Validation of a scale to measure consumers' engagement in voluntary simplistic clothing consumption behaviour in South Africa

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Dissertation

M Consumer Science (Clothing Retail Management)

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by

Tracey Lee Reis

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December 2019

Stawing van ‘n skaal om die betrokkenheid van verbruikers by vrywillig eenvoudige kledingverbruiksgedrag in Suid-Afrika te meet

deur

Tracey Lee Reis

Verhandeling voorgelê ter gedeeltelike vervulling van die vereistes van die graad
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Hierdie werk is gebaseer op die navorsing wat gedeeltelik deur die Nasionale Navorsingstigting (NNS) (Toekenningsnommer: 98902) ondersteun word. Menings in hierdie werk uitgespreek of gevolgetrekkings waartoe geraak is, is dié van die outeur en moet nie beskou word as noodwendig dié van die NNS nie.

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Desember 2019

DECLARATION

I, **Tracey Lee Reis**, declare that this dissertation, which I hereby submit for the degree of **M in Consumer Science: Clothing Retail Management** at the University of Pretoria, is my own work and has not previously been submitted by me for a degree at this or any other tertiary institution. I also confirm that all reference material in the dissertation has been duly acknowledged.

TRACEY LEE REIS

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My first and only love,
My forever.
Thank you for believing in me.

All my love,
Tracey
xxx

And

To my beloved daughter Giuliana
May you always strive,
to achieve your desired goals.
I love you dearly.

All my love,
Mommy
xxx

SUMMARY

Validation of a scale to measure consumers' engagement in voluntary simplistic clothing consumption behaviour in South Africa

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Department: Consumer and Food Sciences
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Keywords: Voluntary simplicity, material simplicity, self-determination, ecological awareness, human scale, sustainability, sustainable consumption, clothing consumption, scale development, scale validation

In today's environment of mass production and overconsumption, better lifestyle choices should be encouraged to safeguard the earth's dwindling natural resources. Quick turnaround times and the reduced lifespan of clothing items have given rise to the so-called "fast fashion" industry that, in its entirety, causes great environmental concern. To combat the repercussions of this industry, consumers need to adopt more sustainable lifestyles and embrace what is empirically known as "voluntary simplicity" (Leonard-Barton, 1981; Elgin & Mitchell, 1977). Voluntary simplicity (VS) involves an individual's conscious choice to engage in low consumption behaviour to live a non-materialistic, quality enriched, lifestyle (Rich, Wright & Bennett, 2019). To date, little is known about consumers' acceptance of these voluntary simplistic lifestyles and the impact it has on their clothing consumption behaviour in a developing market context such as South Africa. More research is thus needed on the topic, but such research would require appropriate measurement scales to deliver valid and reliable insight on the matter. This project was therefore focused on developing and validating a scale to measure consumers' engagement in voluntary simplistic clothing consumption behaviour in South Africa.

A review of existing literature highlights five voluntary simplicity dimensions that were initially proposed by Elgin and Mitchell (1977) and labelled as material simplicity, self-determination, ecological awareness, human scale and personal growth. These dimensions were later used by Leonard-Barton (1981) to develop a behavioural index (Rich *et al*., 2019). From a behavioural perspective, most of these dimensions are manifested in the five R's namely recycle, repair, reuse, reduce and refuse (Zamwel, Sasson-Levy & Porat, 2014), except for the personal growth dimension, which more closely relates to an attitudinal disposition. Because people do not always act in accordance with their behaviour, those who have measured VS, have rather focused on actual behaviour as opposed to attitudes or intentions (Hüttel, Ziesemer, Peyer & Balderjahn, 2018). For these reasons, personal growth was excluded from the overall aim of this study that was more narrowly focused on developing a scale that measures consumers' voluntary simplistic clothing consumption behaviour. To accomplish the envisaged outcome of this study, the guidelines and procedures for scale development prescribed by Kang and Johnson (2011) were particularly useful and led to three phases that are described and explained throughout this study, namely initial scale item generation, scale purification, and scale validation.

During the initial scale item generation, questionnaire development and collection commenced in 2016 as part of a final year Clothing Retail Management research project in the Department of Consumer and Food Sciences at the University of Pretoria. Data collection was conducted in the Tshwane Metropolitan area of Gauteng where a total of 1025 responses were obtained, of which 1002 were usable, and 23 were rejected due to missing values. The respondents were asked to complete a self-administered paper-based questionnaire that included six sections that altogether measured materialism, status consumption, lifestyle choices, voluntary simplicity, the use of money and demographics. The initial project adopted a quantitative approach with the use of a cross-sectional survey that predominantly served exploratory purposes in terms of all the sections included in the questionnaire. It should, however, be noted that for this particular study, the most emphasis was directed toward the voluntary simplicity items and demographic variables, while some referral is made toward the materialism and status consumption scales to validate the newly developed VS scale. SPSS statistical software was used for data analysis and as per specified guidelines, the data were randomly split into two datasets to perform scale purification procedures on the first dataset and subsequent scale validation procedures on the second dataset.

The scale purification and validation results produced an eleven item, three-factor solution with a good model fit and significant validity measures. Following rigorous scrutiny, the three factors were labelled as "local ethical brands", "distinct product features" and "reduced consumption", which to some extent reflect the dimensions initially proposed by Elgin and Mitchell (1977), but are more

aligned to the contextual realities of the South African emerging market context. These results underscore Arnould and Thompson's (2005) consumer culture theory (CCT) that emphasises the link between consumers' behaviour and the unique marketplace in which they find themselves. The most statistically prominent factor, namely "local ethical brands" may stem from the drive toward supporting proudly South African brands and the importance of job creation in a developing country that is faced with extreme levels of unemployment and the intense pursuit of ethical/ fair treatment of the local labour force. While the other two factors, namely "distinct product features" and "reduced consumption" may benefit from further scale development due to scoring low on the Cronbach alphas and the average variance extracted (AVE) statistical measurements, there is something to be said for both of these factors in the prevailing South African context.

"Distinct product features" may be particularly important for a growing middle-class consumer segment (Marketline Report, 2018), who prefer clothing items that are uniquely handcrafted and/ or eco-friendly, which in turn differentiate their garments from those that are mass-produced. In terms of "reduced consumption", the argument brought forward is that local economic conditions have forced consumers to adopt a more frugal approach (PricewaterhouseCoopers (PWC), 2012), whereby they re-evaluate the longevity of their clothing items and attempt to extend the lifespan of their garments and/ or focus on absolute need as opposed to seasonal fast fashion trends in their acquisition of new garments.

Whether the underlying reasons for adopting voluntary simplistic clothing consumption behaviour is driven by sustainable pursuits or other ulterior motives, the factors identified in this study's scale development procedures reflect a uniquely South African emerging market approach. To drive an economy that uses, produces and provides sustainable clothing, an understanding of consumers' consumption behaviour is essential (Balderjahn, Peyer, Seegebarth, Wiedemann, & Weber, 2018). This understanding will provide the local clothing industry with a roadmap toward good business practices as sustainability does not only represent greener purchases, but it requires three interlinking dimensions, namely the environment relating to green consumption, society with the promotion of fair-trade products and economic considerations, which focuses on the extension of a garment's lifespan (Balderjahn *et al*., 2018). Once further insight is derived through valid and reliable measures such as the one proposed in this study, government and other stakeholders can use such insight to streamline intervention strategies to effectively target voluntary simplistic clothing consumption behaviour in the local economy. Such behaviour could altogether involve recycling, repairing, reusing and reducing clothing consumption as well as consumers' refusal to acquire clothing brands that are unethical and unsustainable (Zamwel *et al*., 2014).

OPSOMMING

Stawing van ‘n skaal om die betrokkenheid van verbruikers by vrywillig eenvoudige kledingverbruiksgedrag in Suid-Afrika te meet

Deur

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Sleutelwoorde: Vrywillige eenvoud, materiële eenvoud, selfbeskikking, ekologiese bewustheid, menslike skaal, volhoubaarheid, volhoubare verbruik, kledingverbruik, skaalontwikkeling, skaalstawing.

In vandag se omgewing van massaproduksie en oormatige verbruik behoort beter lewenstylkeuses aangemoedig te word om te help om die aarde se kwynende natuurlike hulpbronne te beveilig. Vinnige omkeertye en die korter lewensduur van kledingstukke het aanleiding gegee tot die sogenaamde “kitsmode”-bedryf wat in sy geheel groot kommer oor die omgewing veroorsaak. Om die gevolge van dié bedryf teë te werk, moet verbruikers volhoubaarder lewenstyle aankweek en eienaarskap neem van wat empiries bekend staan as “vrywillige eenvoud” (Leonard-Barton, 1981; Elgin & Mitchell, 1977).

Vrywillige eenvoud (VE) behels ‘n individu se bewuste keuse om gedrag met ‘n lae verbruikspatroon aan te kweek en sodoende ‘n nie-materialistiese, gehalte-verrykte lewenstyl te handhaaf (Rich, Wright & Bennett, 2019). Tot op datum is min bekend oor verbruikers se aanvaarding van hierdie vrywillig eenvoudige lewenstyle en die uitwerking wat dit op hul kledingverbruiksgedrag binne die konteks van ‘n ontwikkelende mark soos Suid-Afrika het. Terwyl meer navorsing oor die onderwerp dus benodig word, sou geskikte meetskale benodig word om geldige en betroubare insig in die saak te verkry. Hierdie projek was dus daarop gemik om ‘n skaal

te ontwikkel en te staaf waarvolgens die betrokkenheid van verbruikers by vrywillig eenvoudige kledingverbruiksgedrag in Suid-Afrika gemeet kan word.

'n Oorsig oor bestaande literatuur beklemtoon vyf vrywillig eenvoudige dimensies wat aanvanklik deur Elgin en Mitchell (1977) voorgestel en as materiële eenvoud, selfbeskikking, ekologiese bewustheid, menslike skaal en persoonlike groei geëtiketteer is. Hierdie dimensies is later deur Leonard-Barton (1981) gebruik om 'n gedragsindeks (Rich *et al.,* 2019) te ontwikkel. Vanuit 'n gedragsperspektief word die meeste van hierdie dimensies vergestalt deur die vyf R'e, naamlik *recycle* (herwin), *repair* (herstel), *reuse* (hergebruik), *reduce* (verminder) en *refuse* (weier) (Zamwel, Sasson-Levy & Porat, 2014), behalwe vir die dimensie van persoonlike groei, wat nader verwant is aan 'n houdingsingesteldheid. Omdat mense nie altyd in ooreenstemming met hul gedrag optree nie, was diegene wat hul VE gemeet het, eerder ingestel op werklike gedrag in teenstelling met houdings of intensies (Hüttel, Ziesemer, Peyer & Balderjahn, 2018). Om dié redes is persoonlike groei uitgelaat uit die oorkoepelende doel van hierdie studie, wat meer spesifiek daarop gemik was om 'n skaal te ontwikkel wat verbruikers se vrywillig eenvoudige kledingverbruik kan meet. Om die beoogde uitkoms van die studie te bereik, was die riglyne en prosedures vir skaalontwikkeling wat deur Kang en Johnson (2011) voorgeskryf is, besonder nuttig en het dit gelei tot drie fases wat deurgaans in die studie beskryf en verduidelik word, naamlik aanvanklike skaalitem-ontwikkeling, skaalsuiwering en skaalstawing.

Gedurende die aanvanklike skaalitem-ontwikkeling het vraelysontwikkeling en -insameling in 2016 begin as deel van 'n finalejaar-navorsingsprojek in Kledingkleinhandelbestuur aan die Departement van Verbruikers- en Voedselwetenskappe aan die Universiteit van Pretoria. Dataversameling is in die Gautengse Metropolitaanse gebied van Tshwane gedoen, waartydens 'n totaal van 1025 respondente gereageer het. Hiervan was 1002 bruikbaar en 23 is verwerp vanweë ontbrekende waardes. Die respondente is gevra om 'n self-geadministreerde, papiergebaseerde vraelys van ses afdelings te voltooi, wat in geheel materialisme, statusverbruik, lewenstylkeuses, vrywillige eenvoud, die gebruik van geld en demografie ingesluit het. Die aanvanklike projek het 'n kwantitatiewe benadering gehad, deur middel van 'n deursnee-opname wat hoofsaaklik ondersoekende doelwitte in die oog gehad het, in terme van al die afdelings wat by die vraelys ingesluit was. Kennis moet egter geneem word van die feit dat die grootste klem vir die doel van hierdie betrokke studie geplaas is op die vrywillige eenvoud-aspekte en veranderlikes, terwyl daar tog verwysings is na die materialisme- en statusverbruikskale ten einde die nuut ontwikkelde VE-skaal te staaf. Vir die data-ontleding is SPSS statistiese sagteware gebruik en soos per gespesifiseerde riglyne, is die data lukraak in twee datastelle verdeel ten

einde skaalsuiweringsprosedures op die eerste datastel, en daaropvolgende skaalstawingsprosedures op die tweede datastel, toe te pas.

Die skaalsuiwerings- en stawingsresultate het ‘n oplossing van elf items en drie faktore met ‘n goeie modelmaat en beduidende geldigheidsmaatstawe opgelewer. Ná noukeurige bestudering is die drie faktore as “plaaslike etiese handelsmerke”, “uitkenbare produkeienskappe” en “afgeskaalde verbruik” bestempel, wat in sekere mate die dimensies weergee wat aanvanklik deur Elgin en Mitchell (1977) voorgestel is. Hulle is egter meer in lyn met die kontekstuele realiteite van die Suid-Afrikaanse ontwikkelende mark-konteks. Hierdie resultate onderstreep die verbruikerskultuurteorie (CCT – *consumer culture theory)* van Arnould en Thompson (2005) wat die skakel tussen die gedrag van verbruikers en die unieke mark beklemtoon waarbinne hulle hul bevind. Die statisties prominentste faktor, naamlik “plaaslike etiese handelsmerke” spruit moontlik uit die stukrag om trots Suid-Afrikaanse handelsmerke te ondersteun, asook die belangrikheid van werkskepping in ‘n land wat gekonfronteer word deur uiterste vlakke van werkloosheid en die toegewyde najaag van etiese / regverdige behandeling van die plaaslike arbeidsmag. Terwyl die ander twee faktore, naamlik “uitkenbare produkeienskappe” en “afgeskaalde verbruik”, voordeel mag trek uit verdere skaalontwikkeling vanweë lae tellings op die Cronbach *alphas* en die gemiddelde afwyking-afgeleide (AVE – *average variance extracted)* statistiese metings, is daar tog veel te sê vir beide hierdie faktore in die heersende Suid-Afrikaanse konteks.

“Uitkenbare produkeienskappe” kan uiters belangrik wees vir ‘n groeiende middelklas-verbruikersegment (*Marketline*-verslag, 2018), wat kledingstukke verkies wat enersyds uniek met die hand gemaak en/of eko-vriendelik is, en andersyds hul klere onderskei van dié wat uit massaproduksie kom. In terme van “afgeskaalde verbruik” is die argument wat geopper word, die feit dat plaaslike ekonomiese toestande verbruikers gedwing het om ‘n meer spaarsamige benadering te hê (PricewaterhouseCoopers (PWC), 2012). Dit impliseer dat hulle die lang gebruiksduur van hul kledingstukke herevalueer, ‘n poging aanwend om die lewensduurte daarvan te verleng en/of fokus op absolute behoefte in teenstelling met die bevrediging van seisoenaal kortstondige modeneigings wanneer hulle nuwe klere aanskaf.

Of die onderliggende redes vir die aanvaarding van vrywillig eenvoudige kledingverbruiksgedrag gedryf word deur volhoubare strewes of deur ander onbekende motiewe, weerspieël hierdie studie se skaalontwikkelingsprosedures ‘n uniek Suid-Afrikaanse ontwikkelende markbenadering. Om ‘n ekonomie te dryf wat volhoubare kleding gebruik, vervaardig en verskaf, is ‘n begrip van verbruikers se verbruiksgedrag noodsaaklik (Balderjahn *et al.,* 2018). Hierdie begrip sal die plaaslike klerebedryf voorsien van ‘n padkaart na goeie sakepraktyke, aangesien volhoubaarheid

nie net groener aankope verteenwoordig nie, maar ook drie verweefde dimensies vereis, naamlik ‘n omgewing wat groen verbruik bevorder, ‘n samelewing wat *fair-trade*-produkte bevorder en ekonomiese oorwegings, wat fokus op die verlenging van ‘n kledingstuk se lewensduur (Balderjahn *et al.,* 2018). Sodra groter insig verkry word deur middel van geldige en betroubare maatstawe soos die een wat in hierdie studie voorgestel word, kan ‘n regering en ander belanghebbers sulke insigte gebruik om intervensie-strategieë te verfyn met die doel om vrywillig eenvoudige kledingverbruiksgedrag in die plaaslike ekonomie doeltreffend te teiken. Sulke gedrag sou in geheel praktyke soos herwinning, herstel, hergebruik en die vermindering van kledingverbruik kon insluit, sowel as verbruikers se weiering om kledinghandelsmerke aan te skaf wat oneties en onvolhoubaar is (Zamwel *et al.,* 2014).

