlation between decision-making, objective and subjective physical well-being (*r*)

Consumer decision-making variables		Physical well-being variables						
		Objective physical well-being					Subjective physical well-being	
		BMI <i>n</i> =65	Systolic blood pressure <i>n</i> =65	Diastolic blood pressure <i>n</i> =65	Cholesterol <i>n</i> =65	Random blood sugar <i>n</i> =65	Lifestyle habits <i>n</i> =65	Coronary heart disease risk index <i>n</i> =65
Factors: Consumer DMS								
Hedonistic shopping styles	Image / Brand consciousness	-0.164	0.170	0.108	0.018	0.017	-0.091	-0.161
	Recreational / Novelty	-0.006	-0.151	-0.006	0.129	-0.023	-0.186	0.020
	Habitual	-0.055	-0.184	-0.140	0.014	-0.207	-0.274*	0.042
Utilitarian shopping styles	Impulsive purchases	-0.031	-0.116	-0.154	0.010	-0.035	-0.261*	-0.061
	Confused by over-choice	0.172	0.043	-0.073	0.003	0.056	-0.217	0.088
	Value for money	-0.010	0.032	0.267*	0.185	-0.012	-0.057	-0.043
	Perfectionistic / High quality products	-0.114	0.008	0.280*	0.164	-0.057	-0.029	-0.093
Immediate oriented respondents		0.211	-0.094	0.022	0.087	-0.034	-0.208	0.158
Future oriented respondents		-0.017	-0.126	-0.135	0.105	-0.006	0.142	-0.106

Interpretation of approximate effect sizes for Spearman's two-tailed correlation coefficients: $r \geq 0.3$ = medium effect or tendency and $r \geq 0.5$ = large effect – indicated by highlighted values.

* Statistically significant at $P \leq 0.05$

BMI = Body mass index

Table 3: Regression analysis between decision-making, objective and subjective physical well-being (N=65)

	Beta (β) coefficient						
	Objective measurements				Subjective measurements		
	BMI	Systolic blood pressure	Diastolic blood pressure	Cholesterol	Random blood sugar	Lifestyle habits	Coronary heart disease risk index
Consumer decision-making variables	R ² = 16.9% R ² adj = 3.4% P=0.287	R ² = 16% R ² adj = 2.3% P=0.334	R ² = 27.7% R ² adj = 15.8% P=0.026**	R ² = 10% R ² = -4.7% P=0.721	R ² = 11.6% R ² adj = -2.9% P=0.619	R ² = 13.9% R ² adj = -0.2% P=0.463	R ² = 8.9% R ² adj = -0.6% P=0.796
Image and brand consciousness	-0.222	0.154	0.204	-0.250	0.113	0.027	-0.077
Impulsive purchases	-0.158	-0.317	-0.238	0.321	-0.080	-0.061	-0.316
Confused by over-choice	0.359*	0.326*	0.072	-0.038	0.234	0.040	0.261
Recreational/Novelty	-0.083	-0.319*	-0.343**	0.039	-0.058	-0.189	0.009
Habitual	-0.211	-0.182	-0.188	-0.230	-0.182	-0.273	0.142
Value for money	-0.017	0.038	0.147	0.205	-0.204	-0.013	-0.212
Perfectionistic / High quality	-0.038	0.188	0.367**	0.115	-0.119	0.065	0.055
Immediate oriented	0.367**	0.064	0.219	0.077	0.055	0.018	0.114
Future oriented	-0.016	-0.140	-0.262**	0.054	0.149	0.216	-0.109

R² adj = R² adjusted

BMI = Body mass index

* Statistically significant at 10% level

**Statistically significant at 5% level

4. DISCUSSION

Existing literature has proven that continuous high levels of stress have a negative impact on consumers' health (Starcke and Brand, 2012). However, despite the attempt of previous research to create a holistic picture of the risk factors affecting physical well-being, the comprehensiveness of consumer behavior creates apertures that have not previously been regarded as influential on overall well-being. As a result, this article incorporated decision-making as a possible perceived risk factor which may be detrimental to one's well-being if mismanaged. This research accordingly aimed to quantify associations between respondents' decision-making and physical well-being in order to gain insight into how consumer decision-making may relate to physical health.

Despite the relatively young age of the respondents, the overall health profile that was reported is mediocre. Although coronary heart disease risks have not yet developed, the reported health profile remains a reason for concern in view of the less than ideal objective physical health of respondents at such a young mean age (with 58.3% of respondents being under the age of 40 years). It is predicted that according to the consumer DMS and CFC of decision-making, along with lifestyle choices, there is a potential risk that this urban sample of respondents might soon reach their clinical horizon, with the result that coronary risks may manifest and become more prominent. Musich et al. (2003) indicated in their health-risk distribution model that an annual migration of 2% to 4% could occur between the various risk categories (low, moderate and high), but in a healthy workforce, up to 60% of the employees should not be at low risk; not more than 25% should be at moderate risk; and not more than 15% should be at the high-risk.

Tendencies of correlations between diastolic blood pressure and value for money DMS as well as perfectionistic/high-quality driven DMS were noted, of which the latter was confirmed by the regression analysis. Seeing that changes in diastolic blood pressure may be the result of changes in lifestyle habits or stress (Tello, 2017), these associations might indicate that respondents who constantly aim to make the right decision, may experience increased stress levels that might negatively influence their physical health. Regression analysis further indicates that respondents who are more confused by over-choice also have higher BMI values and higher systolic blood pressure. However, those who resort to a higher extent to recreational and novelty as DMS, have lower blood pressure readings (both systolic and diastolic), and in particular those who are more future oriented have lower diastolic blood pressure. Being more immediate orientated, on the other hand, related to higher BMI values. An explanation could be found in the fact that high levels of stress, possibly as a result of ongoing pressure, could lead

to both psychological (distress, depression, anxiety) and physiological (elevated blood pressure, heart rate, cortisol response) stress responses (De Beer et al., 2014; Payne et al., 2010).

With regard to respondents' subjective physical well-being, it was found that more than half of respondents only sustained moderately healthy lifestyles, which can contribute towards possible future risks of coronary heart diseases and other NCDs if it is not addressed and improved. In addition to these findings, the majority of respondents are already at moderate risk for coronary heart disease – based on their objective physical well-being indicators – and the possible development of NCDs. Based on correlations, respondents' extent of informed decision-making towards medium- to high-risk purchases (i.e. household equipment) and well-calculated decisions can be related to the extent of healthier lifestyle habits. This confirms that compulsive and uninformed decision-making could result in higher levels of perceived stress and poorer self-reported general health, such as elevated blood pressure (Clayton et al., 2015; Payne et al., 2010). Thus, respondents who purchase less out of habit and who do not engage as much in impulsive purchases, tended to lean more towards healthier lifestyle habits. This indicates that positive health-related subjective behavior, such as lifestyle habits and informed decision-making purchasing behavior, can to a certain extent be viewed as parallel to each other.

The positive correlations between the objective physical well-being variable (namely diastolic blood pressure) and selected DMS (namely 'value for money' and 'perfectionistic / high-quality products') may be an indication of how the need to manage various aspects of one's life by always making the best decisions can have negative health consequences. This is confirmed by studies that showed that continued stress may be detrimental to one's overall health (Clayton et al., 2015; Yilmazer et al., 2015). On the other hand, decision-making styles pointing to more uninformed decisions and a lack of taking personal responsibility in decision making, may result in negative health outcomes and lifestyle habits. The regression analysis points out that respondents who are immediate orientated in their decision-making are probably also immediate orientated in various other facets of their lives and in particular aspects related to high BMI. Furthermore, correlations show that less informed DMS (i.e. habitual and impulse) point towards poor lifestyle habits.

Therefore, it can be said that the more future oriented respondents are, the more likely they would engage in informed decision-making, in order to ensure that their purchases are not as much done out of habit, that they purchase less impulsively, and that they are not confused by the over-choice of available products (Le Roux et al., 2017). Consequently, respondents who do not engage as much in habitual, impulsive purchases or find themselves confused by over-choice of available products, also seemed to be those who exercise more control over the

subjective side of their physical well-being by maintaining good lifestyle habits. As a result, it is of importance that consumers residing in urban environments who are continuously confronted with a multitude of stressors (Miles et al., 2012) are assisted with their decision-making in order to better manage and reduce the accompanying stress and improve their overall well-being.

Therefore, these findings contribute to current knowledge by indicating that specific consumption behavior of consumers is not necessarily just consumption orientated but may contribute towards a better understanding of risk factors that have a negative impact on consumers' physical well-being in the long run. For this reason, this knowledge is of value to health practitioners, health insurance providers and insurance companies, health program developers and academics to better understand the behaviour of consumers and the association between it and consumer well-being.

5. CONCLUSION

Whereas previous studies mainly focused on clinical relationships between lifestyle and physical well-being, this article indicates associations between consumers' daily decision-making regarding medium- to high-risk purchases and consumers' objective and subjective physical well-being. Accordingly, behavioral constructs may serve as additional indicators of good or poor future physical well-being. This is especially the case if consumers engage too intensively in the decision-making process and if they need to intensely manage their lives, which results in excessive stress that is detrimental to their physical health. These findings emphasize that decision-making profiles may be used as an pointer of certain physical well-being indicators. Overall understanding of such a relationship is also essential for managing a healthy workforce and effectively prevents ill-health migration.

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APPENDIX A: Supplementary data

Supplementary Table 1: Demographic profile of selected sample group

Supplementary Table 1: Demographic profile of the selected sample group (N=65)

	Mean	Standard deviation
Age (years)	36.6	9.5
BMI* (kg/m2)	29.4	6.9
Blood pressure (systolic) (mmHg)	119.7	13.3
Blood pressure (diastolic) (mmHg)	75.9	7.8
Total cholesterol (mg/dL)	4.6	1.1
Glucose (mmol/L)	5.8	1.7
CHDR index**	22.0	7.1
Lifestyle habits	4.8	1.3

*BMI, Body mass index

**CHDR index, Coronary heart disease risk index

Supplementary Table 2: Factor analysis of consumer DMS

Supplementary Table 2: Summary of exploratory factor analysis of DMS consisting of the 40-item consumer style index (CSI) model of Sproles and Kendall (1986), as adapted by Potgieter et al. (2013) for a South African context

Items:	Factor loadings					
	Image / Brand consciousness	Impulsive purchases	Confused by over-choice	Recreational / Novelty	Habitual	Perfectionistic / High-quality products
I prefer buying the best-selling brands.	.79					
The more expensive brands are usually my choice.	.77					
The most advertised brands are usually my choice.	.75					
The well-known brands are usually my choice.	.69					
I keep my home up-to-date with the changing fashion.	.68					
The higher the price of a product, the better its quality.	.63					
Fashionable, attractive styling is very important to me.	.50			-.40		
Nice department and speciality stores offer me the best products.	.37					.39
Shopping at different stores wastes my time.		.54	.38			
I am impulsive when		.52		-.39		

purchasing products.			
I often make careless purchases I later regret.	.46	.46	
I shop quickly buying the first product or brand.	.39	.32	.291
All the information I get of different products confuses me.		.90	
The more I learn about different products, the harder it is for me to choose the best.		.84	
There are so many brands to choose from that I often feel confused.		.83	
Sometimes it is hard to choose which stores to shop at.		.50	
I regularly change brands.		.49	
Shopping is one of the enjoyable activities in my life.			-.81
Shopping is a pleasant activity for me.			-.74
I enjoy shopping just for the fun of it.			-.62
It's fun to buy something new and exciting.			-.47
I usually have one or	.37		-.41

more pieces of furniture or appliances in the very latest style.					
To get variety, I shop at different stores and brands.	-.29		-.34		
I make my shopping trips as fast as possible.				.79	
I go to the same stores each time I shop.				.67	
The lower price products are usually my choice.		.31		.59	
I have favorite brands that I buy over and over.			-.35	.57	
Once I find a product or brand that I like, I tend to stick to it.				.52	
I buy as much as I can of my products at sale prices.	-.36		-.38	.45	
In general, I usually try to buy the best overall quality.				.77	
I look carefully to find the best value for money.				.77	
I carefully watch how much I spend.	-.30			.66	
I should plan my shopping more carefully than I do.				.49	
I take the time to shop	-.37	.30		.34	.31

carefully for the best buys.							
I have very high standards and expectations of the products I aim to buy.							.74
A product should be perfect or the best of the range to satisfy me.							.68
I make special effort to choose the very best quality of products.							.66
Getting very good quality is important to me.					.30		.61
I give my purchases much thought or care.	-.35						.60
When it comes to purchasing products, I try to get the best.					.54		.31
<i>Inter-item correlation</i>	.46	.49	.51	.41	.34	.39	.53
<i>Cronbach alpha values</i>	.87	.79	.84	.81	.76	.74	.87
<i>Mean factor score</i>	3.21	2.81	3.19	3.58	3.56	4.11	3.99
<i>Standard Deviation</i>	.78	.89	.81	.74	.65	.60	.65

*Factor loadings from principal components analysis

Likert scale: 1 = Strongly disagree, 5 = Strongly agree; **Mean factor scores:** ≥ 2.5 and < 3.5 = neither agree nor disagree, ≥ 3.5 and < 4.5 = agree and ≥ 4.5 = strongly agree. **Inter-item correlations (r):** 0.1= small, 0.3= medium, 0.5= large; **Cronbach alpha:** 0.5 = accepted with caution, > 0.7 = acceptable, > 0.8 = good; Exploratory factor analysis was performed on the 40-item CSI model using various rotations in order to find the best fit and yielded a KMO of 0.906, indicating that the data is well suited for factor analysis and accounted for 61.27% of the variance. To confirm construct validity, all extracted factors that theoretically made sense were subjected to CFA, confirming the factor structure and revealing acceptable Cronbach alpha values ranging between 0.742 and 0.869, which indicated good reliability (Field, 2009).

Supplementary Table 3: Factor analysis of CFC

Supplementary Table 3: Summary of exploratory factor analysis of CFC by means of the standardized 14-item consideration of future consequences (CFC) 14-scale of Joireman et al. (2012)

Items:	Factors	
	Future-oriented consumers	Immediate-oriented consumers
When I make a decision, I think about how it might affect me in the future.	.85	
My behavior is generally influenced by future consequences.	.83	
I consider how things might be in the future, and try to influence those things with my day-to-day behavior.	.77	
I am willing to sacrifice my immediate happiness or well-being in order to achieve future outcomes.	.66	
I think it is more important to perform a behavior with important future consequences than a behavior with less important immediate consequences.	.66	
I think it is important to take warnings about negative outcomes seriously even if the negative outcomes will not occur for many years.	.66	
Often I engage in a particular behavior in order to achieve outcomes that may not result for many years.	.60	
My convenience is a big factor in the decisions I make or the actions I take.	.52	
I only act to satisfy immediate concerns, figuring that I will take care of future problems that may occur at a later date.		-.90
I think that sacrificing now is usually unnecessary since future outcomes can be dealt with at a later time.		-.86
I generally ignore warnings about possible future problems because I think the problems will be resolved before they reach crisis level.		-.83
I only act to satisfy immediate concerns, figuring the future will take care of itself.		-.83
My behavior is only influenced by the immediate (i.e. a matter of days or weeks) outcomes of my actions.		-.76

Since my day-to-day work has specific outcomes, it is more important for me than behavior that has distant outcomes.

-.68

<i>Inter-item correlation</i>	<i>.44</i>	<i>.51</i>
<i>Cronbach alpha values</i>	<i>.85</i>	<i>.88</i>
<i>Mean factor score</i>	<i>3.75</i>	<i>3.04</i>
<i>Standard Deviation</i>	<i>.70</i>	<i>.92</i>

*Factor loadings from principal components analysis; **Likert scale:** 1 = *Extremely uncharacteristic*, 5 = *Extremely characteristic*; **Mean factor scores:** <2 = extremely uncharacteristic, ≥2 and <3.0 = uncharacteristic, ≥3.0 and <3.5 = neutral; ≥3.5 and <4.5 = characteristic and ≥4.5 = extremely characteristic. **Inter-item correlations (r):** 0.1= small, 0.3= medium, 0.5= large; **Cronbach alpha:** 0.5 = accepted with caution, >0.7 = acceptable, >0.8 = good; EFA revealed all 14 items, to load statistically meaningful by means of Principal component analysis with Oblimin rotation with Kaiser normalization and was confirmed by CFC. Two extracted factors emerged which showed a good fit with the original CFC 14-scale by Joireman et al. (2012), despite the phenomenon that the item “my convenience is a big factor in the decisions I make or the actions I take” unexpectedly loaded under “future-oriented respondents”. This phenomenon might be ascribed to the convenience associated with ownership of household equipment which saves time and effort. A KMO of .864 indicated that the data were well suited for factor analysis and accounted for 57.917% of the variance explained. Good internal reliability of the factors was confirmed ($\alpha = 0.845$ - $\alpha = 0.883$).

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CHAPTER 7

RESULTS ARTICLE 3

AN ASSOCIATION BETWEEN CONSUMER DECISION-MAKING AND PSYCHO-SOCIAL WELL-BEING IN AN URBAN CONTEXT

Written according to guidelines of Journal of Consumer Psychology. Please note for examination purposes essential tables were left in-text and not moved to an addendum as required by the applicable journal.

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Abstract

Urban populations are growing significantly, resulting in larger market environments and complex decision-making. Decisions are influenced by various factors, of which the social environment is an important role player. Informed decision-making is important for good overall well-being, but a determination needs to be made concerning the possible existence of a connection between consumer decision-making and psycho-social well-being. Correlational research by means of a quantitative online survey determined urban respondents' decision-making styles and consideration for future consequences of medium- to high-risk products such as household equipment. These consumer decision-making components were brought in association with psycho-social well-being variables as operationalized with the Mental Health Continuum – Short Form and the Satisfaction With Life Scale. This sketched a good overall picture of the strong associations between respondents' psycho-social well-being and decision-making orientations as well as numerous other tendencies. Results revealed associations between consumer decision-making and psycho-social well-being indicators, which can inform scientists and practitioners about client profiles that may be taken into account in future planning. The association of decision-making regarding certain products with experienced life quality and satisfaction provide new insights.

Introduction

An increasing number of consumers are migrating to urban environments in search of work opportunities that would hopefully provide them with more money, which might in turn give them better lifestyles and, ideally, better quality of life along with improved well-being (Kourtit, Nijkamp, & Scholten, 2015; Nakazato, Schimmack, & Oishi, 2011; WUP, 2014). This migration trend is predicted to continue to grow over the coming years (Shaker, 2015, p. 375) and will

result in an increased focus on urban environments and the understanding of urban consumers' well-being who form an integral part of a country's workforce (Le Roux, Van der Merwe, Wilders, & Wissing, 2017). Even though consumers who live in urban environments might have started living there initially with a sense of hope for a better quality of life, a population growth in a certain environment can pose various social, emotional and environmental challenges, which – if left unmanaged – can be detrimental to consumers' well-being (Gong, Palmer, Gallacher, Marsden, & Fone, 2016; Soni, 2013, p. 36; Vearey, 2017).

Several factors influence consumers' consumption behavior, such as the economy or marketing efforts and psychological components (i.e. motivation, perception, learning, personality and attitude), along with the sociocultural environment (Deka, 2016; Schiffman & Kanuk, 2014). The environment of a consumer (i.e. the work environment and accompanying conditions), available products and services in the marketplace, local amenities and the quality of the products and services provided, are all factors that not only influence decision-making, but also have an impact on one's well-being (Winters & Li, 2017, p. 1657). These environmental factors can add to consumers' well-being by having an effect on the level of social acceptance and cohesion that consumers experience, which in turn are considered important and which influence decision-making (Wood & Hayes, 2012).

The population growth in certain settings, such as cities, results in increased demands for products and services, which leads to a growing market aimed at addressing these needs and desires through more stores, products and services (Prinsloo, 2014). Urban environments therefore provide consumers with an array of products and services from which to choose, which might give them a sense of meaning and purpose in life while also contributing to their social identities and sense of cohesion (Carlisle, Hanlon, & Hannah, 2008, p. 633; Champniss, Wilson, & Macdonald, 2015, p. 90). However the decision-making process can become complex if consumers do not have enough knowledge to make an informed decision or find themselves

overwhelmed by the vast amount of information (Lysonski & Durvasula, 2013, p. 75; Markus & Schwartz, 2010).

Consumer decision-making (CDM) is described as a multi-dimensional process that can be addressed and viewed from various angles and perspectives (Erasmus, 2013, pp. 11-12). Leading consumer behaviorists often describe it as a process influenced by different factors that results in either positive or negative outcomes, which in turn influence the starting point of the process (Hoyer, MacInnis, & Pieters, 2013; Schiffman & Kanuk, 2014; Solomon, 2013). The outcome of consumers' decisions may have important influences on the ways in which consumers make future decisions (Schiffman & Kanuk, 2014). CDM entails mental and physical processes with external (i.e. marketing and retail, social environment) influences and internal influences (i.e. psychological components, process related influences and experiences) that contribute towards satisfying needs (Erasmus, 2013; Schiffman & Wisenblit, 2015).

It is argued that consumers can be studied using psychological typologies, during which they are characterized according to different decision-making styles (DMS) for their purchasing behavior (Lysonski & Durvasula, 2013; Potgieter, Wiese, & Strasheim, 2013, p. 13). Due to the complexities of decision-making, consumer DMS – as originally established by Sproles and Kendall (1986) – entails the mental orientation characterizing consumers' approaches towards purchasing choices measured by the consumer style index (CSI) (Lysonski & Durvasula, 2013). The characteristics of consumer DMS focus on various cognitive and affective orientations that explain CDM (Zhou, Arnold, Pereira, & Yu, 2010). Consequently the CSI is a good instrument by which to measure consumer shopping orientations and behavior while classifying consumers as either utilitarian (functional) or hedonistic (emotional and for personal gratification) oriented (Alavi, Rezaei, Valaei, & Wan Ismail, 2016, p. 274).

Apart from DMS, some consumers base their choices on the immediate gratification that they may receive, such as joy or pleasure gained from impulsive purchases (Pavia & Mason, 2004,

p. 442). On the other hand other consumers may find the future consequences of their purchases more important and are therefore more future oriented during their purchases, and may for instance consider the financial or performance implications of the purchase (Pavia & Mason, 2004, p. 442; Strathman, Gleicher, Boninger, & Edwards, 1994; Toepoel, 2010). As a result, consumers may at times disregard the future implications of a purchase, such as future financial implications, in order to gain immediate satisfaction – as with status-infused purchases – or may even consider the product if it will be socially acceptable, such as conforming to the ideas of significant others (Solomon, 2013, p. 39; Strathman et al., 1994; Toepoel, 2010). Significant others are indicated by one's own social/cultural influences, and in a multi-cultural environment, such as South Africa, these are diverse and tend to be important factors in terms of CDM.

Based on the importance of the social environment, researchers who studied consumer behavior in urban environments of South Africa emphasized the status awareness of these consumers (Erasmus, Donoghue, & Sonnenberg, 2011, p. 53). Previous studies indicated that black African urban consumers attach great importance to possessions that communicate the 'correct message', such as prosperity and wealth, to their social group (Champniss et al., 2015, p. 90; Diedericks & Erasmus, 2014, p. 81). In the South African market, the purchasing power is to a large extent held by black African consumers, who are not only the highest represented population group in South Africa, but are also consumers who have experienced a great shift in terms of economic empowerment (Donoghue, Strydom, Andrews, Pentecost, & de Klerk, 2016). These consumers consequently use technologically advanced and luxury products in their homes, such as household appliances and furniture, to communicate prosperity and wealth (Bond et al., 2012, p. 11; Erasmus et al., 2011, p. 53; Sivanathan & Pettit, 2010, p. 564). These products do not only bring comfort to consumers' every-day lives but consumers also invest large amounts in their homes in an effort to increase their well-being (Donoghue, De Klerk, & Ehlers, 2008, p. 40; Nakazato et al., 2011, pp. 130-131). Therefore, household appliances and furniture (hereafter referred to as household equipment) have a strong social component as

consumers may attach great value to the quality of products based on functioning, social opinion and attributes such as products' brand names (Erasmus, Christie, & Kleyn, 2016, p. 16; Erasmus et al., 2011, p. 47; Schmitt, 2012, p. 12).

From a consumer behavior point of view, decision-making and ownership of status-infused products are mostly used by consumers to appeal to certain social groups or to surpass current social groups (Arnold & Reynolds, 2012; Braun Santos, Mendes-Da-Silva, Flores, & Norvilitis, 2016; Champniss et al., 2015). Therefore the purchasing of products have become more than merely a way of acquiring items that fulfill basic needs, but have developed into an emotional process during which consumers escape from daily pressures and indulge in self-gratification by means of hedonic consumption (Arnold & Reynolds, 2012, p. 399; Tatic & Cinjarevic, 2016). The psychological motives behind purchases are a need for increased satisfaction with life or to protect one's self-integrity and self-worth (Hudders & Pandelaere, 2012, p. 411; Sivanathan & Pettit, 2010, pp. 564-565). Such socially motivated decisions can override rational decision-making (Starcke & Brand, 2012, p. 1230), with the result that symbols, such as brands or exterior design features, may become more important than functional qualities (Diedericks & Erasmus, 2014, p. 71; Solomon, 2013, p. 30; Sonnenberg, Erasmus, & Donoghue, 2011, p. 154). Carlisle et al. (2008, p. 633) note that purchases are evidently not just made to satisfy basic needs but also to address symbolic, social and psychological needs.

Well-being is something to which all consumers strive consciously or unconsciously to obtain, and has been described as a multi-faceted construct which entails physical, mental, social, intellectual and spiritual components (Bushman, 2011; Gardarsdottir, Dittmar, & Aspinall, 2009, p. 1101). Well-being is often directly related to health, but according to its definition by the WHO (2014), it is clear that health is not merely the absence of disease but also includes the mental and psychological well-being of consumers. With consideration of the important influence of a social group on CDM, it is therefore argued that consumer well-being can be viewed from a

psycho-social point of view based on shared meanings and functioning in relation to others (Bond et al., 2012, p. 2; Mpinganjira et al., 2013, p. 14). A consumer's residential environment thus plays an important role as a psycho-social context that can be associated with a consumer's mental health and satisfaction with life (Bond et al., 2012, p. 9).