TABLE OF CONTENTS

DECLARATION……i
ACKNOWLEDGEMENTS……ii
SUMMARY……iv
OPSOMMING……vii
LIST OF TABLES ……xiv
LIST OF FIGURES……xi
LIST OF ADDENDA……xvi

CHAPTER 1 ..... **1**
THE STUDY IN PERSPECTIVE **1**
1.1 INTRODUCTION 1
1.2 RESEARCH PROBLEM 5
1.3 JUSTIFICATION OF THE RESEARCH 5
1.4 OBJECTIVES OF THE RESEARCH STUDY 7
1.5 RESEARCH DESIGN AND METHODOLOGY 8
1.6 DEFINITIONS OF TERMS AND CONCEPTS 9
1.7 PRESENTATION AND OUTLINE OF THE STUDY 10
1.8 CONCLUSION 11
CHAPTER 2 ..... **12**
A REVIEW OF LITERATURE **12**
2.1 INTRODUCTION 12
2.2 THE SOUTH AFRICAN EMERGING MARKET CONTEXT 13
2.2.1 South Africa against the backdrop of the larger African continent 13
2.3 THE SOUTH AFRICAN CLOTHING AND TEXTILE INDUSTRY 14
2.4 FAST VERSUS SLOW FASHION IN THE CLOTHING AND TEXTILE INDUSTRY 15
2.5 VOLUNTARY SIMPLICITY (VS) 16
2.5.1 Background and conceptualisation of vs 16
2.5.2 Classifications of VS 18
2.5.3 Behavioural dimensions of VS 18
2.5.3.1Material simplicity 19
2.5.3.2Self-determination 20
2.5.3.3Ecological awareness 20

2.5.3.4Human scale……..23
2.5.3.5Personal growth 25
2.5.4 Previous VS scale development 25
2.5.5 Measurement of VS behaviour 26
2.5.6 The role of VS within the hierarchy of human needs and consumer decision making…….27
2.5.7 Consumer culture theory (CCT) surrounding market place cultures 28
2.6 THE CONCEPTUAL FRAMEWORK 31
2.7 CONCLUSION 35
CHAPTER 3 36
RESEARCH METHODOLOGY..... 36
3.1 INTRODUCTION..... 36
3.2 RESEARCH APPROACH AND DESIGN 37
3.3 SAMPLE AND SAMPLING TECHNIQUE 38
3.4 SCALE DEVELOPMENT AND OPERATIONALISATION 38
3.4.1 Phase one: initial scale item generation and data collection 39
3.4.2 Phase two: scale purification 43
3.4.3 Phase three: scale validation..... 43
3.5 ENSURING THE QUALITY OF THE DATA ANALYSES 44
3.5.1 Validity. 44
3.5.2 Reliability..... 47
3.6 ETHICAL ISSUES..... 48
3.7 CONCLUSION 49
CHAPTER 4 51
DISCUSSION AND INTERPRETATION OF RESULTS 51
4.1 INTRODUCTION..... 51
4.2 DEMOGRAPHIC CHARACTERISTICS OF THE SAMPLE..... 52
4.2.1 Gender 54
4.2.2 Age…….56
4.2.3 Level of education 57
4.2.4 Respondents' income per month 58
4.2.5 Population group 59
4.3 SCALE PURIFICATION (OBJECTIVE 1) 60
4.3.1 Initial item analysis 60
4.3.2 Exploratory Factor Analysis (EFA) of dataset one 63
4.3.3 Confirmatory Factor Analysis (CFA) of dataset one..... 68
4.4 SCALE VALIDATION (OBJECTIVE 2) 75

4.4.1 Recap of the demographic characteristics of dataset two 75
4.4.2 Confirmatory Factor Analysis (CFA) of dataset two 76
4.4.3 Preliminary analysis of existing scales 81
4.4.4 Construct validity 84
4.4.5 Criterion validity 86
4.5 CONCLUSION 90
CHAPTER 5 92
CONCLUSIONS 92
5.1 INTRODUCTION 92
5.2 REFLECTION OF THE STUDY 93
5.3 SUMMARY OF FINDINGS 95
5.4 CONCLUSIONS 99
5.5 PRACTICAL IMPLICATIONS AND THEORETICAL CONTRIBUTIONS 101
5.6 LIMITATIONS AND RECOMMENDATIONS FOR FUTURE RESEARCH 102
5.7 FINAL CONCLUSION 104
LIST OF REFERENCES 105

LIST OF TABLES

TABLE	TITLE	PAGE
TABLE 1.1	DEFINITIONS OF TERMS AND CONCEPTS	9
TABLE 3.1	OPERATIONALISATION TABLE	41
TABLE 4.1	DEMOGRAPHIC PROFILE OF THE TOTAL SAMPLE (N=1002)	53
TABLE 4.2	GENDER ANALYSIS	55
TABLE 4.3	AGE CATEGORIES	56
TABLE 4.4	RESPONDENTS' EDUCATION	58
TABLE 4.5	HOUSEHOLD INCOME CATEGORY	59
TABLE 4.6	POPULATION GROUP PROFILE	60
TABLE 4.7	RESULTS OF THE ITEM-TOTAL STATISTICS (n=501)	62
TABLE 4.8	ITEMS ELIMINATED DURING EXPLORATORY FACTOR ANALYSIS (n=501)	65
TABLE 4.9	EXPLORATORY FACTOR ANALYSIS RESULTS (DATASET ONE, n=501)	66
TABLE 4.10	STANDARDIZED FACTOR LOADINGS AND RELIABILITY MEASURES (DATASET ONE, n=501)	70
TABLE 4.11	CFA MODEL FIT INDICES (DATASET TWO, n=501)	74
TABLE 4.12	STANDARDIZED FACTOR LOADINGS AND RELIABILITY MEASURES (DATASET TWO, n=501)	77
TABLE 4.13	CFA MODEL FIT INDICES (DATASET TWO, n=501)	80
TABLE 4.14	COMPARISON CFA MODEL FIT INDICES	81
TABLE 4.15	ANALYSIS OF THE MATERIALISM AND STATUS CONSUMPTION SCALES	83
TABLE 4.16	CORRELATION MATRIX	85
TABLE 4.17	PREDICTIVE VALIDITY OF THE VOLUNTARY SIMPLISTIC CLOTHING CONSUMPSION SCALE BASED ON THE RESULTS OF TALJAARD'S (2019) STUDY	89

LIST OF FIGURES

FIGURE	TITLE	PAGE
FIGURE 2.1	PROPOSED CONCEPTUALISED FRAMEWORK	34
FIGURE 4.1	GENDER ANALYSIS OF THE SAMPLE	55
FIGURE 4.2	AGE CATEGORIES ANALYSIS OF RESPONDENTS	57
FIGURE 4.3	TWO-FACTOR CFA FOR SCALE PURIFICATION OF DATASET ONE	72
FIGURE 4.4	THREE-FACTOR CFA FOR SCALE PURIFICATION OF DATASET ONE	72
FIGURE 4.5	TWO FACTOR CFA OF DATASET TWO FOR SCALE VALIDATION	78
FIGURE 4.6	THREE FACTOR CFA OF DATASET TWO FOR SCALE VALIDATION	79
FIGURE 5	FLOW CHART PROCEDURE OF SCALE DEVELOPMENT AND VALIDATION	95

LIST OF ADDENDA

ADDENDUM	TITLE	PAGE
ADDENDUM A	QUESTIONNAIRE……..	110
ADDENDUM B	ETHICS APPROVAL……..	115
ADDENDUM C	PLAGIARISM DECLARATION.....	116

CHAPTER 1

THE STUDY IN PERSPECTIVE

An overview of the research study will be depicted in this chapter. This overview will include a concise summary of the theoretical background, the research problem, justification, overall objectives, methodology and the definitions of key concepts. This chapter will be concluded with an outline of the sections to follow in the remainder of the dissertation.

1.1 INTRODUCTION

Population figures have increased drastically worldwide, from a mere estimated 600 million in the 1700s to an astonishing 7.3 billion people (Sverdrup & Ragnarsdottir, 2011; Cohen, 2003). It is further estimated that by 2050 there will be 2.47 billion people residing on the African continent alone (African Ecological Footprint Report, 2012). Population growth places severe strain on natural reserves including air, water, minerals, soil, animals and plants. These natural resources should essentially be self-sustainable but due to humanity's exceeding environmental demands, the planet's ability to replenish such resources has been irrevocably impaired with imminent catastrophic consequences related to climate change and natural disasters (WWF Living Planet Report Summary, 2016). Globally, within this 'Anthropocene' era - an epoch where the impact of human involvement has influenced planet change (WWF Living Planet Report Summary, 2016) - scientists are recording rapid changes in the climate (e.g. 2016 was measured as one of the hottest years in history) (WWF Living Planet Report Summary, 2016). This calls for a decisive change in humanity's demands on nature. Yet, in the world we live in today, consumerism and overconsumption that is fuelled by desires that exceed basic necessity has led to mass-production with a predominant focus on economic growth (Ruppert-Stroescu, LeHew, Connell & Armstrong, 2015) and limited regard for the consequent ecological implications.

As stated by Alexander and Ussher (2012), "...overconsumption in affluent societies is the root or contributing cause of many of the world's most pressing problems, including environmental degradation, global poverty, peak oil and consumer malaise." The clothing and textile industry may serve as a typical example. In this industry overconsumption is a reality as clothing is often mass-produced in countries where labour is cheap, thus creating large volumes of low-quality

clothing that are cheaply purchased and easily replaced by oblivious consumers (Alexander & Ussher, 2012). Quick turnaround times and premature replacement driven by a sensation of never having enough and wanting to keep up with the latest trends has led to the production of quick expendable clothing known as "fast fashion" (Kozlowski, Bardecki, & Searcy, 2012). This "fast fashion" industry has become highly competitive in the supply of cost-efficient, fast in-store merchandise that includes a multiple selection of styles, colours and sizes in the latest “must have” trends (Turker & Altuntas, 2014). Producing such fashion is however harmful to the environment, with manufacturing processes accounting for approximately 10% of global greenhouse gas emissions in addition to textile finishing and dying processes polluting 17-20% of global industrial water resources (Armstrong *et al*., 2016).

Apart from the initial production of fast fashion, the question also arises of what is done with the clothing once the consumer has replaced the item? Most consumers will unfortunately not repair, recycle or reuse these items but instead discard it to landfills where it ends up as clothing and textile waste (Kozlowski *et al*., 2012). From 1999 to 2009 this type of waste has increased by 40% whereby the average American consumer throws out 32kg of waste per annum (Armstrong *et al*., 2016). Textile waste in the UK amounts to a staggering 2.35 million tonnes in total, which is equivalent to 40kg per person per year (Fletcher, 2008:98). Of this total amount of waste, only 13% will be recovered or reused and another 13% will be incinerated, while the rest is left on landfills (Fletcher, 2008:98). Textile waste made from natural fibres will take many years to decompose while synthetic materials may take even longer. This extends the harmful environmental impacts of textile waste e.g. such waste emits methane emissions and natural fibres such as wool releases an ammonia emission into the ozone layer. These emissions do not only pollute the air but also pollutes the groundwater with toxic leachate (Fletcher, 2008:98).

The aforementioned insights illustrate that in order to safeguard basic human rights to fresh air and clean water, a substantial change needs to occur in the way humans consume and dispose of apparel along with other efforts to sustain the global environment that has already suffered severe degradation. As pointed out in the African Ecological Footprint Report (2012), it will be easier to manage human activities that are causing an ecosystem downgrade than to try and replace or repair the ecosystem once it is lost. In this regard, the voluntary simplistic movement can be seen as an important link toward affecting lower consumption levels and simultaneously provoking a better quality of life (Alexander & Ussher, 2012). Alexander and Ussher (2012) explain that individuals who choose to embrace voluntary simplicity (VS) may have the means and funds to make purchases, but they choose not to purchase items of material value and rather focus on achieving fulfilment in life without overconsuming. Although many studies have focused on

voluntary simplistic lifestyles and behaviour in more developed countries such as USA, UK and European countries (Zralek, 2016; Alexander & Ussher, 2012), it remains an understudied topic in the local context. To date, limited studies could be found that specifically measures voluntary simplistic clothing consumption behaviour in an emerging market context such as South Africa.

In terms of measurement, seminal research by Leonard-Barton (1981) established a behavioural index for measuring an individual's tendency towards a lifestyle of voluntary simplicity. What is known as the "voluntary simplicity" (VS) scale, was initially developed through three stages of empirical research: the first version was used in the Palo Alto Study in 1977 which included nine scale items that were used to determine California homeowners' "acceptance of energy-saving behaviours and attitude towards energy conservation" (Leonard-Barton, 1981). This version was then extended to 19 items by Elgin and Mitchell (1977), who specifically focused on individuals living a life of voluntary simplicity. Their research led to the identification of five dimensions that accompany such a lifestyle namely material simplicity, self-determination, ecological awareness, human scale and personal growth. In brief, material simplicity involves limiting purchases of unnecessary possessions i.e. being content with minimal consumption and avoiding clutter (Betts & Taran, 2003), whereas self-determination assumes greater control over one's future while abstaining from superfluous consumption (Betts & Taran, 2003). Ecological awareness acknowledges that people have an impact on the environment and natural resources, and includes the subsequent conservation of these resources, overall environmental protection to ensure the well-being of future generations as well as the reduction of pollution (Betts &Taran, 2003; Elgin & Mitchell, 1977). The human scale dimension focuses on the support of smaller-scale organizations and innovations (Leonard-Barton, 1981) that amongst others, promote better working and living conditions for employees. The last dimension, namely personal growth, relates to finding one's purpose in life while living simply and focusing on inner well-being (Betts &Taran, 2003).

Based on the results reported by Elgin and Mitchell (1977), Leonard-Barton (1981) further developed and refined the scale to an 18-item behavioural index that was used to predict energy conservation and purchase behaviour related to solar equipment. During this scale refinement, the measures were changed from a dichotomous format to a five-point scale measurement which included at least nine items from the previous scales (Leonard-Barton, 1981). Due to the type of behaviour in question, the index predominantly focused on the material simplicity, self-determination and ecological awareness dimensions of VS. It is further important to note that the VS scale measures behaviour in particular as opposed to attitudes or intentions. Empirical evidence has long since established the disparity between people's underlying attitudinal predispositions and their actual behaviour, which is commonly referred to as the attitude-

behaviour gap (Crommentuijn-Marsh, 2018). For these reasons, behaviours are viewed as more appropriate indicators of voluntary simplistic lifestyles (Leonard-Barton, 1981).

From the aforementioned background, it becomes apparent that there is significant scope to establish a behavioural index that is patterned after the one developed by Leonard-Barton (1981), but which specifically focuses on clothing consumption behaviour. In general, the consumer practices of voluntary simplifiers are based on the five “R’s” namely recycle, repair, reuse, reduce and refuse (Zamwel *et al*., 2014). In adopting the dimensions of a voluntary simplistic lifestyle, these “R’s” should also manifest in a consumers’ clothing consumption behaviour. The clothing behaviour in question should thus underscore material simplicity, self-determination, ecological awareness and human scale through the engagement of the five “R’s”. Yet, it is also important to consider that consumer lifestyles and behaviour may differ vastly from one country to the next due to the so-called “marketplace cultures” (Arnould & Thompson, 2005).

Marketplace cultures refer to consumers that display their individualism and authenticity by forgoing the norm of prescribed consumption and rather initiating a new culture (Arnould & Thompson, 2005). Therefore, people are embedded in their own culture and are powerful enough to create or dictate a culture within their own marketplace (Arnould & Thompson, 2005). Essentially this implies that communities who are embedded in the local South African emerging market context (that is characterised by a diverse consumer population), may have their own unique way of interpreting voluntary simplistic clothing consumption behaviour that does not necessarily equate to those embraced in more developed and advanced consumer populations such as those found in the US and Europe. South Africa is for example known as one of the countries with the highest levels of income inequality in the world (Posel & Rogan, 2019) and hence local consumers who are able to afford new clothing on a regular basis might not simply dispose of clothing to landfills (as would be the case abroad), but instead rather reuse or donate unwanted clothing items to poorer communities who are in desperate need of such items (Muller, 2019; Meyer, 2014). By implication, the underlying social and altruistic aspects of voluntary simplistic behaviour may be of particular significance in the local context.

The background presented thus far attempts to highlight the fact that the manner in which consumer behaviour (and more specifically voluntary simplistic behaviour) is measured cannot be unequivocally replicated from one population or market to the next. As pointed out by Sonnenberg and Erasmus (2013) although research in the local context may benefit from scales and measures previously developed in overseas markets, such measures must be adapted and validated to comply with local conditions. The development and validation of a scale to measure consumers'

engagement in voluntary simplistic clothing consumption behaviour in the local South African emerging market context, therefore seemed an appropriate focus for this research study and led to the formulation of a research problem that is discussed in the section to follow.

1.2 RESEARCH PROBLEM

With populations increasing at a rapid rate and natural resources depleting faster than the earth can sustain, it is imperative to reduce unnecessary production, consumption and disposal of clothing and textiles in order to sustain the environment (Ruppert-Stroescu *et al*., 2015). The vast multi-million clothing and textile industry contribute significantly to resource depletion in producing fashionable, cheap, low-quality and easily replaceable items that encourage consumers to indulge in overconsumption. Alternative lifestyle choices that promote voluntary simplistic clothing consumption behaviour (with an underlying focus on material simplicity, self-determination, ecological awareness and human scale) could encourage and promote the pursuit of sustainable development among South African consumer populations. Yet, at this stage little is known regarding local consumers' engagement in voluntary simplistic practices, particularly with regard to clothing and apparel consumption, which warrants further empirical research this requires the development and validation of a VS scale.

In adopting scale development procedures prescribed by Churchill (1979) and others (e.g. Kang & Johnson, 2011) particular emphasis should be directed toward initial scale item generation, purification and eventual validation. Once such a scale has been validated, it may serve as a valuable basis for further empirical research. Based on the aforementioned arguments, this study will be focused on *developing and validating a scale that measures voluntary simplistic clothing consumption behaviour in the local emerging market context. It is envisaged that this scale will include items that tap into the underlying dimensions of VS namely material simplicity, self-determination, ecological awareness and human scale in the measurement of clothing consumption behaviour.*

1.3 JUSTIFICATION OF THE RESEARCH

With growing economies affecting the environment so rapidly, an ecological vision of sustainability is imperative (Buenstorf & Cordes, 2008). In order to achieve ecological sustainability, consumers

need to adopt sustainable lifestyles comprising of an overall reduction in consumption and/ or a complete mindset change toward pro-environmental purchasing behaviour (McDonald, Oates, Young, & Hwang, 2006). Achieving such goals by means of voluntary restraint is, unfortunately, easier said than done, especially within the apparel market where the continual production of fast-moving fashion, as well as technological innovations, provide ample consumption opportunities (Joy, Sherry, Venkatesh, Wang & Chan, 2012; Buenstorf & Cordes, 2008). Some have suggested the formulation of eco-tax structures to curb further overconsumption, but according to Buenstorf and Cordes (2008), such eco-tax structures would have to reach high levels for it to become effective due to increasing levels of income and innovation. Another option includes educating consumers regarding the natural resource inputs that are required to deliver their required consumption outputs (Buenstorf & Cordes, 2008). Unfortunately, consumers often find it hard to attribute the effects of their own overconsumption to the increase in CO_2 emitted or the pollutants in air and water (Buenstorf & Cordes, 2008).

But before any intervention or educational strategies can be developed, insight needs to be obtained from a consumer's perspective regarding, amongst others, their behaviour and the factors that shape their behaviour. Such insight must be obtained from empirical research that is based on valid and reliable measurement scales (Balderjahn *et al.,* 2013; Anvar & Venter, 2014; Smith 2014). These scales enable the measurement of the behaviour in question and will allow researchers to distinguish what type of behaviour voluntary simplifiers engage in. This is where this study is so crucial within the confines of the South African market as all prior research findings have been mostly based on developed countries such as the United States or the UK. In essence, this study is about developing the instrument for measuring the VS behaviour within a local context as markets do in fact differ. There is great value in first developing the appropriate means for measuring the VS behaviour i.e. a valid and reliable scale because it can then be applied in other studies within the local emerging market context to bring forth further research findings. In this regard, the outcome of this study, which is a valid and reliable scale, can be to the benefit of various other stakeholders in establishing much-needed insight for tailoring intervention strategies and educational programmes that will effectively sensitize consumers toward the impact of their lifestyle choices and consumption behaviour, particularly with regard to textiles and apparel (McGouran & Prothero, 2016).

To date, empirical evidence pertaining to consumers' engagement in voluntary simplistic practices in the local context remains limited and more specifically, no scale has been developed and/ or validated to measure consumers' VS clothing consumption behaviour. In terms of methodology, research within the South African context may benefit from existing measures such as the VS

scale developed by Leonard-Barton (1981). Yet, such a scale would have to be further developed and adapted to comply with conditions that prevail in the South African market and the specific behaviour under investigation i.e. clothing consumption. The development and validation of such a scale would be beneficial for researchers in South Africa as well as other emerging and developing contexts by providing a valid and reliable scale to lay the foundation for further empirical research. Furthermore, the findings of this research will contribute toward filling the gap in existing literature pertaining to VS in emerging market environments, which will be beneficial for future research endeavours.

1.4 OBJECTIVES OF THE RESEARCH STUDY

Based on the conceptual foundation of VS and its dimensions, the overarching aim of this study is to develop a valid and reliable scale to measure voluntary simplistic clothing consumption behaviour in the local emerging market context. Following the scale development guidelines that were initially prescribed by Churchill (1979) and later applied by several others including DeVellis (2003), Gerbing and Anderson (1988), Peter (1981), Guiry, Magi and Lutz (2006), Arnold and Reynolds (2003) as well as Babin, Darden and Griffin (1994), specific objectives were formulated to cover the scope of scale purification and validation procedures in this particular project as follows:

Objective 1: To purify a scale (patterned after Leonard-Barton's (1981) VS behavioural index) that specifically focuses on clothing consumption behaviour. Scale purification procedures include:

- 1.1 initial exploratory- and
- 1.2 further confirmatory factor analysis of an existing dataset that includes the responses to an initial pool of VS clothing consumption scale items that was generated for a 2016 survey.

Objective 2: To further validate the scale items based on a second dataset, including:

- 2.1 reconfirmation of the initial factor structure, as well as,
- 2.2 construct validity and predictive validity tests to establish a scale that can be of value for future research endeavours that are focused on measuring VS clothing consumption behaviour.

1.5 RESEARCH DESIGN AND METHODOLOGY

For the purposes of this research study, an existing dataset that was collected in 2016 served as an appropriate basis for further scale purification and validation procedures. Initial scale items were generated by a team of Clothing Retail Management lecturers and final year students from the Consumer Science Department at the University of Pretoria. These items were included in an exploratory cross-sectional survey to gain insight into clothing consumers' voluntary simplistic behaviour in the local context. The data was collected in the Tshwane Metropolitan area and included both male and female respondents who belonged to various population groups. Fieldworkers reached respondents through methods of non-probability, convenience and snowball sampling. Respondents were requested to complete a structured, self-administered paper-based questionnaire that explored consumers' engagement in VS clothing consumption behaviour that more specifically reflected four of the five basic VS lifestyle dimensions identified by Leonard-Barton (1981) namely material simplicity, self-determination, ecological awareness and human scale. The collected data was captured and coded by the researchers and then further analysed by the University of Pretoria's statisticians using SPSS statistical software.

Scale development and validation procedures developed by Churchill (1979) and others (DeVellis, 2003; Gerbing & Anderson, 1988; Peter, 1981) and more recently employed by Kang and Johnson (2011), prescribe three stages which entail the initial scale item generation (that was completed in 2016) followed by scale purification procedures and then lastly, the scale validation process. The focus of this project therefore predominantly revolved around scale purification and validation. In order to perform these procedures, the dataset (N=1002) was randomly split into two equal sets to perform a scale purification on the first set of data and then a scale validation on the second set of data. Various statistical analyses including Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA) were performed by researchers in the field of Clothing and Textiles to ensure adequate purification and validation of the scale items. Chapter 3 and 4 provide further detail in this regard and will highlight the subsequent results of the procedures that were followed.

1.6 DEFINITIONS OF TERMS AND CONCEPTS

In the table below definitions of terms and concepts that have been used throughout the study have been listed and discussed.

TABLE 1.1: DEFINITIONS OF TERMS AND CONCEPTS

TERMS AND CONCEPTS		
TERM OR CONCEPT	**DEFINITION**	**REFERENCE**
Clothing consumption behaviour	This involves various activities or phases of the clothing lifecycle initiated by consumers, namely acquiring a clothing piece, using it, caring for it and lastly discarding the item.	Gwozdz, W., Steensen Nielsen, K. & Müller, T., 2017. An environmental perspective on clothing consumption: consumer segments and their behavioral patterns. *Sustainability*, *9*(5):762.
Consumer culture theory	A theoretical perspective that reflects the relationship between the actions of consumers, the marketplace and the culture.	Arnould, E.J. & Thompson, C.J., 2005. Consumer culture theory (CCT): Twenty years of research. *Journal of consumer research*, *31*(4):868-882.
Consumer purchasing behaviour	In order to satisfy the needs and wants before purchasing a product or service a consumer will undergo a decision-making process.	Smith, E.E. 2014. The Influence of Customer Demographics on Greening Perceptions and Purchasing Behaviour. IJAME.
Confirmatory factor analysis (CFA)	A structural equation modelling related technique that analyses the number of factors and variable loadings to determine whether they are satisfactory based on existing theory.	Mazzocchi, M. 2008. *Statistics for marketing and consumer research.* London: SAGE Publications
Ecological awareness	A voluntary simplistic dimension that acknowledges the mutual reliance between people and resources.	Leonard-Barton, D. 1981. Voluntary simplicity lifestyles and energy conservation. *The Journal of Consumer Research,* 8:243-251.
Exploratory factor analysis (EFA)	Allows the researcher to explore the data to identify unobservable or unknown underlying factors that may exist.	Mazzocchi, M. 2008. *Statistics for marketing and consumer research.* London: SAGE Publications
Human scale	A voluntary simplistic dimension that relates to the support of small-scale institutions and technology.	Leonard-Barton, D. 1981. Voluntary simplicity lifestyles and energy conservation. *The Journal of Consumer Research,* 8:243-251.
Material simplicity	A voluntary simplistic dimension that rejects overconsumption by embracing non-consumption lifestyle patterns.	Leonard-Barton, D. 1981. Voluntary simplicity lifestyles and energy conservation. *The Journal of Consumer Research,* 8:243-251.
Self-determination	A voluntary simplistic dimension whereby a person takes greater control over their life and destiny.	Leonard-Barton, D. 1981. Voluntary simplicity lifestyles and energy conservation. *The Journal of Consumer Research,* 8:243-251.
Scale development procedure	Developed by Churchill (1979) which consists of three stages namely initial item generation, scale purification and scale validation thus providing a valid and reliable scale for research measurement.	Kang, M. & Johnson, K.K.P. 2011. Retail therapy: scale development. *Clothing and Textiles Research Journal*, 29(1):3-19.
Scale item generation	This is the first step of the scale development procedure whereby the concepts that will be measured are explicated, named, their conceptual foundations and level	Kang, M. & Johnson, K.K.P. 2011. Retail therapy: scale development. *Clothing and Textiles Research Journal*, 29(1):3-19.

	of belonging explored, followed by the identification of items for measurement of the contsructs.	
Scale purification	Consisting of a number of processes namely, the data collection procedure, participant characteristics, initial item analysis, EFA to examine factor structures and relationship with variables followed by CFA for item refinement.	Kang, M. & Johnson, K.K.P. 2011. Retail therapy: scale development. *Clothing and Textiles Research Journal*, 29(1):3-19.
Scale validation	Consisting of three activities, firstly reconfirming the factor structure with the use of a CFA, secondly correlating constructs to show construct validity by incorporating previous scales and lastly, showing the practical usefulness of the scale by establishing predictive validity of the constructs that are tested.	Kang, M. & Johnson, K.K.P. 2011. Retail therapy: scale development. *Clothing and Textiles Research Journal*, 29(1):3-19.
Sustainable clothing consumption	Consumers that factor in the environment and sustainability into their purchasing decisions when buying clothing.	Armstrong, C.M.J., Connell, K.Y.H., Lang, C., Ruppert-Stroescu, M. & LeHew, M.L. 2016. Educating for Sustainable Fashion: Using Clothing Acquisition Abstinence to Explore Sustainable Consumption and Life Beyond Growth. *Journal of Consumer Policy*, *39*(4):417-439.
Sustainable consumption	The protection of the earth's natural resources for future generations by practicing minimal consumption that will be satisfying basic human needs, but at the same time provide a quality of life.	Manchiraju, S., May, R., Kim, E, & Fincham, F. 2016. Sustainable consumption: A scale development and validation. *International textile and Apparel Association (ITAA) Annual Conference Proceedings. 116.*
Voluntary simplicity	An individuals' choice to limit consumption and to practice reduction as a way of life.	Zamwel, E., Sasson-Levy, O. & Ben-Porat, G., 2014. Voluntary simplifiers as political consumers: Individuals practicing politics through reduced consumption. *Journal of Consumer Culture*, *14*(2):199-217.

1.7 PRESENTATION AND OUTLINE OF THE STUDY

CHAPTER 1 discusses the background of the study by shedding light on the increasing clothing consumption patterns of consumers, both local and abroad, which places severe strain on natural resources due to the escalating production and manufacturing of products as well as subsequent waste disposal thus harming the environment from a cradle to grave perspective. This chapter comprised of the following sections namely, introduction, research problem, justification of the research, overall aim and objectives of the research, research design and methodology and the definitions of terms and concepts relating to this study. The subsequent chapters will be presented and outlined as follows:

CHAPTER 2 presents literature that is relevant to the research problem and objectives of the study. The conceptual framework is also presented in this chapter to depict the relevant steps that

were taken to ensure the development of a valid and reliable measurement scale for future research.

CHAPTER 3 provides insight into the research approach and design, the sample and sampling techniques, the initial scale generation and operationalisation, scale purification, data collection procedure as well as the scale validation procedures. Efforts to enhance the validity and reliability of the results are explained, which is then followed by a concluding section pertaining to ethical issues.

CHAPTER 4 presents the results, interpretations and findings of the study. In this chapter the samples' demographic characteristics are described by means of descriptive statistics including frequencies and percentages that are summarised in tables and graphs. The following sections are made up of more advanced statistical analyses including EFA, scale reliability measures (i.e. Cronbach's Alphas) and CFA to purify and validate the scale that was developed to measure consumers' engagement in voluntary simplistic clothing consumption behaviour.

CHAPTER 5 elaborates on the conclusion of the study while summarising the most prominent findings. Following that, the practical implications, research limitations and suggestions for future research are presented.

1.8 CONCLUSION

This first chapter provides a background and broad overview of the research study. The introductory section explained, in brief, the study's foundation and the necessity of adopting sustainable practices with specific reference to the clothing, apparel and textile sector. Attention is drawn to the need for valid and reliable instruments to measure consumers' voluntary simplistic clothing consumption behaviour in the local context, which then culminates in the research problem of this study. The research problem is further underscored by a justification of the scale development and validation procedures that were proposed for this study and the importance of focusing on such endeavours in the local emerging market context. The final sections of the chapter provide a brief overview of the research design and methodology as well as key concepts and the chapters to follow. The forthcoming chapter will provide an extensive review of literature that was considered important in establishing the theoretical basis of this study.

CHAPTER 2

A REVIEW OF LITERATURE

Having discussed the background pertaining to the study in Chapter one, the following sections in this chapter will focus more intently on the environmental and social concerns in the South African emerging market context and the textile and apparel industry in particular. Voluntary simplicity, in addition to its sub-dimensions including material simplicity, self-determination, ecological awareness and human scale, is conceptualised. The chapter is concluded with theoretical insight pertaining to market place cultures and a proposed conceptual framework that serves as the basis for the development of a valid and reliable scale for future research purposes.

2.1 INTRODUCTION

This review serves the important purpose of presenting a comprehensive overview of existing literature regarding VS, before progressing into a discussion of the procedures and guidelines that need to be followed to develop a scale for measuring VS behaviour in the local context. As Clark and Watson (1995) explain, a literature review is compiled to tick off three very important boxes while developing a new measurement scale: Firstly, a literature review achieves edification of the construct in question (in this case VS) through content classification (Clark & Watson, 1995). Secondly, the review should provide guidance in developing a new scale as existing literature may highlight problems that were encountered with previously developed scales and can, therefore, be avoided in future scale development (Clark & Watson, 1995). Thirdly, the review of literature will provide evidence and justification for the proposed scale as a measuring instrument that is essential and necessary for developing forthcoming literature (Clark & Watson, 1995).

With the aforementioned in mind, this chapter commences with a discussion surrounding the environmental and social concerns in the local South African context that emulate those expressed globally. This discussion is followed by information surrounding the apparel and textile industry, which will emphasise the importance of adopting sustainable clothing consumption behaviours for the sake of future generations. Sustainable consumption behaviour, which is manifested through the adoption of VS lifestyles, will be discussed in detail allowing for VS dimensions and constructs to be defined as well as existing measurement scales that have been developed abroad, to be shared. The chapter is concluded with an overview of scale development procedures from a

conceptual point of view and presents a framework that serves as a basis for the chapters to follow. As for now, this chapter will highlight the nature and range of content surrounding VS.

2.2 THE SOUTH AFRICAN EMERGING MARKET CONTEXT

2.2.1 South Africa against the backdrop of the larger African continent

Africa's ecological footprint has increased from 1961 to 2008 by 240 per cent. A large reason for this growth is increased consumption due to a growing population where certain areas of Africa have experienced substantial increases in per capita income due to poverty eradication efforts. By implication, such efforts have also led to increased growth of the middle-class sectors in many of the African countries (African Ecological Footprint Report, 2012). Local and global demands are increasing the current pressure on the environment, which in essence will unfortunately disproportionately affect the poorer African economies in terms of health, wealth and well-being (African Ecological Footprint Report; 2012). According to the African Ecological Footprint Report (2012), Africa's footprint would have exceeded its biocapacity by 2015, resulting in greater reliance on imported goods and services from outside countries. In addition, 400 million people living at the river basins will experience severe water shortages due to drought and will ultimately end up living in dry basins for part of the year. Currently, there are only two countries within Africa, namely South Africa and Swaziland, that export their biocapacity resources, but having said this, in years to come this will decrease due to the pressure imposed by increasing local demands (African Ecological Footprint Report; 2012).

In the South African context, as in other emerging markets in Africa, a growing middle-class sector is increasing whereby their disposable income enables them to increase their consumption and spending habits, which in turn leads to detrimental environmental effects. In contrast to this, an immense number of unemployed people remain poverty-stricken, matching the number of these growing middle-class consumers, and bearing the burden caused by the overconsumption of products and services by the middle-class consumers (PricewaterhouseCoopers (PWC), 2012). The South African population comprises of 58.8 million people but of that only 16.4 million people have jobs (Statistics South Africa (stats sa), 2019). However, only a small amount of the population consumes products and services excessively, yet their consumption levels remain more than half the amount that is produced (Christie, Sonnenberg, & Gous, 2016), creating a significant gap

between the middle-class consumers who are able to consume conspicuously and the lower-income groups that live with the bare minimum out of necessity rather than choice.

2.3 THE SOUTH AFRICAN CLOTHING AND TEXTILE INDUSTRY

The South African clothing and textile industry has had various fluctuations in the past few years due to issues such as globalisation and expansion of business opportunities. In terms of growth, the South African clothing market accounted for R29.57bn in 2011 and was estimated to grow an extra 14.7% (PricewaterhouseCoopers (PWC), 2012). In addition to that, imports into the country have increased significantly, in the sense that clothing imports from China amounted to 16.5% in 1995 and have since increased to an astonishing 74.2% in 2005 (Kaplinsky, 2008). Globally, China has become the leading producers of fast and inexpensive clothing and textiles. South Africa has been greatly influenced by this in the sense that the local clothing and textile producers are unable to match the pricing options that China has to offer and subsequently fails to remain successful in the competitive industry. Furthermore, in terms of globalisation, South Africa united with the World Trade Organisation in 2001 and in 2004 ended the Multi-Fibre Agreement (Morris & Einhorn, 2008), leading to various negative consequences for the clothing and textile industry. Due to the increased level of imports, the formal manufacturing sector could not remain competitive, which subsequently lead to large-scale job losses and unemployment. In 2006, 78 694 employees in the clothing industry lost their jobs due to issues mentioned above (Kaplinsky, 2008), while jobs were also lost in the textile industry, resulting in the unemployment of 16 800 people in 2005 (Kaplinsky, 2008).

These issues remain challenging as the continent of Africa is often seen as an uncharted gold mine when it comes to the expansion of international retail giants. South Africa, in particular, is seen as the leader of the pack with one of the largest retail markets, including large, extensive shopping malls and retail developments (PricewaterhouseCoopers (PWC), 2012). A large part of the retail market in South Africa is made up of "home-grown" brands such as Edcon that houses Edgars, Boardmans, Red Square, CNA, Jet, and Legit. Other major local retailers that also form part of the retail market include Woolworths, Pepkor, Mr Price Group, Truworths and The Foschini Group. Because of this flourishing retail market, multinational retailers have jumped to the opportunity of opening their stores in a country that showcases a large retail market and has subsequently lead to increased competition amongst the local and international retailers (Marketline Report, 2018). Since 2011 international brands such as Gap from the USA, Zara from

Spain, Cotton On from Australia, and H&M originally from Sweden have started to make way into the local malls. More specifically, Zara opened their doors to the market in 2012 and now have nine stores, while H&M began retailing in South Africa in 2015 and currently have eight stores across the country (Marketline Report, 2018). Zara is one of the retailers that is known for its "fast fashion" approach by continually bringing in new fashion, which may contribute to increased pressure on our local retailers who have a seasonal approach in launching new fashion (PricewaterhouseCoopers (PWC), 2012). These fast fashion retailers offer consumers the newest trends ahead of season, encouraging the overconsumption of clothing, ultimately leading towards negative consequences such as increased waste.