According to (Jang et al., 2017), an increased level of life satisfaction can be experienced if consumers' current state of life matches their expected standards. Life satisfaction is described as a "cognitive judgmental process" in which people compare their present state of affairs against standards that they have set personally (ED Diener, Emmons, Larsen, & Griffin, 1985, p. 71). It therefore entails an evaluation of one's overall well-being in the context in which one finds oneself and that which is regarded as the ideal standard that is set by oneself. However, the context in which one finds oneself may also differ from what one really considers important in order to experience life satisfaction. The Satisfaction With Life Scale (SWLS), as developed by ED Diener et al. (1985), is a commonly used valid and reliable instrument to determine one's cognitive level of life satisfaction (Hudders & Pandelaere, 2012, p. 430; Jovanović, 2015, p. 154; Pavot & Diener, 2008, p. 137).

The construct and phenomenon of psycho-social well-being may be described as consisting of hedonic and eudaimonic components. The hedonic component refers to pleasure and positive affect and can be expressed as the extent to which consumers experience 'feeling good' or affective well-being. Eudaimonic components of well-being, in turn, refer to purpose, meaning, and interpersonal relationships, and may be described as 'functioning well' (Wissing, Potgieter, Guse, Khumalo, & Nel, 2014). Therefore, in order to integrate important indicators of hedonic and eudaimonic well-being, the Mental Health Continuum – Short Form (MHC-SF) (C. Keyes, 2002; C. Keyes et al., 2008b) and the Satisfaction with Life Scale (ED Diener et al., 1985) were selected for purposes of this study.

The MHC-SF integrates different dimensions of well-being, namely, emotional, social and psychological dimensions. The **emotional** well-being (EWB) component forms part of hedonic well-being, which is regarded as the presence of positive emotions and overall satisfaction one experiences in life, for example happiness, interest in life and satisfaction with life. The **social** well-being (SWB) and **psychological** well-being (PWB) dimensions form part of eudaimonic well-being. The SWB component indicates the extent to which one experiences social contribution, integration and acceptance along with social actualization and coherence in the social environment. The PWB, in turn, includes a sense of autonomy, environmental mastery, personal growth along with positive relations with others, a feeling of purpose in life and self-acceptance (C. Keyes, 2002; C. Keyes et al., 2008b). The MHC-SF is the most widely used measure of eudaimonic well-being and determines psychological well-being regarding functioning well on intra- and inter-personal levels (Jovanović, 2015, p. 154). Therefore, psycho-social well-being is influenced by various factors, of which the social environment forms a core component, as is also the case during CDM.

As indicated in literature, consumers' need for social acceptance can influence decision-making but it is unclear how consumers' psycho-social well-being is associated with CDM. Research on CDM and psycho-social well-being can therefore contribute to a better understanding of urban consumers' characteristics (Workman & Cho, 2012, p. 267). This research will not only address the current lack in literature but will also be of value to researchers and policy-makers with an interest in improving well-being (Winters & Li, 2017, p. 1657), especially since increased urbanization can challenge consumer well-being.

This study aims to determine the associations between decision-making and psycho-social well-being of urban consumers who work in corporate settings. Therefore, the psycho-social well-being of urban consumers is studied in terms of their subjective mental health and satisfaction, as well as their degrees of feeling good and functioning well. Since purchasing behavior is an integral part of consumers' functioning in a society (Ganglmair-Wooliscroft & Lawson, 2012, p.

149), the association between components of their decision-making behavior – which include consumer DMS and consideration of future consequences (CFC) – and their psycho-social well-being, is explored. These results will be used in further research to develop a profile of consumers who work in a corporate environment based on their decision-making as well as their physical- and psycho-social well-being, with a view to possible future interventions to improve consumer well-being and productivity.

Research methods and design

Study design

This research was correlational and non-experimental in nature and used a cross-sectional survey to explore and describe the extent of association between CDM and psycho-social well-being. This study formed part of a larger research project, of which only applicable sections and analysis are reported in this research article.

Setting:

Permanent employees located at one of three head offices of a company in urban settings in South Africa formed part of this study. The offices in question were located in Pretoria, Cape Town and Durban. Respondents were between 18 and 65 years of age, with previous HE purchase experience and internet access to complete the online questionnaire.

Data collection:

Non-probability convenience sampling allowed a fair opportunity for all employees who complied with the inclusion criteria to participate in this study. Data (N=391) were collected by means of an electronic online questionnaire designed and administered via QuestionPro®. Apart from a basic demographic section in the questionnaire, the applicable sections included sections on consumer DMS, CFC of decision-making, the MHC-SF and the SWLS.

The sections on consumer DMS entailed the 40-item CSI of Sproles and Kendall (1986), as adapted by Potgieter et al. (2013) for a South African context. This five-point Likert scale focused on DMS, where 1 = strongly disagree and 5 = strongly agree. The accompanying section on consumers' CFC of decisions consisted of the standardized 14-item scale of Joireman, Shaffer, Balliet, and Strathman (2012), where 1 = extremely uncharacteristic and 5 = extremely characteristic. Both scales reported good internal validity, ranging from $\alpha=.50$ to $\alpha=.80$ for the CSI scale and $\alpha=.70$ to $\alpha=.74$ for the CFC scale (Joireman et al., 2012; Potgieter et al., 2013). The factor analysis on the CSI and CFC scales was interpreted in more detail in a previous research article (Le Roux, Van der Merwe, Wilders, & Ellis, 2017).

In order to determine the psycho-social well-being of consumers, the MHC-SF scale was used along with the SWLS. The MHC-SF consists of 14 six-point Likert type scale items, ranging from 0 = never to 5 = every day considering the past month. The MHC-SF consists of three subscales, and measures emotional (three items), psychological (six items) and social (five items) well-being (C. Keyes et al., 2008b). The total score is the sum of the three subscales, i.e. EWB, SWB and PWB. Scores can also be categorized in terms of levels of well-being, namely "flourishing", "moderately mentally healthy" and "languishing" (C. Keyes et al., 2008b; C. L. Keyes, 2007). This scale was used and tested in the South African setting, and scored a relatively high internal consistency ($\alpha=.74$); (C. Keyes et al., 2008b, p. 185) and also proved to be a valid and reliable instrument worldwide as well as in the South African context (Joshnloo, Wissing, Khumalo, & Lamers, 2013; Karaś, Cieciuch, & Keyes, 2014; C. Keyes et al., 2008b; Lamers, Westerhof, Bohlmeijer, ten Klooster, & Keyes, 2011).

The SWLS measures satisfaction with life in general on a seven-point Likert type scale, ranging from 1 = strongly disagree to 7 = strongly agree. The scores of all the items indicates the level of satisfaction, where a total score of 5-9 indicates extreme dissatisfaction, 10-14 indicates dissatisfaction, 15-19 shows slightly below average life satisfaction, 20-24 is an average life satisfaction score, 25-29 is a high life satisfaction score and 30-35 denotes a very high level of satisfaction (ED Diener et al., 1985). This scale has been used in various studies to measure a

person's general satisfaction with life and proved to be valid and reliable in South Africa and various other countries, with a Cronbach alpha reliability index above .80 for most studies (Jang et al., 2017; C. Keyes et al., 2008a, p. 184).

Data analysis:

All data were analyzed using IBM®SPSS® Version 24. Exploratory factor analysis (EFA) ensured good construct validity even though the CSI and CFC scales were applied in a different context, pertaining to medium to high risk products (namely household equipment). Principal component analysis (PCA) was employed as a factor extraction method, using Oblimin with Kaiser Normalization as a rotation method for these two scales, and reported a KMO above .7, where .7 to .8 is regarded as good (Field, 2009). Using Kaiser's criterion, factors with eigen values higher than one were extracted and the lowest percentage variance explained was more than 57%, which is higher than the acceptable minimum of 50% (Field, 2009, p. 647). The EFA therefore confirmed construct validity. Cronbach alpha values for the extracted items on the CSI scale ranged between $\alpha=.74$ and $\alpha=.87$ and for CFC scale between $\alpha=.85$ and $\alpha=.88$, which is regarded as good and which confirms internal reliability (Field, 2009). The mean inter-item correlations for the EFAs of two consumer decision-making instruments were reported to be between .343 and .534, which is within the required margins of .15 and .55 according to Clark and Watson (1995).

For the psycho-social instruments, the authors' guidelines were used during data analysis to guide the researchers with the interpretation of the values. Both scales reported a good internal reliability, of which the SWLS was reported as $\alpha=.909$ and the MHC-SF as $\alpha=.802$. The different subscales of the MHC-SF were as follows: EWB $\alpha=.876$, SWB $\alpha=.907$ and PSW $\alpha=.919$. The total score of all items gave a good overall indication of respondents' total well-being (C. Keyes et al., 2008b). The SWLS was analyzed by determining the total score of items.

Descriptive statistics such as frequencies, percentages, means and standard deviations were calculated on the demographics, MHC-SF and SWLS, which gave a good overall presentation of the population. In order to determine any possible differences among respondents, group statistics were performed (assisted by Cohens d -values as effect size) between the different components included in this study. For the MHC-SF and SWLS, t-tests were performed and effect sizes were measured by means of Cohen's d -values. Only medium ($d \geq .5$) and large ($d \geq .8$) effect sizes are reported. Exploratory factor analysis, along with confirmatory factor analysis, was performed in a previous part of the study on the CSI and CFC scales (Le Roux, Van der Merwe, Wilders, & Ellis, 2017). These findings were used to draw correlations between CDM and psycho-social well-being of the respondent by means of Spearman's rank order correlations. For these calculations, only medium ($r = .3$) and large ($r = .5$) effect sizes will be reported. Regression analysis was also performed to confirm the identified correlations, of which $p \leq .05$ and $\beta \geq .24$ were interpreted as medium effect sizes.

Ethical considerations:

This study was approved by the Health Research Ethical Council (HREC) of the North-West University (NWU-0091-15-A1) and accordingly conducted within the ethical guidelines.

Results:

Demographic data:

Most respondents were females between the ages of 18 and 49 years (Table 1). A relatively even distribution of the various head offices yielded a multi-cultural group of respondents, of whom most were black African (32.8%; $n=128$), followed by Indian/Asian (24.9%; $n=97$), colored (22.1%; $n=86$) and Caucasian respondents (19.5%; $n=76$).

Table 1: Demographic profile of the study population (N=391)

Variable	Frequency (n)	Percentage (%)
Location of head office		
Pretoria	135	34.5
Durban	134	34.3
Cape Town	122	31.2
Age in years		
18-29	95	24.3
30-39	133	34.0
40-49	101	25.8
50-59	60	15.3
60-65	2	0.5
Gender		
Male	104	26.6
Female	287	73.4
Ethnicity		
Black African	128	32.8
Colored (respondents from mixed origin)	86	22.1
Caucasian	76	19.5
Indian/Asian	97	24.9
Other	3	.8

Note: Due to rounding of percentages, some of the totals might not add up to 100%

Urban respondents' decision-making regarding household equipment

As reported by Le Roux, Van der Merwe, Wilders, and Ellis (2017), EFA extracted seven reliable factors that described the DMS to which respondents resort during household equipment purchases. These factors included “image and brand consciousness”, “impulsive purchases”, “confused by over-choice”, “recreational/novelty”, “habitual”, “value for money” and “perfectionistic / high-quality products” as DMS (see supplementary Table 1 for more information on the factor analysis as well as Le Roux, Van der Merwe, Wilders, and Ellis (2017). These styles were further categorized as either hedonic or utilitarian DMS, as guided by existing literature (Jones, Reynolds, & Arnold, 2006; Zhou et al., 2010). Hedonic DMS entail styles with a higher emotional connection placed more emphasis on the value gained from the shopping experience, personal gratification and self-expression, which therefore include “image and

brand consciousness”, “recreational/novelty” as well as “habitual” DMS. On the other hand, utilitarian shopping styles that influence performance and that are more task oriented, cognitive and non-emotional, include “impulsive purchases”, “confused by over-choice”, “value for money” and “perfectionistic/high-quality products” (Jones et al., 2006; Zhou et al., 2010).

The consideration of future consequences scale enabled the researchers to determine the extent to which respondents think about the consequences of current decisions. Through EFA, two factors emerged, namely “immediate-oriented consumers” and “future-oriented consumers”. These results corresponded well with the original model of Joireman et al. (2012), except for one item¹, possibly due to the different product category on which this study focused.

Psycho-social well-being of urban consumers

In order to gain a good understanding of consumers’ psycho-social well-being, the MHC-SF was implemented and provided information on emotional, social and psychological components of well-being. Results revealed that respondents have moderate to upper levels of emotional (11.54 ± 2.91), social (15.67 ± 6.01) and psychological (23.25 ± 5.68) well-being (Table 2).

Therefore, these urban respondents seemed to have experience positive emotions, good psychological functioning and independence. The respondents also function well in their social environment, by being able to contribute in such way that they find themselves to be an important part of their social environment. Well-being measured by means of the SWLS (Table 2) revealed that respondents experienced good satisfaction with life on the higher end of the scale (26.25 ± 6.50), and could be classified as highly satisfied. According to Edward. Diener (2006), if respondents experience this level of satisfaction they find aspects in the major parts of their lives to be good, although it still might not be perfect. The mental health of the total group

¹ Please refer to supplementary Table I (factor loadings of DMS) and supplementary Table II (factor loadings on CFC), as the discussion on this section only serves as background information for the correlational analysis between CDM and psycho-social well-being. Also see Le Roux, Van der Merwe, Wilders, and Ellis (2017).

as measured by the MHC-SF indicates a general high level of well-being, as 63.4% (n=246) of participants were flourishing. It thus seems that this group of respondents was on average satisfied with their lives and experienced good psycho-social well-being.

Table 2: The psycho-social mental health profile of respondents

Category					
MHC-SF	N=389		Total in category mean±SD	Moderate (n=130) mean±SD	Flourish (n=246) mean±SD
Emotional	Min score	0	11.54±2.91	9.56±2.39	13.00±1.50
	Max score	15			
Social	Min score	0	15.67±6.01	11.53±4.34	18.41±4.77
	Max score	25			
Psychological	Min score	0	23.25±5.68	19.06±4.43	26.27±2.78
	Max score	30			
Total	Min score	0	50.48±12.86	40.15±7.73	57.68±7.01
	Max score	70			
Satisfaction with life scale	N=388		Total in category mean±SD		
Cognitive orientation towards well-being	Min score	5	26.25±6.50		
	Max score	35			

Note: **MHC-SF**: Mental Health Continuum – Short Form. This scale is divided into three sections, namely flourishing, moderate and languishing. However, only moderate (11.3%; n=44) and flourishing (87.2%; n=341) are reported since minimal responses (1%; n=4) were found for languishing.

Satisfaction with life scale was interpreted as follows: 5-9 = extreme dissatisfaction, 10-14 = dissatisfaction, 15-19 = slightly below average life satisfaction, 20-24 = average, 25-29 = high satisfaction and 30-35 = very high level of satisfaction.
SD: Standard deviation.

Respondents who flourished scored overall better on the MHC-SF and they performed especially better on psychological well-being (26.27±2.78) in comparison to moderately mentally healthy participants (19.06±4.43) (Table 2). The social well-being of flourishing respondents (18.41±4.77) was also higher than that of moderately mentally healthy respondents

(11.53±4.34). This shows that respondents who flourished were in particular strong in the component “intra-personally functioning well” of psychological well-being.

Differences among levels of well-being as measured with the MHC-SF regarding satisfaction with life and CDM components

Respondents from the upper quartile experiencing high levels of total mental well-being differed significantly from the lower quartile of respondents with low levels of total mental well-being, and also in terms of “image and brand consciousness”, “recreational and novelty” and “perfectionistic and high quality” DMS, and those from the upper quartile were more future oriented (Table 3). Results indicated that respondents who scored high on well-being were more image and brand conscious during household equipment purchases. These respondents also find HE purchases to be more recreational than respondents who scored low on well-being, and they enjoy searching for novelty items. Furthermore, respondents scoring high on well-being make more perfectionistic decisions, find high quality of products to be very important and are more future oriented than respondents whose experiences of well-being are in the lower quartile.

Table 3: Group statistics on MHC-SF lower and upper quartiles

Component	Low well-being^a (n=101) (mean±SD ^c)	High well-being^b (n=103) (mean±SD ^c)	Effect size (Cohen's <i>d</i> - value) ^d
Satisfaction with life scale	20.80±7.17	30.54±4.27	1.36
Consumer decision-making styles^e:			
Image and brand consciousness	2.94±.78	3.55±.78	.77
Impulsive purchases	2.76±.79	3.01±1.06	.24
Confused	3.05±.74	3.43±.88	.42
Recreational and novelty	3.30±.81	3.86±.73	.70
Habitual	3.36±.64	3.81±.70	.65
Value for money	3.91±.72	4.37±.55	.62
Perfectionistic / high quality	3.68±.75	4.31±.54	.85
Consideration of future consequences^f:			
Immediate-oriented consumers	2.80±.84	3.35±1.08	.51
Future-oriented consumers	3.43±.78	4.08±.72	.83

^aLow well-being: The total scores of respondents who fell within the lower quartile of the MHC-SF.

^bHigh well-being: The total scores of respondents who fell within the upper quartile of the MHC-SF.

^cSD: Standard deviation.

^dCohen's *d*-values interpretation guidelines: .2 = small; .5 = medium; .8 = large.

^eConsumer decision-making styles: mean factor scores interpretation: 1 = strongly disagree; 5 = strongly agree.

^fConsideration of future consequences: mean factor scores interpretation: 1 = extremely uncharacteristic; 5 = extremely characteristic.

Ethnographic and location differences between respondents with respect to psycho-social well-being

For the MHC-SF, differences of medium effect size were only present for social well-being between black African and colored respondents ($d=.43$) as well as between black African and Caucasian respondents ($d=.46$). Black African respondents (17.18 ± 6.00) tended to experience higher levels of social well-being than did colored (14.51 ± 6.15) and Caucasian respondents (14.45 ± 5.72). This is insightful, since Potgieter et al. (2013) mentioned that research on

demographical differences among South African ethnic groups are limited in a multi-cultural country such as South Africa and therefore knowledge on differences in well-being can be of great value.

A medium effect size difference ($d=.40$) was also noted between respondents from Pretoria and those from Cape Town (14.34 ± 5.80); whereby the Pretorian respondents (16.91 ± 6.39) experienced better social well-being than those from Cape Town.

Correlations between CDM and psycho-social well-being

Satisfaction with life correlated practically significantly (Table 4) with “image and brand consciousness” ($r=.420$). Tendencies to correlate were noted between satisfaction with life and “recreational/novelty” ($r=.277$), “habitual” ($r=.290$) and “perfectionistic / high quality” ($r=.290$) as well as “immediate oriented” ($r=.355$) and “future oriented” ($r=.352$). For **SWB**, correlations indicating tendencies were shown with “image and brand consciousness” ($r=.330$), “recreational and novelty” ($r=.319$), “habitual” ($r=.288$) as well as “perfectionistic and high-quality products” ($r=.337$). Medium effect size correlation was evident between social well-being and being “immediate oriented” ($r=.342$) as well as “future oriented” ($r=.369$). Correlations of **PWB** revealed tendencies with “value for money” ($r=.274$), “perfectionistic / high quality” ($r=.325$) and “future oriented” ($r=.318$). In terms of **total mental well-being**, tendencies towards significance of correlations were reported with “image and brand consciousness” ($r=.306$), “recreational and novelty” ($r=.295$), “value for money” ($r=.296$), “perfectionistic / high quality” ($r=.356$) as well as with “future oriented” ($r=.372$). No significant correlations or tendencies were found between the MHC-SF variables and “impulsive purchases” or “confused by over-choice” as a decision-making style for the purchase of higher-risk household equipment.

The regression analysis showed (Table 5) that the regression of consumer decision-making components on all psycho-social components were statistically significant, explaining between 17.3% and 27.5% of the variance. Tendencies indicated that respondents who are more image and brand conscious may also be the ones who have a higher level of satisfaction with life ($\beta=.248$; $P\leq.05$). There is also a tendency that future-oriented respondents, who are more concerned with the future implications of their decisions, may be the ones who score higher on the total MHC-SF ($\beta=.249$; $P\leq.05$) and experience better emotional mental health ($\beta=.245$; $P\leq.05$) as well as higher levels of satisfaction with life ($\beta=.254$; $P\leq.05$).

Table 4: Spearman's rank order correlations (*r*) between consumer decision-making (decision-making styles and immediate and future consequences) and psycho-social well-being (mental health continuum short form and satisfaction with life scale)

Subjective psycho-social well-being	Consumer decision-making components (<i>r</i>)							Consideration of immediate and future consequences	
	Decision-making styles (<i>H</i> = Hedonistic oriented style; <i>U</i> = Utilitarian oriented style)								
	Image / brand consciousness (<i>H</i>)	Impulsive purchases (<i>U</i>)	Confused (<i>U</i>)	Recreational / Novelty (<i>H</i>)	Habitual (<i>H</i>)	Value for money (<i>U</i>)	Perfectionistic / High quality (<i>U</i>)	Immediate oriented	Future oriented
SWLS (n=388)	.420**	.207**	.212**	.277**	.290**	.139**	.290**	.355**	.352**
MHC-SF – emotional well-being (n=389)	.247**	.069	.131**	.190**	.217**	.257**	.262**	.153**	.267**
MHC-SF – social well-being (n=389)	.330**	.168**	.252**	.319**	.288**	.260**	.337**	.342**	.369**
MHC-SF – psychological well-being (n=389)	.214**	.008	.045	.241**	.166**	.274**	.325**	.108*	.318**
MHC-SF – Total (n=389)	.306**	.096	.177**	.295**	.252**	.296**	.356**	.248**	.372**

SWLS= Satisfaction with life scale

MHC-SF = Mental health continuum – Short form;

Interpretation of approximate effect sizes for Spearman's two-tailed correlation coefficients: $r \geq 0.3$ = medium effect or tendency and $r \geq 0.5$ = large effect – indicated by bolded values.

** Statistically significant at $P \leq .05$

* Statistically significant at $P \leq .01$

Table 5: Regression analysis of decision-making components on psycho-social well-being facets (N=387)

	Beta (β) coefficient				
	Psycho-social components				SWLS
	MHC-SF Total	MHC-SF Emotional	MHC-SF Social	MHC-SF Psychological	
Consumer decision-making components	$R^2 = 28.5\%$ $R^2\text{adj} = 26.8\%$ $p=.000^{**}$	$R^2 = 19.2\%$ $R^2\text{adj} = 17.3\%$ $p=.000^{**}$	$R^2 = 24.9\%$ $R^2\text{adj} = 23.1\%$ $p=.000^{**}$	$R^2 = 24.1\%$ $R^2 = 22.3\%$ $p=.000^{**}$	$R^2 = 29.2\%$ $R^2\text{adj} = 27.5\%$ $p=.000^{**}$
Image and brand consciousness	.022	.041	.065	-.041	.248^{**}
Impulsive purchases	-.020	-.002	-.027	-.016	.044
Confused by over-choice	-.30	-.008	.024	-.089	-.049
Recreational / Novelty	.064	-.012	.026	.124*	.019
Habitual	.070	.074	.051	.067	.059
Value for money	.068	.077	.019	.094	-.061
Perfectionistic / High quality	.179 ^{**}	.125*	.135*	.199 ^{**}	.073
Immediate oriented	.104*	.034	.185 ^{**}	.023	.114 ^{**}
Future oriented	.249^{**}	.245^{**}	.208 ^{**}	.219 ^{**}	.254^{**}

$R^2\text{adj} = R^2\text{adjusted}$

Interpretation of approximate effect sizes for Linear regression analysis (Beta (β) coefficient): $\beta \geq .24$ = medium effect or tendency – indicated by bolded values.

*Statistically significant at 10% level

**Statistically significant at 5% level

Discussion:

This study aimed to determine the association between urban consumers' decision-making and psycho-social well-being, which was confirmed by various associations between the constructs

included. In the following sections, results will be discussed and interpreted with reference to levels of well-being, the nature of preferred DMS and the association between these facets.

Levels of well-being of urban consumers of HE

Results indicated that the majority of respondents flourished regarding their overall mental health, with high levels of emotional and social well-being, and that their psychological well-being was the highest. C. Keyes (2002) described flourishing as the ability of an individual to experience high levels of well-being, including positive emotions and the ability to function well on a social and psychological level. The total group of respondents also reported good satisfaction with life and emotional well-being. This is especially true for black African respondents, who seemed to experience significantly better social well-being than colored and Caucasian respondents. This is in line with findings by Potgieter et al. (2013, p. 25) that DMS differ significantly between ethnic groups, and that black African consumers attach greater importance to brands than Caucasian consumers. These findings are supported by Le Roux, Van der Merwe, Wilders, and Ellis (2017), who showed that respondents in a South African multi-cultural environment differ in terms of what they find important; therefore it can be assumed that South Africans may also differ in terms of their levels of well-being. Because of these findings, an investigation of the associations between CDM and psycho-social well-being can be of value to better understand the South African consumer environment.

The association between CDM and psycho-social well-being

In addition to psychological differences between respondents who experience high levels of well-being and those who experience low levels of mental well-being, differences with regard to decision-making also emerged between these groups in this study. Respondents who showed higher levels of mental well-being, also seemed to find images and brands of household equipment important. In addition, respondents who scored high on well-being resorted to recreational decision-making styles and the purchasing of novel household equipment products. However respondents with a high well-being score also found it more important that the

purchase should be perfect and of high quality, while also keeping future consequences in mind; in contrast with respondents who scored lower on well-being. Indications are that respondents who experienced high levels of total mental health, may place greater value on image and brand during purchases of HE, while taking care to make well informed decisions while still enjoying the shopping experience of new and novel products (Lysonski & Durvasula, 2013, p. 77).

Hedonic DMS correlated on various levels with psycho-social well-being variables. Image and brand, recreational and novelty as well as habitual decision-making styles are described as DMS that reflect shopping behavior that is not necessarily product aspects but refer to personal gratification, desire and self-expression (Solomon, 2013; Zhou et al., 2010). These DMS showed correlations with the satisfaction with life that respondents experience as well as their SWB. SWB, being eudaimonic in nature, reflects the extent of social contribution, acceptance and actualization and coherence in the social environment (C. Keyes et al., 2008b). Regression analysis supported the finding that an association may exist between the image and brand name of household equipment and the level of satisfaction with life that a respondent may experience. Therefore hedonic DMS may possibly contribute to the satisfaction which respondents experience in their lives while it may also add to the extent to which they experience social acceptance.