2.4 FAST VERSUS SLOW FASHION IN THE CLOTHING AND TEXTILE INDUSTRY

The term fast fashion can be referred to as the “just in time” principle (Johansson, 2010). This entails manufacturers to work under immense pressure to produce a large quantity of clothing that is of lesser quality. This principle ensures a shorter lifespan for the clothing items due to the pieces being constructed from poorer quality material (Gwozdz, Steensen Nielsen & Müller 2017; Johansson, 2010). This allows retailers who promote fast fashion to create not just two seasons a year of fashion as in the “good old days” but multiple seasons throughout the year (Johansson, 2010). Fast fashion retailers such as Zara thus encourage overconsumption by continuously offering new trends and products that encourage consumers to overconsume and indulge in their wants of owning the latest fashions out there. They are able to do so as they can design, manufacture and display their latest clothing pieces in as little as 14-21 days (Kozlowski *et al.,* 2012:23). Fast fashion retailers replicate the latest high-end fashion items as seen on the runway at a minimal cost and offer it to the consumers who keep up with the latest fashions trends (Johansson, 2010). All of these factors entice consumers to seek self-satisfaction from materialistic consumption patterns known as "retail therapy".

Fast fashion is often associated with a linear supply chain that consists of a long and complicated lifecycle entailing several phases with a definite beginning and end. The first phase starts with the resources, where raw materials are extracted for the second phase of the production. In this phase, the fibre, yarn, fabric and constructed textile and apparel pieces are produced, after which the third phase of distribution commences. This involves packaging and transportation of the final product to retail outlets for the fourth stage to commence, which is known as consumption. During this phase the products are used and cared for by the consumers. Finally, the last stage of disposal

occurs when the items are finally discarded into landfills (Armstrong *et al*., 2016, Johansson, 2010). Throughout this lifecycle, high levels of energy and water are used, constituting an unsustainable manner of production. In order for the supply chain to become more sustainable, a closed-loop or circular supply chain should be implemented in which a slow fashion approach is adopted.

Unlike fast fashion, slow fashion focuses on aspects such as longevity and sustainability to produce clothing and textiles that surpass the test of time, whilst considering the impact of fashion on the environment and society alike (Vincent, 2017; Johansson 2010). Slow fashion focuses more on the quality of the product in contrast to the fast fashion approach, thus ensuring longer-lasting, timeless pieces that are well constructed and by implication, surpassing the lifespan of fashion clothing items. Another aspect that differentiates slow fashion from fast fashion includes the manufacturing of either recycled or organic materials in an environmentally and ethically sound manner (Khan, Rodrigues & Balasubramanian, 2017; Johansson, 2010). In essence, slow fashion epitomises the notion of living a more mindful lifestyle when it comes to the consumption of clothing and textiles. It reflects the circular system of slowing down and reusing rather than disposing of products. It is closely related to the concepts surrounding voluntary simplicity which will be discussed in more detail below.

2.5 VOLUNTARY SIMPLICITY (VS)

2.5.1 BACKGROUND AND CONCEPTUALISATION OF VS

One would choose to live sustainably to avoid the pressure of capitalistic and materialistic consumption, by living an alternative lifestyle as an independent and self-determined individual (Peyer, Balderjahn, Seegebarth & Klemm, 2017). People who refrain from purchases due to a personal choice can be classified into certain groups based on their consumption; these groups are classified as "anti-consumption, frugal consumption and voluntary simplicity." Anti-consumption represents the population who are opposed to consumerism and is generally linked to socio and political factors, while frugal consumption includes the population group that consumes resources, time and money in an economically viable manner to achieve long term goals (Wu, Thomas, Moore & Carroll, 2013). Voluntary simplicity, on the other hand, is a lifestyle choice to live simply with minimal consumption and fewer working hours for a better-quality life (Peyer *et al.,* 2017). The concept of voluntary simplicity dates back to early the 1900s and has

since not been extensively explored in terms of clothing consumption. Therefore, the history and development surrounding the concept of VS will be discussed in further detail below to provide a solid foundation on which it can be further explored in terms of clothing behaviour.

Leonard-Barton (1981) explains that the concept of VS was initially brought to light in 1936 by Richard Gregg, who founded the idea of a lifestyle with reduced material consumption (Rich, Hanna, Wright & Bennett, 2017) and described it as a choice that individuals should make to live their lives simply without clutter (Ballantine & Creery, 2010) and to rather pursue fulfilment from other areas of life through behaviour that is practised voluntarily and based on religious principles (Leonard-Barton, 1981). As Leonard-Barton (1981) states, VS is a behavioural lifestyle index that embraces improved lifestyle choices of minimal mindful consumption (e.g. mending broken items, handcrafting and purchasing only necessities that are of quality), the promotion of back to basics (e.g. making own clothing, cycling as means of transportation and spending more time with loved ones), incorporating good practices (e.g. recycling and sharing), and embracing nature (e.g. using the earth's natural resources wisely and enjoying nature as a recreational activity). Kasser (2009) describes VS as a choice to embrace life with minimal acquisitions and to rather focus on "inward riches". These "inward riches" are aspects that enrich one's life from the inside out such as an enrichment of personal growth, spirituality and so forth (Kasser, 2009). The purpose of limiting consumption in terms of a voluntary simplistic lifestyle is to enhance life satisfaction through minimal materialistic purchases (Etzioni, 1999; Huneke, 2005). The way, style and level to which a person embraces this lifestyle is an individual choice (Etzioni, 1999; Wu *et al.*, 2013). Unlike the aforementioned, the concept of unintentional voluntary simplicity is not always the individual's choice, but rather a consequence of tough economic times of increasing debt as well as the scarcity of natural resources. This becomes more noticeable when economic instability and recessions alter consumers' minds in terms of spending behaviour and overconsumption (Wu *et al.*, 2013).

The VS concept gained further momentum in 1971 with "The Predicament of Mankind" and in 1972 with "The Club of Rome" where the negative effects of overpopulation and the protection of natural resources were assessed by scientists, scholars and members of the United Nations (Leonard-Barton, 1981). Empirical research within developed nations such as USA, UK and other European countries further established that VS is a lifestyle whereby one is rewarded inwardly with lifestyle choices rather than outwardly with gain in material possessions (Elgin & Mitchell, 1977).

2.5.2 Classifications of VS

In terms of the underlying motivation to practice this kind of lifestyle, Leonard-Barton (1981) identified three types of individuals namely "conservers", "crusaders" and "conformists." A conserver is described as a person who has been raised in a home where nothing was wasted or unnecessarily consumed; this type of simplifier typically had a poor upbringing and can also be classified as an unintentional voluntary simplifier (Leonard-Barton, 1981). Crusaders, on the other hand, are individuals who were raised in families with a strong sense of social responsibility and would reduce consumption for the environmental and social reasons rather than saving money (Leonard-Barton, 1981). This group can also be classified as full voluntary simplifiers. Wealthier individuals known as “conformists”, would typically practice selective types of pro-environmental behaviour such as recycling, but would for example not purchase second-hand goods from thrift stores. Etzioni (1999) also established a classification based on consumers’ motivation and level of commitment to VS: this classification includes "downshifters", "strong simplifiers" and "holistic simplifiers" (Huneke, 2005). Downshifters are individuals that are moderately involved in simplistic practices and relinquish certain consumption practices but, in general, still maintain a lifestyle that contradicts certain voluntary simplistic beliefs (Ballantine & Creery, 2010). Strong simplifiers are those who strive for better quality of life and attempt to reduce stress by withdrawing from status-driven lifestyles and high paid jobs, subsequently restricting their consumption (Ballantine & Creery, 2010; Huneke, 2005). The last group known as “holistic simplifiers”, wholeheartedly practice a simplified lifestyle thereby subscribing to all VS principles (Ballantine & Creery, 2010; Huneke, 2005).

Based on the aforementioned discussion, it becomes apparent that the concept of VS has been around for some time and that consumers may even be classified based on the manner in which they embrace voluntary simplistic lifestyles. Yet another aspect that should be considered in order to fully grasp the concept of VS, is the various dimensions that Elgin and Mitchell (1977) initially brought to light in their research. These dimensions concentrate on various facets of a voluntary simplistic lifestyle that manifest in daily activities (Huneke, 2005) keeping in mind that it is through an individual's own personal choice to decide their level of simplification (Elgin & Michell, 1977).

2.5.3 Behavioural dimensions of VS

According to Elgin and Mitchell (1977), there are five main dimensions that underlie a voluntary simplistic lifestyle namely material simplicity, self-determination, ecological awareness, human scale and personal growth. These five dimensions were later also used by Leonard-Barton (1981)

to interpret her research. The first dimension, namely material simplicity, is a decision to maintain a minimalistic lifestyle in which the purchasing of possessions that are seen as unnecessary, is limited to only necessities. It can furthermore be explained as being content with a simple lifestyle that avoids clutter (Wright, 2003). Secondly, self-determination encapsulates the thought of controlling one's future and not being dependant on the consequences of high financial lifestyles (Wright, 2003). Thirdly, ecological awareness is the understanding that people can have an impact on the environment and how both of these factors are either reliant on or responsible to each other for further survival (Wright, 2003). Fourthly, the human scale focuses on smaller-scale organizations and innovations (Leonard-Barton, 1891), which entails better working and environmental conditions for those involved in manufacturing. Furthermore, it also includes the notion of rather purchasing products from smaller entrepreneurial companies than large industrial factories known as sweatshops. Lastly, personal growth can be described as finding one's purpose in life while trying to better one's self by living simply through having less, yet focussing on individual growth (Wright, 2003). For the purpose of this study only four of the five dimensions (thereby excluding personal growth), are tested within the South African clothing and textile context due to the complexity involving personal growth as well as its tendency to overlap with elements from the other dimensions. As mentioned before, personal growth has attitudinal undertones, whereas the other dimensions are manifested in behaviour, which is the focus of the scale development procedures envisaged for this project. The paragraphs below provide a detailed approach to each dimension in terms of the clothing and textiles context.

2.5.3.1 Material simplicity

Material simplicity involves an individual's conscious decision to control the inclination to purchase excessive material goods (Huneke, 2005). Embracing this dimension of VS decreases overall consumption through a process of thought and consideration during the decision making process that purposively remains focused on necessity (Gambrel & Cafaro, 2009). For example, a consumer consciously decides to only buy clothes if it is really needed and rather wears existing garments than buying new outfits for every special occasion. This dimension underscores a strong appreciation for non-materialistic simplistic living that is not swayed by institutions or profit seeking retailers to consume more for the sake of happiness. Living simply entails doing things simpler which in the long run evokes satisfying outcomes (Gambrel & Cafaro, 2009). Within the context of clothing consumption, this may typically involve acquiring fewer good quality and well-constructed classic garments that will ensure longer usage over numerous seasons (Hiller Connel, 2011; Taljaard, 2015). It also implies looking after such clothing items to ensure it lasts longer.

2.5.3.2 Self-determination

Self-determined individuals are focused on inner growth to satisfy personal centred living (Elgin & Mitchell, 1977). It describes how individuals have a desire to control their own lives (Leonard-Barton, 1981) and to be independent of organisations by ensuring self-sufficiency (Cherrier, 2007). Typical examples include individuals that prepare meals themselves rather than relying on convenience foods derived from supermarkets (McDonald *et al*., 2006). In the context of clothing consumption, they may demonstrate self-support by sewing their own clothes or having clothes mended/ altered rather than throwing it away. While few consumers have the ability to construct/ mend their own clothes these days, they might still appreciate this craftsmanship and prefer handcrafted garments as opposed to mass-produced garments that are produced by large institutions. In general, this dimension of VS underscores the individual's own decisions based on inner perspectives rather than those governed by mass media or other individuals (McDonald *et al.,* 2006).

2.5.3.3 Ecological awareness

Ecological awareness emphasizes the interdependence between people and natural resources (Leonard-Barton, 1981). This dimension of VS highlights issues of resource conservation, protecting the environment from misuse and/ or pollution as well as waste reduction (McDonald *et al.,* 2006). One aspect of ecological awareness in terms of clothing consumption relates to eco-friendly clothing disposal behaviour, which includes recycling or reusing old clothing for alternative purposes, such as using old T-shirts as cleaning rags, donating it to charities or possibly handing it over to siblings, friends or other family members (Stols, 2017; Meyer, 2014). This type of behaviour reduces the overall amount of waste generated by consumers, and consequently reduces the waste that becomes "dormant" on landfills. As emphasized by Gambrel and Cafaro (2009), living simply does not encourage individuals to "return to nature" by using past practices that were wasteful or harmful, but rather focusing on practices that will reduce the environmental impact, which may include the use of new technological innovations.

Furthermore, consumers who embrace VS, practice eco-friendly buying and would typically prefer to buy clothing with eco-friendly features such as garments manufactured from organic cotton (Dos Santos, 2011; Luiz, Bowen & Beswick, 2011). Elgin and Mitchell (1977) furthermore suggest that individuals who adopt voluntary simplistic lifestyles, live as natural as possible by using raw materials, recycling and choosing products that have been manufactured by means of eco-friendly production processes. One such process has been implemented by Woolworths, who have

incorporated laser machinery to fade jeans rather than using harmful chemicals to do so (50/50 Human Nature, 2014). Another environmentally friendly manufacturing process that has gained a lot of interest in the last few years, is the use of plastic bottles to produce polyester, as presented on 50/50 Human Nature (2017). In South Africa, Extrupet collects 2 billion bottles per annum which are then recycled and extracted to form polyester fibre to manufacture jeans, t-shirts, duvets and pillow inners (50/50 Human Nature, 2017). All these options are classified as eco-friendly products that have been manufactured with the environment in mind. Thus, if consumers are ecologically aware, they would welcome all these new, technological advances and products that considers the environmental impact of the processes.

Recognising more simple measures such as shopping close to home, are also important aspects to consider in reducing a person's overall ecological footprint (Schanes, Giljum & Hertwich, 2016). The ecological awareness dimension of VS encapsulates all concepts and processes relating to eco-friendly disposal (such as reusing or recycling a product rather than disposing of it) as well as eco-friendly manufacturing and buying as is discussed in more detail below:

- Eco-friendly disposal

  Any kind of consumption has an effect on the environment and the textile and apparel industry is a significant contributor to this dilemma (Larney & van Aardt, 2010). This is due to the large number of natural resources, such as water and energy, that is needed to manufacture clothing items. Concern relates to the manufacturing of apparel and textiles, which is on the increase due to easily replaceable, cheap and continuously changing "fast fashion" trends (Vehmas, Raudaskoki, Heikkilä, Harlin & Mensonen, 2018). The manufacturing process has a negative effect on the environment, but so does the consumers' consumption of clothing, which entails the use, care and end disposal of the product that predominantly results in pollution and solid waste (Hiller Connell, 2011). However, this large negative contribution can be overturned (to some extent) through recycling possibilities (Larney & van Aardt, 2010).

  That said, South Africa is a growing economy with an ever-increasing population that demands sufficient resources for production and consumption purposes and at the same time requires more waste disposal sites due to larger amounts of waste disposal (Larney & van Aardt, 2010). This occurrence has led to a plea from the city of Johannesburg to urge residents to recycle their garbage, because the city's landfills have reached their full capacity (EWN, 2018). It is projected that if measures are not put in place during the

immediate future, the city will need to find alternative waste disposal sites by transporting waste by train to Mpumalanga's landfill sites, thus increasing costs for ratepayers (EWN, 2018). If consumers are unaware or do not know how to dispose of clothing in an eco-friendly manner, they tend to discard their clothing to bins, which then accumulates at waste dumps causing a negative effect on the environment. Therefore, the awareness of eco-friendly disposal methods is vital and one of the ways to do so, is by donating clothing to the less fortunate, charity organisations or return garment to retailers who encourage and practice circular fashion.

A typical example of initiatives to reduce waste is that of Amy Twigger Holroyd, a designer based in Britain, who has designed her knitwear with a "Keep & Share" label. This label encourages consumers to minimise their buying behaviour by keeping the garments they have for longer as well as sharing them with others (Vehmas *et al.,* 2018). Within a South African context, H&M has brought in a "close the loop" concept whereby old clothing can be taken to their retail stores and the consumer who has brought the clothing can then receive a discount on their next purchase. This initiative encourages consumers to take any brand of unwanted clothing or textiles, in any condition, back to the store as a part of their sustainable strategy (Vehmas *et al.,* 2018; H&M Magazine, 2017). The unwanted clothing is then given to an external supplier to divide the garments and textiles into four eco-friendly disposal areas of "rewear" sold as second-hand clothing, "reused" for additional purposes, "recycled" into textile fibres or "upcycling/remake" to change the clothing item into a new garment (H&M Magazine, 2017). Woolworths has also joined the "recycling movement" with their sealed clothing disposal bins that are placed at the entrance to their stores to encourage consumers to give unwanted clothing to the local community that are less fortunate. Another initiative, known as "The Clothing Bank", is a development project that encourages South African retailers namely Woolworths, Edcon, Mr Price, Pick n Pay Clothing, Clicks and The Foschini Group to donate seasonal excess, merchandise that fail to sell or customer returns for the purpose of the greater good (The Clothing Bank, 2017). This initiative not only empowers unemployed mothers by educating the women in a two-year programme to run their own business, but it also allows them to purchase the donated clothing at a discount in order to sell unwanted clothing thus giving them a source of income and so reusing the unwanted merchandise (The Clothing Bank, 2017).

- Eco-friendly manufacturing and buying

  One way to combat the environmental implications of the apparel and textile industry, is to design and manufacture garments with a sustainable mindset thereby reducing waste and encouraging reuse (Vehmas *et al.,* 2018). This implies retailers reusing or recycling apparel and textiles into new fibres (Vehmas *et al.,* 2018). The notion of slow fashion also comes into play whereby eco-friendly purchases are made from a quality perspective as opposed to a quantity viewpoint (Vehmas *et al.,* 2018). Slow fashion is a value-based principle that encourages better procedures throughout the apparel and textiles lifecycle, creating long lasting fashion, while also promoting improved working environments and better wages for workers (Vehmas *et al.,* 2018). These quality fashion products can be seen as long-term investments that justify the costs associated with these products. Once again, the concept of quality over quantity is brought to light, which overlaps with material simplicity in the sense that quality will ensure less consumption and disposal at the end of the day, encapsulating the overall concept and lifestyle of voluntary simplicity. In addition to longer lasting products, consumers also need to be encouraged to purchase items that are eco-friendly in order to develop an industry that starts to produce clothing that is environmentally and socially responsible (Hiller Connell, 2011). Consumers have a significant impact on retail and they can ultimately create a demand for eco-friendly fashion to ensure an increase in supply (Momberg, Jacobs & Sonnenberg, 2012). Vehmas *et al.,* (2018) state that most often consumers that purchase eco-friendly clothing do so to obtain acknowledgement and recognition from others – this might be an important aspect to consider in eco-friendly promotional campaigns.

2.5.3.4 Human scale

As stated by Elgin and Mitchell (1977), "small is beautiful". In this regard it is said that individuals who embrace VS would often prefer to work and reside in smaller, uncomplicated and decentralised environments (McDonald *et al.,* 2006). The human scale dimension of VS also relates to such individuals' desire to use or buy items that support smaller-scale institutions or technologies (Leonard-Barton, 1981), thereby acting responsibly within their community, being fair and demonstrating community support by helping those around them (McDonald *et al.,* 2006). This appreciation may then also manifest in the support of locally produced products. In turn such support positively contributes to environmental preservation by reducing air pollution in the transportantion and distribution of products from abroad and contributes to social causes by supporting local communities and empowering local entrepreneurs (Huneke, 2005).

Within the clothing sector, the support of local brands and locally produced goods encourage much needed job creation and economic growth in the local apparel sector. In addition to this, individuals who subscribe to human scale principals would strongly oppose “sweatshops” whereby industrial manufacturing is done for large scale institutions and fast fashion giants through unethical labour practices (such as employing young women/ children and paying them below the minimum wage) (Armstrong *et al.,* 2016). Instead, they would be inspired by clothing brands that have a reputation for behaving in an ethical and socially responsible manner. Hence, they would support clothing manufacturers/ retailers that create employment in good working conditions. The human scale dimension of VS thus encapsulates the concepts surrounding social ethics and local clothing production and brands, which will be discussed in more detail below:

- Social ethics

  Over the past few years unethical practices in the manufacturing supply chain that seem to encourage fast turnover of fashion have come under severe scrutiny and a number of negative influences have been identified. These include but are not limited to cheap labour practices and harsh working conditions. Often this sort of practice includes child labour whereby children are exploited and denied their basic human rights of education while impacting negatively on their physical, mental and spiritual growth (Khan, Rodrigues & Balasubramanian, 2017). Perhaps one of the most notable examples that caused an extensive outcry was in Bangladesh in 2013, where the building collapse of Rana Plaza killed many employees in the clothing manufacturing trade. This tragedy occurred due to the poor and unethical working conditions employees were subjected to while manufacturing clothing (Khan *et al.*, 2017). This depicts the true cost of unethical practices. That said, the textile and apparel industry needs to take ownership of this issue, and minimise the negativity associated with the manufacturing of clothing by producing fashion that is socially responsible (Hiller Connell, 2011).

- Local clothing production as opposed to imported clothing

  Supporting local clothing manufacturers and retailers (rather than international brands that have been imported), contributes positively towards the environmental as well as the social aspects of the clothing and textile industry. In terms of the environmental component, fewer carbon emissions are released during the distribution of local products as opposed to international imports. In terms of the social component, small scale institutions promote

ethically sound working environments for employees and empower the community of South Africa that struggles with high levels of unemployment and poverty. The support of Proudly South African apparel and textiles, therefore, creates more opportunities for local designers, increasing self-employment for the better of the economy. In a recent study, Muposhi, Durup and Shamhuyenhanza (2018) state that ethnocentrism can be a leading factor for consumers to purchase local goods as opposed to imported products. Consumer ethnocentrism can be defined as patriotic beliefs that hand-made local products are better than foreign imported products due to the perceived higher quality of handcrafted items. Such support also promotes cultural identity as well as economic empowerment in the local economy (Muposhi *et al.,* 2018).

2.5.3.5 Personal growth

The fifth dimension of VS, namely personal growth, captures inner well-being and finding one's purpose in life (Elgin & Mitchell, 1977; Betts & Taran, 2003). Personal growth, is an encompassing dimension that often includes attitudinal underpinnings that are more indirectly linked to behaviour and does not necessarily manifest in actual behaviour. For these reasons, focus remained on the dimensions that could be more directly linked to consumers' actual clothing consumption behaviour, and therefore personal growth was excluded from the scope of this research study. Within existing literature, the attitude-behaviour gap is often noted whereby it is argued that what people say, think or feel does not necessary reflect in their actual behaviour and therefore surveys tend to overestimate people's actual pro-environmental and socially responsible behaviour (McDonald *et al.,* 2006). Hence it was deemed appropriate to focus solely on clothing consumption behaviour that can be measured by the extent to which consumers engage in actual practices such as recycling, repairing and/ or reusing clothing whilst, reducing their consumption and even refusing brands/ products that are unethical and socially irresponsible (Zamwel *et al*., 2014).

2.5.4 Previous VS scale development

Various VS scale development efforts have been made over the past few years, but perhaps most noteworthwy is the scale developed by Leonard-Barton (1981). The scale was developed through three stages as mentioned in chapter one and was originally used to test a California population's voluntary simplicity lifestyle as well as their energy consumption patterns. Leonard-Barton's research is for example mentioned in subsequent studies such as Cowles and Crosby's (1986) study, which was focused on a measurement validation in the marketing and consumer behaviour domain. Cowles and Crosby (1986) state that in order to prove a certain theory it should be

validated by a measurement scale to develop the theory in question. Interestingly, Cowles and Crosby (1986) applied Leonard-Barton's voluntary simplicity lifestyle scale as a behavioural trait measurement. They argue that within Leonard-Barton's (1981) study there were certain limitations such as the scale needing further refinement and finalisation as well as suggesting that there are alternative ways to measure voluntary simplicity. As suggested by Peyer *et al.,* (2017) an alternative way to measure VS is to identify the "individuals' income levels and level of consumption, which can be measured by a household's possessions of select consumer durables. However, in being focused on a particular facet of consumers' engagement of VS lifestyle principles and how it manifests in their clothing consumption practices, this study remained directed toward the measurement of behaviour as opposed to other variables that might be connected to a VS lifestyle.

2.5.5 Measurement of VS behaviour

To date most effort directed toward the measurement of the dimensions of voluntary simplicity has been conducted abroad. Such measurent is not always relevant within the local context and thus there is scope to further test and validate a scale to measure South African consumers' engagement in VS within the contextual reality of the local emerging market. Also, the scales developed to date, including the seminal work of Leonard-Barton (1981), focused on behaviours other than clothing consumption and tend to reflect a more generic approach. As explained in the previous sections, clothing consumption has detrimental environmental and social repercussions and therefore it would be important to understand how the dimensions of voluntary simplicity relate to clothing consumption. The development and validation of such a scale will deliver the means to advance further empirical investigation in the local context and ultimately enable various stakeholders in the clothing and textile domain to better understand consumers' enagagement in voluntary simplistic clothing consumption practices.

Within existing literature, many scholars have agreed that VS lifestyles are most evidendent when manifested through actual behaviour (Anvar & Venter, 2014; Leonard-Barton, 1981). It should however be noted that some e.g. Ensley (1983) have argued that no behavioural trait is required and that VS is attitude driven. Others such as Cowles and Crosby (1986) explain that behavioural traits are driven by values, and in similar vein, Peyer *et al*., (2017) mention that "human values affect consumers' behavioural patterns in the field of sustainability". In this regard, empirical investigation over the past few decades have reached the conclusion that voluntary simplicity has both sets of values (as underlying motives) and behavioural traits due to it being a system of belief

and practice e.g. to reduce consumption, a behaviour needs to be underscored by a person's values (Pravet & Holmlund, 2018).

Therefore, it is clear that there is some sort of connection between values and behaviours, but as Rich, Hanna and Wright (2017) suggest, not all values are the driving force for behaviours related to the VS lifestyle. Thus, in line with Leonard-Barton's (1981) suggestions, measurement should therefore rather focus on behaviour as there often remains a gap between a person's attitude and what they end up doing despite their best intentions/ attitudes. An individual's behaviour is often a fair indication of an individual's acceptance of a VS lifestyle (Leonard-Barton, 1981). Such lifestyles should however also be understood within the hierarchy of basic human needs and may consequently impact on consumers' overall decision making.

2.5.6 The role of VS within the hierarchy of human needs and consumer decision making

The foundation of human motivation according to Maslow's theory is determined by having physiological needs or drives that are met. Unless the base of these hierarchical needs (e.g. "water, salt, protein and other nutrients, oxygen, constant temperature of the blood") are not met, many humans may become ill or unable to survive (Huneke, 2005). Once these basic physiological needs are met, a new set of needs will become the priority, namely safety needs. Safety or security needs are ones that can be influenced by ecological degradation such as land degradation and water scarcity due to the influence of global warming (Kasser, 2009). Nonetheless, once physiological and safety needs are satisfied, love needs are to be addressed followed by the need for self-esteem (Huneke, 2005). If all these needs are comparatively fulfilled a new dissatisfaction may emerge which requires the need for self-actualization (Huneke, 2005). According to Huneke (2005) and Zavestoski (2002) self-actualization can be further influenced by the need for efficacy and authenticity. All the above-mentioned needs are or can be met through consumption practices except for the need for authenticity. If this need is not met, individuals will look for alternative ways to fulfil this need for example by taking part in voluntary simplistic practices (Huneke, 2005). These consumers will practice conscious living, which entices them to investigate if a particular purchase is really necessarily and to further consider the environmental impact the product may have (Huneke, 2005). The underlying reasons for consumers' decisions to consume less and embrace a VS lifestyle often stems from "rejecting capitalism and materialism, living sustainably and striving to lead independent and self-determined lives" (Peyer, Balderjahn, Seegebarth, Klemm, 2016).

As Kasser (2009) suggests, personal well-being and living environmentally sustainable are connected. Rich *et al.,* (2017) confirm that a VS lifestyle provides an improved state of well-being,

which can be explained as a broad concept of positive functioning. In fact, there is a positive connotation that suggests living environmentally sustainable will increase personal well-being due to certain sacrifices an individual chooses to forego. This is attributed to the fact that certain behaviours “satisfy psychological needs” (Kasser, 2009). Therefore, there is a link between the engagement of voluntary simplicity and increased well-being which in turn relates to life satisfaction (Rich *et al.,* 2017). That said, authors Gwozdz, *et al*., (2017) regard clothing as a way of communication for consumers to express themselves. They suggest that fast fashion has created a new societal and cultural significance that has bypassed the importance of basic physiological and psychological needs satisfaction (Gwozdz *et al.,* 2017). In this regard it would be important to understand to what extend consumers are willing to engage in voluntary simplistic clothing consumption practices (and by implication forego fast fashion choices). Moreover,how such behaviour relates to the local market place would be of particular interest,

2.5.7 Consumer culture theory (CCT) surrounding market place cultures

Arnould and Thompson's (2005) consumer culture theory (CCT) provides knowledge regarding the link between the behaviours of consumers and the marketplace. The CCT is a multifaceted theoretical perspective that highlights the relationship between certain aspects such as consumer actions, their cultural influences and the marketplace (Arnould & Thomson, 2005). Based on the assumptions of this theory, consumers are seen as culture producers and it has been said that consumption experienced by consumers will differ from one market to the next. Such insights have been drawn from research conducted in various countries including North America (e.g. McCracken 1986), Africa (e.g. Arnould 1989, Bonsu & Belk, 2003) and Asia (e.g. Joy, 2012). In accordance with the underlying assumptions of this theory, as well as the existing literature surrounding voluntary simplistic consumption, the argument brought forward is that behaviour may pan out differently in the local context than in other consumer cultures and markets, and therefore effort should be devoted toward measurement of behaviour in the contextual reality of where it occurs.

The South African consumer market consists of a young diverse consumer population and is often perceived as a retail marketer’s dream (Statistics South Africa (stats sa), 2019). South African consumers view fashion and clothing purchases as an important way to display their status level through social comparisons (Thompson, Ellis, Soni & Paterson, 2017). Sout African consumers are said to be brand conscious and have high aspirations to lead better lives of material value as many of these consumers were once considered underprivileged due to past government oppressions (PricewaterhouseCoopers (PWC), 2012). On the flip side of the coin, within this post

apartheid era, economic growth and development is highly sought after (Larney & van Aardt, 2010). That said, the South African economy comprises of a growing black middle class whom are steadily expanding and have a disposable income to purchase products in one of the many malls that are available nationwide (PricewaterhouseCoopers (PWC), 2012; Statistics South Africa (stats sa), 2019), thus contributing to the economic growth and consumption status. According to PWC (2012) 11 million working class people in South Africa will be earning R89 500 (US$10 000) per annum in 2016. Despite this, South Africa is still known for its high level of unemployment (the number of unemployed persons are reported to be equal to those in the emerging middle-class segment) and those consumers who find themselves on the poverty scale are still very dependent on government for social grants (PricewaterhouseCoopers (PWC), 2012).

With reference to sustainable purchases, Anvar and Venter (2014) explain that individuals that are most likely to make green/ sustainable purchases are the younger generation that has the means to do so. A large segment of the African population (84%) belong to the generation Y cohort and it is therefore of utmost importance for marketers to research this cohort's behaviour regarding environmentally sustainable practices (Avar & Venter, 2014). In so far as the population groups that still remain poor and underprivileged, the question remains whether these individuals engage in, for example, reduced consumption, due to their circumstances. Moreover, should they acquire more spending power, the question is posed whether they will fall into the complete opposite end of the voluntary simplistic spectrum by purchasing garments to reflect status and their newly acquired wealth. This emphasises some of the aspects that calls for investigation in a local context as per the assumptions of CCT.

Recent reports indicate that due to a growing middle-class segment that earns better salaries than before, there has been a shift in the market, where sales of menswear have increased to 42% and sales in womenswear make up 32.9%. This is attributed to more women joining the job market as opposed to before. In total, there has been quite an increase in the total sales with regards to the clothing industry. Marketline Report (2018) has published that there has been a growth in 2017 of 4.8% which equates to $7.502 million in the South African retail apparel industry and have forecast the market to grow extensively from 2017 with an increase of 27.7% until the year 2022. Considering the environmental and social implications of the clothing supply chain and due to South Africa being a developing country consisting of a younger generation, it is important that local consumers are encouraged to be environmentally conscious and to act sustainably for the future global economy (Anvar & Venter, 2014). Voluntary simplistic lifestyles will certainly contribute to such pursuits, but the fact remains that the manner in which local consumers engage in such lifestyles and behaviour may differ from what has been reported elsewhere.

Current empirical evidence suggests that a voluntary simplistic consumer culture consists of individuals that are mainly part of a developed western society. These individuals tend to be well-educated middle-class consumers that have the means for material consumption, but choose not to engage in materialistic pursuits (Rich *et al.,* 2017). Whereas Alexander and Ussher (2012) suggest that it is the wealthier individuals that can abide by this lifestyle, Brown and Kasser, (2005), argue that these individuals' income is less than the general population. According to Rich *et al.*, (2017), consumers in developing countries might very well find themselves in a situation whereby they have no choice other than to engage in VS compared to consumers in more developed countries, who do in fact have a choice whether they abide by the principles of VS (e.g. to consume less) or not. As pointed out by Smith (2014), factors that influence Western cultures' purchasing decisions or its consumers' decision to purchase green will be different to that of another culture. He further explains that sustainable marketing strategies of a company in a Western culture will be different to that of another culture. Companies will firstly need to address their own global impacts by developing environmental strategies but secondly, they will need to engage with consumers through a "market-by-market basis" (Smith, 2014). Therefore, marketers will benefit from learning more about their consumers' sustainable perceptions and their willingness to consume sustainably.

Unfortunately, at this stage little is known regarding developing countries' acceptance of a VS lifestyle and therefore, as Rich *et al.,* (2017) suggest, the findings of the studies conducted in Western and developed countries may not be applicable in developing countries. As per the assumptions of CCT, it would be beneficial for VS studies to be conducted in developing countries, where consumers create their own marketplace culture. Developing countries should however follow the example of developed countries such as western culture's consumers, government and businesses in acknowledging and improving sustainable practices (Smith, 2014). According to Anvar and Venter (2014) a small percentage of South African consumers (4%) purchase green products, while a large number of consumers (40%) suggest that they will purchase green products. Luchs and Mooragian (2012) have presented the same statistical figures in their research from a developed country's point of view regarding the gap between consumers' attitudes and behaviours. This contradiction shows that consumers are aware of environmental damage and suggest that they would purchase green products, but the percentage who actually acquire such products states otherwise (Anvar & Venter, 2014). This evokes a dilemma whereby the acquisition of sustainable or green purchases are not guaranteed despite consumers' voiced environmental concern (Anvar & Venter, 2014). Hiller Connell (2011) suggests that one of the reasons for this gap relates to issues such as price, style and fit, where consumers intend to purchase sustainably due to environmental aspects, however do not act on it because of other

aspects such as cost, style preferences and so forth that influence eventual behaviour. It is further suggested that if a consumer is fashion conscious, additional factors will come into play which creates an attitude and behaviour gap that relates to individual expression based on visually appealing products as well as the social influence of a belief or behaviour to fit in with a group (Hiller Connell, 2011). Another reason may be limited knowledge; this could be rectified by means of increased awareness regarding sustainable practices, environmental degradation and waste issues (Barr, 2003). Education is the key to creating this shift from an attitude to an actual behaviour that is actively practised (Barr, 2003). Yet, at this point it would be important to first measure actual behaviour before effective strategies could be put in place and for these reasons a valid and reliable measuring instrument would be needed.

2.6 THE CONCEPTUAL FRAMEWORK

It is envisaged that the outcome of this study will incite further research into consumers' voluntary simplistic clothing consumption practices in the local context by developing a scale to measure such behaviour. The conceptual framework presented in Figure 1 was partly adapted from Kozlowski *et al.,* (2012). In so doing, the framework firstly highlights the relevance of existing literature surrounding the dimensions (i.e. material simplicity, self-determination, ecological awareness and human scale) that underlie a voluntary simplistic lifestyle and its manifestation in consumers' voluntary simplistic clothing consumption behaviour. Such behaviour includes reducing clothing consumption, making and repairing clothing, eco-friendly clothing disposal and eco-friendly clothing purchases as well as supporting ethical and/or local brands. As pointed out, practices of voluntary simplifiers are based on the five "R's"; recycle, repair, reuse, reduce and refuse (Zamwel *et al.,* 2014). In adopting the underlying dimensions of a voluntary simplistic lifestyle (i.e. material simplicity, self-determination, ecological awareness and human scale), these "R's" should also manifest in a consumers' clothing consumption behaviour. A thorough literature review surrounding the main concepts was compiled to showcase the exiting research regarding the concept of VS together with all its dimensions. Based on the existing literature, the key concepts that should be measured by the envisaged scale was conceptualised.