On the other hand, **utilitarian-oriented DMS** did not all correlate with psycho-social well-being variables. Value for money, which is regarded as an important DMS of household equipment due to the expensive nature of the product category (Danziger, 2004), correlated on a psychological and total well-being level. In addition, perfectionistic and high-quality DMS correlated with all psycho-social well-being variables, namely SWLS and the total MHC-SF as well as all its components. This finding might confirm previous findings, assuming that household equipment is often purchased to increase the sense of well-being which consumers experience (e.g. (Nakazato et al., 2011; Robinson & Adams, 2008). However, there were no

correlations between either “impulsive purchases” or “confused by over-choice” as DMS with any of the subjective psycho-social well-being variables. As the positive and negative dimensions of human functioning are relatively independent and not merely two poles on a continuum (C. L. Keyes, 2007), future research can explore whether these styles are associated with negative psychological states, as is expected.

“Impulsive purchases” and “confused by over-choice” as DMS may be considered as negative in nature and might therefore not make positive contributions towards psycho-social well-being. This is because impulsive purchases often entail negative emotions or increased stress levels, which is also the case if a consumer is confronted with an over-choice of products (Babin & Harris, 2011; Kassin, Fein, & Markus, 2008; Wagner & Brath, 2012). This is confirmed by Zhu, Xu, Huang, Yeow, and Wang (2012), who indicated that consumers who are confronted by an over-choice of products often experience emotional upset, stress and confusion.

Consumers' **consideration of future consequences** of their decisions has in the past been found to be important indicators of their attitudes, behaviors and information processing, which all contribute to well-being (Baumeister, Sparks, Stillman, & Vohs, 2008; Strathman et al., 1994). Correlations and regressions in this study indicated that future-oriented decision-making may influence aspects of one's psycho-social well-being. However, immediate-oriented decision-making only correlated with satisfaction with life and SWB. These findings imply that future orientation may benefit one's psycho-social well-being on different levels, by addressing one's social, emotional and psychological well-being as well as satisfaction with life.

To conclude, results from this study showed that CDM correlated on various levels with respondents' level of satisfaction with life. Total mental health as well as the social component of mental health also correlated with various hedonic and utilitarian decision-making styles, as well as the extent to which consumers consider the future consequences of their decisions. Previous research indicated that household equipment purchases are often strongly driven by

social aspects such as a desire for acceptance and social integration (e.g. (Erasmus et al., 2011; Sonnenberg et al., 2011), and the correlations of this study may support these findings. As a result, this may imply that household equipment has a strong social connection that drives decision-making.

Conclusion

The results revealed various associations between CDM and psycho-social well-being. Although consumer behavior literature indicates that social environment is an important factor in decision-making (Schiffman & Kanuk, 2014), this study, in addition, has found a relationship between CDM and psycho-social well-being. This may indicate that the decisions consumers make, as in the case of higher-risk purchases such as household equipment, might be indicators of consumers' psycho-social well-being.

This study approached consumer behavior, functioning and well-being with the focus on decision-making through two different disciplinary lenses in order to gain new insights, namely consumer behavior as well as positive psychology. Using this unique approach, a better perspective was obtained on the association between decision-making and psycho-social well-being. Therefore this research contributes on a multi-disciplinary level to a better understanding of consumer behavior and to improving consumer well-being. As a result this knowledge can be of value for consumer scientists, marketers and policy makers who study the behavior and decision-making of consumers. Medical professionals and occupational therapists concerned with stress and psycho-social well-being of individuals or employees in corporate settings may use this knowledge to better understand and assist patients having low levels of mental health associated with purchasing behavior. These findings add a new scope to CDM literature, despite the small population group and locational restriction of the sample used in this study. It would, however, be insightful to determine if the results would be the same for other locations, such as less urban environments.

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Competing interests

The authors declare that they have no financial or personal relationship(s) that may have inappropriately influenced them in writing this article.

Authors' contributions

N. Le Roux (North-West University) was the main investigator being responsible for the project design, data gathering and analysis. D. Van der Merwe (North-West University), M.P. Wissing (North-West University) and C. Wilders made conceptual contributions and assisted with the analysis and interpretation of the data. S. Ellis (North-West University) performed the statistical analysis and assisted with the interpretation thereof.

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Supplementary table I: Summary of exploratory factor analysis of DMS consisting of the 40-item consumer style index (CSI) model of Sproles and Kendall (1986), as adapted by Potgieter et al. (2013) for a South African context.

Items:	Factor loadings					
	Image / Brand consciousness	Impulsive purchases	Confused by over-choice	Recreational / Novelty	Habitual	Value for money
I prefer buying the best-selling brands.	.79					
The more expensive brands are usually my choice.	.77					
The most advertised brands are usually my choice.	.75					
The well-known brands are usually my choice.	.69					
I keep my home up-to-date with the changing fashion.	.68					
The higher the price of a product, the better its quality.	.63					
Fashionable, attractive styling is very important to me.	.50			-.40		
Nice department and speciality stores offer me the best products.	.37					.39
Shopping at different stores wastes my time.		.54	.38			
I am impulsive when purchasing products.		.52		-.39		
I often make careless purchases I later regret.		.46	.46			
I shop quickly buying		.39	.32		.291	

the first product or brand.			
All the information I get of different products confuses me.		.90	
The more I learn about different products, the harder it is for me to choose the best.		.84	
There are so many brands to choose from that I often feel confused.		.83	
Sometimes it is hard to choose which stores to shop at.		.50	
I regularly change brands.		.49	
Shopping is one of the enjoyable activities in my life.			-.81
Shopping is a pleasant activity for me.			-.74
I enjoy shopping just for the fun of it.			-.62
It's fun to buy something new and exciting.			-.47
I usually have one or more pieces of furniture or appliances in the very latest style.	.37		-.41
To get variety, I shop at different stores and brands.	-.29		-.34
I make my shopping trips as fast as possible.			.79
I go to the same stores each time I shop.			.67
The lower price products are usually my choice.		.31	.59

I have favorite brands that I buy over and over.			-.35	.57		
Once I find a product or brand that I like, I tend to stick to it.				.52		
I buy as much as I can of my products at sale prices.	-.36		-.38	.45		
In general, I usually try to buy the best overall quality.					.77	
I look carefully to find the best value for money.					.77	
I carefully watch how much I spend.	-.30				.66	
I should plan my shopping more carefully than I do.					.49	
I take the time to shop carefully for the best buys.	-.37	.30			.34	.31
I have very high standards and expectations of the products I aim to buy.						.74
A product should be perfect or the best of the range to satisfy me.						.68
I make special effort to choose the very best quality of products.						.66
Getting very good quality is important to me.				.30		.61
I give my purchases much thought or care.	-.35					.60
When it comes to purchasing products, I try to get the best.				.54		.31

<i>Inter-item correlation</i>	.46	.49	.51	.41	.34	.39	.53
<i>Cronbach alpha values</i>	.87	.79	.84	.81	.76	.74	.87
<i>Mean factor score</i>	3.21	2.81	3.19	3.58	3.56	4.11	3.99
<i>Standard Deviation</i>	.78	.89	.81	.74	.65	.60	.65

*Factor loadings from principal components analysis

Likert scale: 1 = *Strongly disagree*, 5 = *Strongly agree*; **Mean factor scores:** ≥ 2.5 and < 3.5 = neither agree nor disagree, ≥ 3.5 and < 4.5 = agree and ≥ 4.5 = strongly agree. **Inter-item correlations (r):** .1= small, .3= medium, .5= large; **Cronbach alpha:** .5 = accepted with caution, $>.7$ = acceptable, $>.8$ = good; Exploratory factor analysis was performed on the 40-item CSI model using various rotations in order to find the best fit and yielded a KMO of .906 indicating that the data is well suited for factor analysis and accounted for 61.27% of the variance. To confirm construct validity, all extracted factors that made theoretical sense were subjected to CFA, confirming the factor structure and revealing acceptable Cronbach alpha values ranging between .742 and .869, indicating good reliability (Field, 2009).

Supplementary table II: Summary of exploratory factor analysis of CFC by means of the standardized 14-item consideration of future consequences (CFC) scale of Joireman et al. (2012)

	Factors	
	Future-oriented consumers	Immediate-oriented consumers
Items:		
When I make a decision, I think about how it might affect me in the future.	.85	
My behavior is generally influenced by future consequences.	.83	
I consider how things might be in the future, and try to influence those things with my day-to-day behavior.	.77	
I am willing to sacrifice my immediate happiness or well-being in order to achieve future outcomes.	.66	
I think it is more important to perform a behavior with important distant consequences than a behavior with less important immediate consequences.	.66	
I think it is important to take warnings about negative outcomes seriously even if the negative outcomes will not occur for many years.	.66	
Often I engage in a particular behavior in order to achieve outcomes that may not result for many years.	.60	
My convenience is a big factor in the decisions I make or the actions I take.	.52	
I only act to satisfy immediate concerns, figuring that I will take care of future problems that may occur at a later date.		-.90
I think that sacrificing now is usually unnecessary since future outcomes can be dealt with at a later time.		-.86
I generally ignore warnings about possible future problems because I think the problems will be resolved before they reach crisis level.		-.83

I only act to satisfy immediate concerns, figuring the future will take care of itself.		- .83
My behavior is only influenced by the immediate (i.e. a matter of days or weeks) outcomes of my actions.		- .76
Since my day-to-day work has specific outcomes, it is more important for me than behavior that has distant outcomes.		- .68
<i>Inter item correlation</i>	.44	.51
<i>Cronbach alpha values</i>	.85	.88
<i>Mean factor score</i>	3.75	3.04
<i>Standard Deviation</i>	.70	.92

*Factor loadings from principal components analysis; **Likert scale:** 1 = *Extremely uncharacteristic*, 5 = *Extremely characteristic*; **Mean factor scores:** <2 = extremely uncharacteristic, ≥2 and <3.5 = uncharacteristic, ≥3.5 and <4.5 = characteristic and ≥4.5 = extremely characteristic. **Inter-item correlations** (r): .1= small, .3= medium, .5= large; **Cronbach alpha:** .5 = accepted with caution, >.7 = acceptable, >.8 = good; EFA revealed all 14 items, to load statistically meaningful by means of Principal component analysis with Oblimin rotation with Kaiser normalization. Two extracted factors emerged, showing a good fit with the original CFC 14-scale by Joireman et al. (2012) despite the item, “my convenience is a big factor in the decisions I make or the actions I take”, which unexpectedly loaded under ‘future-oriented respondents’, that might be ascribed to convenience accompanying ownership of household equipment that saves time and effort. A KMO of .864 indicate that the data is well suited for factor analysis and accounted for 57.917% of the variance explained. Good internal reliability of the factors ($\alpha = .845$ - $\alpha = .883$) were confirmed.

CHAPTER 8

RESULTS PART 4

TOWARDS AN URBAN CORPORATE PROFILE OF CONSUMERS' DECISION-MAKING, PHYSICAL AND PSYCHO-SOCIAL WELL-BEING

This chapter presents the last part (part 4) of the results of this study, namely the results regarding the relationship between consumers' decision-making, physical and psycho-social well-being in accordance with the research objectives to construct a profile of the corporate South African context and the associations between the identified constructs.

8.1 Conceptual background

The worldwide constantly growing urban population has presented various challenges that consumers have to face on a regular basis (Wagner & Brath, 2012:S40; Soni, 2013:34; Rukumnuaykit, 2015:99). Decision-making is becoming increasingly complex due to a spectrum of influences, such as increased product choices, easier access to and availability of products, social and work-related stimuli as well as lifestyle choices (Wagner & Brath, 2012:S40; Lysonski & Durvasula, 2013:75, Chong *et al.*, 2017:5143). Consumers are in most cases socially oriented, which implies that they strive to be part of a desired social group even if it means that they have to consume certain products such as status-infused household equipment (HE) (Keyes & Annas, 2009:198; Erasmus *et al.*, 2011:47; Baumeister *et al.*, 2013:507). This behaviour is therefore aimed towards fitting in, experiencing an increased level of emotional, social and psychological well-being as well as experiencing satisfaction in life (Keyes *et al.*, 2008a:181; Wissing *et al.*, 2014:5). Decision-making can consequently become burdensome or stressful, especially if the risks involved and the level of involvement in the decision increase (Payne *et al.*, 2010:148; De Beer *et al.*, 2014:1). In addition, high levels of stress can be detrimental to one's health if left unmanaged (Robbins *et al.*, 2009:427; Dhabhar, 2014:193). However, existing literature does not clearly identify what the relationships are between decision-making, psycho-social well-being and physical well-being.

The aim of this chapter is to further describe the relationship between consumers' decision-making (namely decision-making styles and consideration of future consequences) regarding medium to high risk HE purchases (i.e. household appliances and furniture) with both physical and psycho-social well-being. This will contribute towards the profiling of South African urban corporate consumers' decision-making, physical and psycho-social well-being. The

interrelationships between the constructs will be explored, as well as the way they might possibly influence one another.

Consumers make decisions on a daily basis, and depending on the type of product or the complexity of the decision, they tend to resort to different types of decision-making styles (DMS) and may take different approaches to considering the future consequences of their decisions (Baoku *et al.*, 2010:630; Babin & Harris, 2011:630). The decision-making styles of consumers are extracted from the Consumer Style Index (CSI) model that was originally developed by Sproles and Kendall (1986). By means of exploratory factor analysis (EFA) (as discussed in chapter 5) seven styles were extracted, namely image and brand consciousness, impulsive purchases, confused by over-choice, recreational and novelty, habitual, value for money, and lastly perfectionistic and high quality products. These styles correlated well with the model originally proposed by Sproles and Kendall, (1986), despite the difference in sample population and product category of the present study.

In addition to the styles utilised by consumers to make decisions, the extent to which they consider the future consequences of their decisions also have implications for the decisions they make, for example by affecting their well-being (Baumeister *et al.*, 2008:6). The Consideration of Future Consequences (CFC) scale, as originally developed by Strathman *et al.* (1994) and revised by Joireman *et al.* (2012), was an efficient tool for this purpose. From this scale, two constructs emerged through EFA and confirmatory factor analysis (CFA), namely future-oriented respondents and immediate-oriented respondents. For the purpose of this chapter, the DMS and CFC served as exogenous variables during the construction of the structural equation model (SEM).

Consumers do not function in isolation but are constantly confronted with opinions and inputs of their social environment (Wood & Hayes, 2012:324). This environment is not only limited to friends and family, but can also include one's work environment. The ability to be part of and to function effectively in one's social group is important for one's well-being. For this study, psycho-social well-being refers to both hedonic (i.e. feeling good and affective well-being) and eudaimonic (i.e. purpose, meaning and interpersonal relationships) components which were measured by the Mental Health Continuum – Short Form (MHC-SF) (Keyes, 2002; Keyes *et al.*, 2008b) and the Satisfaction with Life Scale (SWLS) (Diener *et al.*, 1985). Even though the MHC-SF consists of three components, namely emotional, psychological and social well-being, the MHC-SF (in total) and the SWLS were combined for the purpose of chapter 8. This gives an overall indication of psycho-social well-being in the construction of the SEM.

High levels of stress that often accompany fast-paced lifestyles, as in the case of urban living, and the complexity associated with higher-risk decisions, influence consumers' lifestyles. Their

health may be affected because of this, with resultant physical health complexities such as increased blood pressure (Payne *et al.*, 2010:148; Starcke & Brand, 2012:1229; Agrawal *et al.*, 2016:318, 322). However, existing literature does designate what the relationships are between decision-making and psycho-social well-being; or between decision-making and physical well-being. In earlier chapters of this thesis the relationships between decision-making and physical well-being (chapter 6) and between decision-making and psycho-social well-being (chapter 7) were individually explored and meaningful relationships were identified. Consequently the following conceptual framework is proposed to demonstrate the interrelationship between consumer decision-making and physical well-being, as well as consumer decision-making and psycho-social well-being.

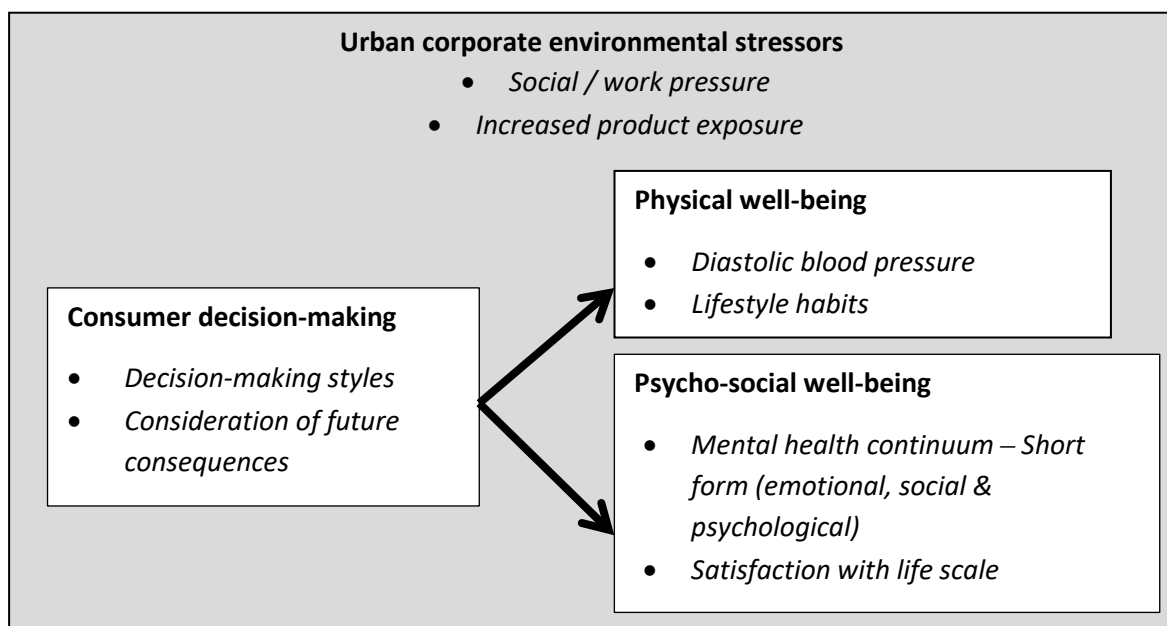


Fig. 8.1 Conceptual framework of interrelationships between decision-making, physical and psycho-social well-being in the presence of urban corporate environmental stressors.

8.2 Methodological background

The total sample as described in chapters 5 and 7, consisting of 391 respondents who were permanently employed at the urban-based corporate organisation, were included in this part of the study for further analysis. A simple descriptive profile summary is provided in Table 8.1 to provide a context for the more dynamic associations of the constructs. This profile highlights the predominant demographic characteristics, as well as the description of the decision-making, physical well-being and psycho-social well-being profile of the sample group based on the mean factor scores.

Table 8.1: The plain descriptive profile of urban corporate respondents

Demographic profile		Age	18-49 (84.1%; n=329)
		Gender	Female (73.4%; n=287)
		Ethnicity	Black-African (32.8%; n=128) Indian (23.1%; n=90) Coloured (22.1%; n=86) White (19.5%; n=76)
		Annual income	R144001 - R420000 (73.3%; n=286)
		Type of housing	Loose standing house in suburb (56.2%; n=219) Flat / apartment (20.5%; n=80)
Decision-making profile	Decision-making styles	Respondents agreed that they made HE decisions in the following styles: Finding value for money important, making habitual decisions and finding recreational / novelty aspects important during decision-making, but neither agreed nor disagreed in terms of perfectionistic / high quality products, being confused by over-choice, impulsive purchases or being image and brand conscious.	
	Consideration of future consequences	It was characteristic of this sample group that they were future oriented during HE purchases and neutral in terms of being immediate oriented.	
Physical wellbeing*	Objective well-being	The overall BMI of the sample group was non-ideal as they could be classified as pre-obese; while the mean resting blood pressure, cholesterol and glucose were relatively acceptable.	
	Subjective well-being	The coronary heart disease risk index indicated a moderate heart disease risk.	
		The lifestyle habits of the sample group were regarded as fair.	
Psycho-social well-being	Mental health continuum	Respondents displayed moderate to upper-levels of emotional, social and psychological well-being. As a result, the majority of respondents were classified as flourishing.	
	Satisfaction with life	Respondents reported that they experience good satisfaction with life by being classified as highly satisfied.	

*Note: Although all the physical well-being constructs that were measured are included in the plain descriptive profile, correlations between constructs were scrutinised towards including only relevant constructs in the SEM.

Upon completion of previous analyses (chapters 5-7) which included EFA, CFA, Spearman's correlations and multiple linear regression analysis, the researcher made use of SEM in order to further explore the dynamic relationships between the studied constructs, namely:

- Decision-making that entailed DMS and CFC
- Psycho-social well-being consisting of both SWLS and MHC-SF as a whole
- Physical well-being where the focus was placed on diastolic blood pressure and lifestyle habits which were identified as prominent constructs in chapter 6.

This provided a unique approach to exploring the profile of the involved sample group. According to Kline (2000:149), SEM has various additional advantages over multiple linear regression analysis – for example, SEM does not assume linear relationships among the constructs in the model and therefore presents the next step beyond multiple linear regression analysis. Since the SEM indicates causative relationships, the findings should be carefully interpreted because other influences could probably also have an effect and this study was not an experimental intervention. For interpretation of the SEM, *p*-values indicated statistical significance, whereas standardised regression weights (β -values) represented the importance of relationships between constructs.

8.3 Structural equation modelling as a prediction of the relationships between consumer decision-making, physical well-being and psycho-social well-being

The use of SEM made it possible to scrutinise findings from previous results from EFA and CFA (chapters 5 to 7) and to incorporate them into the relationship between consumer decision-making constructs (i.e. consumer DMS constructs and CFC constructs) as exogenous variables and with endogenous variables, which included psycho-social well-being and selected physical well-being variables. These constructs served as variables in the SEM. Kline (2000:149) stresses that it is important that the SEM is hypothesised on good theoretical grounds and previous empirical results. Previous findings (chapter 5 to 7) serve as justification for the conceptualisation of the model of the present study.

The results article (chapter 6), focusing on the associations between consumer decision-making and physical well-being, indicated significant relationships only between selected variables. By making use of these findings, only the total scores of **lifestyle habits** and **diastolic blood pressure** were included in the SEM. Furthermore, findings from chapter 7 regarding consumer decision-making and psycho-social well-being reported relationships between the variables that were supported by good reliability scores. Based on the evidence, it was decided to include both the MHC-SF variables and SWLS in the SEM. The different variables of the MHC-SF comprised MHC-SF emotional ($\alpha=0.876$), MHC-SF social ($\alpha=0.907$) and MHC-SF psychological ($\alpha=0.919$). The SWLS also reported to be highly reliable ($\alpha=0.909$). For the purpose of this chapter, the psycho-social component for the SEM consists of the above-mentioned variables and revealed a good overall Cronbach alpha score of $\alpha=0.824$. In Table 8.2 only the structural part of the model is reported, indicating the effect of the exogenous variables on the endogenous variables (Figure

8.2). Table 8.2 focuses on the unique contributions of consumer decision-making constructs towards predicting both the psycho-social and physical well-being variables. The standardised regression weights (β) were interpreted as follows: Beta (β) coefficients larger than 0.24 were interpreted as medium effects; and tendencies towards or larger than 0.4 were interpreted as practically significant contributions. *P*-values at $P \leq 0.10$ were regarded as statistically significant at 10% level; and $P \leq 0.05$ as statistically significant at 5% level.

Table 8.2: The unique contribution of consumer decision-making variables to the prediction of psycho-social and physical well-being variables

Variables predicting influence on diastolic blood pressure	Standardised regression weight (β-value)	<i>P</i>-value
Image and brand consciousness	0.193	0.190
Impulsive purchases	-0.221	0.117
Confused with over-choice	0.070	0.612
Recreational and Novelty	-0.422	0.004**
Habitual	-0.181	0.188
Value for money	0.168	0.227
Perfectionistic / High quality products	0.416	0.011**
Future-oriented respondents	-0.288	0.021**
Immediate-oriented respondents	0.267	0.048**
Variables predicting influence on Lifestyle habits	β-value	<i>P</i>-value
Image and brand consciousness	0.026	0.875
Impulsive purchases	-0.058	0.715
Confused with over-choice	0.040	0.797
Recreational and Novelty	-0.243	0.141
Habitual	-0.274	0.080*
Value for money	-0.015	0.924
Perfectionistic / High quality products	0.076	0.679
Future-oriented respondents	0.247	0.082*
Immediate-oriented respondents	0.022	0.883
Variables predicting influence on psycho-social well-being	β-value	<i>P</i>-value
Image and brand consciousness	0.061	0.356
Impulsive purchases	-0.006	0.924
Confused with over-choice	-0.043	0.483
Recreational and Novelty	0.056	0.385
Habitual	0.081	0.187
Value for money	0.064	0.299
Perfectionistic / High quality products	0.180	0.013**
Future-oriented respondents	0.287	<0.001**
Immediate-oriented respondents	0.090	0.134

Beta (β) coefficient: $\beta \geq 0.24$ = medium effect or tendency; $\beta \geq 0.40$ = practically significant contribution. *P*-values: $P \leq 0.10^*$ = Statistically significant at 10% level; $P \leq 0.05^{**}$ = Statistically significant at 5% level.

The exogenous variables – consisting of the consumer decision-making variables (which included consumer decision-making styles and consideration of future consequences) - all were statistically correlated with one another. However, small correlations were noted between impulsive purchases and high quality, value for money and habitual purchases as well as between immediate-oriented and value for money purchases ($r \leq 0.163$). These correlations between consumer decision-making variables are not reported in Table 8.2, but the unique contributions of the consumer decision-making variables towards predicting selected physical and psycho-social variables varied between $r=0.237$ and $r=0.650$, which are regarded as being of medium to large effect sizes.

The goodness-of-fit indices of the SEM model (Figure 8.2) indicated a good fit as given by three broad classes of indices recommended by Hancock & Mueller, (2010). These included the Chi-square statistic divided by degree of freedom ($\chi^2/df=3.0$), root mean error of approximation (RMSEA=0.062; 90% CI = [0.049; 0.075]) and comparative fit index (CFI=0.967). Ideally, the CFI should be above 0.9 (Mueller, 1996), the χ^2/df lower than 5 (Mueller, 1996) and the RMSEA below 0.1 (Blunch, 2008). Figure 8.2 represents the structural part of the proposed model, with only statistically significant β -values indicated. Regression weights that are non-significant are indicated with dashed lines in Figure 8.2, while those with statistically meaningful beta values have solid lines with the beta values being specified. Furthermore, constructs are depicted by rectangles; while a composite latent variable such as psycho-social well-being that consists of different constructs are indicated by a circle.

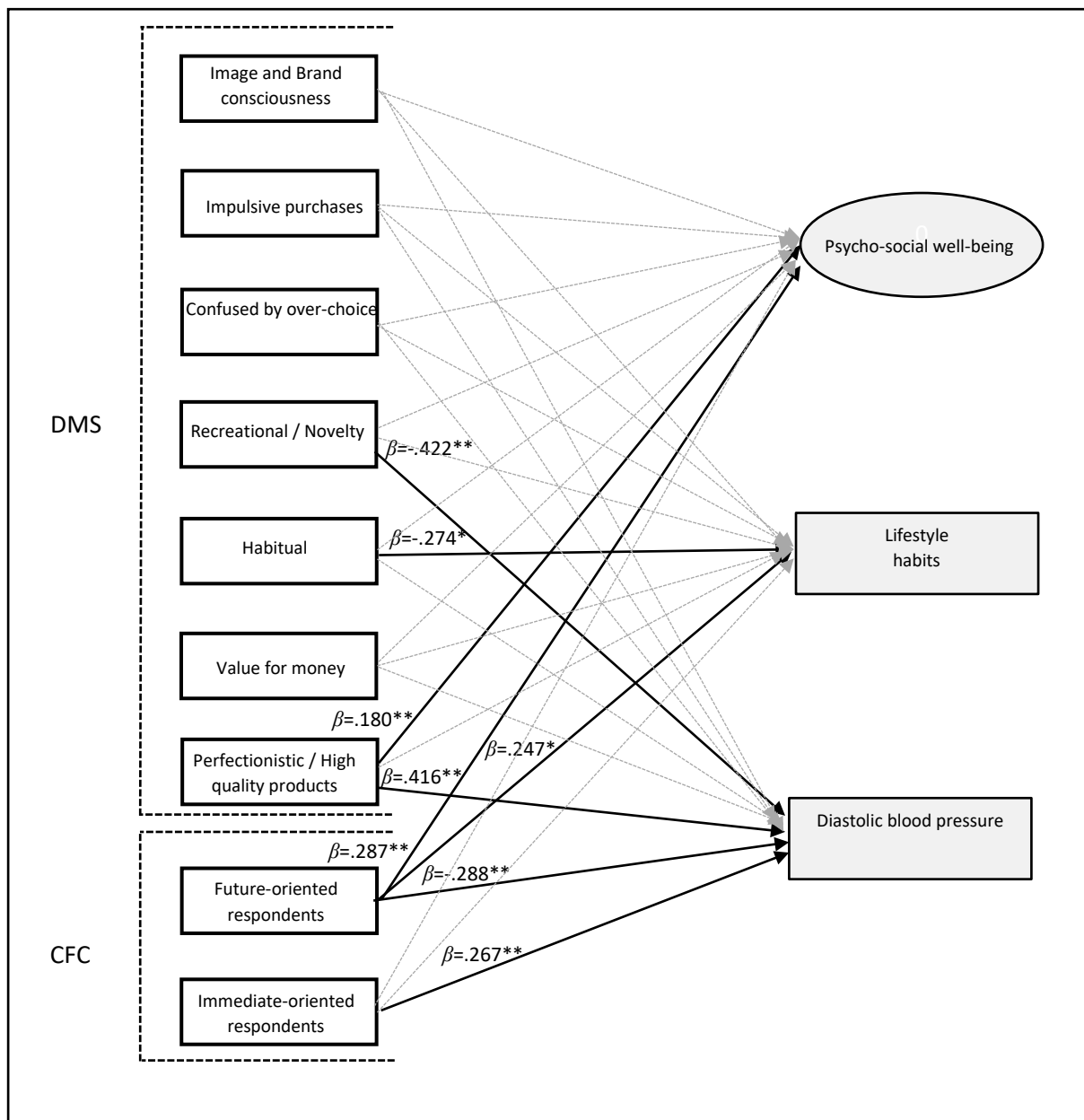


Figure 8.2. Structural part of the structural equation model depicting the unique contributing influence of consumer decision-making variables on psycho-social well-being and physical well-being variables.

8.3.1 Consumer decision-making variables which uniquely contribute towards predicting diastolic blood pressure

Different consumer decision-making constructs were identified to have a unique part in influencing diastolic blood pressure. These included recreational and novelty, perfectionistic / high quality products, future-oriented respondents and immediate-oriented respondents. Two of these had

positive relationships and two had negative relationships. A recreational and novelty decision-making style had the highest negative relationship ($\beta=-0.422$) with diastolic blood pressure, followed by a future-oriented style ($\beta=-0.288$). These results show that respondents who engaged in DMS of a recreational nature also had lower diastolic blood pressures. A recreational and novelty decision-making style is employed by consumers who experience shopping as a fun and enjoyable activity (Sproles & Kendall, 1986:273; Lysonski & Durvasula, 2013:77). These shoppers also seek for variety and find pleasure and excitement in searching for new and fashionable products (Sproles & Kendall, 1986:273; Zhou *et al.*, 2010:47). The stress relief that may accompany recreational and novelty decision-making may therefore be beneficial for respondents' health because it lowers diastolic blood pressure. This is also the case for future-orientated respondents – respondents who are more future-oriented in their decision-making, experience lower diastolic blood pressure, probably because their stress levels are reduced when they take the future into consideration when they make higher-risk purchases. As a result, respondents who engage more in recreational shopping and who search for HE products that are novel – while also considering the future implications of their decisions – also experienced lower diastolic blood pressure, which is of importance for physical well-being. Recreational shopping could thus also act as a stress reducing and coping mechanism for some consumers, while personality traits also play a role in the relationships that were observed.

On the other hand, positive relationships with diastolic blood pressure were noted for respondents who value perfectionistic / high quality products ($\beta=0.416$) during their decision-making as well as those who are immediate oriented ($\beta=0.267$). The intensity of consumer involvement in an effort to make the perfect choice and to search for high quality products might be regarded as stressful experiences since this entails comparing products' quality, prices and value offerings thoroughly (Lysonski & Durvasula, 2013:77). This search for information can create an information overload, which occurs when the supply of information exceeds the capacity. This results in dysfunctional consequences, such as increased stress or anxiety levels (Eppler & Mengis, 2004:326). These findings therefore indicate that respondents who find it important to make perfect decisions and to purchase only HE products of high quality, also seem to experience higher diastolic blood pressure. These findings indicate that the more respondents focus on making the perfect decision or satisfying immediate needs, despite the future consequences of the choice, the more likely they are to experience higher diastolic blood pressure. In addition, respondents who are immediate oriented (for example, those who find it more important that a product should satisfy their immediate needs) also experience higher diastolic blood pressure than their more future-orientated counterparts. To conclude, it seems that consumer decision-making may in certain respects influence diastolic blood pressure (being an objective physical well-being measure) either positively or negatively. However, it is important to emphasise that these findings should

be interpreted with caution since factors not measured in this study may also influence diastolic blood pressure.

8.3.2 Consumer decision-making variables which uniquely contribute toward predicting lifestyle habits

Lifestyle habits are regarded as important indicators of physical well-being as these measurements take into consideration the extent to which consumers engage on a daily basis in activities that can be beneficial or detrimental to their health (Lee *et al.*, 2012:288; Ryff, 2013:20; Solomons *et al.*, 2017:71). These lifestyle habits include regular healthy meals and breakfast, participation in moderate-intensity exercise two to three times a week, adequate sleep, being a non-smoker, maintaining a moderate body weight in relation to height and consuming little to no alcohol (Habib & Saha, 2010:42; Wagner & Brath, 2012:S39). One's score on the above aspects in the lifestyle habits questionnaire of Belloc and Breslow (1972) serves as an indication of how good one's lifestyle habits are.

The SEM results indicate that respondents who are more future oriented are also most likely to have good lifestyle habits ($\beta=0.247$). However, those who engage in habitual DMS during higher-risk purchases such as HE, might also be less concerned with maintaining healthy lifestyle habits ($\beta=-0.274$). Habitual decision-making represents routine or habitual ways of making decisions regarding product brands and stores (Zhou *et al.*, 2010:47). This finding thus implies that respondents who resort to habitual decision-making with higher-risk products may also not put much effort into an important component of their lives, such as the lifestyle that affects their current and future health (Nejati *et al.*, 2015:141). Instead, they tend to make decisions with which they are comfortable and which are within their habitual routine. Conversely, it seems that respondents who are future oriented in their decision-making, also find it important to maintain a healthy lifestyle.

8.3.3 Consumer decision-making variables which uniquely contribute toward predicting psycho-social well-being

Only two consumer decision-making constructs indicated a structural predictive relationship with psycho-social well-being. These constructs were perfectionistic / high quality products as a utilitarian DMS ($\beta=0.180$) and future orientation of respondents ($\beta=0.287$). These findings suggest that respondents who consider the future implications of their decisions also seem to experience a higher sense of psycho-social well-being. This is also the case for respondents who find it important to make perfectionistic choices and to purchase high quality products, even though the lower regression weights indicated that slightly less importance may be attached to this.

8.4 Discussion and conclusion

A conceptual illustration of the interrelationships was proposed (Figure 8.1) to visually illustrate the complexity of the influence of various constructs on one another as it was identified in literature (chapter 2 and 3) and later in the empirical results chapters (chapter 5 to 7). The present chapter aimed to construct a profile of urban corporate consumers and the relationships between CDM, physical well-being and psycho-social well-being. This was done by providing a plain descriptive profile and extending the profile by constructing a model focusing on the relationships between the constructs. By means of SEM, a model was compiled identifying various relationships between the included constructs. This model makes a unique contribution to the field of consumer behaviour and the relationship of consumer decision-making with the well-being of the consumer, as it confirms and extends findings in previous chapters regarding the relationships between the variables by showing how various facets of human functioning and well-being interact.

The ways in which consumers make decisions showed positive as well as negative relationships with a selected **objective well-being** indicator, namely diastolic blood pressure. From the results, it is evident that respondents who made HE purchases in a recreational manner while also keeping the future consequence of the purchase in mind, may be those with lower diastolic blood pressure. However, respondents who found it important that their purchases of HE should be perfect and of high quality might also be those who experience higher diastolic blood pressure. On the other hand, respondents who were more concerned with the immediate advantages that these types of purchases may hold for them, might also experience higher diastolic blood pressure. This relationship between perfect decision-making, immediate advantages and increased diastolic blood pressure might be ascribed to the increased stress that respondents experience under these circumstances of purchasing. According to Danziger (2004) it is often important for consumers that higher-priced products should be of good quality due to the financial implications they have. The stress accompanying such purchases may have negative consequences for consumers' physical health (Clayton *et al.*, 2015:52; Drentea & Reynolds, 2015:17; Yilmazer *et al.*, 2015:239), confirming the negative relationship indicated by the SEM.

The relationships between CDM and **lifestyle habits** indicated that respondents who purchased products such as HE out of habit may also not always maintain good lifestyle habits. However, respondents who were more future oriented may also be those who maintain good health (Toepoel, 2010:951), for instance through good lifestyle habits. Because lifestyle habits can indicate the level to which consumers find it important to behave in ways that will be beneficial to their future health, the relationship between future-oriented consumption and lifestyle habits can be expected.

Consumer decision-making also seems to have an influence on the **psycho-social well-being** of respondents as measured in this study, since those who were more future-oriented during their

decision-making also experienced higher levels of psycho-social well-being. Perfectionistic and high quality DMS had a positive influence on psycho-social well-being as well. When these factors are brought into perspective with traditional consumer behaviour theory, it confirms that consumers must make higher-risk purchases with care by ensuring good informed decisions, in order to avoid various negative consequences (Babin & Harris, 2011:213; Solomon, 2013:30). These negative consequences include financial, functional and social risks (Mpinganjira *et al.*, 2013:234; Schiffman & Wisenblit, 2015:144). The results from the present study allow the addition of physical and psychological risks to this list.

Due to the greater financial implications of HE, it is expected that it would be important to consumers that their purchases should also be socially acceptable, and HE has a strong social connection in addition to its functionality (Danziger, 2004:12; Erasmus *et al.*, 2014:53; Blasch *et al.*, 2017:4). Products that have a strong socially motivated component (Sonnenberg *et al.*, 2011:154), such as HE, can thus often be purchased to increase social acceptance. With the results of this study also being viewed from a positive psychological perspective, it is clear that the decisions respondents in the present study made by taking the future into consideration and ensuring that the products are of high quality, are linked to satisfaction with life and general psycho-social well-being.

From these findings it is clear that recreational and novelty DMS have a positive effect on diastolic blood pressure. However, too much concern about making the best decisions, by focusing too intensely on making perfectionistic choices and searching for the best possible products, may have a negative effect on one's diastolic blood pressure. This is also applicable to respondents who are too focused on satisfying immediate needs and who therefore do not take into consideration the possible consequences of their choices. On the other hand, in this study future-orientation seems to be an important predictor of both physical and psycho-social well-being.

This study identified various relationships between different fields that were previously unexplored, although associations between them could be theoretically deduced. The study was limited to a selected urban-based corporate financial group and shed light on the decision-making, psycho-social and physical well-being of urban corporate respondents. In this study relationships were only tested in one direction, because the main focus of this study was on consumer behaviour. However, this research paves the way for further research which may include a larger sample as well as an exploration of the relationships between psycho-social well-being and physical-well-being and their influence on CSM. Since the results of this study are based on a specific urban corporate profile, it is noted that the findings may differ for other contexts and communities, where consumers are involved in different social dynamics (for example rural settings). Future studies in this direction may be insightful in a developing country such as South Africa, and may be of great value for improving the overall well-being of South African consumers.

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CHAPTER 9

SUMMARY AND CONCLUSION

9.1 Introduction

Consumers engage in daily decision-making processes which involve the selection, purchasing and evaluation of products and services according to identified needs and desires (Schiffman & Kanuk, 2010:478; Mpinganjira *et al.*, 2013:12). As a result of globalisation and urbanisation, urban consumers experience marketing and social pressure to a greater extent than consumers from less urban environments, all of which complicate consumers' decision-making (Sinkovics *et al.*, 2010:1021; Lysonski & Durvasula, 2013:75). Consumers make use of different consumer decision-making styles, while also being influenced by the possible immediate and future consequences during decision-making (Toepoel, 2010:952; Potgieter *et al.*, 2013:13). Because of people's need to belong, their social environment plays an important part in well-being, and household equipment is often purchased for both the utilitarian and hedonic (or socio-emotional) values that the product can serve. Household equipment (HE) that communicate the ideal message such as style, prosperity or quality to other consumers in the social environment of the consumer, may sometimes be purchased in an attempt to obtain the desired image or to fit in with the favoured social group, in order to experience a sense of increased psycho-social well-being.

If consumers fail to make informed decisions regarding higher-risk products such as HE, their uninformed decision-making can result in undesired high levels of stress. High stress levels that are not managed effectively can adversely affect physical well-being. Therefore this study used correlational research with a cross-sectional survey in an attempt to quantitatively describe consumers' decision-making (namely decision-making styles and consideration of future consequences) regarding medium to high risk purchases (i.e. appliances and furniture referred to as household equipment) and the possible association with their physical and psycho-social well-being while working in an urban financial corporate setting. This research further addressed the gap in literature pertaining to consumer decision-making with a specific focus on consumer decision-making and consideration of future consequences and the association with physical and psycho-social well-being among urban corporate employees in South Africa. Recommendations for informing urban consumers through possible employee-assisted programmes are also provided for informed decision-making in an attempt to improve physical and psycho-social well-being. A general concluding discussion will be presented in this chapter, where the findings of each of the objectives that have been addressed in this study regarding consumer decision-making, physical well-being and psycho-social well-being of urban consumers towards a consumer profile will be noted. This chapter will also provide important concluding remarks with

regard to limitations of the present study and recommendations for similar future studies. It is important to note, however, that the results and conclusions of this study are only applicable to this sample group, since random sampling was not applied. Further research should be done in order to generalise the findings. The objectives for this study, as stated in chapter 1, were as follows:

Literature-related objective

- To compile a narrative literature review of the current status of consumer decision-making as well as the physical and psycho-social well-being of consumers working in a financial corporate organisation.

Empirical objectives

1. To determine and describe the demographics of consumers working in a financial corporate setting.
2. To describe the **decision-making** of consumers regarding medium to high risk purchases by means of:
 - i. Consumers' different types of decision-making styles;
 - ii. Consumers' consideration of future consequences;
3. To investigate and describe the **physical well-being** of consumers working in a corporate setting, in terms of their:
 - i. Objective physical well-being (BMI, blood pressure, cholesterol, random blood sugar);
 - ii. Subjective physical well-being (lifestyle habits & heart disease risks);
4. To investigate and describe the **psycho-social well-being** of consumers working in a corporate setting in terms of their:
 - i. Satisfaction with life;
 - ii. Experience of meaningfulness in life;
5. To determine the **possible extent of associations between**:
 - i. Consumers' shopping decision-making styles and consideration for immediate and future consequences;
 - ii. Consumer decision-making (decision-making styles and consideration for immediate and future consequences) and physical well-being (objective and subjective);
 - iii. Consumer decision-making (decision-making styles and consideration for immediate and future consequences) and psycho-social well-being (satisfaction with life and experience of meaningfulness in life);

6. To combine the results of the demographic information, decision-making styles, consideration of future consequences, physical well-being and psycho-social well-being in order to construct a consumer profile in a specific urban corporate setting.

Implication-related specific objectives

The specific objectives related to the implications of the study are to make preliminary recommendations which can form the foundation of a possible informative intervention programme to advise and inform:

- **Consumers (employees)** working in a corporate environment about the importance of being aware of their style of decision-making in a shopping context, the consideration of future consequences of purchases as well as their level of physical and psycho-social well-being in order to ensure consumer well-being.
- The **organisation (employer)** of the importance of the wellness among employees (in terms of decision-making, physical and psycho-social well-being) and recommendations for the development of effective wellness intervention programmes or employee assistance programmes to address employees' wellness and to ensure higher productivity among workers.

This chapter will be approached according to the objectives of the study. The discussion will start with the literature-related objectives, followed by the empirical objectives and lastly the implication-related objectives.

9.2 Literature-related objective

- To compile a narrative literature review of the current status of consumer decision-making as well as physical and psycho-social well-being of consumers working in a financial corporate organisation.

To obtain a thorough understanding of the study field, two in-depth narrative literature reviews were performed, of which one focused on consumer decision-making and psycho-social well-being and the other on consumer decision-making and physical well-being. Applicable search words were used in various combinations in different online search engines, such as Science Direct, JSTOR, EbscoHost, and Google Scholar. Subject-specific textbooks were also consulted, along with relevant recent grey literature. Upon analysis of the literature, a unique argument of interpretation and comprehensive theoretical narrative reviews were compiled. The CORE (critical examination, organisation, reflection and evaluation) process was used to guide these processes (Onwuegbuzie & Frels, 2016).

Through a narrative literature review, the problem of the study was explored in terms of the current state of affairs regarding the subject at hand and previous research that had been done in the field. The literature study indicated possible correlations of consumer decision-making with physical and psycho-social well-being. Stress is often an outcome of uninformed decisions, which in turn are frequently motivated by a desire towards increased psycho-social well-being. However, high levels of continuous stress have been proven to result in decreased physical well-being. A review of the literature enabled the researcher to identify and describe a clear problem (gap in research) and to develop and shape a clear aim and objectives that formed the core of the study. In addition, the literature study enabled the researcher to arrive at findings and conclusions in the study in a scientific manner.

9.3 Empirical objectives

9.3.1 Objective 1: Demographic background of the urban corporate sample group

The participants in the sample group were relatively evenly distributed among the three head offices of the urban financial corporate organisation. The majority of respondents were female and younger than 50 years. A third of the respondents were black African, followed by Indian and coloured respondents, and a smaller percentage of white respondents. An income level between R144 000 and R420 000 was reported by most respondents, which placed them in an income group who are usually financially able to choose between and purchase higher-risk products such as HE. In order to better understand the decision-making of respondents concerning HE purchases, it was first determined which characteristics of HE should be regarded as important.

Different characteristics of HE emerged as influential factors during HE purchases through exploratory factor analysis, namely 'utilitarian properties', 'financial accessibility' and 'stylishness'. Utilitarian properties were regarded very important by respondents. This factor included HE characteristics such as 'easy to use and comfortable', 'durable', 'of good quality', 'affordable' and 'have satisfactory warranty periods'. These findings indicated that when respondents purchased HE, it was very important to them that the product – being a higher-risk product – should perform the way a product of good quality is expected to perform, be value for money (because a higher price is normally paid for it) and that it should last for the expected service life. The findings further showed that coloured respondents tended to attach more importance to these utilitarian properties of HE than white respondents.

The next factor, 'financial accessibility', was also important to respondents. This might be because they are in a lifecycle phase where they have to purchase HE for their new homes and therefore characteristics such as a low price and down payment options are important to them. Financial accessibility was practically significantly more important for black African, coloured and Indian respondents than for white respondents.

The last factor, 'stylishness', focused on the importance of unique and fashionable HE products and was regarded as important by respondents. This may be because HE has strong associations with social symbols which indicate progress and prosperity. Interesting differences among ethnicity groups emerged, namely that stylishness of HE is practically significantly more important for black African and Indian respondents than for white respondents.

In summary, this urban corporate sample group in general found utilitarian characteristics of HE very important but also considered it important that HE should be financially accessible and stylish. Overall these factors were more important to black African, coloured and Indian respondents than for white respondents. These findings regarding the differences in the importance that different ethnic/race groups attach to the different characteristics of HE, is significant because it highlights important differences between consumers living in a multi-cultural country such as South Africa.

9.3.2 Objective 2: Consumer decision-making styles and consideration of future consequences

The social and marketing pressures on urban consumers can influence their decision-making (Mpinganjira *et al.*, 2013:19). By determining urban consumers' decision-making through focusing specifically on their decision-making styles and consideration of future consequences regarding HE, this research can therefore contribute to a better understanding of consumer decision-making in this context. Ultimately, consumers can be empowered towards better decision-making by means of interventions and consumer education. Better decision-making may assist consumers to function more effectively and responsibly in the marketplace as well as in their social environment. Therefore, the present study not only aimed to investigate and describe urban corporate consumers' decision-making styles (DMS) and consideration of future consequences (CFC) of decisions regarding high-involvement HE purchases, but also the extent of associations between consumers' DMS and their CFC of decisions.

9.3.2.1 Decision-making styles used by consumers during the selection of household equipment

Seven factors were extracted by employing EFA on the 40-item consumer style index (CSI) model. These factors included 'image and brand consciousness', 'impulsive purchases', 'confused by over-choice', 'recreational and novelty', 'habitual', 'value for money' and 'perfectionistic / high quality products'. This factor structure compared well with the original eight factor structure of Sproles and Kendall (1986). These seven identified DMS for HE purchases were subsequently categorised into either hedonistic shopping styles or utilitarian shopping styles, as identified by existing literature on the subject (Zhou *et al.*, 2010).

The mean factor scores revealed that respondents neither agreed nor disagreed that they resorted to DMS that are associated with image and brand, impulsivity or confusion during the HE purchases. On the other hand, more respondents did agree that they made use of DMS that are associated with recreational or novelty and habitual DMS. These findings may indicate that respondents enjoy shopping for HE for recreational or novelty experiences and that they engage in the process of decision-making, although their decisions may be habitually guided by products or brand names with which they are familiar, which they trust and which they believe to be value for money. For this product category in particular, consumers may be more devoted to make “perfect” decisions and choose products of high quality and that are value for money, since HE involves more expensive purchases with consequences such as a loss of money or social humiliation should the product not deliver as expected. Resorting to HE product brands with a reliable reputation can therefore assist respondents to make well-informed decisions: this is typical high-involvement decision-making behaviour. Hence, the utilitarian DMS (‘value for money’ and ‘perfectionistic/high quality products’) served as purchasing drivers for HE purchases among respondents. These findings add knowledge to the information that is available in current literature, indicating that HE purchases are both hedonistic and utilitarian driven.

9.3.2.2 Respondents’ consideration of future consequences during household equipment decision-making

‘Future oriented’ and ‘immediate oriented’ emerged as factors through EFA on the 14 items of the CFC scale. Results of this study indicated that it was more characteristic of respondents to be future oriented than immediate oriented. It was argued that this finding was related to respondents’ urban working environment – a corporate financial industry – which might influence their consideration of future consequences as well as the product category, seeing that a longer life span is expected from these higher-risk products.

9.3.3 Objective 5(i): The associations between respondents’ decision-making styles and consideration of future consequences of household equipment decisions

Tendencies of correlations and practically significant correlations were noted between respondents’ DMS and CFC. Future-oriented respondents showed tendencies of correlations with both specific hedonistic (image and brand consciousness, recreational and novelty, habitual) and utilitarian (impulsive purchases, confused by over-choice, value for money, perfectionistic / high quality products) DMS. However, an immediate orientation also tended to correlate with similar hedonistic DMS, namely recreational and novelty, as well as with habitual DMS. It thus seemed that HE purchases involved a component of emotional purchasing for both future and immediate-oriented respondents. This may be because urban corporate respondents attach importance to

certain hedonistic needs, such as the image of the product and brand names. In terms of performance-oriented DMS, future-oriented respondents focused on value for money and perfect, high quality products; whereas immediate-oriented respondents may make impulsive purchases and may get confused with the over-choice of products available. As a result, future-oriented urban corporate respondents were more inclined towards perfectionistic / high quality products during their decision-making of HE, while immediate-oriented respondents were both hedonistically and utilitarian guided during their decision-making.

9.3.4 Consumer decision-making and physical well-being

It was also in the scope of this study to determine if there were any associations between CDM and their physical well-being on both an objective and a subjective level.

9.3.4.1 Objective 3: The objective and subjective physical well-being of consumers working in a corporate setting

The sample group applicable to this section of the study was smaller in number, because some data were missing in the process of linking data from the first (consumer decision-making data) and second (physical data) steps of data collection. The demographical profile of this smaller sample was quite young, with an average age of 36 years. It was concerning that despite the young average age of the sample group, they had an average body mass index that is classified as pre-obese. The rest of their objective measurements, which included resting blood pressure (systolic and diastolic), cholesterol and glucose levels fell within the normal ranges. The two subjective measurements that were included, on average revealed a moderate risk of coronary heart diseases among respondents, as evidenced by the Coronary Heart Disease Risk Index (CHDR) of Bjurstrom and Alexiou (1978). The respondents had fair lifestyle habits, as indicated by means of the Lifestyle Habits Index (LHI) of Belloc and Breslow (1972).