The study's conceptual framework was then further expanded by incorporating and adapting the framework used by Turker (2009) to demonstrate the procedures involved in the scale design process. The relevant concepts were adapted for the purposes of this research project, which was specifically focused on validating a scale to measure consumers' engagement in voluntary

simplistic clothing consumption behaviour in the South African emerging market context. In order for a valid and reliable scale to be developed, guidelines were closely followed from the scale development procedure suggested by Kang and Johnson (2011), which in turn was based on guidelines originally prescribed by Churchill (1979). Their procedure contained three phases: firstly, an initial item generation phase, secondly scale purification and thirdly scale validation.

As can be seen in Figure 1, the initial scale item generation is the first phase of the scale development process. This phase involved rigorous review of empirical VS literature including Leonard-Barton's (1981) VS scale development that was used to measure energy conservation of California homeowners in 1979. Secondly the constructs for measurement were identified as the four basic dimensions that underlie a voluntary simplistic behaviour lifestyle including material simplicity that refers to "non-consumption-orientated patterns of use"; self-determination referring to "desire to assume greater control over personal destiny"; ecological awareness meaning "recognition of the interdependency of people and resources"; and human scale depicting "a desire for smaller-scale institutions and technologies" (Elgin & Mitchell, 1977; Leonard-Barton, 1981). Finally, the constructs for the purpose of this study were specifically used to measure clothing consumers consumption. From this background, an initial item pool of 22 scale items was generated to measure voluntary simplistic clothing consumption behaviour. The list of scale items was generated for each of the four dimensions (Turker, 2009). Of the 22 items, five were used to measure material simplicity by measuring consumers reduction of clothing consumption, four items depicted self-determination, which measures if consumers make or repair their clothing, the ecological awareness dimension was further split up into two indicators namely eco-friendly disposal (which has four items for measurement of recycling or reusing items) and eco-friendly buying that contained three measurement items and lastly, human scale was also split into two aspects namely the support of ethical clothing brands as well as the support of local clothing brands. The content validity of the items was tested by experts within the department. These items were then incorporated into an exploratory survey.

Once the data had been collected the second phase of the scale development procedure commenced. Within this phase certain criteria were required to perform scale purification on the first half of a randomly split dataset. (Specific details have been elaborated on in chapter three and chapter four). The first criteria required information regarding the data collection procedure that entailed a thorough understanding of what the questionnaire consisted of, who collected the data, how the data was collected, how many questionnaires were collected and of them how many were useable. The second criteria required participant characteristics to be explained and in this section the demographics of the questionnaire have been discussed in detail in the chapters to

follow. The third criteria for scale purification included an initial item analysis that provides a hypothesized VS dimension from examining the corrected item-total correlations (Kang & Johnson, 2011). Kang and Johnson (2011) suggest only keeping correlations that measured above 0.5 and deleting those that do not achieve the required threshold. The fourth criteria required an exploratory factor analysis (EFA) on the remaining items (Kang & Johnson, 2011). Factors that obtained an eigenvalue of 1 or more were retained thus displaying the importance of that specific factor (Field, 2005; Kang & Johnson, 2011). Factor loadings that scored 0.4 were considered significant and those below the desired threshold were reviewed for potential elimination (Kang & Johnson, 2011). Cronbach alpha coefficients were used to measure the reliability of the items with values above 0.7 considered acceptable (Kang & Johnson, 2011). The last criteria for the scale purification procedure entailed a confirmatory factor analysis (CFA) which was performed on the factors that were retained from the prior EFA procedure.

Finally, the third phase of the scale development procedure was conducted through a scale validation process. The results of this phase are discussed in more detail in chapter four. Within the scale validation phase three activities should take place on the second half of the randomly split dataset (Kang & Johnson, 2011). The first activity includes reconfirmation of the factor structure obtained from the previous CFA procedures by means of another CFA that is performed on the items that were retained from the purification process. (Kang & Johnson, 2011). The second activity entails achieving construct validity by correlating the VS constructs with other existing scales. Construct validity testing is an important criteria that verifies whether the constructs do in fact measure what they are supposed to and do not measure anything else (Kang & Johnson, 2011). The last activity required the assessment of scale's practical usefulness (i.e. predictive validity) by investigating the positive correlations between constructs (Kang & Johnson, 2011). At the end of the day, 11 items that measure 3 factors were retained and deemed valid, for future research purposes. As mentioned before, the above-mentioned sections are discussed in more detail in chapter three as well as in chapter four that relates to the results of the study.

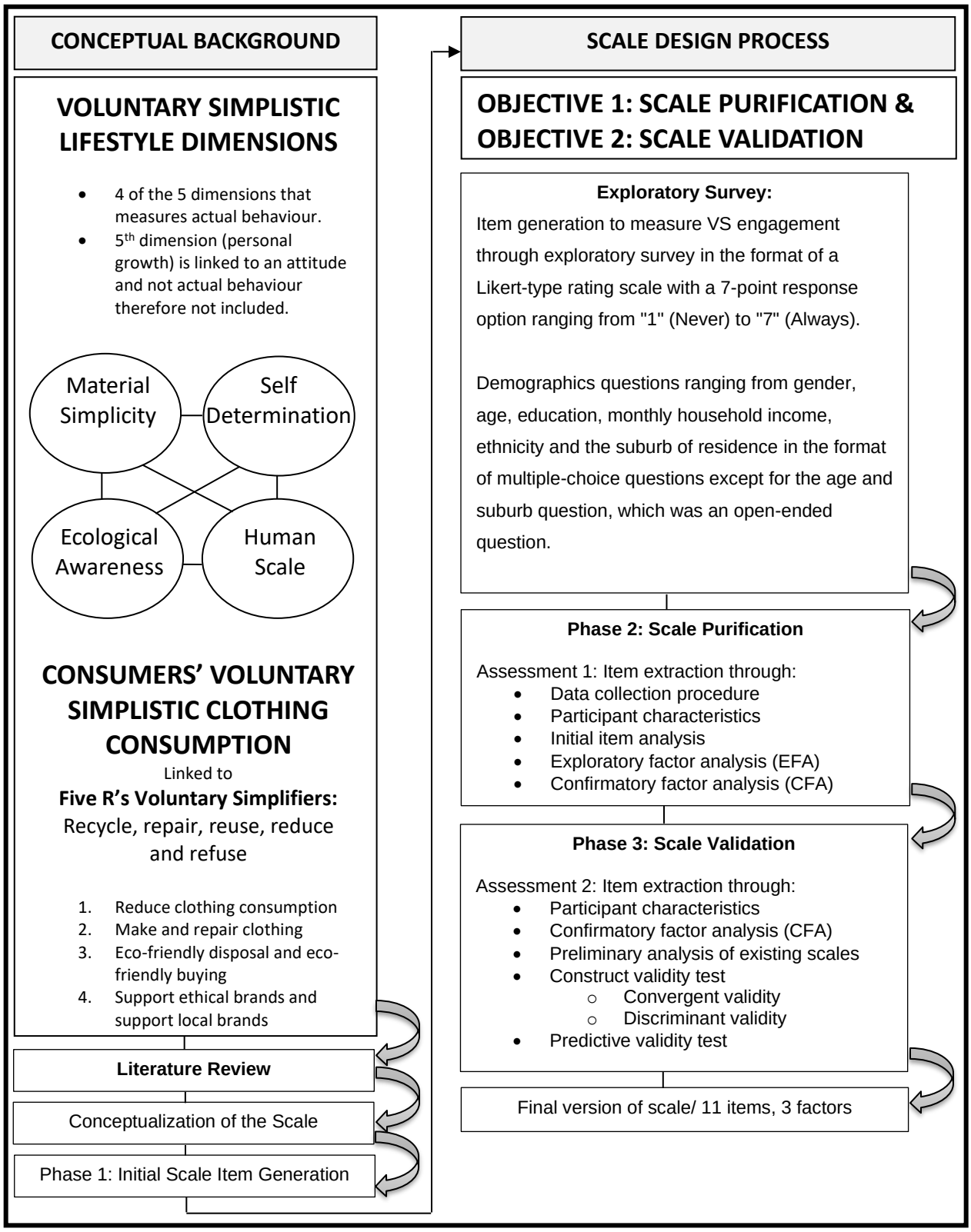

FIGURE 2.1: PROPOSED CONCEPTUALISED FRAMEWORK (Adapted from Kozlowski, Bardecki & Searcy, 2012; Turker, 2009)

2.7 CONCLUSION

This chapter attempted to highlight through a review of existing literature that there is a need to practice simple living in order to circumvent the further depletion of the earth's natural resources. Greater awareness should be created so that more individuals, companies and government can act, produce and consume sustainably, especially within the apparel and textile field. Although South Africa is seen as a developing country with lower consumption levels than, for example, the USA and the UK, these practices should be instilled among all of the country's population so that VS lifestyles become a reality, thus ensuring ecological sustainability for future generations. In this regard it is important to understand the underlying dimensions of the VS concept and incorporate them into a measurement scale, which can then be applied to further advance empirical research about consumers' engagement in VS practices within the local emerging market context. The chapter is concluded with a conceptual framework that serves as the backdrop for the scale development procedures that are explained in the chapters to follow.

CHAPTER 3

RESEARCH METHODOLOGY

The following chapter discusses the research approach and design, the sample and sampling techniques as well as the scale development procedures and operationalisation of the study. The chapter is concluded with a discussion surrounding the quality of the data analysis, including aspects pertaining to validity and reliability, as well as a deliberation of the ethical issues that are relevant in the completion of the research.

3.1 INTRODUCTION

The main aim of this study was to develop and validate a scale to measure consumers' engagement in voluntary simplistic clothing consumption behaviour in South Africa. To accomplish this aim, information must be acquired in a controlled, methodical manner and conclusions need to be based on methods of testing (Walliman, 2005:11). The approach used by Kang and Johnson (2011) as stipulated in their article "Retail Therapy: Scale Development" was a particularly useful example to follow to ensure a reliable and valid VS scale is produced for further quantitative research within the South African context. Other sources were also consulted to verify that the correct methodological procedures were followed e.g. Churchill (1979), DeVellis (2003), Gerbing and Anderson (1988) as well as Peter (1981). Consequently, this research methodology chapter introduces the research approach and design of how and where the research was conducted. Thereafter, the sample, sampling technique and data collection methods that were used to generate the original dataset are explained. Furthermore, the development of the VS scale will be discussed in three phases, namely the initial item scale generalisation and operationalisation, the scale purification and the scale validation phase (Kang & Johnson, 2011). To conclude this chapter, certain aspects of validity and reliability will be brought to light that was implemented to enhance the quality of data. The final section stipulates the ethical requirements and guidelines that were considered to ensure the best possible conduct was followed throughout the completion of this research.

3.2 RESEARCH APPROACH AND DESIGN

As pointed out previously, the purpose of this study was to develop a valid and reliable scale to measure voluntary simplistic clothing consumption behaviour in a developing country such as South Africa. For the purpose of this research project secondary data was used as an existing dataset (compiled in 2016 by the University of Pretoria's Consumer Science Clothing Retail Management students and lecturers) was used to purify and validate the scale that was envisaged as the primary outcome of this study. The initial research that was conducted in 2016 was exploratory in nature and focused on investigating consumers' engagement in voluntary simplistic clothing consumption practices according to various dimensions that was patterned after Leonard-Barton's (1981) study. This gave some insight into phenomena that have not yet been extensively studied within the South African context. In general, this type of exploratory research is described as a methodological approach to gain knowledge on the topic at hand, while descriptive research explains certain influences (Salkind, 2012:213; De Vos & Strydom, 2011:95; Babbie & Mouton, 2001:147). The data collected in 2016 was by means of a survey and could further be described as cross-sectional as it produced preliminary insight into the behaviour of numerous groups of people at one given point in time as opposed to an extended period of time (De Vos & Strydom, 2011:156). However, the recommendations following this preliminary investigation pointed to the fact that further scale purification and validation procedures had to be performed in order for the initial VS scale items to be of any value for further empirical research into the topic at hand, which then also served as the basis for this particular project.

In order to realise the outcomes of this scale development project, the original dataset (N = 1002) had to be randomly split into two, equal datasets to initially perform scale purification procedures on the first set of data and to then perform scale validation procedures on the second set of data. This was in accordance with the procedures set out by previous scale development studies (Kang & Johnson, 2011). Evidently, the overarching paradigm for this research project is that of positivism, which is based on scientific evidence within the social world that is derived from the use of measurement scales to test theories and explain how society behaves (Mackenzie & Knipe, 2006). This project therefore also follows a quantitative approach whereby the collected data is presented in a numerical format in order for statistical analysis to be completed and results to be deduced from it (De Vos & Strydom, 2011:249).

3.3 SAMPLE AND SAMPLING TECHNIQUE

The following discussion highlights the sampling approach that was used in the initial 2016 survey to establish the dataset that served as the basis for this particular scale development project. A non-probability, quota, convenience and snowball sampling technique was used to reach 1025 respondents who resided in the Tshwane Metropolitan area. Non-probability sampling entails not knowing the odds of selecting a particular individual as well as not having an equal chance of being selected, because the members or size of the population being measured is unknown (De Vos & Strydom, 2011:231). The whole South African population could not be measured due to time and financial constraints, and therefore focus was directed toward a sample area in which a subset of the larger population was measured (Walliman, 2005:276). Convenience sampling allowed the researchers to acquire a large number of completed questionnaires economically (Zikmund & Babin, 2010:273). Since the researchers were based at the University of Pretoria, which is located in Tshwane, it was more convenient and economically viable to select the surrounding geographical scope of 98 suburbs in the Tshwane Metropolitan area. In terms of age profile, the sample included respondents between the ages of 19-78, thus ensuring that they had some sort of knowledge and/ or previous experiences of clothing consumption behaviour in order to answer the questionnaire. Quota sampling was incorporated by specifying that completed questionnaires must represent 50% female and 50% male respondents, as both genders would be able to provide information regarding the topic in question. Furthermore, attempts were made to ensure that the data collected should represent all of the different ethnic groups (i.e. White, Black, Indian, Coloured, Asian and other) within their given suburbs to try to obtain a true reflection of the population as a whole (Walliman, 2005:276). Yet, it should be noted that respondents were not restricted in terms of having a certain household income or level of education. Snowball sampling was then also used to locate additional consumers who fit the criteria for inclusion in the sample and who were reached through additional networks (Strydom, 2011:233; Zikmund & Babin, 2010:313). After eliminating questionnaires with incomplete responses, the total sample (N = 1002) delivered a sizable dataset that could be randomly split into two, equal datasets as per scale development procedures that will be discussed in the sections to follow.

3.4 SCALE DEVELOPMENT AND OPERATIONALISATION

The scale development procedures that were used for this project are similar to those used by Kang and Johnson (2011). They in turn based the scale development procedures for their project

on the guidelines that were developed by Churchill (1979) and later improved by DeVellis (2003), Gerbing and Anderson (1988) and Peter (1981). Other researchers namely Guiry, Magi and Lutz (2006), Arnold and Reynolds (2003) as well as Babin, Darden and Griffin (1994) also used the same principles within their research. These procedures are thus well known and are made up of three stages, namely initial scale item generation, scale purification and scale validation (Kang & Johnson, 2011). Each of these stages will be discussed in more detail in the sections to follow, starting with a clarification of the initial scale generation and the development of the original questionnaire.

3.4.1 Phase one: initial scale item generation and data collection

Initial scale item generation took place in 2016 in conjunction with the development of a structured, self-administrated paper-based questionnaire for the final year Clothing Retail Management research projects in the Department of Consumer Science at the University of Pretoria (included in Addendum A). The questionnaire was formulated under supervision of the lecturers in the department and consisted of six sections, namely “Importance of possessions” (Section A), “Prestige of clothing brands” (Section B), “Important things in life” (Section C), “Voluntary simplicity” (VS) (Section D), “Your allocation of money to specific purchases” (Section E) and lastly “Demographics” (Section F). For the purpose of this study, the sections pertaining to demographics (Section F) and VS (Section D) were mostly focused on, although some of the scale verification procedures required further utilisation of the materialism part (Section A, which was based on the scale developed by Trinh and Phau (2012) and the status consumption items (Section B, which is based on a scale developed by Eastman, Goldsmith and Flynn (1999). These sections were used as it was assumed/ predicted that there would be a negative relationship between VS and materialism and/ or status consumption. Materialism may be described as continuous consumption to achieve self satisfaction (Trinh & Phau 2012), whereas status consumption is the acquisition of items in order to increase social standing (Eastman *et al*., 1999), which, for the most part, opposes the notion of voluntary simplicity. These materialism and status consumption sections could thus be used to establish the predictive validity of the VS scale once it underwent the necessary purification and validation procedures. More clarity will be provided about these procedures in the results chapter to follow.

At this point it is important to note that the scale items that were generated for section D were patterned after the VS behavioural index of Leonard-Barton (1981). Yet, Leonard-Barton's objectives were based on VS measures regarding energy conservation, whereas this questionnaire’s focus was specifically related to factors surrounding consumers’ clothing

purchasing decisions. For the purposes of the 2016 survey, the conceptual foundation of VS therefore had to be clarified and specified in terms of clothing practices, which was subsequently agreed upon by a team of researchers. The section relating to VS was purposively adapted to measure voluntary simplistic clothing consumption behaviour according to the VS dimensions identified in current literature, namely material simplicity (e.g. reduced clothing consumption), self-determination (e.g. the appreciation of handcrafted items and efforts to repair clothing items rather than simply discarding them), ecological awareness (e.g. including efforts to acquire and dispose of apparel in an eco-friendly manner) and human scale (e.g. support for local clothing brands and particularly those that adopt ethical and fair labour practices). Effort was devoted toward capturing the dimensions as specified by Leonard-Barton (1981) as well as Elgin and Mitchell (1977), but with a clothing perspective in mind.

An extensive pool of potential scale items was developed by the team of researchers. Ten to fifteen scale items were drafted to reflect clothing practices that underscore each of the identified dimensions. Content validity was evaluated by two Clothing and Textile experts, who employed rigorous criteria to ensure clarity of wording and that each of the items reflected the conceptual definition of the VS dimension in question. This substantially reduced the pool to 22 items to measure the four underlying dimensions of VS. Churchill (1979) states multi-item measures of constructs are better than single-items especially for measuring behavioural relationships. It should also be noted that scale items were generated and drafted in such a manner that the content of every item clearly reflected one of the five indicators (i.e. reduce, repair, reuse, recycle and refuse) of voluntary simplistic clothing consumption behaviour, as stated in Zamwel *et al.,* (2014). This is in accordance with Churchill's (1979) recommendations: he advises to develop items that touch on each dimension of the main construct as well as including items that underscore slight distinctions within the item pool thus providing a good basis for measurement.

Once the initial pool of items was formulated, a pilot test was performed among a group of fourth year students in the Department of Consumer Science to ensure validity and accurate interpretation of the question wording. In so doing, confusing words were eliminated and the question format was enhanced prior to the main data collection process. The resulting items are grouped and listed below in **Table 1.**

TABLE 3.1: OPERATIONALISATION TABLE

Dimension	Indicator	Scale Items	Variable Number	Data Analysis
Material Simplicity *(refers to non-consumption-oriented patterns of use)*	Consumers' reduction of clothing consumption	I buy good quality clothes so that I can wear it longer	V4.1	Scale Purification: • Exploratory factor analysis • Confirmatory factor analysis Scale Validation: • Confirmatory factor analysis • Construct validity tests • Predictive validity tests
		I look after my clothes so that it lasts longer	V4.7	
		I wear my clothes for more than one season	V4.14	
		I make a conscious effort to only buy clothes that I really need	V4.20	
		When going to a special occasion, I rather wear something I already have than buying a new outfit	V4.9	
Self Determination *(a desire to assume greater control over destiny)*	Make and repair clothing	I have an appreciation for handcrafted garments	V4.2	
		I prefer wearing clothes that are handcrafted to clothes that are mass produced	V4.8	
		When possible, I repair damaged clothing rather than to throw it away	V4.15	
		I have clothing altered if it no longer fits me	V4.21	
Ecological Awareness *(the recognition of the interdependency of people and resources)*	Eco-friendly disposal (recycle/ reuse)	I recycle and repurpose old clothing (e.g. using old T-shirts as cleaning rags)	V4.3	
		I dispose of clothing in an eco-friendly way e.g. donating it to charities	V4.10	
		In our household, we pass clothes on to siblings, friends or other family members to be reused	V4.16	
		Given the opportunity, I will sell unwanted clothing so that it is reused by others	V4.22	
	Eco-friendly buying	Whenever possible, I buy clothes with eco-friendly features (e.g. organic cotton)	V4.4	
		I buy clothing brands that are known to be environmentally responsible	V4.11	
		I try to reduce the environmental impact of my purchases by shopping close to home	V4.17	
Human Scale *(relates to the support of smaller-scale institutions and technology)*	Support ethical clothing brands	I refuse to buy clothing from companies that are guilty of unethical practices (e.g. child labour)	V4.5	
		I support clothing manufacturers who create employment and fair working conditions	V4.12	
		I am inspired by clothing brands that have a reputation for being ethical and socially responsible	V4.18	
	Support local clothing brands	I prefer clothes that are made in South Africa to imported brands	V4.6	
		I shop at stores that promote South African clothing	V4.13	
		I support clothing labels that are produced by local South African communities	V4.19	

As can be gathered from Table 1, five items were focused on reduced clothing consumption practices which capture the material simplicity dimension of VS. It can be argued that individuals who score high on these items practice reduced or even non-consumption behaviour by buying good quality clothing and taking care of their clothing to ensure that it lasts longer as well as wearing clothing for more than one season and only purchasing clothing that are of a necessity. The next four items relate to the self-determination dimension of VS. Individuals who score high on these items may have an appreciation/ preference for handcrafted garments and would rather repair/ alter clothing as opposed to discarding them or purchasing new items. The ecological awareness dimension was divided into two sub-dimensions namely eco-friendly disposal (which includes four items that were formulated to focus on individuals' efforts to recycle or repurpose old clothing) and then eco-friendly buying. Three items tapped into eco-friendly buying, whereby respondents were asked if they would purchase eco-friendly clothing, prefer brands that are known to be environmentally responsible and if they shop close to home to lessen their carbon footprint. The last dimension of VS, namely human scale, was also divided into two sub-dimensions, including the support of ethical- and local clothing brands. Three items measured the support of ethical brands, with particular emphasis directed toward fair working conditions for employees. Lastly, three items measured respondents' support for local clothing brands i.e. their willingness to buy local manufactured clothing as opposed to purchasing imported brands and thereby supporting the proudly South African concept. All of these items were assessed in terms of a 7-point Likert-type rating scale with behavioural response options ranging from "1" (Never) to "7" (Always).

Upon completion of the initial scale development phase, primary data was gathered by field workers (i.e. final year Clothing Retail Management students enrolled at the University of Pretoria for the VBR 400 Research project) who approached respondents to complete the structured, self-administered paper-based questionnaire that was developed for this project. The field workers were given a month to collect the data from willing respondents who complied with the preconditions for participation. All questionnaires included a consent form that informed the respondents of the purpose of the study and assured them of their confidentiality and anonymity. The respondents were allowed to complete the self-explanatory questionnaire in their own time within a certain time period. In order to ensure that the collected responses were valid, the respondents were asked to anonymously fill in their telephone numbers on a questionnaire slip, which was torn off and placed in the field workers' envelopes. A random selection of the respondents was then called to acquire feedback regarding the questionnaire. This served as verification that the respondent did indeed complete the questionnaire. Unusable questionnaires were excluded from the dataset. An initial number of 1075 questionnaires were collected but 50

were discarded due to two field workers not completing the questionnaires ethically after the telephonic spot checks were made. The sample of 1025 was further reduced due to the elimination of questionnaires with an excessive number of missing values to eventually culminate in a sample size of 1002.

Following the data collection process and the finalisation of the dataset, the scale purification phase was initiated, which will be discussed in more detail below.

3.4.2 Phase two: scale purification

For the purposes of this project, the final sample (N = 1002) was randomly split into two equal sets, with one set (n = 501) used for scale purification purposes and the other set (n = 501) used for the scale validation. As mentioned before, the questionnaire consisted of several sections, but for this project only the sections relating to VS (Section D) and demographics (Section F) were used. The section relating to demographics (Section F) comprised of items regarding gender, age, education, monthly household income, ethnicity and the suburb of residence. All of these questions included multiple-choice response options except for the age and suburb question, which was an open-ended question. Analysis of these variables was important in order to establish potential differences and/ or similarities in the demographic profile of respondents in each dataset. The results are discussed in more detail in the chapter to follow.

For the purposes of purification of the VS scale, an initial item analysis and an exploratory factor analysis (EFA) were performed (Kang & Johnson, 2011). An EFA can be described as an analyses procedure and is applied to raw collected data that was examined (with the use of SPSS statistical software) in order to reveal unobservable or underlying factors that were present (Mazzocchi, 2008:221). Thereafter, a confirmatory factor analysis (CFA) was performed on the remaining items to further refine the outcome. A CFA is a procedure whereby multiple factors with corresponding variables are believed to follow an existing hypothesis (Mazzocchi, 2008:319) and is considered an important concluding step in the scale purification phase before commencing into the third and final phase of scale development, namely scale validation.

3.4.3 Phase three: scale validation

For the purpose of this project, the scale validation phase entailed three activities. The first activity involved reducing errors by reconfirming the factor structure through a CFA with an independent sample (i.e. dataset 2) (Kang & Johnson, 2011). As mentioned before, in this study the data was

split into two sets in order to perform purification on the first dataset and to then validate the results on the separate, second dataset. Hair, Black, Babin and Anderson (2014:125) confirm that the best way to validate results is to replicate CFA procedures on a split sample (derived from the original dataset) or alternatively, to apply such procedures on a separate sample. Such an approach will clearly indicate whether the results can be replicated.

The second activity that formed part of the scale validation procedures involved testing for construct validity. This was accomplished by correlating the VS constructs with other existing scales (Kang & Johnson, 2011). Construct validity can be described as a linkage between the outcome of a test score to a behaviour or to the actual theory (Salkind, 2012:125). Thirdly, the predictive validity of the VS constructs was tested in order to validate the practicality of the scale for future research purposes (Kang & Johnson, 2011). Predictive validity can be explained as the prediction of a test for future representation (Salkind, 2012:124). In this regard, the following section will provide more background pertaining to the validity measures that were implemented throughout the completion of this project.

3.5 ENSURING THE QUALITY OF THE DATA ANALYSES

For the purposes of scale purification and validation, efforts that address validity and reliability are of particular importance and were incorporated into the project in the following ways:

3.5.1 Validity

Validity can be described as the ability of an instrument to adequately and accurately measure the concept of interest (De Vos & Strydom, 2011:173). Churchill (1979) explains that “a measure is valid when the differences in observed scores reflect true differences on the characteristic one is attempting to measure and nothing else.” Validity furthermore discloses any underlying item covariation that a variable may have (De Vellis, 2012:59). A measure can only truly be regarded as valid when all the different kinds of validity have been explored and calculated, thus showing overall validity (Diamantopoulos & Schlegelmilch,1997:35). Therefore, it is important that numerous validity approaches are examined. To accomplish the envisaged outcome of this study, the guidelines presented by Kang and Johnson (2011) were followed, including measures such as concurrent validity, which form part of the criterion validity approach along with predictive validity. In terms of the initial 2016 scale generation and data collection phases, the types of

validity that were addressed include content validity and construct validity. All of these types of validity are important and thus warrant brief discussion.

Content validity is visible when the content of an instrument is either representative or adequate (De Vos & Strydom, 2011:173). It can also be described as the extent to which a measure encompasses a range of meanings that are encapsulated within a concept (Babbie & Mouton, 2001:147). Two questions can be asked to determine if content validity is accurately measuring the content, namely, whether the instrument is correctly measuring the concept and whether the instrument provides a satisfactory sample of items that represent the concept being measured (De Vos & Strydom, 2011:173). In order to establish content validity in this study, intentional effort was made to ensure logical flow from one scale item to the next, as well as piloting and testing of the questionnaires to make sure that the wording was correct and interpreted correctly. During this process any inaccurate content was discarded, which all contributes toward content validity (De Vellis, 2012:61).

Construct validity is an approach that relates to the extent to which an instrument actually measures a theoretical construct (De Vos & Strydom, 2011:174). This type of validity captures the meaning of the instrument by indicating what, how and why a concept is being measured in that particular way (De Vos & Strydom, 2011:175). From the 2016 data collection the fourth year Consumer Science students conducted thorough literature reviews to enhance construct validity. A method of establishing construct validity in this study was to conduct a factor analysis (i.e. factorial validity) and was used to determine the underlying factors that occur within the questionnaire that ultimately relate back to the research problem as well as the objectives. More importantly construct validity is partially important for this particular study as it is capable of measuring a characteristic that cannot be observed but can be deciphered from individuals' patterns of behaviour through instrument measurement (Leedy & Ormrod, 2005). Therefore, rigorous investigations are required to provide psychological undertakings that may underlie within a particular measure (Clark & Watson, 1995).

In addition, other validity measures for the project pertaining to phase three, the validation stage of the scale development procedure, were convergent and discriminant validity tests that were performed to provide evidence of construct validity (Kang & Johnson, 2011). Convergent validity brings to light the associated constructs that should be theoretically alike, this means if the two constructs have a positive correlation the constructs therefore indicate that they measure the same thing (Kang & Johnson, 2011). This is particularly important as it gives a confirmation that the developed scale does in fact measure what is it supposed to by comparing it to an independent

measure that is based on the same concept proving that their constructs measure the same thing (Diamantopoulos & Schlegelmilch,1997:35). Discriminant validity captures constructs that are distinct having no association to the other constructs and that are theoretically unrelated, this means that constructs displaying a negative correlation indicate that they do not measure the same thing (Kang & Johnson, 2011). In terms of scale development, it is important as it provides evidence that the scale does in fact not measure the same thing if the constructs are different and unrelated (Diamantopoulos & Schlegelmilch,1997:35). To achieve convergent and discriminant validity the VS measurement was compared to that of the materialism scale and the status consumption scale that was used from different subsections of the same 2016 questionnaire. These tests give a clear indication of what the scale does in fact measure and gives clarity of what it doesn't (Clark & Watson, 1995).

Kang and Johnson (2011) have stated that predictive validity is the next validity test to be followed however while researching validity testing it was decided to further test the scale for concurrent validity (Diamantopoulos & Schlegelmilch,1997:35). **Predictive and concurrent validity** are tests that fall under the criterion validity approach used to measure the connection between measures and their characteristics by predicting an individual's score from a different criterion/ characteristic (Diamantopoulos & Schlegelmilch,1997:35). This type of validity refers to a practical issue that should involve a prediction rather than a scientific issue involving the understanding of a process thereby referring to predictive validity (De Vellis, 2012:61). To achieve predictive and concurrent validity the VS measurement was compared to that of the materialism scale and the status consumption scale that was used from different subsections of the same 2016 questionnaire.

- **Predictive validity** is also known as criterion-related validity (Diamantopoulos & Schlegelmilch,1997:35). Consequently, predictive validity is used to display the scale's practical usefulness and this is achieved through positive correlations between constructs (Kang & Johnson, 2011). Predictive validity will demonstrate if scores obtained on one measurement has the ability to forecast future scores on a separate measure (Diamantopoulos & Schlegelmilch,1997:35). This can be achieved by comparing scores attained from the measurement and the criterion of an earlier and later measure (Diamantopoulos & Schlegelmilch,1997:35).
- **Concurrent validity** on the other hand refers to the measurement that is related and measured at the same time (Diamantopoulos & Schlegelmilch,1997:35). This is an important factor to consider while testing for scale validation as it gives a clear understanding of the use of a test for future outcomes.

Validity is an important aspect when constructing a measurement scale in order to ensure scale accuracy as validity gives us an indication of if the measurement is free from systematic or random error (Diamantopoulos & Schlegelmilch,1997:33). This therefore implies that the observed score is a true reflection of the measurement at interest (Diamantopoulos & Schlegelmilch,1997:33). As soon as validity has been recognised, the reliability thereof may be measured (De Vos & Strydom, 2011:177).

3.5.2 Reliability

Reliability is achieved when a construct is measured multiple times by a statistical instrument and the results end up being the same each time (De Vos & Strydom, 2011:177). Churchill (1979) explains that "a measure is reliable to the extent that independent but comparable measures of the same trait or construct of a given object agree." Reliability therefore relates to how well something is being measured and discloses the influence a variable has on a set of items (De Vellis, 2012:59), In terms of this project, the following efforts were incorporated to increase the reliability of the measure that was developed:

- During the initial scale generation phase, multiple scale items were used in the questionnaire to test a single construct or dimension. The questionnaire included 22 VS items in total of which five to six items were generated to respectively measure each VS dimension (including material simplicity, self-determination, ecological awareness and human scale), permitting a well-represented content area (Clark & Watson, 1995).
- Within this initial stage, a pilot test was conducted to ensure that the questionnaire's content and format is accurate and well understood, eliminating all leading questions or statements (Creswell, 2014:207). The pilot testing was performed by final year students enrolled at the Department of Consumer and Food Science at the University of Pretoria. Pilot testing the item format allows for a basic critique of item analysis and facilitates further scale conceptual development (Clark & Watson, 1995). In addition to the pilot test, academic staff members who specialise in the clothing and textile domain checked that the scale items were clear and formulated in simple, straightforward and understandable language, also making sure that there were no double-barrelled questions (Clark & Watson, 1995; De Vos & Strydom, 2011:177).
- The scale items relating to the various dimensions of VS were randomised in order to prevent response bias and to allow the respondent to think before answering the questions.

It was decided that 7-point Likert type rating scale was to be used with the response options ranging from "*never"* to "*always*".

- A consent form was included as part of the questionnaire to ensure the respondents that their identity would be kept anonymous and their responses kept confidential for truthful data. The form indicated that respondent's participation was voluntary and they could at any point decide to withdraw from the study.
- An approach of a split-sample reliability assessment procedure was implemented where the sample was randomly split into two for data analysis. A randomly split sample allows for a confirmation of results obtained by assessing consistency and correspondence on the same measure (Diamantopoulos & Schlegelmilch,1997:36). The first sample was used to test scale purification through EFA and CFA testing while the second dataset was used to test the scale validation stage through CFA and measure validation.
- Reliability was achieved during the scale purification and scale validation stage by testing for internal consistency in responses through coefficient alpha of a Cronbach Alpha. A Cronbach's Alpha coefficient was used as a form of reliability to determine whether the items in the scale were able to correlate with the total measure of the scale (De Vos & Strydom, 2011:177). This value was calculated for factors derived from the initial EFA in the first dataset and then again in the subsequent CFA of the second dataset. To calculate this a statistical program known as SPSS was used to inspect the item intercorrelation matrix. Coefficients with a threshold of 0.7 were deemed acceptable and 0.8-0.9 were considered highly reliable (De Vos & Strydom, 2011:177). Factor analysis was deemed possible due to the large number of respondents that were obtained, it is said that a minimum of 200-300 respondents is necessary for factor analysis, fortunately both datasets had a sample number of 501 respondents, therefore correlational or reliability analysis was achieved (Clark & Watson, 1995). During statistical analysis less error can be obtained from a larger sample (De Vellis, 2012:53).

3.6 ETHICAL ISSUES

Ethics can be described as a form of moral principles. It comprises of groups or individuals including researchers, assistants and students accepting the rules and behavioural expectations towards the correct conduct of experimental subjects (De Vos & Strydom, 2011:177). To comply with the University of Pretoria's code of conduct, an application was submitted to the Ethics Committee of the Faculty of Natural and Agricultural Sciences in 2016 before the commencement

of the main data collection process. The application was approved (refer to Addendum B) based on the fact that the following ethical issues of protection from harm, informed consent, right to privacy and honesty with others were taken into account:

- To avoid any ethical implication within the research, the respondents were protected from harm while completing the questionnaire as they were not objected to any risks referring to physical or psychological damage (Leedy & Ormrod, 2005:101).
- Consent forms were given to the respondents to sign to ensure their full understanding of the study was achieved (De Vos & Strydom, 2011:118). The respondents were well informed regarding nature the study, the amount of time it would take to complete the questionnaire and could choose to freely participate, thus guaranteeing an informed consent and ensuring that participation was voluntary (Leedy & Ormrod, 2005:101). Respondents were reminded that they could at any point in time withdraw from the study without any repercussions. Respondents' identities were kept anonymous, their responses were kept confidential and no one was forced to complete the questionnaire against their will (Creswell, 2014:133; Leedy & Ormrod, 2005:102). Contact details of the principal investigators were given in the event that any of the respondents felt that they needed to contact the researchers to obtain further information about the study (Leedy & Ormrod, 2005).
- Respondents were given the rights to privacy ensuring that no questionnaire could be linked to a particular respondent as no names were completed on the questionnaire (Leedy & Ormrod, 2005).
- In compliance with the regulations specified by the University of Pretoria and the Department of Consumer and Food Science, a written report regarding the findings of the research study was compiled and released in an objective manner. The findings of the study are represented honestly and without misinterpretation (Leedy & Ormrod, 2005:101). Acknowledgement of others' work has been given within this research study. A plagiarism declaration (refer to Addendum C) is included to confirm acknowledgement and compliance.