Although most of the objective and subjective measurements were generally within the desired ranges, it is expected that since the average age of the sample group is relatively young, it should have been better. This is especially of concern in light of the high prevalence of non-communicable diseases among urban consumers (Aboyade *et al.*, 2016). If these respondents continue to make unwise lifestyle-related decisions, these decisions can have a detrimental impact on their future health. Should this be the case, the aim of the World Health Organisation (WHO) to reduce NCDs (Allen *et al.*, 2017:277) will not be feasible. This problem creates apertures for research on new ways to reduce the possibilities of future NCDs, such as the way in which consumers make purchasing decisions.

9.3.4.2 Objective 5(ii): The association between consumer decision-making (decision-making styles and consideration of future consequences) and their physical well-being (objective and subjective physical well-being)

Tendencies of correlations were noted between respondents' physical well-being, which included objective and subjective measures, and their decision-making entailing DMS and CFC. In terms of **objective physical well-being** measures, it seemed that respondents who were future oriented and shopping for HE in a recreational manner while also finding pleasure in searching for novel items, had lower diastolic blood pressure. However, respondents who were more concerned with making perfectionistic choices and purchasing products of high quality and value for money, were also more likely to suffer from higher diastolic blood pressure. It was also noted that respondents who had higher body mass indexes could be more immediate oriented during their decisions and tended to be more confused by the over-choice of available HE.

Relationships were noted between respondents' decision-making and lifestyle habits which form part of their **subjective well-being**. Respondents who were inclined toward healthy lifestyle habits did not seem likely to engage in impulsive purchases when purchasing HE – this implies that the discipline they apply in their lifestyle habits may also be applicable when purchasing HE. Furthermore, respondents who were concerned with living a healthier lifestyle, seemed to be more future oriented and less immediate oriented as well as image and brand conscious than those with moderate or poor lifestyle habits. Nonetheless, those who had moderate to poor lifestyle habits seemed to make more use of recreational or novelty and habitual DMS. They appeared to be less strict and disciplined than respondents with healthy lifestyle habits during decision-making and were more inclined to engage in impulse purchases, while finding themselves confused by the over-choice of available HE. However, it was noted that all lifestyle habit groups found it important that HE purchases should be value for money, and revealed that they made this type of purchases in a perfectionistic manner while finding high quality important. This is expected if it is taken into account that this sample group is from a medium to higher-income group who all work in the urban corporate sector and who all have the financial means to purchase high quality HE in a perfectionistic manner. Furthermore the involved product category may also have future implications such as financial, social or functional implications. These findings may serve as important pointers for health rewards programmes, by indicating that consumers who find it important to make good lifestyle choices are also consumers who might be more likely to think of the consequences of higher-risk purchases in the long term.

The correlations between CDM and physical well-being as seen in this study are insightful and add information to the data available in literature on the subject of consumer decision-making, by indicating the possible relationships between decision-making and physical health. Higher diastolic blood pressure may be related to stress (Starcke & Brand, 2012:1233), and an excessive concern with making well-informed decisions can therefore place consumers in a position of

experiencing higher levels of stress, which in turn can have negative physical health implications. These findings confirm previously well-documented research that ongoing stress could have negative consequences for psychological as well as physiological health (Payne *et al.*, 2010; Agrawal *et al.*, 2016).

Certain styles of decision-making may be risk factors that are detrimental to one's well-being if they are mismanaged, but informed decision-making may be associated with healthier lifestyle habits. In the case of urban consumers who are confronted with various stressors on a daily basis, informed decision-making as an additional indicator of good or poor future physical well-being may, in the long run, contribute towards improving overall well-being.

9.3.5 Consumer decision-making and psycho-social well-being

The subsequent objective of the study was to determine the association between CDM and psycho-social well-being by focusing on the level of satisfaction with life and degree of feeling good and functioning. This objective was furthermore addressed by taking into account the extent to which respondents experience meaningfulness in life. In order to determine the psycho-social well-being of respondents, the MHC-SF (Mental Health Continuum – Short Form) of Keyes *et al.* (2008a) was used along with the SWLS (satisfaction with life scale) of Diener (2000). These scales enabled the researcher to form a holistic picture of respondents' psycho-social well-being.

9.3.5.1 Objective 4: The psycho-social well-being of consumers working in a corporate setting in terms of their satisfaction with life as well as feeling good and functioning well

The psycho-social well-being of respondents revealed their degree of emotional (feeling good), social and psychological (functioning well) health. These urban corporate respondents experienced a relatively high degree of positive emotions, good psychological functioning and independence while also functioning well in their social environment. As measured by the Mental Health Continuum – Short Form (MHC-SF), respondents experienced general high levels of well-being (functioning well), with the majority flourishing especially in terms of psychological and social well-being. This shows that these respondents function well on an intra-personal level. This was especially the case for black African respondents, who showed practically significantly higher levels of social well-being than coloured and white respondents. According to results from the Satisfaction With Life Scale (SWLS), respondents were on average highly satisfied with their lives. This indicates that they may find major parts of their lives to be good although it still might not be perfect, which leaves room for improvement.

9.3.5.2 Objective 5(iii): The associations between consumer decision-making (decision-making styles and consideration of future consequences) and psycho-social well-being (satisfaction with life and degree of functioning well and feeling good)

Various associations emerged between CDM and psycho-social well-being. Respondents who reported to experience high levels of well-being were more image and brand conscious and seemed to engage more in recreational and novelty as DMS of HE. Respondents with high levels of well-being seemed to make their HE decisions in a more perfectionistic manner while finding high quality important during decision-making. With regard to respondents' consideration of future consequences, correlations emerged between both immediate and future orientation and the psycho-social variables.

The DMS can also be divided into hedonic or utilitarian DMS according to previous research (Jones *et al.*, 2006:974; Zhou *et al.*, 2010:47), of which the hedonic styles correlated well with psycho-social well-being variables. Hedonic styles are described as being concerned with personal gratification and self-expression, as opposed to utilitarian styles, which are more concerned with the functioning of the product (Jones *et al.*, 2006:974; Zhou *et al.*, 2010:47). These styles included the image and brand of the products, finding the shopping experience recreational while searching for novel products as well as making habitual decisions. The hedonic styles correlated well with the satisfaction with life that respondents experience, as well as their social well-being, which is eudaimonically informed according to how it was measured in this study. A good level of social well-being is seen to reflect consumers' evaluation of their experience of social contributions, acceptance and actualisation in their own social environments (Keyes *et al.*, 2008b). As a result, these findings might imply that certain hedonic-related DMS may possibly also influence the sense of social acceptance experienced by consumers.

Of all the utilitarian-oriented DMS that emerged from this study (impulsive purchases, confused by over-choice, value for money and perfectionistic / high quality DMS), only value for money and perfectionistic / high quality DMS correlated with the psycho-social well-being variables. Because HE is a higher-risk product category with possible future implications, it is expected that the value, quality and need to make well-informed decisions are important for consumers during purchases. As a result, these DMS may consequently influence their level of psycho-social well-being. DMS such as impulsiveness and confusion did not correlate with any of the psycho-social well-being variables. This could be expected to a certain extent, because the negative nature of these two styles – such as negative emotions or accompanying stress levels – reflects a different (more pathology oriented) dimension of functioning, and not the well-being dimension of functioning as measured in this study (cf. Keyes (2002) for a distinction of these dimensions). These two probably more negative decision-making styles may, however, correlate with indices of lower mental health. This may be studied further in future projects. This finding does, however, question

whether it is suitable to classify impulsive and confused DMS as utilitarian styles as is currently the case in literature (Zhou *et al.*, 2010:47). Further research in this regard is necessary.

In conclusion, this study showed that CDM correlated on various levels with the psycho-social well-being experienced by respondents, and thereby indicates that the social drivers of HE – such as need for acceptance and cohesion – may be important during decision-making.

9.3.6 Objective 6: An urban corporate consumer profile regarding consumer decision-making, physical well-being and psycho-social well-being

The last part of the study intended to combine the results in order to construct a consumer profile of respondents from specific urban corporate settings. This was done by means of structural equation modelling (SEM), where relationships were determined between consumer decision-making, physical well-being and psycho-social well-being. The consumer decision-making constructs consisted of decision-making styles and consideration of future consequences, while for the physical well-being component, diastolic blood pressure and lifestyle habits were taken into consideration in the final SEM model. For the psycho-social well-being a mean index for psycho-social well-being was taken into account. This included respondents' satisfaction with life and their experience of functioning well and meaningfulness. The proposed final model is seen as three models in one, as the CDM variables influenced each other; but more importantly, certain CDM variables influenced the selected physical as well as psycho-social constructs.

9.3.6.1 A descriptive overview of urban corporate consumers

The demographic profile of this sample mainly comprised females from different ethnicities (black African, coloured, Indian and white) between 18 to 49 years of age, with an average annual income between R144 001 and R420 000, mostly residing in loose-standing houses in suburbs or in flats or apartments. Utilitarian characteristics of HE were most important to them, followed by financial accessibility, and stylishness to a slightly lesser extent. They agreed that value for money was important to them when purchasing HE, but that they also resorted to habitual and recreational or novelty-oriented DMS during HE purchases. The sample group was mainly future oriented.

The physical well-being of the sample group in general was not ideal, as their objective and subjective well-being measurements are in some instances of concern. However, the psycho-social well-being of the sample group was on average very good, seeing that they experienced moderate to upper levels of emotional, social and psychological well-being. As a result, they flourished and were also highly satisfied with life.

9.3.6.2 The influence of consumer decision-making on diastolic blood pressure as a variable of physical well-being

Respondents who engaged in recreational and novelty as well as future-orientated decision-making are apparently likely to experience lower levels of diastolic blood pressure. However, those who make decisions in a perfectionistic manner while searching for the best possible quality products, as well as those who are more keen to make immediate decisions, experienced higher diastolic blood pressure levels. This finding may indicate that increased diastolic blood pressure may be aggravated by the greater amounts of pressure and anxiety which some respondents experience during over-concernedness to make perfect decisions. Continuous high levels of stress, such as always being over-conscious, can contribute to increased diastolic blood pressure (Agrawal *et al.*, 2016).

Thus, a negative relationship was found between more complex decision-making, such as in the case of medium to high risk products such as HE, and the physical well-being indicator of diastolic blood pressure. However, the opposite also seemed to be true. Recreational and novelty shopping and future orientation both had good relationships with diastolic blood pressure (i.e. lower diastolic blood pressure). Therefore, more relaxed shopping for higher-risk products such as unique HE, while also considering the future implications, may possibly have a positive effect on one's diastolic blood pressure. It is nevertheless important to keep in mind that numerous other factors can also influence diastolic blood pressure. This type of DMS may likely reflect a lifestyle which avoids becoming overly anxious about purchases. It is thus concluded that although a higher-risk purchase, such as in the case of HE, can be an overwhelming experience in the sense that consumers would like to make the best possible decision, it is important that they should not find themselves in a situation of over-thinking as this may contribute to undesirable stress and negative physical consequences.

9.3.6.3 The influence of consumer decision-making on lifestyle habits as a variable of physical well-being

Lifestyle habits are important determinants of the extent to which consumers will experience good physical well-being (Agrawal *et al.*, 2016:318). According to the results from the SEM, DMS such as habitual decision-making might negatively influence lifestyle habits. The possible negative associations of habitual decision-making on lifestyle habits revealed that respondents did not necessarily engage in good lifestyle habits. This finding might imply that some consumers may be set in their ways to such an extent that they prefer to repeat purchases or to remain loyal to certain brands which they regard as "safe purchases". In these cases, the efforts that accompany good lifestyle choices may be disregarded due to habitual ways of living and decision-making.

9.3.6.4 The influence of consumer decision-making on psycho-social well-being

Findings from results obtained by the SEM indicated that perfectionistic / high quality decision-making as a DMS as well as future-oriented decision-making were positively associated with psycho-social well-being. Only these two consumer decision-making factors (perfectionistic / high quality decision-making and future oriented decision-making) indicated a structural predictive relationship with psycho-social well-being. Thus, the more respondents engaged in trying to make correct or perfect decisions by focusing on gaining high quality products while also taking the future implications of decisions into consideration during the purchases, the better their psycho-social well-being were likely to be.

9.3.6.5 The integrated relationships between consumer decision-making and physical and psycho-social well-being

With the proposed SEM model all the CDM variables of both DMS as well as CFC, selected physical well-being variables (9.6.2 and 9.6.3) and all the psycho-social well-being variables (9.6.4) were incorporated. The inclusion of these variables was based on evidence in existing literature and on previous findings in this study (chapters 5 to 7). Through incorporating the identified variables, the researcher was able to further explore positive and negative relationships between constructs.

A future orientation seemed to have had a good relationship with physical well-being as well as psycho-social well-being. A similar good relationship was found for recreational DMS, which seemed to contribute to lowering diastolic blood pressure and therefore had a positive effect on physical well-being. It was, however, noteworthy that the DMS perfectionistic / high quality products had both positive and negative impacts on consumers which might contribute towards decreased physical well-being, but possibly to increased psycho-social well-being. For example, respondents who found it important to make “perfect” HE decisions were more likely to experience higher diastolic blood pressure. Respondents who wanted their HE purchases to be perfect or of high quality may, however, experience higher levels of psycho-social well-being. This might be explained by the high risks that accompany HE, such as financial and social risks. Excessive engagement in HE purchases by attempting to make a ‘perfect’ choice may become stressful and may contribute to higher diastolic blood pressure. On the other hand, making a perfect choice might have reassured respondents that they would not experience social humiliation for a product that does not perform as expected – this could therefore possibly contribute toward increased psycho-social well-being.

9.4 Implication-related objectives for both consumers (employees) and the organisation (employer)

The implication-related objectives aimed to make preliminary recommendations towards the possible development of an informative programme to advise and inform consumers as well as organisations. Consumers are constant learners – whether the learning is done consciously or unconsciously (Mpinganjira *et al.*, 2013:55) – and they can benefit from awareness programmes that are communicated in a daily environment which they experience as trusted and safe. Because corporate urban consumers fall in a higher income consumer group who have a medium to higher purchasing power in the retail market (Mpinganjira *et al.*, 2013; SAARF, 2016), consumption awareness programmes – also known as *employee-assisted programmes* – can be very beneficial to increase and maintain wellness among employees on physical and psycho-social levels. Employee-assisted programmes can thus help to motivate positive behavioural change over time, to positively change and enhance consumers' consumption behaviour to move towards increased psycho-social well-being and also towards physical well-being. Both these forms of well-being are often neglected by employees. This highlights the need for organisations to be part of and support learning and awareness programmes among employees.

The work environment is a core part of consumers' daily functioning and the employer provides this environment and financial means to employees in exchange for cognitive and functional resources: employers thus have an important role in their employees' wellness. In the present study, evidence suggests that consumers' physical and psycho-social well-being may also benefit if informed decision-making is promoted.. Employee-assisted programmes which incorporate informed decision-making may increase awareness and educate employees on their decision-making, on both a work and personal level. As a result, consumers' functioning and productivity in the workplace can be increased and presenteeism (described as being at work, but not functioning at optimal levels often due to poor health) in the workplace can be reduced. The findings of the present study may be used to develop effective decision-making-oriented awareness programmes, providing these findings are interpreted and communicated in a consumer-friendly way (for example through informative infographics or pamphlets). This will be to the advantage of both the consumer (employee) and the organisation (employer).

For employees, psycho-educational and coaching sessions through employee-assisted programmes can be beneficial to place employees in a positive mind-set. This will optimise their decision-making and will enhance positive cognitive behavioural strategies among employees. Such positive, future-oriented strategies could contribute towards reduced future health care costs, and may reduce the development of morbidity and early mortality. It is recommended that employee-assisted programmes focus on including approaches such as educational sessions and strategies to enhance future-oriented consumer behaviour and decision-making. To prevent relapse towards poor decision-making, it is important that continuous monitoring and

assessments be implemented at certain times. The outcome of employee-assisted programmes that are based on the scientific knowledge gained from the present study, may enable employees to take responsibility for the consequences of their purchasing decisions. To prevent negative health migration, as proposed by (Cowan *et al.*, 2002), attention should be given to current decision-making and healthy lifestyle choices.

9.5 Conclusion, limitations and recommendations:

This study identified a variety of relationships between CDM, physical and psycho-social well-being. These findings highlighted that consumers' decision-making (as in the case of HE, which is regarded as higher-risk products) may be associated with consumers' physical and psycho-social well-being on certain levels. According to the researcher's best knowledge, these relationships have not previously been explored. To better understand consumers' functioning, it is important to combine different disciplines in research. Such an approach can provide a more holistic understanding and shed more light on consumer behaviour, optimal functioning and well-being, as in the case of this study, which to some extent followed a multi-disciplinary approach.

For consumers to express themselves and to communicate in a socially oriented environment, artefacts or products such as HE have become an inseparable part of their daily functioning and of their social identities. These products form part of consumers' social identities and thus serve as vehicles in life according to the way decisions are made. Due to the complex and integrated nature of consumer behaviour (Hoyer *et al.*, 2013:22), holistic thinking is essential to further develop the limited explored study field of consumer decision-making and its relationship with other fields of study. Research that focuses on consumer functioning in different facets of their lives – such as decision-making regarding purchases, health decisions and social functioning – can help to form a more holistic and inter-disciplinary picture of consumer behaviour and well-being since different facets may influence one another.

To the researcher's knowledge this is the first African empirical study to integrate different disciplines related to consumer decision-making. Although theories in the different disciplines are well-established, the integration of these fields can provide the opportunity for new insights to emerge. Consumer functioning is complex, and therefore this research explored the inter-relationships of important components of consumers' daily lives. The findings from this research extend the knowledge in current literature on consumer decision-making, specifically regarding DMS and CFC in a South African urban corporate context. Further research can also explore how psycho-social well-being and physical well-being influence CDM. By exploring the integration of different disciplines as in the present study, the complexity of consumers is highlighted. These findings furthermore expand the knowledge base in literature in the field of consumer sciences and reveal how this discipline relates to others.

Findings from this study may serve as groundwork for future research in this unexplored phenomenon of consumer decision-making and well-being. These results also contribute to the development of sciences by adding important knowledge on the functioning of consumers to promote well-being among consumers in an urban corporate environment. Hence, findings in this study can be valuable for various role-players. Consumer scientists, may base further research upon these findings and use it for educational purposes; policy makers may refer to consumer well-being during the formation of policies; and medical professionals and psycho-socially-focused occupational therapists may use the knowledge from this research to better understand consumer functioning and possible additional factors that may contribute to stress experienced. Furthermore, the findings offer valuable contributions to the higher-involvement product category in terms of urban consumers' decision-making regarding this product category. Despite the limited sample group and product category, this knowledge can be a useful starting point for the development of products and marketing strategies to address the needs of a target market.

Research incorporating larger, more general sample groups from different strata to build on the findings of the present study can be of significant value in offering more generalisable findings in research. Therefore, similar studies should be performed among non-urban consumers and should involve other product categories such as low, medium or very high risk products. It is, however, advised that the proposed model should be applied in other settings, because there may be an increase in random fluctuations in any sample group during SEM fitting (Kline, 2000).

Higher-risk purchases such as HE are often purchased on credit, due to the expensive nature of this product category. It may therefore be valuable to explore how the use of credit relates to consumers' physical and psycho-social well-being. Further studies may also focus specifically on impulsive purchasing behaviour and consumer regret or dissonance regarding different product categories and the association with physical and psycho-social well-being. Knowledge integration of the fields of consumer behaviour, physical well-being and psycho-social well-being can be beneficial to consumer education with regard to informed decision-making and consumption behaviour, in order to enhance consumer general well-being. In addition, marketers and retailers may benefit from applying consumer decision-making knowledge in a diverse and culturally rich country such as South Africa, to better understand and focus on important target markets, for instance urban corporate consumers who often have the purchasing power to buy higher-involvement products such as HE.

The findings in this study contribute to the current knowledge base in existing literature and integrate knowledge from different disciplines, by applying it in the context of a developing country with unique economic and social challenges, as opposed to developed countries. Since different theories already exist in different disciplines, the combination of these theories from the various disciplines is often neglected. Consequently, the combination of theories and different disciplines

sheds light on the complexity of consumer decision-making and functioning. To better understand consumers, it is therefore essential that different theories and constructs are added together, as was done in this study to broaden understanding of and to gain collective knowledge on the inter-dependent relationships between different constructs. An integrated knowledge of consumer behaviour and consumer decision-making with other study fields may thus contribute to increased consumer well-being in South Africa as well as in other countries.

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TABLE OF CONTENTS

•	Description	p.1
•	Audience	p.1
•	Impact Factor	p.2
•	Abstracting and Indexing	p.2
•	Editorial Board	p.2
•	Guide for Authors	p.5



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Author Guidelines

Contents

1. Submission
2. Aims and Scope
3. Manuscript Categories and Requirements
4. Preparing Your Submission
5. Editorial Policies and Ethical Considerations
6. Author Licensing
7. Publication Process After Acceptance
8. Post Publication
9. Editorial Office Contact Details

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TABLE OF CONTENTS

•	Description	p.1
•	Impact Factor	p.1
•	Abstracting and Indexing	p.1
•	Editorial Board	p.1
•	Guide for Authors	p.3



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JOURNAL OF CONSUMER PSYCHOLOGY

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AUTHOR INFORMATION PACK

TABLE OF CONTENTS

•	Description	p.1
•	Audience	p.1
•	Impact Factor	p.1
•	Abstracting and Indexing	p.2
•	Editorial Board	p.2
•	Guide for Authors	p.5



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The *Journal of Consumer Psychology (JCP)* publishes top-quality research articles that contribute both theoretically and empirically to our understanding of the psychology of consumer behavior. JCP is the official journal of the Society for Consumer Psychology, Division 23 of the American Psychological Association. JCP publishes articles in areas such as consumer judgment and decision processes, consumer needs, attitude formation and change, reactions to persuasive communications, consumption experiences, consumer information processing, consumer-brand relationships, affective, cognitive, and motivational determinants of consumer behavior, family and group decision processes, and cultural and individual differences in consumer behavior. Most published articles are likely to report new empirical findings, obtained either in the laboratory or in field experiments that contribute to existing theory in both consumer research and psychology. However, results of survey research, correlational studies, and other methodological paradigms are also welcomed to the extent that the findings extend our psychological understanding of consumer behavior. Theoretical and/or review articles integrating existing bodies of research and providing new insights into the underpinnings of consumer behavior and consumer decision processes are also encouraged.

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Guidelines for Research Reports

What is the Journal of Consumer Psychology (JCP) looking for in Research Reports?

Research Reports are manuscripts that are less than 4,000 words in length excluding the abstract, title page, references, tables, and figures. Research Reports, formerly referred to as Short Articles, should contain novel and interesting empirical or theoretical research just like longer-length Research Articles. However, unlike Research Articles, for novel and interesting theoretical ideas, authors of

a Research Report may provide less empirical evidence; and for novel and interesting empirical findings, they may give less theoretical support. Despite these differences from Research Articles, we will maintain high standards of rigor (in terms of literature review, conceptualization, methodology, empirical analysis, and stated insights derived from analysis). Authors should acknowledge past related research and show how their paper relates to this earlier work. Shortage of space should not result in a lack of care in the literature review. Because Research Reports are meant to be widely disseminated to spark new research, they should also be easy to read.

Research Reports may focus on novel and interesting empirical findings (based on data from experiments, surveys, or secondary sources). Examples include manuscripts whose findings: (1) are novel and interesting by themselves, (2) refute commonly held beliefs, (3) refute prior theory, or (4) refute prior explanatory processes. Some preliminary theoretical explanation must be offered for this category, but it is not necessary for authors to rule out all possible alternative explanations. Thus, inconclusive process evidence is not a reason to reject a Research Report (unless an alternative explanation is obvious and more compelling). However, note that authors need to provide substantial evidence for their proposed empirical findings—either through large sample sizes or multiple studies or both. Thus, authors may be asked to collect additional data for further support of the phenomenon (additional study) or for a more rigorous testing of the phenomenon (new study to replace an original study). Even if not conclusively establishing the process, authors should speculate about the process right at the outset of the paper, not just at the end. The strengths of the claims about the process should be proportional to the evidence being provided. For instance, if the authors only provide preliminary evidence of the process, they need to acknowledge upfront that other accounts are possible.

Appendix: Promoting Research Transparency and Reproducibility

The Journal of Consumer Psychology and its parent organization, the Society for Consumer Psychology, are committed to supporting and promoting the quality, transparency, and reproducibility of the research conducted in the field of consumer psychology and published in the Journal. The following are the Journals scientific reporting guidelines for authors of JCP manuscripts and recommendations for scientific reviewers of these manuscripts. These guidelines are in large part a codification of established practices in APA Journals, and reflect a concerted attempt to optimize the transparency and replicability of the research without imposing an excessive documentation burden on the authors.

The guidelines can be found at <http://www.elsevier.com/journals/journal-of-consumer-psychology/1057-7408/research-transparency>.

The guidelines are adapted from a February 2013 report prepared by the Super Committee on Scientific Practices in Consumer Psychology, appointed by Michel Tuan Pham as the 2012/2013 SCP President. The committee's report drew heavily from an article by Kashy, Donnellan, Ackerman, & Russell (2009), among other sources. The committee consisted of nine respected scholars in consumer psychology, representing a variety of perspectives on the research process: Daniel Bartels, Katherine Burson, Amitava Chattopadhyay, Carolyn Costley, Gerald Gorn, J. Wesley Hutchinson, Chris Janiszewski, Ashesh Mukherjee, and L. J. Shrum (committee Chair). Their service on this committee is gratefully acknowledged. Inputs from the Journals Editorial Review Board were also incorporated into the final set of guidelines.

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APPENDIX 2
ETHICAL CERTIFICATE AND APPROVED LETTER OF CONCENT



NORTH-WEST UNIVERSITY
YUNIBESITHI YA BOKONE-BOPHIRIMA
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South Africa 2520

Tel: (018) 299-4900

Faks: (018) 299-4910

Web: <http://www.nwu.ac.za>

Institutional Research Ethics Regulatory Committee

Tel +27 18 299 4849

Email Ethics@nwu.ac.za

ETHICS APPROVAL CERTIFICATE OF PROJECT

Based on approval by **Health Research Ethics Committee (HREC)**, the North-West University Institutional Research Ethics Regulatory Committee (NWU-IRERC) hereby approves your project as indicated below. This implies that the NWU-IRERC grants its permission that, provided the special conditions specified below are met and pending any other authorisation that may be necessary, the project may be initiated, using the ethics number below.

Project title: Profiling consumers within a corporate South African context according to their decision-making, physical and psycho-social well-being.																															
Project Leader: Prof M van der Merwe																															
Ethics number:	<table border="1"> <tr> <td>N</td><td>W</td><td>U</td><td>-</td><td>0</td><td>0</td><td>1</td><td>9</td><td>1</td><td>-</td><td>1</td><td>5</td><td>-</td><td>A</td><td>1</td> </tr> <tr> <td colspan="3">Institution</td> <td colspan="6">Project Number</td> <td colspan="2">Year</td> <td colspan="4">Status</td> </tr> </table>	N	W	U	-	0	0	1	9	1	-	1	5	-	A	1	Institution			Project Number						Year		Status			
N	W	U	-	0	0	1	9	1	-	1	5	-	A	1																	
Institution			Project Number						Year		Status																				
Status: S = Submission; R = Re-Submission; P = Provisional Authorisation; A = Authorisation																															
Approval date: 2015-12-08					Expiry date: 2017-09-14					Risk Minimal																					

Special conditions of the approval (if any): None

General conditions:

While this ethics approval is subject to all declarations, undertakings and agreements incorporated and signed in the application form, please note the following:

- The project leader (principle investigator) must report in the prescribed format to the NWU-IRERC:
 - annually (or as otherwise requested) on the progress of the project,
 - without any delay in case of any adverse event (or any matter that interrupts sound ethical principles) during the course of the project.
- The approval applies strictly to the protocol as stipulated in the application form. Would any changes to the protocol be deemed necessary during the course of the project, the project leader must apply for approval of these changes at the NWU-IRERC. Would there be deviated from the project protocol without the necessary approval of such changes, the ethics approval is immediately and automatically forfeited.
- The date of approval indicates the first date that the project may be started. Would the project have to continue after the expiry date, a new application must be made to the NWU-IRERC and new approval received before or on the expiry date.
- In the interest of ethical responsibility the NWU-IRERC retains the right to:
 - request access to any information or data at any time during the course or after completion of the project;
 - withdraw or postpone approval if:
 - any unethical principles or practices of the project are revealed or suspected,
 - it becomes apparent that any relevant information was withheld from the NWU-IRERC or that information has been false or misrepresented,
 - the required annual report and reporting of adverse events was not done timely and accurately,
 - new institutional rules, national legislation or international conventions deem it necessary.

The IRERC would like to remain at your service as scientist and researcher, and wishes you well with your project. Please do not hesitate to contact the IRERC for any further enquiries or requests for assistance.

Yours sincerely

Prof LA
Du Plessis

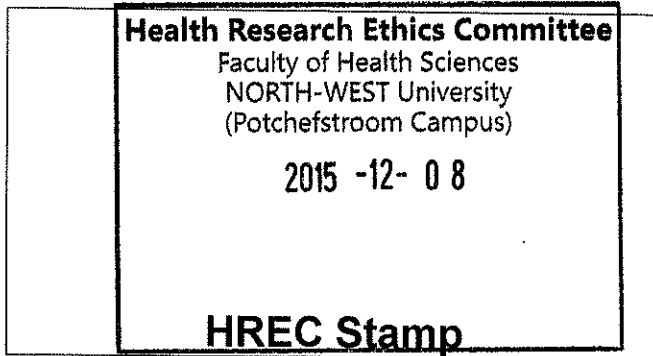
Digitally signed by Prof LA Du Plessis
DN: cn=Prof LA Du Plessis, o=North-West University, ou=Campus Rector,
email=Linda.DuPlessis@nwu.ac.za,
c=ZA
Date: 2016.01.28 07:50:37 +0200

Prof Linda du Plessis

Chair NWU Institutional Research Ethics Regulatory Committee (IRERC)



NORTH-WEST UNIVERSITY
YUNIBESITHI YA BOKONE-BOPHIRIMA
NOORDWES-UNIVERSITEIT
POTCHEFSTROOM CAMPUS



PARTICIPANT INFORMATION LEAFLET AND CONSENT FORM FOR FNB HEAD OFFICES PERMANENT EMPLOYEES

Please note that this letter will be electronically as the opening page on the online questionnaire program and by clicking on the provided link to the online questionnaire the respondent will thereby give his / her consent.

TITLE OF THE RESEARCH PROJECT:

Profiling consumers within a corporate South African context according to their decision-making, physical and psycho-social well-being.

REFERENCE NUMBERS: NWU-00191-15-S1

PRINCIPAL INVESTIGATOR:

Neoline le Roux

ADDRESS:

Room 105, Building F15, Potchefstroom Campus, NWU, Potchefstroom.

CONTACT NUMBER:

071 444 2753 / 018 299 2083 / neoline.leroux@nwu.ac.za

You are being invited to take part in a research project that forms part of my PhD in Consumer Sciences at the NWU. Please take some time to read the information presented here, which will explain the details of this project. Please ask the researcher any questions about any part of this project that you do not fully understand. It is very important that you are fully satisfied, that you clearly understand what this research entails and how you could be involved. Also, your participation is **entirely voluntary** and you are free to decline to participate. If you say no, this will not affect you negatively in any way whatsoever. You are also free to withdraw from the study at any point, even if you do agree to take part.

This study has been approved by the **Health Research Ethics Committee of the Faculty of Health Sciences of the North-West University (NWU-00191-15-S1)** and will be conducted according to the ethical guidelines and principles of the international Declaration of Helsinki and the ethical guidelines of the National Health Research Ethics Council. It might be necessary for the research ethics committee members or relevant authorities to inspect the research records.

What is this research study all about?

- *This study will be conducted in the three head offices of FNB (Menlyn Pretoria; Acacia Durban; and Portside Cape Town) and will involve an online questionnaire. A total of 400 participants will be included in this study.*
- *The objectives of this research are:*
 - *To determine the general demographics of consumers who work in a corporate environment;*
 - *To describe consumers' decision-making when buying household appliances and furniture in terms of their different decision-making styles and their consideration of the immediate and future consequences when making this type of purchases;*
 - *To determine the physical well-being of consumers who work in a corporate setting;*
 - *To determine the psycho-social well-being of consumers who work in a corporate setting;*
 - *To determine if there is any possible links between consumers' decision-making, physical well-being and psycho-social well-being. This information will be used to create a profile of consumers in urban corporate environments.*

Why have you been invited to participate?

- *You have been invited to participate because you are employed within a multi-cultural corporate financial company, working within an urban environment and therefore you are regarded to be the ideal participant and your opinion would be of great value to this study.*
- *You have also complied with the following inclusion criteria:*
 - *Between the ages of 18 to 65 years;*
 - *Permanently employed at the head offices of FNB;*
 - *Working within one of the following head offices, namely Menlyn Pretoria, Acacia Durban; Portside Cape Town;*
 - *Have access to a computer with internet access;*
 - *Have taken part in the physical wellness study of FNB during 2015 and provide consent for that data to be used in this study as well;*
 - *Have previously purchased household appliances and furniture.*
- *You will be excluded if:*
 - *If you do not meet the above criteria since you unfortunately will not fall within the target population for this study.*

What will your responsibilities be?

- *You will be expected to complete a web-based survey that would take approximately 20 minutes to complete by clicking on the link at the end of this*

letter of consent. **Should you not be able to complete the questionnaire at once, you have the option to save and continue at a later convenient time.**

- You are asked to give your consent for the researchers to use certain sections of your data from the FNB physical health risks assessments. These sections will include:
 - Your height, weight, blood pressure, cholesterol and blood sugar;
 - Your coronary heart disease risk profile; and
 - Your lifestyle habits.
- **This is to ensure that you as participant are not inconvenienced by having to take part in another study with where the same information will be gathered.**
- This information of all participants will be used and handled with confidentiality.

Will you benefit from taking part in this research?

- The direct benefits for you as a participant will be that you might find your answers to your style of decision-making and the extent to which you find satisfaction in life interesting and food for thought. This might even motivate you to bring about changes should you wish to do so.
- The indirect benefit will be that as soon as the results are available feedback will be given to all participants during which they will be informed about the overall results and they will be able to see the effect of their shopping behaviour decisions, psycho-social well-being and physical well-being on one another which may have direct impacts on participants' daily lifestyles.
- These results will also contribute to the development of a wellness program aimed at training / informing employees in order to help employees make more informed and responsible decisions in their private lives which may consequently influence their health and ability to be productive and present at work.

Are there risks involved in your taking part in this research?

- Direct risks of participating in this study may include a feeling of discomfort should you not answer the questions alone. Therefore, it is very important to consider your answers in private and thus complete the survey on your own. Apart from your personnel numbers that would strictly be used by the researcher only to link the data, all participants' identities would be handled strictly confidential at all times.
- Should you find yourself not following the above instruction, you might experience a feeling of uneasiness or a sense of embarrassment or even social harm, should your true answers not be regarded according to you or the person completing the questionnaire with you as the ideal socially acceptable form of decision making. **However, please note that within this study there are no wrong or unacceptable way of making decisions** as every consumer are faced with a decision in a different way and have different ways of handling decisions.
- **The benefits of this study outweighs the risks** for you as a participant.

What will happen in the unlikely event of some form of discomfort occurring as a direct result of your taking part in this research study?

- *Should you have the need for further discussions after the completion of the questionnaire, you are welcome to contact the researcher and an opportunity will be arranged for you to speak to a financial advisor, counsellor, psychologist or social worker in your area.*

Who will have access to the data?

- *Confidentiality will be ensured by the researcher. Reporting of findings will be anonymous by the researcher by not including any identifiable information such as the personnel numbers in the data.*
- *All data which will be analysed will be anonymous as all personnel numbers will be replaced with randomly selected numbers.*
- *Only the researchers will have access to identifiable data. Data will be kept safe and secure by locking hard copies in locked cabinets in the researcher's office and electronic data will be password protected. Data will be stored for 7 years.*

What will happen with the data/samples?

- *This is a once-off collection of data and data will be analysed at the NWU, Potchefstroom Campus. Data from this questionnaire will be one component of the study.*
- *The other component of the study will be sections of your physical data from the FNB wellness program.*
- *The data from these two sections will be linked by the researcher by making use of the provided personnel numbers.*
- *As soon as the data is linked, the personnel numbers will be replaced with a random number in order to assure complete confidentiality during data analysis.*
- *No identifiable information will be made available to any third party or the FNB.*

Will you be paid to take part in this study and are there any costs involved?

- *There will thus be no costs involved for you, if you do take part and therefore you will receive remuneration for your time and effort.*
- *Therefore, as a token of appreciation for your time and effort, you will receive a R50 vouchers to be spend at the cafeteria within your building. The voucher number will be presented upon completion of the questionnaire. Please make sure that you make a printout of your voucher number to present it during your purchase at the cafeteria. Please refer to the terms and conditions of the vouchers for more information at the end of this letter of consent.*

Is there anything else that you should know or do?

- *You can contact Prof. Daleen van der Merwe 018 299 2470 if you have any further queries or encounter any problems.*
- *You can contact the Health Research Ethics Committee via Mrs Carolien van Zyl at 018 299 2089; carolien.vanzyl@nwu.ac.za if you have any concerns or complaints that have not been adequately addressed by the researcher.*

- If you feel at ease with this information, please continue to by making a printout of this information and consent form for your own records should you wish to do so and clicking on the “I agree” button.

How will you know about the findings?

- The overall findings of the research will be shared with you on a Q&A session at each of the involved head offices, during which feedback will be given by the researcher.
- Employees will have the opportunity to ask questions regarding the findings of this study.

Terms and conditions of the vouchers:

1. The vouchers will be presented only to participants who have successfully completed the online questionnaire.
2. Participants may only complete the questionnaire once.
3. Only participants who meet the inclusion criteria may complete the questionnaire and stand the chance to receive a voucher.
4. Participants must be full time employees of FNB, working at one of the following head offices, namely: Menlyn Pretoria, Acacia Durban; Portside Cape Town;
5. The vouchers are not transferable and may not be converted into cash.
6. The vouchers will be presented upon completion of the questionnaire by the online program.
7. Receivers of the vouchers must use the vouchers at their own risk. Nor the researcher, FNB or the NWU shall not be liable for any loss, damage, personal injury or death suffered or sustained (including, but not limited to that arising from any person's negligence including gross negligence) in connection with the receiving or use of a voucher.
8. Participants will be deemed to have accepted these rules and agreed to be bound by them when participating and receiving a voucher. These rules are legal and binding upon receiving of a voucher.
9. The researcher reserves the right to cancel, modify or amend the giveaway of the vouchers at any time, if deemed necessary in its opinion and if circumstances arise outside of its control.
10. It is the responsibility of the participant who receives a voucher to make a printout of the voucher number for use during a purchase at the cafeteria within the business unit in which the participant is an employee.
11. The researcher, FNB and NWU accepts no responsibility if a receiver of a voucher loses his / her voucher number, and no alternative voucher number can be given.
12. If any form of fraud regarding duplication of voucher numbers or any other fraudulent behaviour is noticed, the individual will be legally addressed.

Declaration by participant

By clicking on the link below, I (the participant) agree to take part in a research study titled:

Profiling consumers within a corporate South African context according to their decision-making, physical and psycho-social well-being.

I declare that:

- I have read this information and consent form and it is written in a language with which I am fluent and comfortable.
- I have had a chance to ask any questions by contacting the researcher and all my questions have been adequately answered.
- I understand that taking part in this study is **voluntary** and I have not been pressurised to take part.
- I may choose to leave the study at any time and will not be penalised or prejudiced in any way.
- I give my consent for the researchers to use my latest information from the FNB physical health risks assessments, which include height, weight, blood pressure, cholesterol, blood sugar, coronary heart disease profile and lifestyle habits for research purposes.
- I have read through the terms and conditions of the voucher.

If you would like to participate in this study, please follow the provided link below to the survey:

"I Agree" – Link to the questionnaire will be inserted

APPENDIX 3
PROOF OF LANGUAGE EDITING

DR AMANDA VAN DER MERWE

(DLitt et Phil)

ACCREDITED LANGUAGE PRACTITIONER • GEAKKREDITEERDE TAALPRAKTISYN

(Afrikaans-English/English-Afrikaans)

SATI MEMBER NO • SAVI-LIDNR. 1000547

8 Johannes Dreyer St, Potchefstroom, 2531, RSA • Tel/Fax +27 (0)18 2943319 • Cell +27 (0)82 7414003 • amanda@languageworx.co.za

20 March 2017

Ms Neoline Le Roux
Africa Unit for Transdisciplinary Health Research
North-West University
Potchefstroom
2531

Dear Ms Le Roux

Language editing

This is to confirm that I edited your article, *Consumer decision-making and psycho-social well-being: two complementary perspectives? A narrative review*, and that I indicated the necessary grammatical corrections.

Please contact me if there are any queries or if I can be of further assistance.

Yours sincerely

A handwritten signature in black ink, reading "A van der Merwe", is written over a horizontal line.

A van der Merwe

DR AMANDA VAN DER MERWE

(DLitt et Phil)

ACCREDITED LANGUAGE PRACTITIONER • GEAKKREDITEERDE TAALPRAKTIJSYN

(Afrikaans-English/English-Afrikaans)

SATI MEMBER NO • SAVI-LIDNR. 1000547

8 Johannes Dreyer St, Potchefstroom, 2531, RSA • Tel/Fax +27 (0)18 2943319 • Cell +27 (0)82 7414003 • amanda@languageworx.co.za

29 May 2018

MsNeoline le Roux
Consumer Sciences
School for Nutrition, Physiology and Consumer Sciences
NWU
Potchefstroom Campus

Dear Ms le Roux

Language editing

This is to confirm that I edited the following sections of your dissertation and that I indicated the necessary grammatical corrections for these sections:

Abstract/Abstrak

Chapter 1 – Introduction

Chapter 3 – Literature review: Part 2, A review of urban consumer decision-making related to health and well-being

Chapter 4 – Methodology

Chapter 5 – Results article 1: Urban consumers' decision-making regarding high-involvement purchases

Chapter 6 – Results article 2: Urban consumers' decision-making as associated with physical well-being

Chapter 7 – Results article 3: An association between consumer decision-making and psycho-social well-being in an urban context

Chapter 8 – Results part 4: Towards an urban corporate profile of consumers' decision-making, physical and psycho-social well-being

Chapter 9 – Summary and conclusion

Please check these suggested corrections before applying them and, if possible, again perform a spell check after you had implemented them, in order to eliminate typing errors.

Please contact me if there are any queries or if I can be of further assistance.

Yours sincerely



A van der Merwe

APPENDIX 4

QUESTIONNAIRES

Appendix 4.1

- o **Step one (section A to E)**
 - o Section A: Demographics
 - o Section B: Consumer decision-making styles
 - o Section C: Immediate and future consequence scale
 - o Section D: Mental health continuum – Short form
 - o Section E: Satisfaction with life scale

Appendix 4.2

- o **Step two (Physical well-being questionnaires)**
 - o The coronary heart disease risk index
 - o The lifestyle habit questionnaire

APPENDIX 4.1

QUESTIONNAIRES FOR STEP

ONE

- o **Step one (section A to E)**
 - o Section A: Demographics
 - o Section B: Consumer decision-making styles
 - o Section C: Immediate and future consequence scale
 - o Section D: Mental health continuum – Short form
 - o Section E: Satisfaction with life scale

SECTION A: DEMOGRAPHICS

Staff number:

Please complete the following, by marking with an X next to the appropriate answer.

At which business unit are you permanently employed:

Pretoria	1
Durban	2
Cape Town	3

Have you taken part in FNB's Personal Health risk assessments that included physical measurements and questionnaires?

Yes	1
No	2

Have you ever purchased or have previous experience with the purchase of household appliances or furniture?

Yes	1
No	2

Please indicate your age:

18-29	1
30-39	2
40-49	3
50-59	4
60+	5

Please indicate your gender:

Male	1
Female	2

Please indicate your ethnicity:

Black	1
Coloured	2
White	3
Indian	4
Asian	5
Other	6

Please indicate the type of housing that you are currently living in:

Loose standing house in Suburb	1
Townhouse in an Estate / Security village	2
Plot / Farm	3
House in an Estate / Security village	4
Flat / Apartment	5
Informal settlement	6
Other – please specify	
	7

Please indicate the salary bracket in which you fall:

A (less than R72 000 annually)	1
B (R72 001 - R144 000 annually)	2
C (R144 001 - R252 000 annually)	3
D (R252 001 - R420 000 annually)	4
E (R420 001 - R600 000 annually)	5
F (R600 001 - R960 000 annually)	6
G (R960 001 - R1 200 000 annually)	7
H (R1 200 001 - R1 800 000 annually)	8
I (more than R1 800 000 annually)	9
I do not want to answer this question	10

Please indicate your marital status:

Single/widowed/divorced	1
Married/living with a partner	2

How many children under the age of 18 live with you?

None	1
1	2
2	3
3	4
4	5
More than 4	6

SECTION B: CONSUMER DECISION MAKING STYLES

Spoles & Kendall, adapted by Potgieter et al. 2013

The purpose of this section is to determine what drives you to make purchase decisions. As with the previous sections there are no right or wrong answers. We are interested in understanding what drives you to purchase household appliances (such as television sets, kitchen appliances etc.) and furniture.

Question 1: Characteristics.

Various characteristics that could be associated with household appliances and furniture are listed below. To what extent is it important to you that household appliances and furniture must have the following characteristics:

		Not at all important	Not important	Important	Very important	For office use only
1.1	Good quality	1	2	3	4	10
1.2	Affordable	1	2	3	4	11
1.3	Fashionable	1	2	3	4	12
1.4	Easy to use / comfortable	1	2	3	4	13
1.5	Durable	1	2	3	4	14
1.6	Cheap	1	2	3	4	15
1.7	Warranty period	1	2	3	4	16
1.8	Unique	1	2	3	4	17
1.9	Down payment options	1	2	3	4	18
1.10	Other (please specify):	1	2	3	4	19

Question 2: Purchase drivers.

Adults differ in what drives them to purchase certain household appliances and furniture. A number of statements describing different drivers or reasons why adults purchase household appliances and furniture appear below.

Please read each statement carefully and then indicate the extent to which you agree or disagree with the statement. Please note that there are no wrong answers.

		Strongly Disagree	Disagree	Neither Agree or Disagree	Agree	Strongly agree	For office use only
2.1	The well-known brands are usually my choice.	1	2	3	4	5	20
2.2	The more expensive brands are usually my choice.	1	2	3	4	5	21
2.3	I prefer buying the best-selling brands.	1	2	3	4	5	22
2.4	The most advertised brands are usually my choice.	1	2	3	4	5	23
2.5	The higher the price of a product, the better its quality.	1	2	3	4	5	24
2.6	I keep my home up-to-date with the changing fashion.	1	2	3	4	5	25
2.7	Fashionable, attractive styling is very important to me.	1	2	3	4	5	26
2.8	When it comes to purchasing products, I try to get the best.	1	2	3	4	5	27
2.9	I look carefully to find the best value for money.	1	2	3	4	5	28
2.10	In general, I usually try to buy the best overall quality.	1	2	3	4	5	29
2.11	I carefully watch how much I spend.	1	2	3	4	5	30
2.12	I should plan my shopping more carefully than I do.	1	2	3	4	5	31
2.13	I take the time to shop carefully for the best buys.	1	2	3	4	5	32
2.14	There are so many brands to choose from that I often feel confused.	1	2	3	4	5	33
2.15	All the information I get of different products confuses me.	1	2	3	4	5	34
2.16	The more I learn about different products, the harder it is for me to choose the best one.	1	2	3	4	5	35
2.17	Shopping is a pleasant activity for me.	1	2	3	4	5	36
2.18	Shopping at different stores wastes my time.	1	2	3	4	5	37
2.19	Shopping is one of the enjoyable activities in my life.	1	2	3	4	5	38

		Strongly Disagree	Disagree	Agree or Disagree	Agree	Strongly agree	
2.20	I am impulsive when purchasing products.	1	2	3	4	5	39
2.21	I shop quickly, buying the first product or brand.	1	2	3	4	5	40
2.22	I often make careless purchases that I later regret.	1	2	3	4	5	41
2.23	To get variety, I shop at different stores and for different brands.	1	2	3	4	5	42
2.24	Getting very good quality is important to me.	1	2	3	4	5	43
2.25	I go to the same stores every time I shop.	1	2	3	4	5	44
2.26	Once I find a product or brand that I like, I tend to stick to it.	1	2	3	4	5	45
2.27	I make my shopping trips as fast as possible.	1	2	3	4	5	46
2.28	The lower price products are usually my choice.	1	2	3	4	5	47
2.29	I regularly change brands.	1	2	3	4	5	48
2.30	I make special effort to choose the very best quality of products.	1	2	3	4	5	49
2.31	I give my purchases a lot of thought or care.	1	2	3	4	5	50
2.32	I have very high standards and expectations of the products I aim to buy.	1	2	3	4	5	51
2.33	A product should be perfect or the best of the range to satisfy me.	1	2	3	4	5	52
2.34	Nice department and speciality stores offer me the best products.	1	2	3	4	5	53
2.35	I usually have one or more pieces of furniture or appliances in the very latest style.	1	2	3	4	5	54
2.36	It's fun to buy something new and exciting.	1	2	3	4	5	55
2.37	I enjoy shopping just for the fun of it.	1	2	3	4	5	56
2.38	I buy as much as I can of my products at sale prices.	1	2	3	4	5	57
2.39	Sometimes it is hard to choose which stores to shop at.	1	2	3	4	5	58
2.40	I have favourite brands that I buy over and over.	1	2	3	4	5	59
							60

SECTION C: IMMEDIATE AND FUTURE CONSEQUENCE SCALE

(Joireman et al, 2012)

Question 3: Immediate and future consequences.

The following statements focus on the extent to which adults take future consequences of their behaviour into consideration.

Please read each statement carefully and please indicate whether or not the statement is characteristic of you. If the statement is extremely uncharacteristic of you (not at all like you) please mark a "1" next to the statement; if the statement is extremely characteristic of you (very much like you) please mark a "5" next to the statement. And, of course, use the numbers in the middle if you fall between the extremes.

		Extremely uncharacteristic				Extremely characteristic	For office use only
3.1	I consider how things might be in the future, and try to apply those things in my day-to-day behaviour.	1	2	3	4	5	61
3.2	Often I engage in a particular behaviour in order to achieve outcomes that may not happen for many years.	1	2	3	4	5	62
3.3	I only act to satisfy immediate concerns, figuring that the future will take care of itself.	1	2	3	4	5	63
3.4	My behaviour is only influenced by the immediate (i.e., a matter of days or weeks) outcomes of my actions.	1	2	3	4	5	64
3.5	My convenience is a big factor in the decisions I make or the actions I take.	1	2	3	4	5	65
3.6	I am willing to sacrifice my immediate happiness or well being in order to achieve future outcomes.	1	2	3	4	5	66
3.7	I think it is important to take warnings about negative outcomes seriously even if the negative outcomes will not occur for many years.	1	2	3	4	5	67
3.8	I think it is more important to apply a behaviour with important distant consequences than a behaviour with less important immediate consequences.	1	2	3	4	5	68
3.9	I generally ignore warnings about possible future problems because I think the problems will be resolved before they reach crisis level.	1	2	3	4	5	69
3.10	I think that sacrificing now is usually unnecessary since future outcomes can be dealt with at a later time.	1	2	3	4	5	70
3.11	I only act to satisfy immediate concerns, figuring that I will take care of future problems that may occur at a later date.	1	2	3	4	5	71
3.12	Since my day-to-day work has specific outcomes, it is more important for me than behaviour that has distant outcomes.	1	2	3	4	5	72
3.13	When I make a decision, I think about how it might affect me in the future	1	2	3	4	5	73
3.14	My behaviour is generally influenced by future consequences	1	2	3	4	5	74

SECTION D: Adult MHC-SF (ages 18 or older)

Corey Keyes, 2008

Please answer the following questions about how you have been feeling **during the past month**.

Place a check mark in the box that best represents how often you have experienced or felt the following:

Question 4.

	During the past month, how often did you feel...	Never	Once or Twice	About once a week	About 2 or 3 times a week	Almost every day	Every day	For office use only
4.1	happy	1	2	3	4	5	6	75
4.2	interested in life	1	2	3	4	5	6	76
4.3	satisfied with life	1	2	3	4	5	6	77
4.4	that you had something important to contribute to society	1	2	3	4	5	6	78
4.5	that you belonged to a community (like a social group, or your neighbourhood)	1	2	3	4	5	6	79
4.6a	that our society is a good place, or is becoming a better place, for all people	1	2	3	4	5	6	80
4.6b	that our society is becoming a better place for people like you	1	2	3	4	5	6	81
4.7	that people are basically good	1	2	3	4	5	6	82
4.8	that the way our society works make sense to you	1	2	3	4	5	6	83
4.9	that you liked most parts of your personality	1	2	3	4	5	6	84
4.10	good at managing the responsibilities of your daily life	1	2	3	4	5	6	85
4.11	that you had warm and trusting relationships with other	1	2	3	4	5	6	86
4.12	that you had experiences that challenged you to grow and become a better person	1	2	3	4	5	6	87
4.13	confident to think or express your own ideas and opinions	1	2	3	4	5	6	88
4.14	that your life has a sense of direction or meaning to it	1	2	3	4	5	6	89

SECTION E: SATISFACTION WITH LIFE SCALE (SWLS-SF)*Diener et al, 1985*

Below are five statements with which you may agree or disagree. Using the 1-7 scale below, indicate your agreement with each item by crossing the appropriate number in line with that item.

Question 5

		Strongly disagree	Disagree	Slightly disagree	Neither agree or disagree	Slightly agree	Agree	Strongly agree	For office use only
5.1	In most ways my life is close to ideal	1	2	3	4	5	6	7	90
5.2	The conditions of my life are excellent	1	2	3	4	5	6	7	91
5.3	I am satisfied with my life	1	2	3	4	5	6	7	92
5.4	So far I have gotten the important things I want in life	1	2	3	4	5	6	7	93
5.5	If I could live my life over, I would change almost nothing	1	2	3	4	5	6	7	94

Thank you for completing the survey. We appreciate your participation.

APPENDIX 4.2 QUESTIONNAIRES FOR STEP TWO

- o **Step two (Physical well-being questionnaires)**
 - o The coronary heart disease risk index
 - o The lifestyle habit questionnaire

CORONARY RISK PROFILE

Complete the table below by marking the appropriate space with and X

AGE	10-20 yr.	1	21-30 yr.	2	31-40 yr.	3	41-50 yr.	4	51-60 yr.	6	61 + yr.	8
HEREDITY: Parents and family	No family history of CVD.	1	One with CVD over 60 yr.	2	Two with CVD over 60 yr.	3	One death from CVD under 60 yr.	4	Two deaths from CVD under 60 yr.	6	Three deaths from CVD under 60 yr.	7
WEIGHT To your opinion	5 kg under standard weight.	0	Standard weight.	1	5-10 kg overweight.	2	11-15 kg overweight.	3	16-20 kg overweight.	5	21+ kg overweight.	7
SMOKING	No smoking.	0	Occasional cigar/pipe.	1	10 cigarettes or less/day.	2	11-20 cigarettes per day.	4	21-30 cigarettes per day.	6	Over 31 cigarettes/ day.	10
EXERCISE	Intensive occupational and recreational exercise.	0	Moderate occupational and recreational exercise.	1	Sedentary occupational and intensive recreation.	2	Sedentary occupation and moderate recreation.	4	Sedentary occupation and light recreation.	6	Sedentary occupation and NO exercise or recreation.	8
CHOLESTEROL	< 5.2 mmol./l. ¹ .	1	Don't know.	2	5.2-6.0 mmol./l. ¹ .	3	6.1-6.6 mmol./l. ¹ .	4	6.7-7.3 mmol./l. ¹ .	5	7.4 + mmol./l. ¹ .	7
SYSTOLIC BLOOD PRESSURE	111-130 mm Hg.	0	131-140 mm Hg.	1	Don't know.	2	141-160 mm Hg.	3	161-180 mm Hg.	5	Above 180 mm Hg.	7
DIASTOLIC BLOOD PRESSURE	80-85 mm Hg.	0	86-90 mm Hg.	1	Don't know.	2	91-95 mm Hg.	4	96-100 mm Hg.	7	101 mm Hg and above.	9
GENDER	Female.	1	Female over 45 yr.	2	Male.	4	Bald Male.	5	Bald, short male.	6	Bald, short, stocky male.	7
STRESS	No stress.	1	Occasional mild stress.	2	Frequent mild stress.	3	Frequent Moderate stress.	4	Frequent high stress.	5	Constant high stress.	7
PRESENT CVD* SYMPTOMS	None.	0	Occasional tachycardia** and/or irregular rhythm.	2	Frequent tachycardia** and/or irregular rhythm.	4	Dyspnoea on exertion. (Difficult breathing)	6	Occasional angina (pain on heart or in chest).	8	Frequent angina (pain on heart or in chest).	10
PAST PERSONAL HISTORY OF CVD*	Completely Benign.	0	CVD symptoms not medically confirmed.	2	History of CVD symptoms Examined by doctor.	4	Mild CVD No present symptoms.	6	CVD with symptoms.	8	Hospitalised for CVD.	10
DIABETES	No family history.	0	Positive family history.	1	Diagnosed Pre-diabetic.	3	Diabetes: Dietary control.	5	Diabetes: Oral control (with drugs)	7	Diabetes: Insulin control.	9
GOUT	No family history.	0	Family history.	1	Elevated Uric Acid. No symptoms.	2	New onset gout: Early detected.	3	Repeated chronic attacks of gout.	5	Gout with renal and joint degenerative complications.	8

* CVD = cardiovascular disease (example: heart disease, heart attack, bypass ext.) ** Tachycardia: Increase in hart rate above normal

LIFESTYLE HABIT- AND CORONARY HEART DISEASE RISK INDEX

Name:		Employee Number:		Business Unit:		Date:														
By completing this information I consent to it being used for research with the understanding that it will be treated as confidential information.																				
Health Risk		Coronary Risk Index																		
Age	10 - 20 years	1	21 - 30 years	2	31 - 40 years	3	41 - 50 years	4	51 - 60 years	6	61+ years	8	Score	Target						
Family History : Parents & immediate family	No history of cardiovascular disease (CVD)	1	1 member with CVD over the age of 60 years	2	2 members with CVD over the age of 60	3	1 death from CVD under 60 years	4	2 deaths from CVD under 60 years	6	3 deaths from CVD under 60 years	7								
Weight	5kg under ideal	0	At ideal	1	5-10 kg	2	11-15 kg	3	16-20 kg	5	21 kg or more	7								
Smoking	Non - smoker	0	Occasional cigar or pipe	1	< 10 cigarettes/day	2	10 - 20 cigarettes/day	4	21 - 30 cigarettes/day	6	> 30 cigarettes/day	10								
Exercise	Daily intensive exercise	0	Moderate intense exercise more than 3 times a week	1	Moderate exercise less than 3 times a week	2	Light exercise less than 3 times a week	4	Light exercise a few times a month	6	No exercise at all	8								
Total Cholesterol	<5.2 mmol/l	1	Don't know	2	5.2 - 6.0 mmol/l	3	6.1 - 6.6 mmol/l	4	6.7 - 7.3 mmol/l	5	> 7.4 mmol/l	7								
Systolic BP	111 - 130mmHg	0	131 - 140mmHg	1	Don't know	2	141 - 160 mmHg	3	161 - 180 mmHg	5	> 180 mmHg	7								
Diastolic BP	80 - 85 mmHg	0	86 - 90 mmHg	1	Don't know	2	91 - 95 mmHg	4	96 - 100 mmHg	7	>101 mmHg	9								
Gender	Female	1	Female >45 years	2	Male	4	Bald male	5	Bald, short male	6	Bald, short, stocky male	7								
Stress	None	1	Occasional mild stress	2	Frequent mild stress	3	Frequent moderate stress	4	Frequent high stress	5	Constant high stress	7								
CVD Symptoms Present	None	0	Occasional rapid heart rate and/or irregular rhythm	2	Frequent rapid heart rate and/or irregular rhythm	4	Dyspnoea (shortness of breath) on exertion	6	Occasional angina (chest pain)	8	Frequent angina	10								
Past history of CVD (personal)	None	0	CVD symptoms not medically confirmed	2	History of CVD symptoms, confirmed by Dr.	4	Mild CVD, no present symptoms	6	CVD with symptoms	8	Hospitalised for CVD	10								
Diabetes	No family history	0	Positive family history	1	Impaired glucose tolerance	3	Diabetes: dietary control	5	Diabetes, oral medication	7	Diabetes, insulin dependant	9								
Gout	No family history	0	Positive family history	1	Elevated uric acid, asymptomatic	2	Recent onset gout	3	Repeated chronic attacks	5	Gout with renal and/or bony complications	8								
Lifestyle Habit Index																				
Please type 1(one) in applicable column (yes or no)																				
Do you eat at least three full meals a day? (4 - 6 smaller meals)													CHD Risk:		5 - 18 = Low		Yes		No	
Do you eat breakfast every day?															19 - 28 = Moderate					
Do you participate in moderate intensity exercise 2 to 3 times a week?															29 > = High					
Do you get adequate sleep (7 - 8 hours a night)?																				
Are you a non - smoker?																				
Do you maintain a moderate body weight for your height?													Lifestyle Habits:		1 - 3 = Poor					
Do you consume little or no alcohol (less than 7 tots/drinks per week)?															4 - 5 = Fair					
Flexibility															6 = Good					
Orthopedic problems															7 = Excellent					
Cardiovascular													Pain on a scale from 0 - 5:		Lifestyle total score:		Surgery		Pred VO2	
													Neck		Back / Low		Knee		Hip	
													Resting heart rate							
													C7		rating					
													Other							

APPENDIX 5
TABLES: DESCRIPTIVE STATISTICS, FACTOR ANALYSIS, T-TESTS
AND ANOVA

DESCRIPTIVE TABLES:

Table 1: Overall demographic profile of the study population (N=391)

Variable	Frequency (n)	Percentage (%)
Demographic location		
Pretoria	135	34.5
Durban	134	34.3
Cape Town	122	31.2
Age*		
18-29	95	24.3
30-39	133	34.0
40-49	101	25.8
50-59	60	15.3
60-65	2	0.5
Gender		
Male	104	26.6
Female	287	73.4
Ethnicity*		
Black-African	128	32.8
Coloured	86	22.1
White	76	19.5
Indian	90	23.1
Asian	7	1.8
Other	3	.8
Type of housing		
Loose standing house in Suburb	219	56.2
Townhouse in an estate / security village	45	11.5
Plot / Farm	7	1.8
House in an estate / security village	17	4.4
Flat / apartment	80	20.5
Informal settlement	6	1.5
Other	16	4.1
Income bracket (annually)*		
R144 000 and less	46	11.8
R144 001 - R252 000	149	38.2
R252 001 - R420 000	137	35.1
R420 001 – R960 000	35	9.0
> R960 000	2	0.6
Non-disclosure	21	5.4

*Due to rounding of percentages, some of the totals might not add up to 100%.

Table 2: Descriptive statistics of characteristics associated with household appliances and furniture

Q	Characteristic	N		Not at all important	Not important	Important	Very important	Mean	St Dev
1.1	Good quality	391	n	3	3	99	286	3.71	0.52
			%	.8	.8	25.3	73.1		
1.2	Affordable	391	n	2	11	145	233	3.56	0.58
			%	.5	2.8	37.1	59.6		
1.3	Fashionable	391	n	14	108	175	94	2.89	0.81
			%	3.6	27.6	44.8	24.0		
1.4	Easy to use / comfortable	391	n	1	8	164	218	3.53	0.55
			%	.3	2.0	41.9	55.8		
1.5	Durable	391	n	1	11	138	241	3.58	0.56
			%	.3	2.8	35.3	61.6		
1.6	Cheap	391	n	33	141	140	77	2.67	0.89
			%	8.4	36.1	35.8	19.7		
1.7	Warranty period	391	n	4	13	144	230	3.53	0.61
			%	1.0	3.3	36.8	58.8		
1.8	Unique	391	n	29	106	149	107	2.85	0.91
			%	7.4	27.1	38.1	27.4		
1.9	Down payment options	391	n	54	98	131	108	2.75	1.01
			%	13.8	25.1	33.5	27.6		

Table 3: Descriptive statistics of consumer decision-making styles

Q	Items	N		Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	Mean	St Dev
2.1	The well-known brands are usually my choice.	391	n	10	54	63	169	95	3.72	1.06
			%	2.6	13.8	16.1	43.2	24.3		
2.2	The more expensive brands are usually my choice.	391	n	32	126	131	76	26	2.84	1.04
			%	8.2	32.2	33.5	19.4	6.6		
2.3	I prefer buying the best-selling brands.	391	n	7	62	96	177	49	3.51	0.96
			%	1.8	15.9	24.6	45.3	12.5		
2.4	The most advertised brands are usually my choice.	391	n	11	106	121	114	39	3.16	1.02
			%	2.8	27.1	30.9	29.2	10.0		
2.5	The higher the price of a product, the better its quality.	391	n	20	134	102	95	40	3.00	1.10
			%	5.1	34.3	26.1	24.3	10.2		
2.6	I keep my home up-to-date with the changing fashion.	391	n	37	132	102	87	33	2.86	1.13
			%	9.5	33.8	26.	22.3	8.4		

						1				
2.7	Fashionable, attractive styling is very important to me.	39 1	n %	30 7.7	96 24.6	87 22.3	128 32.7	50 12.8	3.18	1.1 7
2.8	When it comes to purchasing products, I try to get the best.	39 1	n %	8 2.0	19 4.9	41 10.5	206 52.7	117 29.9	4.04	0.8 9
2.9	I look carefully to find the best value for money.	39 1	n %	6 1.5	5 1.3	29 7.4	180 46.0	171 43.7	4.29	0.7 9
2.10	In general, I usually try to buy the best overall quality.	39 1	n %	4 1.0	9 2.3	22 5.6	197 50.4	159 40.7	4.27	0.7 6
2.11	I carefully watch how much I spend.	39 1	n %	4 1.0	15 3.8	39 10.0	185 47.3	148 37.9	4.17	0.8 3
2.12	I should plan my shopping more carefully than I do.	39 1	n %	9 2.3	44 11.3	79 20.2	157 40.2	102 26.1	3.76	1.0 3
2.13	I take the time to shop carefully for the best buys.	39 1	n %	8 2.0	15 3.8	32 8.2	216 55.2	120 30.7	4.09	0.8 5
2.14	There are so many brands to choose from that I often feel confused.	39 1	n %	13 3.3	95 24.3	91 23.3	149 38.1	43 11.0	3.29	1.0 6
2.15	All the information I get of different products confuses me.	39 1	n %	23 5.9	125 32.0	103 26.3	117 29.9	23 5.9	2.98	1.0 4
2.16	The more I learn about different products, the harder it is for me to choose the best one.	39 1	n %	17 4.3	119 30.4	79 20.2	137 35.0	39 10.0	3.16	1.1 0
2.17	Shopping is a pleasant activity for me.	39 1	n %	12 3.1	37 9.5	74 18.9	180 46.0	88 22.5	3.75	1.0 1
2.18	Shopping at different stores wastes my time.	39 1	n %	30 7.7	115 29.4	92 23.5	111 28.4	43 11.0	3.06	1.1 5
2.19	Shopping is one of the enjoyable activities in my life.	39 1	n %	19 4.9	66 16.9	90 23.0	157 40.2	59 15.1	3.44	1.0 9
2.20	I am impulsive when purchasing products.	39 1	n %	31 7.9	126 32.2	97 24.8	107 27.4	30 7.7	2.95	1.1 0
2.21	I shop quickly, buying the first product or brand.	39 1	n %	47 12.0	169 43.2	75 19.2	75 19.2	25 6.4	2.65	1.1 1
2.22	I often make careless purchases I later regret.	39 1	n %	56 14.3	166 42.5	74 18.9	69 17.6	26 6.6	2.60	1.1 3
2.23	To get variety, I shop at different stores and for different brands.	39 1	n %	10 2.6	39 10.0	61 15.6	202 51.7	79 20.2	3.77	0.9 7
2.24	Getting very good quality	39	n	4	6	18	215	148	4.27	0.7

	is important to me.	1	%	1.0	1.5	4.6	55.0	37.9		1
2.25	I go to the same stores every time I shop.	39	n	11	86	102	157	35	3.30	1.00
		1	%	2.8	22.0	26.1	40.2	9.0		
2.26	Once I find a product or brand that I like, I tend to stick to it.	39	n	3	35	69	214	70	3.80	0.86
		1	%	.8	9.0	17.6	54.7	17.9		
2.27	I make my shopping trips as fast as possible.	39	n	13	81	85	163	49	3.39	1.05
		1	%	3.3	20.7	21.7	41.7	12.5		
2.28	The lower price products are usually my choice.	39	n	14	91	118	124	44	3.23	1.04
		1	%	3.6	23.3	30.2	31.7	11.3		
2.29	I regularly change brands	39	n	11	97	131	122	30	3.16	0.98
		1	%	2.8	24.8	33.5	31.2	7.7		
2.30	I make special effort to choose the very best quality of products.	39	n	3	20	60	220	88	3.95	0.81
		1	%	.8	5.1	15.3	56.3	22.5		
2.31	I give my purchases much thought or care.	39	n	3	16	49	231	92	4.00	0.77
		1	%	.8	4.1	12.5	59.1	23.5		
2.32	I have very high standards and expectations of the products I aim to buy.	39	n	4	24	57	210	96	3.95	0.85
		1	%	1.0	6.1	14.6	53.7	24.6		
2.33	A product should be perfect or the best of the range to satisfy me.	39	n	7	45	66	189	84	3.76	0.98
		1	%	1.8	11.5	16.9	48.3	21.5		
2.34	Nice department and specialty stores offer me the best products.	39	n	13	66	115	140	57	3.41	1.04
		1	%	3.3	16.9	29.4	35.8	14.6		
2.35	I usually have one or more pieces of furniture or appliances in the very latest style.	39	n	14	84	101	146	46	3.32	1.05
		1	%	3.6	21.5	25.8	37.3	11.8		
2.36	It's fun to buy something new and exciting.	39	n	10	14	38	214	115	4.05	0.87
		1	%	2.6	3.6	9.7	54.7	29.4		
2.37	I enjoy shopping just for the fun of it.	39	n	31	99	94	108	59	3.17	1.19
		1	%	7.9	25.3	24.0	27.6	15.1		
2.38	I buy as much as I can of my products at sale prices.	39	n	6	37	57	202	89	3.85	0.93
		1	%	1.5	9.5	14.6	51.7	22.8		
2.39	Sometimes it is hard to choose which stores to shop at.	39	n	11	76	104	154	46	3.38	1.02
		1	%	2.8	19.4	26.6	39.4	11.8		
2.40	I have favourite brands that I buy over and over.	39	n	6	33	80	204	68	3.75	0.89
		1	%	1.5	8.4	20.5	52.2	17.4		

Table 4: Descriptive statistics of cconsideration of Immediate and future consequences of decisions

Q	Items	N		Extremely uncharacteristic				Extremely characteristic	Mean	St Dev
3.1	I consider how things might be in the future, and try to apply those things in my day-to-day behaviour.	391	n %	12 3.1	15 3.8	112 28.6	153 39.1	99 25.3	3.79 8	.9648
3.2	Often I engage in a particular behaviour in order to achieve outcomes that may not happen for many years.	391	n %	30 7.7	35 9.0	133 34.0	136 34.8	57 14.6	3.39 6	1.083 2
3.3	I only act to satisfy immediate concerns, figuring that the future will take care of itself.	391	n %	64 16.4	82 21.0	115 29.4	87 22.3	43 11.0	2.90 5	1.233 6
3.4	My behaviour is only influenced by the immediate (i.e., a matter of days or weeks) outcomes of my actions.	391	n %	53 13.6	84 21.5	112 28.6	102 26.1	40 10.2	2.98 0	1.196 0
3.5	My convenience is a big factor in the decisions I make or the actions I take.	391	n %	13 3.3	27 6.9	103 26.3	166 42.5	82 21.0	3.70 8	.9829
3.6	I am willing to sacrifice my immediate happiness or well-being in order to achieve future outcomes.	391	n %	17 4.3	33 8.4	113 28.9	147 37.6	81 20.7	3.61 9	1.040 5
3.7	I think it is important to take warnings about negative outcomes seriously even if the negative outcomes will not occur for many years.	391	n %	10 2.6	14 3.6	95 24.3	175 44.8	97 24.8	3.85 7	.9198
3.8	I think it is more important to apply a behaviour with important distant consequences than a behaviour with less important immediate consequences.	391	n %	11 2.8	26 6.6	129 33.0	153 39.1	72 18.4	3.63 7	.9506
3.9	I generally ignore warnings about possible future problems because I think the problems will be resolved before they reach	391	n %	75 19.2	106 27.1	84 21.5	82 21.0	44 11.3	2.78 0	1.286 1

	crisis level.									
3.10	I think that sacrificing now is usually unnecessary since future outcomes can be dealt with at a later time.	391	n %	71 18.2	96 24.6	98 25.1	79 20.2	47 12.0	2.834	1.2772
3.11	I only act to satisfy immediate concerns, figuring that I will take care of future problems that may occur at a later date.	391	n %	75 19.2	96 24.6	101 25.8	80 20.5	39 10.0	2.775	1.2529
3.12	Since my day-to-day work has specific outcomes, it is more important for me than behaviour that has distant outcomes.	391	n %	31 7.9	55 14.1	126 32.2	118 30.2	61 15.6	3.315	1.1349
3.13	When I make a decision, I think about how it might affect me in the future.	391	n %	6 1.5	11 2.8	72 18.4	174 44.5	128 32.7	4.041	.8732
3.14	My behaviour is generally influenced by future consequences.	391	n %	8 2.0	15 3.8	94 24.0	163 41.7	111 28.4	3.905	.9247

Table 5: Descriptive statistics of Mental Health Continuum – Short form

Q	Items	N		Never	Once or twice	About once a week	About 2 or 3 times a week	Almost every day	Every day	Mean	St Dev
	<i>During the past month, how often did you feel....</i>			0	1	2	3	4	5		
4.1	happy	388	n %	4 1.0	14 3.6	13 3.4	73 18.8	191 49.2	93 24.0	3.84	1.01
4.2	interested in life	388	n %	4 1.0	12 3.1	13 3.4	58 14.9	167 43.0	134 34.5	4.00	1.04
4.3	satisfied with life	388	n %	9 2.3	19 4.9	20 5.2	85 21.9	152 39.2	103 26.5	3.70	1.19
4.4	that you had something important to contribute to society	388	n %	13 3.4	28 7.2	45 11.6	82 21.1	139 35.8	81 20.9	3.42	1.32
4.5	that you belonged to a community (like a social group, or your neighbourhood)	388	n %	27 7.0	29 7.5	44 11.3	75 19.3	115 29.6	98 25.3	3.33	1.50
4.6a	that our society is a good place, or is becoming a better place, for all people	388	n %	34 8.8	51 13.1	49 12.6	89 22.9	105 27.1	60 15.5	2.93	1.53
4.6b	that our society is becoming a better place for people like you	388	n %	38 9.8	48 12.4	57 14.7	72 18.6	114 29.4	59 15.2	2.91	1.56

4.7	that people are basically good	388	n	15	44	48	84	127	70	3.22	1.39
			%	3.9	11.3	12.4	21.6	32.7	18.0		
4.8	that the way our society works make sense to you	388	n	43	61	53	83	87	61	2.76	1.60
			%	11.1	15.7	13.7	21.4	22.4	15.7		
4.9	that you liked most parts of your personality	388	n	5	12	18	69	154	130	3.92	1.09
			%	1.3	3.1	4.6	17.8	39.7	33.5		
4.10	good at managing the responsibilities of your daily life	388	n	9	9	22	67	161	120	3.86	1.13
			%	2.3	2.3	5.7	17.3	41.5	30.9		
4.11	that you had warm and trusting relationships with other	388	n	6	13	23	66	161	119	3.86	1.12
			%	1.5	3.4	5.9	17.0	41.5	30.7		
4.12	that you had experiences that challenged you to grow and become a better person	388	n	7	12	22	71	154	122	3.85	1.13
			%	1.8	3.1	5.7	18.3	39.7	31.4		
4.13	confident to think or express your own ideas and opinions	388	n	4	12	24	68	150	130	3.90	1.09
			%	1.0	3.1	6.2	17.5	38.7	33.5		
4.14	that your life has a sense of direction or meaning to it	388	n	8	16	20	70	142	132	3.85	1.19
			%	2.1	4.1	5.2	18.0	36.6	34.0		

Table 6: Descriptive statistics of Satisfaction with Life Scale

Q	Items	N		Strongly disagree	Disagree	Slightly disagree	Neither agree nor disagree	Slightly agree	Agree	Strongly agree	Mean	St Dev
5.1	In most ways my life is close to ideal	388	n	7	19	26	34	65	177	60	5.33	1.44
			%	1.8	4.9	6.7	8.8	16.8	45.6	15.5		
5.2	The conditions of my life are excellent	388	n	9	18	27	48	80	149	57	5.18	1.46
			%	2.3	4.6	7.0	12.4	20.6	38.4	14.7		
5.3	I am satisfied with my life	388	n	7	10	24	29	80	157	81	5.47	1.36
			%	1.8	2.6	6.2	7.5	20.6	40.5	20.9		
5.4	So far I have gotten the important things I want in life	388	n	13	13	25	28	70	162	77	5.38	1.50
			%	3.4	3.4	6.4	7.2	18.0	41.8	19.8		
5.5	If I could live my life over, I would change almost nothing	388	n	20	42	28	40	70	118	70	4.89	1.79
			%	5.2	10.8	7.2	10.3	18.0	30.4	18.0		

Table 7: Consumer decision-making related to lifestyle habits.

	Descriptive data for LH groups (<i>mean score ± Standard deviation</i>)			Practical Significance within LH groups (Cohen's <i>d</i> -values)		
Consumer decision-making	Poor	Moderate	Healthy	Poor/ Moderate	Moderate/ Healthy	Poor/ Healthy
Image and brand consciousness	3.3±1.0	3.3±0.7	2.9±0.8	0.06	0.52*	0.35
Impulsive purchases	3.3±0.9	2.8±1.0	2.5±0.8	0.47	0.36	0.86**
Confused with over-choice	3.3±0.8	3.25± 0.8	2.8±0.7	0.10	0.51*	0.64*
Recreational / Novelty	3.8±0.6	3.7±0.6	3.4±0.5	0.14	0.48*	0.59*
Habitual	4.0±0.5	3.6±0.7	3.2±0.6	0.55*	0.53*	1.19**
Value for money	4.4±0.5	4.2±0.5	4.2±0.5	0.42	0.01	0.44
Perfectionistic / High quality	3.8±0.6	4.1±0.5	4.0±0.7	0.54*	0.26	0.24
Immediate oriented	3.0±0.5	3.1±0.7	2.6±0.7	0.17	0.78**	0.62*
Future oriented	3.6±0.6	3.7±0.7	3.8±0.6	0.16	0.09	0.29

Mean score interpretation: Consumer DMS: ≤1= strongly disagree; >1 and <2.5 = disagree; ≥2.5 and <3.5 = neither agree nor disagree; ≥3.5 and <4.5 = agree; ≥4.5 = strongly agree. Consideration of immediate and future consequences: <2 = extremely uncharacteristic; ≥2 and <3.5 = uncharacteristic; ≥3.5 and <4.5 = characteristic; ≥4.5 = extremely uncharacteristic.

Practical Significance: Cohen's *d*-values: 0.2 = small; *0.5 = medium and **0.8 as large effect size.

Table 8: Overall descriptive statistics of decision-making factors and psycho-social well-being

	N	Minimum	Maximum	Mean	Std. Deviation
SWLS	388	5,0	35,0	26,2	6,5
MHC_E	388	3,0	18,0	14,5	2,9
MHC_S	388	5,0	30,0	20,6	6,0
MHC_P	388	6,0	36,0	29,2	5,7
Image_brand_conciousness	391	1,0	5,0	3,2	0,8
Impulsive_purchases	391	1,0	5,0	2,8	0,9
Confused	391	1,0	5,0	3,2	0,8
Recreational_Novelty	391	1,0	5,0	3,6	0,7
Habitual	391	1,0	5,0	3,6	0,6
Value_for_money	391	1,0	5,0	4,1	0,6
Perfectionistic_High_quality	391	1,0	5,0	4,0	0,7

CFC_Immediate	391	1,0	5,0	3,0	0,9
CFC_Future	391	1,0	5,0	3,8	0,7
CFC_Total	391	2,0	4,9	3,4	0,5
Valid N (listwise)	388				

Table 9: Mental Health Continuum - Short Form level descriptive categories

Categories	N = 391	
Flourish	n	246
	%	63.4
Languish	n	12
	%	3.1
Moderate	n	130
	%	33.5

Table 10: Mental Health Continuum - Short Form categories

Category	N = 389		Mean	St. Dev
Emotional	Min	0.00	11.54	2.91
	Max	15.00		
Social	Min	0.00	15.67	6.01
	Max	25.00		
Psychological	Min	0.00	23.25	5.68
	Max	30.00		
Total	Min	0.00	50.48	12.86
	Max	70.00		

Table 11: Satisfaction with Life Scale descriptive statistics

Category	N = 388		Mean	St. Dev
Emotional	Min	5.00	26.25	6.50
	Max	35.00		

Table 12: Group statistics on Mental Health Continuum – Short Form lower and upper quartiles

Category	Variable	n=	Mean	St. Dev	Effect size (Cohens d-value) ^o
Satisfaction with life scale	Lower quartile	101	20.80	7.17	1.36
	Upper quartile	102	30.54	4.27	
Image and brand consciousness	Lower quartile	101	2.94	0.78	0.77
	Upper quartile	103	3.55	0.78	
Impulsive purchases	Lower quartile	101	2.76	0.79	0.24
	Upper quartile	103	3.01	1.06	
Confused	Lower quartile	101	3.05	0.74	0.42
	Upper quartile	103	3.43	0.88	
Recreational and novelty	Lower quartile	101	3.30	0.81	0.70
	Upper quartile	103	3.86	0.73	

Habitual	Lower quartile	101	3.36	0.64	0.65
	Upper quartile	103	3.81	0.70	
Value for money	Lower quartile	101	3.91	0.72	0.62
	Upper quartile	103	4.37	0.55	
Perfectionistic / high quality	Lower quartile	101	3.68	0.75	0.85
	Upper quartile	103	4.31	0.54	
Immediate oriented consumers	Lower quartile	101	2.80	0.84	0.51
	Upper quartile	103	3.35	1.08	
Future oriented consumers	Lower quartile	101	3.43	0.78	0.83
	Upper quartile	103	4.08	0.72	

^oCohens d-values interpretation guidelines: 2= small; 5= medium; 8=large

Table 13: Descriptive statistics of objective physical data - demographic profile

	N	Minimum	Maximum	Mean	Standard deviation
Age (years)	65	21.0	57.0	36.6	9.5
BMI* (kg/m2)	65	15.6	49.5	29.4	6.9
Blood pressure (systolic) (mmHg)	65	88.0	158.0	119.7	13.3
Blood pressure (diastolic) (mmHg)	65	60.0	98.0	75.9	7.8
Total cholesterol (mg/dL)	65	3.00	8.00	4.6	1.1
Glucose (mmol/L)	65	4.10	15.00	5.8	1.7
CHDR index**	65			22.0	7.1
Lifestyle habits	65			4.8	1.3

*BMI, Body mass index

**CHDR index, Coronary heart disease risk index

Table 14: Descriptive Lifestyle habits categories

Category	N = 65		Mean	St. Dev
Poor / Unhealthy lifestyle (≤ 3)	n	9	2.78	0.44
	%	13.8		
Moderate healthy lifestyle (4-5)	n	38	4.55	0.50
	%	58.5		
Good / healthy lifestyle (6-7)	n	18	6.44	0.51
	%	27.7		

Table 15: Descriptive coronary heart disease risk index categories

Category	N = 65		Mean	St. Dev
Low risk (≤ 18)	n	18	14.61	2.06
	%	29.2		
Moderate risk (19-28)	n	33	22.15	2.40
	%	52.3		
High risk (≥ 29)	n	12	33.83	4.69
	%	18.5		

FACTOR ANALYSIS

Table 16: Summary of exploratory factor analysis of DMS consisting of the 40-item consumer style index (CSI) model of Sproles and Kendall (1986), as adapted by Potgieter *et al.* (2013) for a South African context.

Items:	Factor loadings						
	Image / Brand consciousness	Impulsive purchases	Confused by over-choice	Recreational / Novelty	Habitual	Value for money	Perfectionistic / High quality products
I prefer buying the best-selling brands.	.79						
The more expensive brands are usually my choice.	.77						
The most advertised brands are usually my choice.	.75						
The well-known brands are usually my choice.	.69						
I keep my home up-to-date with the changing fashion.	.68						
The higher the price of a product, the better its quality.	.63						
Fashionable, attractive styling is very important to me.	.50			-.40			
Nice department and speciality stores offer me the best products.	.37						.39
Shopping at different stores wastes my time.		.54	.38				
I am impulsive when purchasing products.		.52		-.39			
I often make careless purchases I later regret.		.46	.46				
I shop quickly buying the first product or brand.		.39	.32		.291		
All the information I get of different products confuses me.			.90				
The more I learn about different products, the harder it is for me to choose the best.			.84				
There are so many brands to choose from that I often feel confused.			.83				
Sometimes it is hard to choose which stores to shop at.			.50				
I regularly change brands.			.49				
Shopping is one of the enjoyable activities in my life.				-.81			
Shopping is a pleasant activity for me.				-.74			

I enjoy shopping just for the fun of it.				-.62			
It's fun to buy something new and exciting.				-.47			
I usually have one or more pieces of furniture or appliances in the very latest style.	.37			-.41			
To get variety, I shop at different stores and brands.		-.29		-.34			
I make my shopping trips as fast as possible.					.79		
I go to the same stores each time I shop.					.67		
The lower price products are usually my choice.			.31		.59		
I have favourite brands that I buy over and over.				-.35	.57		
Once I find a product or brand that I like, I tend to stick to it.					.52		
I buy as much as I can of my products at sale prices.		-.36		-.38	.45		
In general, I usually try to buy the best overall quality.						.77	
I look carefully to find the best value for money.						.77	
I carefully watch how much I spend.		-.30				.66	
I should plan my shopping more carefully than I do.						.49	
I take the time to shop carefully for the best buys.		-.37	.30			.34	.31
I have very high standards and expectations of the products I aim to buy.							.74
A product should be perfect or the best of the range to satisfy me.							.68
I make special effort to choose the very best quality of products.							.66
Getting very good quality is important to me.						.30	.61
I give my purchases much thought or care.		-.35					.60
When it comes to purchasing products, I try to get the best.						.54	.31
<i>Inter item correlation</i>	.46	.49	.51	.41	.34	.39	.53
<i>Cronbach alpha values</i>	.87	.79	.84	.81	.76	.74	.87
<i>Mean factor score</i>	3.21	2.81	3.19	3.58	3.56	4.11	3.99
<i>Standard Deviation</i>	.78	.89	.81	.74	.65	.60	.65

Table 17: Summary of exploratory factor analysis of CFC by means of the standardized 14-item consideration of future consequences (CFC) 14-scale of Joireman et al. (2012)

Items:	Factors	
	Future-oriented consumers	Immediate-oriented consumers
When I make a decision, I think about how it might affect me in the future.	.85	
My behaviour is generally influenced by future consequences.	.83	
I consider how things might be in the future, and try to influence those things with my day-to-day behaviour.	.77	
I am willing to sacrifice my immediate happiness or well-being in order to achieve future outcomes.	.66	
I think it is more important to perform a behaviour with important distant consequences than a behaviour with less important immediate consequences.	.66	
I think it is important to take warnings about negative outcomes seriously even if the negative outcomes will not occur for many years.	.66	
Often I engage in a particular behaviour in order to achieve outcomes that may not result for many years.	.60	
My convenience is a big factor in the decisions I make or the actions I take.	.52	
I only act to satisfy immediate concerns, figuring that I will take care of future problems that may occur at a later date.		-.90
I think that sacrificing now is usually unnecessary since future outcomes can be dealt with at a later time.		-.86
I generally ignore warnings about possible future problems because I think the problems will be resolved before they reach crisis level.		-.83
I only act to satisfy immediate concerns, figuring the future will take care of itself.		-.83
My behaviour is only influenced by the immediate (i.e. a matter of days or weeks) outcomes of my actions.		-.76
Since my day-to-day work has specific outcomes, it is more important for me than behaviour that has distant outcomes.		-.68
<i>Inter item correlation</i>	.44	.51
<i>Cronbach alpha values</i>	.85	.88
<i>Mean factor score</i>	3.75	3.04
<i>Standard Deviation</i>	.70	.92

*Factor loadings from principal components analysis; **Likert scale:** 1 = *Extremely uncharacteristic*, 5 = *Extremely characteristic*; **Mean factor scores:** <2 = extremely uncharacteristic, ≥2 and <3.5 = uncharacteristic, ≥3.5 and <4.5 = characteristic and ≥4.5 = extremely characteristic. **Inter-item correlations (r):** 0.1= small, 0.3= medium, 0.5= large; **Cronbach alpha:** 0.5 = accepted with caution, >0.7 = acceptable, >0.8 = good; EFA revealed all 14 items, to load statistically meaningful by means of Principal component analysis with Oblimin rotation with Kaiser normalisation. Two extracted factors emerged showing a good fit with the original CFC 14-scale by Joireman et al. (2012) despite the item, “my convenience is a big factor in the decisions I make or the actions I take”, which

unexpectedly loaded under ‘future-oriented respondents’, that might be ascribed to convenience accompanying ownership of household equipment that saves time and effort. A KMO of .864 indicate that the data is well suited for factor analysis and accounted for 57.917% of the variance explained. Good internal reliability of the factors ($\alpha = 0.845$ - $\alpha = 0.883$) were confirmed.

T-TESTS:

Table 18: T-tests on psycho-social components by marital status

Category	variable	n=	Mean	St. Dev	Effect size (Cohens d-value) [◇]
Satisfaction with life scale	1*	158	25.14	6.82	0.27
	2**	170	26.99	6.03	
Mental health continuum (short form) – emotional well-being	1*	159	11.58	2.85	0.01
	2**	170	11.62	2.81	
Mental health continuum (short form) – social well-being	1*	159	15.60	6.22	0.02
	2**	170	15.74	5.81	
Mental health continuum (short form) – psychological well-being	1*	159	23.45	5.62	0.02
	2**	170	23.32	5.51	
Mental health continuum (short form) – Total	1*	159	50.69	12.87	0.00
	2**	170	50.68	12.46	

* Single / widowed / divorced; **Married / living with partner

[◇]Cohens d-values interpretation guidelines: 2= small; 5= medium; 8=large

Table 19: T-tests on psycho-social components by ethnicity

Category	variable	n=	Mean	St. Dev	Effect size (Cohens d-value) [◇]		
					Black with	Coloured with	White with
Satisfaction with life scale	Black	127	26.60	6.48			
	Coloured	86	25.01	6.18	0.25		
	White	74	25.92	6.45	0.10	0.14	
	Indian / Asian	97	27.05	6.72	0.07	0.30	0.17
Mental health continuum (short form) – emotional well-being	Black	128	11.88	2.70			
	Coloured	86	11.05	3.06	0.27		
	White	74	11.69	2.82	0.07	0.21	
	Indian / Asian	97	11.44	2.96	0.15	0.13	0.08
Mental health continuum (short form) – social well-being	Black	128	17.18	6.00			
	Coloured	86	14.51	6.15	0.43		
	White	74	14.45	5.72	0.46	0.01	
	Indian / Asian	97	15.85	5.75	0.22	0.22	0.24
Mental health	Black	128	23.71	5.65			

continuum (short form) – psychological well-being	Coloured	86	23.00	5.67	0.12		
	White	74	23.08	5.55	0.11	0.01	
	Indian / asian	97	22.99	5.74	0.13	0.00	0.02
Mental health continuum (short form) – Total	Black	128	52.84	12.70			
	Coloured	86	48.56	12.84	0.33		
	White	74	49.21	12.47	0.29	0.05	
	Indian / Asian	97	50.28	13.15	0.20	0.13	0.08

◊Cohens d-values interpretation guidelines: 2= small; 5= medium; 8=large

Table 20: T-tests on psycho-social components by location

Category	Variable	n=	Mean	St. Dev	Effect size (Cohens d-value)◊	
					Durban with	Pretoria with
Satisfaction with life scale	Durban	133	25.95	6.57		
	Pretoria	134	27.43	6.32	0.23	
	Cape Town	121	25.26	6.47	0.11	0.34
Mental health continuum (short form) – emotional well-being	Durban	134	11.49	2.66		
	Pretoria	134	11.90	2.93	0.14	
	Cape Town	121	11.19	3.11	0.09	0.23
Mental health continuum (short form) – social well-being	Durban	134	15.63	5.58		
	Pretoria	134	16.91	6.39	0.20	
	Cape Town	121	14.34	5.80	0.22	0.40
Mental health continuum (short form) – psychological well-being	Durban	134	22.81	5.43		
	Pretoria	134	23.82	5.97	0.17	
	Cape Town	121	23.10	5.63	0.05	0.12
Mental health continuum (short form) – Total	Durban	134	49.92	12.03		
	Pretoria	134	52.63	13.63	0.20	
	Cape Town	121	48.71	12.64	0.10	0.29

◊Cohens d-values interpretation guidelines: 2= small; 5= medium; 8=large

Table 21: T-test for Mental health continuum short form categories

Categories	Moderate n=	Flourish n=	Moderate		Flourish	
			Mean	St. Dev	Mean	St. Dev
Satisfaction with life	130	246	23.12	6.66	28.43	4.84
MHCSF – Emotional wellbeing	130	246	9.56	2.39	13.00	1.50
MHCSF – Social wellbeing	130	246	11.53	4.34	18.41	4.77
MHCSF – Psychological wellbeing	130	246	19.06	4.43	26.27	2.78
MHCSF – Total wellbeing	130	246	40.15	7.73	57.68	7.01

ANOVA STATISTICS

Analysis of variance (ANOVA) between Consumer decision making and physical well-being

Table 22: The differences between decision-making styles and lifestyle habits.

		Lifestyle habit category	Mean	St Dev	P-value	
					Poor health with:	Moderate health with:
Decision-making styles	Image / brand consciousness	Poor health	3.2639	1.022		
		Moderate health	3.3224	.737	0.06	
		Healthy	2.9097	.797	0.35	0.52*
	Impulsive purchases	Poor health	3.305	.941		
		Moderate health	2.848	.977	0.47	
		Healthy	2.500	.752	0.86**	0.36
	Confused	Poor health	3.333	.800		
		Moderate health	3.252	.836	0.10	
		Healthy	2.822	.715	0.64*	0.51*
	Recreational / Novelty	Poor health	3.796	.627		
		Moderate health	3.706	.584	0.14	
		Healthy	3.425	.548	0.59*	0.48
	Habitual	Poor health	3.963	.477		
		Moderate health	3.596	.668	0.55*	
		Healthy	3.240	.605	1.19	0.53*
	Value for money	Poor health	4.422	.452		
		Moderate health	4.194	.543	0.42	
		Healthy	4.200	.508	0.44	0.01
	Perfectionistic	Poor health	3.796	.599		
		Moderate health	4.122	.501	0.54*	
		Healthy	3.953	.651	0.24	0.26
Consideration of consequences	Immediate oriented	Poor health	3.015	.531		
		Moderate health	3.135	.723	0.17	
		Healthy	2.563	.730	0.62*	0.78*
	Future oriented	Poor health	3.634	.576		
		Moderate health	3.740	.666	0.16	
		Healthy	3.801	.561	0.29	0.09

*=Medium effect; **=Large effect

<.8 large effect; .5 medium effect; .2 small

Table 23: The differences between decision-making and CHDR index

Decision-making factors		CHDR index category:	Mean	St Dev	P-value	
					Low risk with:	Moderate risk with:
Decision-making styles	Image / brand consciousness	Low risk	3.203	.797		
		Moderate risk	3.176	.901	0.03	
		High risk	3.260	.526	0.07	0.09
	Impulsive purchases	Low risk	2.802	.880		
		Moderate risk	2.801	1.040	0.00	
		High risk	2.875	.757	0.08	0.07
	Confused	Low risk	3.010	.820		
		Moderate risk	3.158	.877	0.17	
		High risk	3.316	.611	0.37	0.18
	Recreational / Novelty	Low risk	3.517	.677		
		Moderate risk	3.759	.552	0.36	
		High risk	3.500	.502	0.03	0.47
	Habitual	Low risk	3.350	.757		
		Moderate risk	3.647	.635	0.39	
		High risk	3.583	.538	0.31	0.10
	Value for money	Low risk	4.105	.539		
		Moderate risk	4.376	.474	0.50*	
		High risk	4.000	.525	0.20	0.72
	Perfectionistic	Low risk	4.070	.646		
		Moderate risk	4.024	.530	0.07	
		High risk	3.986	.561	0.13	0.07
Consideration of consequences	Immediate oriented	Low risk	2.729	.847		
		Moderate risk	3.075	.691	0.14	
		High risk	3.000	.641	0.32	0.11
	Future oriented	Low risk	3.812	.681		
		Moderate risk	3.752	.623	0.09	
		High risk	3.607	.531	0.30	0.23

*=Medium effect; **=Large effect

<.8 large effect; .5 medium effect; .2 small

CORRELATIONS

Table 24: Spearman's correlation between consumer decision-making styles and immediate and future consequences

			Consideration of consequences of decisions	
Decision-making styles			Immediate oriented consumers	Future oriented consumers
Hedonistic shopping styles (emotional)	Image / Brand consciousness	r	.443**	.286**
	Recreational / Novelty	r	.422**	.331**
	Habitual	r	.392**	.341**
Utilitarian shopping styles (performance)	Impulsive purchases	r	.466**	.088
	Confused by over-choice	r	.475**	.218**
	Value for money	r	.110*	.294**
	Perfectionistic / High quality products	r	.176**	.407**

Interpretation of approximate effect sizes for Spearman's two-tailed correlation coefficients: $r \geq 0.3$ = medium effect or tendency and $r \geq 0.5$ = large effect – indicated by highlighted values.

* Statistically significant at $P \leq 0.05$

Table 25: Spearman's correlations between consumer decision-making (decision-making styles and immediate and future consequences) and subjective physical well-being (lifestyle habits and coronary heart disease risk index).

		Consumer decision-making								
		Decision-making styles							Consideration of immediate and future consequences	
Subjective physical well-being		Image / brand consciousness	Impulsive purchases	Confused	Recreational / Novelty	Habitual	Value for money	Perfectionistic / High quality	Immediate oriented	Future oriented
Lifestyle habits (total)	r	-.091	-.261*	-.217	-.186	-.274*	-.057	-.029	-.208	.142
Coronary heart disease (total)	r	-.161	-.061	.088	.020	.042	-.043	-.093	.158	-.106

Interpretation of approximate effect sizes for Spearman's two-tailed correlation coefficients: $r \geq 0.3$ = medium effect or tendency and $r \geq 0.5$ = large effect – indicated by highlighted values.

* Statistically significant at $P \leq 0.05$

Table 26: Spearman's correlation between consumer decision-making (decision-making styles and immediate and future consequences) and Physical well-being (objective and subjective).

			Physical well-being							
Decision-making styles			Objective physical well-being						Subjective physical well-being	
			BMI (n=65)	Resting heartrate (n=37)	Sis Blood pressure (n=65)	BP Dia Blood pressure (n=65)	Cholesterol (n=65)	Random Blood sugar (n=65)	Lifestyle habits (n=65)	Heart disease risk index (n=65)
Orientation towards shopping styles	Hedonistic shopping styles (emotional)	Image / Brand consciousness	-.164	-.196	0.17	.108	.018	.017	-.091	-.161
		Recreational / Novelty	-.006	-.110	-.151	-.006	.129	-.023	-.186	.020
		Habitual	-.055	-.285	-.184	-.140	.014	-.207	-.274*	.042
	Utilitarian shopping styles (performance)	Impulsive purchases	-.031	-.437**	-.116	-.154	.010	-.035	-.261*	-.061
		Confused by over-choice	.172	-.400*	.043	-.073	.003	.056	-.217	.088
		Value for money	-.010	-.183	.032	.267*	.185	-.012	-.057	-.043
		Perfectionistic / High quality products	-.114	.078	.008	.280*	.164	-.057	-.029	-.093
	Immediate and future consideration of decisions	Immediate oriented	.211	-.094	-.094	.022	.087	-.034	-.208	.158
		Future oriented	-.017	.221	-.126	-.135	.105	-.006	.142	-.106

Interpretation of approximate effect sizes for Spearman's two-tailed correlation coefficients: $r \geq 0.3$ = medium effect or tendency and $r \geq 0.5$ = large effect – indicated by highlighted values.

* Statistically significant at $P \leq 0.05$

BMI = Body mass index

Table 27: Spearman's correlation between consumer decision-making (decision-making styles and immediate and future consequences) and psycho-social well-being (mental health continuum short form and satisfaction with life scale).

		Consumer decision-making								
Subjective psycho-social well-being		Decision making styles							Consideration of immediate and future consequences	
		Image / brand consciousness	Impulsive purchases	Confused	Recreational / Novelty	Habitual	Value for money	Perfectionistic / High quality	Immediate oriented	Future oriented
Satisfaction with life scale (n=388)	r	.420*	.207*	.212*	.277*	.290*	.139	.290*	.355**	.352**
Mental health continuum (short form) – emotional well-being (n=389)	r	.247	.069	.131	.190	.217	.257	.262	.153	.267
Mental health continuum (short form) – social well-being (n=389)	r	.330	.168	.252	.319	.288	.260	.337	.342	.369
Mental health continuum (short form) – psychological well-being (n=389)	r	.214	.008	.045	.241	.166	.274	.325	.108	.318
Mental health continuum (short form) – Total (n=389)	r	.306	.096	.177	.295	.252	.296	.356	.248	.372

Interpretation of approximate effect sizes for Spearman's two-tailed correlation coefficients: $r \geq 0.3$ = medium effect or tendency and $r \geq 0.5$ = large effect – indicated by bolded values.

** Statistically significant at $P \leq .05$

* Statistically significant at $P \leq .01$

APPENDIX 6
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CHAPTER 1 INTRODUCTION

1.1 Background and motivation

Every person is seen to be a consumer in some way or another; whether that person is a child, an adult or even a group of people or a large company (including employees), consuming various products or services in order to fulfil identified needs or desires (Solomon, 2013:31-32). These needs and desires range from physical needs such as hunger or thirst to emotional needs, such as love or status. In order to address these needs, consumers resort to a multitude of mental and physical processes that are associated with a consumer's decision-making, such as searching, selecting, purchasing, using, evaluating and the disposing of products, services, ideas or experiences (Mpinganjira *et al.*, 2013:12; Potgieter *et al.*, 2013:14; Schiffman & Kanuk, 2010:23; Solomon, 2013:31).

1.1.1 Consumers as decision makers in a complex environment

Consumer decision-making is a daily activity in which consumers engage to purchase goods or services and is often done without much thought (Potgieter *et al.*, 2013:13; Schiffman & Kanuk, 2010:478; Stanton, 2017:155). Globalisation has contributed to consumers not thinking purchases through since they are increasingly exposed to more stores, products, advertisements and experiences which collectively influence the manner in which decisions are made and the complexity of choices (Lysonski & Durvasula, 2013:75; Sinkovics *et al.*, 2010:1021). The globalisation of companies has furthermore contributed to an increase in promotional activities, which serves to make the decision-making process of consumers even more complex (Chong *et al.*, 2017; Walsh *et al.*, 2001b:73). This complexity is the result of the abundance of choices and retail stores with which consumers are faced, directly and online, resulting in a saturated retail environment where competitors are competing for the expenditure of the consumer (Chong *et al.*, 2017; Lysonski *et al.*, 1996:10; Mehta & Dixit, 2016:203).

Although many choices can be overwhelming and stressful to the consumer, it is also associated with autonomy and well-being (Markus & Schwartz, 2010:344-345) since freedom of choice in a Western democratic society is important for consumers and is seen to improve one's quality of life. Therefore, as the consumer market becomes progressively globalised, research on consumer decision-making is gaining more attention both nationally and