3.7 CONCLUSION

This chapter outlined the research approach and design of the study. As mentioned, data was originally collected in a cross-sectional manner within the geographical scope of the Tshwane metropolitan area and comprised of responses from individuals older than 18 years. The sample, sample technique and collection of data that culminated in the dataset that served as the basis for

this project, was described. Particular emphasis was drawn toward the phases involved in the development of the VS scale, namely the item scale generalisation and operationalisation, the scale purification and the scale validation, all of which were comprehensively explained. Statistical analysis was achieved through, amongst other, EFA and CFA with the use of the SPSS statistical software program. Certain aspects surrounding validity and reliability were discussed that was focused on enhancing the quality of the data. The chapter was concluded with a discussion surrounding the ethical requirements and guidelines that were followed to ensure that the best possible conduct had taken place. The next chapter will be based on the findings of this study.

CHAPTER 4

DISCUSSION AND INTERPRETATION OF RESULTS

This chapter presents the results of the research study. Descriptive statistical analysis is used to interpret the demographic characteristics of the sample and is presented by way of tables and graphs indicating frequencies and percentages. The main objective of this study, which relates to the purification and validation of a scale to measure consumer's engagement in voluntary simplistic clothing consumption behaviour in the local context, was achieved by following scale development procedures prescribed by Kang and Johnston (2011) whereby the total dataset is randomly split into two sets, one for performing scale purification and the other for scale validation. Subsequent steps involve inferential statistical analysis including Exploratory Factor Analysis (EFA) and Confirmatory Factor Analysis (CFA).

4.1 INTRODUCTION

To date most of our current understanding surrounding VS has been established in more developed countries and therefore scope for enquiry into this sustainable way of life in the local emerging market context exists. As postulated in Arnould and Thompson's (2005) consumer culture theory (CCT), consumer lifestyles and consumption may differ from one market to the next. Therefore, in order to measure the concept at hand, a valid and reliable measurement scale is required that reflects the prevailing local market environment in which the VS lifestyle and consumption practices occur. This project was focused on presenting such a scale, but with particular emphasis directed toward clothing consumption practices as a manifestation of the lifestyle in question. To accomplish the objectives of this study, previous scales such as the one developed by Leonard-Barton (1981) served as valuable background in clarifying the underlying concepts and dimensions that form part of the VS lifestyle and how this construct should be measured in terms of behavioural manifestation.

This background led to the very first stage of the scale development process, which involves scale item generation (Kang & Johnston, 2011). To recap, the 2016 questionnaire was initially compiled to collect data for a final year Clothing Retail Management research project in the Department of Consumer and Food Sciences at the University of Pretoria. The questionnaire included a pool of newly developed scale items that were intended to measure voluntary simplistic clothing consumption practices. This gave rise to the overarching aim of this particular project, namely to

further purify and validate the scale. Of the 1025 questionnaires that were collected in the Tshwane metropolitan area, 1002 questionnaires were deemed useable for the purpose of this study.

As mentioned before, to produce a valid and reliable scale certain requirements and statistical procedures must be adhered to. Such procedures include, amongst other, analysing data through factor analysis by means of SPSS statistical software (Yong & Pierce, 2013). However, before such analysis could be performed, the entire dataset (N = 1002) had to be randomly split (by means of SPSS software) into two equal parts in order to perform scale purification procedures on the first dataset (n = 501) and scale validation on the second dataset (n = 501). In the section to follow, the demographic characteristics of the entire sample will be discussed first. Thereafter, each of the demographic variables are presented in more detail with a comparison between the first dataset (which will be used for scale purification techniques) and the second dataset (that relates to the validation procedures of scale development). Each of the scale purification and validation procedures will then be explained in detail in the latter part of the chapter.

4.2 DEMOGRAPHIC CHARACTERISTICS OF THE SAMPLE

The questionnaire included six demographic questions, which established respondents' gender, age, highest level of education, total monthly household income, population group and area of residence within the Tshwane Metropolitan area. Smith (2014) states that demographic questions are a vital tool to segment consumers according to their awareness of environmental sustainability as well as their purchasing behaviour and intentions. Consumers' preferences and consumption patterns are reliant on individual as well as socio-economic influencing factors such as class, education, and occupation as this provides the backdrop for social differentiation and environmental action (Barr, 2003; Casimir & Dutilh, 2003). In terms of this study, it was important to understand the demographic profile of the respondents in order to derive further understanding regarding their engagement in voluntary simplistic clothing consumption practices. The demographic characteristics of the total sample (N = 1002) are summarised in **Table 4.1**

TABLE 4.1: DEMOGRAPHIC PROFILE OF THE TOTAL SAMPLE (N=1002)

Categories in Questionnaire	n	%	Categories of Analysis	n	%
Gender (1 missing value)			**Gender** (1 missing value)		
Male	437	43.61	Male	437	43.61
Female	564	56.29	Female	564	56.29
Total	**1001**	**100%**	**Total**	**1001**	**100%**
Age (1 missing value)			**Age** (1 missing value)		
Open ended question, respondents ranged between the ages of 19-78			19-30 years	319	31.84
			31-40 years	235	23.45
			41-50 years	185	18.46
			51-60 years	174	17.37
			≥61 years	88	8.78
Total	**1001**	**100%**	**Total**	**1001**	**100%**
Highest level of education (3 missing values)			**Highest level of education** (3 missing values)		
Lower than grade 10	23	2.30	≤Grade 12	343	34.23
Grade 10 or 11	51	5.09			
Grade 12	269	26.85			
Grade 12 + Degree/diploma	412	41.12	Grade 12 + Degree/diploma	412	41.12
Postgraduate	244	24.35	Postgraduate	244	24.35
Total	**999**	**99%**	**Total**	**999**	**99%**
Household income before deductions (7missing values)			**Household income before deductions** (7missing values)		
Less than R5000	159	15.87	<R10000	287	28.64
R5000 to R9999	128	12.77			
R10000 to R14999	127	12.67	R10000-R24999	310	30.94
R15000 to R24999	183	18.26			
R25000 or more	398	39.72	≥R25000	398	39.72
Total	**995**	**100%**	**Total**	**995**	**100%**
Population group (4 Missing values)			**Population group** (4 Missing values)		
White	514	51.30	White	514	51.30
Black	349	34.83	Black	349	34.83
Indian	52	5.19	Other	135	13.47
Coloured	61	6.09			
Asian	11	1.10			
Other	11	1.10			
Total	**998**	**100%**	**Total**	**998**	**100%**

As can be gathered from **Table 4.1,** a slight majority of the respondents (56%/ n = 564) are female, but the total sample includes a substantial representation of males (44%/ n = 437). Respondents indicated their age in an open-ended question, which, once analysed, ranged between the ages of 19-78 and were subsequently grouped into five age categories for the purposes of statistical interpretation. The majority of the respondents are between the ages of 19 and 30 (32%/ n = 319) with another substantial percentage (23%/ n = 235) between 31 and 40 years of age. Most of the respondents have their grade 12 matric certificate including further studies comprising of either a

bachelor's degree or diploma (41%/ n = 412). In terms of household income, a substantial number of the respondents earn a salary of ≥ ZAR 25 000 (40%/ n = 398). Slightly more than half the sample are white (51%/ n = 514) followed by a fairly large representation of black respondents (35%/ n = 349). Because the sample was recruited in a non-probable convenience-based manner, it is important to note that this sample is not representative of the larger South African population.

South Africa is characterised by a diverse consumer population that enjoys exposure to a wide range of local and foreign products. The country is further recognised as the economic centre of Africa, consisting of an estimated 54 million people of which a fairly large concentration resides in the Gauteng province – this province is then also seen as the economic hub of the country (Muposhi *et al.,* 2018). Due to time and monetary constraints, the respondents were recruited within the Tshwane Metropolitan area that lies within the Gauteng province. There has been an increase from 60.1% to 65.3% from 2006 to 2016 in the number of people that have moved to urban areas such as Tshwane (Marketline Report, 2018). In this regard, some exploratory results can be derived from the sample, despite its convenience-based, non-probable nature, and it may furthermore serve as a basis for further empirical research. The respondents' indicated their residential area in an open-ended question. From the results it can be deduced that there was an even distribution of respondents residing throughout the Tshwane Metropolitan area and that the respondents were evenly spread over the entire geographical scope of the study.

The following sections will provide further detail pertaining to the demographic characteristics of the sample after the total dataset was randomly split. As mentioned before, the dataset had to be split to perform the procedures associated with scale purification and validation.

4.2.1 Gender

Women have been seen to have a greater concern for social and environmental issues than men, which are instilled from a young age (Luchs & Mooragian, 2012). According to Anvar and Venter (2014), there is a difference between male and females' behaviour regarding purchases that are of a sustainable nature. Women regard sustainable fashion as unique and fashionable, whilst on the other hand, men seem to think completely the opposite (Vehmas, *et al*., 2018). It is suggested that men are likely to choose items with superior performance, while women are more likely to choose options that have a high level of sustainability (Luchs & Mooragian, 2012). It is therefore important to realise that men and women have different beliefs regarding sustainability and may consequently differ in their engagement of voluntary simplistic clothing consumption practices.

With regard to this study, effort was made to obtain a balanced representation of both genders. Fieldworkers were instructed to recruit equal numbers of male and female respondents. A summary of the gender split in both samples is presented in **Table 4.2**.

TABLE 4.2: GENDER ANALYSIS

PURIFICATION DATASET (n = 501) 1 missing value			**VALIDATION DATASET (n = 501)**		
Gender	**Frequency (n)**	**Percentage (%)**	**Gender**	**Frequency (n)**	**Percentage (%)**
Male	220	43.91	Male	217	43.31
Female	280	55.89	Female	284	56.69
TOTAL	**500**	**99.8**	**TOTAL**	**501**	**100**

As can be gathered from **Table 4.2**, the two datasets are very similar in terms of the eventual gender split in the sample composition. Both samples have a majority of female respondents with the first dataset's sample consisting of 56% (n = 280) females and the second dataset's sample including 57% (n = 284) females. Prior empirical research has found that females are more likely to respond to paper-based surveys, while men on the other hand prefer responding to web based surveys (Sax, Gilmartin & Bryant, 2003), which may have contributed to a slight majority of females responding to this particular survey.

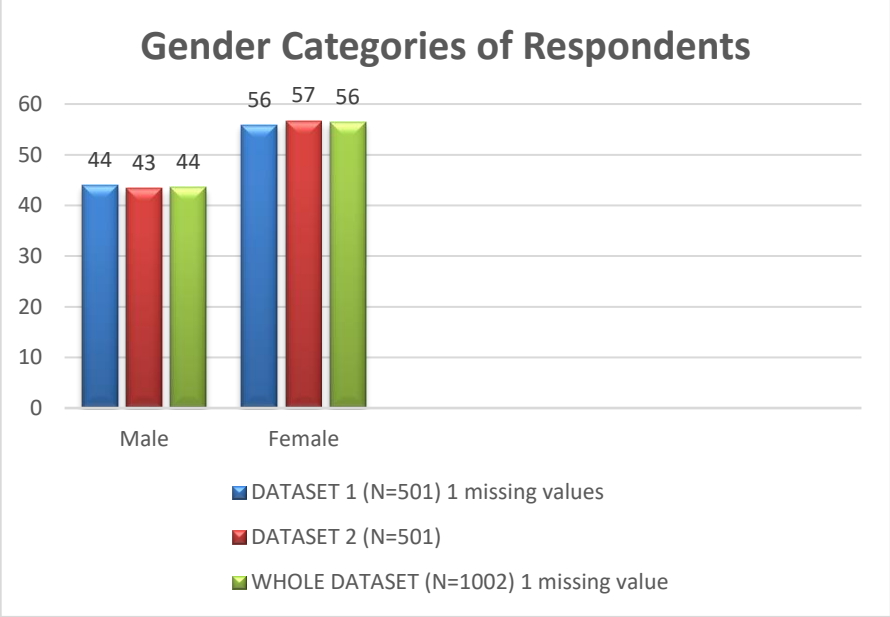

FIGURE 4.1**: GENDER ANALYSIS OF THE SAMPLE**

4.2.2 Age

Age was specified as a prerequisite for participation in the study as respondents needed to have some sort of independence in their purchasing decisions and purchasing experience. Therefore, it was decided that respondents were to be 19 years of age or older as those 18 years or younger are generally somewhat more dependent on their parents, which may subsequently influence their purchasing decisions and behaviours. This demographic question was open ended, which allowed respondents to fill in their exact age. Based on the total sample of 1002 respondents, their ages ranged between 19-78 years. For the purposes of statistical interpretation, the ages were grouped into five categories. **Table 4.3** summarises the age groups represented in both datasets.

TABLE 4.3: AGE CATEGORIES

PURIFICATION DATASET (n = 501)			VALIDATION DATASET (n = 501) 1 missing value		
Age	Frequency (n)	Percentage (%)	Age	Frequency (n)	Percentage (%)
≤30 years	154	27.94	≤30 years	165	32.93
31-40 years	128	25.55	31-40 years	107	21.36
41-50 years	82	16.37	41-50 years	103	20.56
51-60 years	96	19.16	51-60 years	78	15.60
≥61 years	41	8.18	≥61 years	47	9.38
TOTAL	501	97.2	TOTAL	500	99.83

As can be gathered from **Table 4.3** and **Figure 4.2**, the second dataset included a slightly younger sample with 33% younger than 30 years of age compared to the first dataset in which 28% were younger than 30 years of age. In both datasets, the second largest group was represented by individuals between the ages of 31 and 40. Overall, the reason for this large number of younger respondents may be due to the fact that the survey was distributed by young fieldworkers studying at the University of Pretoria, who tend to share the survey among their peers, who generally also fall within the younger age categories. These age groups include individuals that fall within the Generation Y and a few of the Generation X cohort. Generation Y are those individuals that are born between the years of 1986-2005 (Anvar & Venter, 2014) while Thompson *et al*., (2017) explain that the generation Y cohort are born between the years of 1981-2006. Yet, it should also be mentioned that there are some inconsistencies in literature indicating the start and end date of this cohort. Nonetheless, a large percentage (66%) of the total South African population consist of young individuals that are below the age of 35 (Potgieter & Doubell, 2018; Thompson *et al.,* 2017). The communality between this younger generation cohort and previous cohorts is that they share common values and experiences due to them being part of a global generation (Thompson *et al.,* 2017).

However, Generation Y cohorts are known to spend and regard purchasing of apparel as more important and simultaneously tend to have more buying power, perhaps due to this group representing a larger percentage of the overall population (Thompson *et al.,* 2017). The impact of this group is therefore high. Thompson *et al.,* (2017) state that the Generation X, aged between 37-52, as well as the Baby Boomers, aged 53-71, spend less than Generation Y. Ethical consumers generally form part of an older generation than that of a younger generation (Henninger & Singh, 2017; Vehmas *et al.,* 2018). From a developing country perspective, emphasis should however be placed on promoting more sustainable purchasing practices among the younger Generation Y cohort, as their behaviour may have more significant impact on the future global economy (Anvar & Venter, 2014).

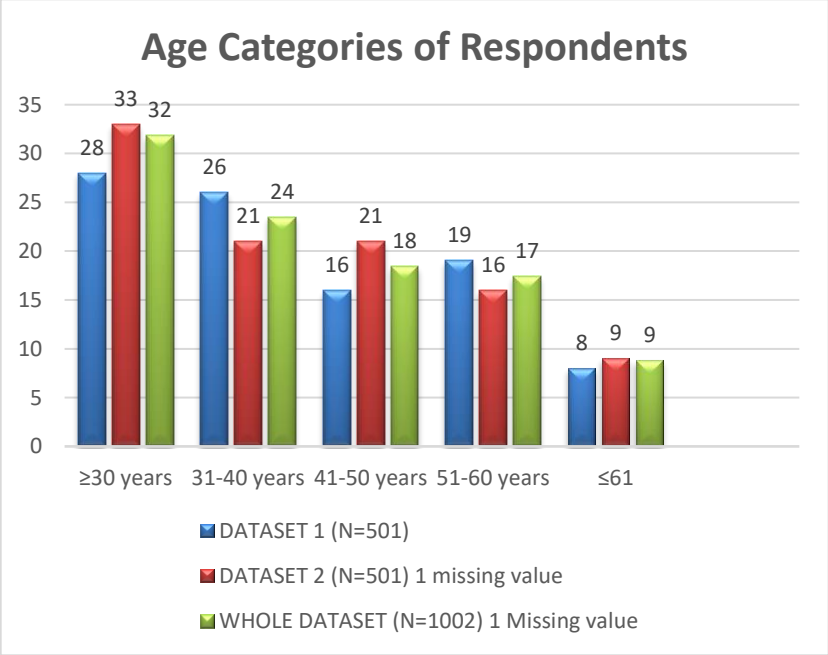

FIGURE 4.2: AGE CATEGORIES ANALYSIS OF RESPONDENTS

4.2.3 Level of education

Environmental action is often linked to demographic variables such as education (Barr, 2003). The questionnaire included five response options to indicate respondents' level of education namely: lower than grade 10, grade 10 or 11, grade 12, grade 12 including degree or a diploma and lastly a postgraduate. For statistical purposes, the five categories were regrouped into three categories as indicated in **Table 4.3.**

TABLE 4.4: RESPONDENTS' EDUCATION

PURIFICATION DATASET (n = 501) 3 missing values			VALIDATION DATASET (n = 501) 3 missing values		
Education	**Frequency (n)**	**Percentage (%)**	**Education**	**Frequency (n)**	**Percentage (%)**
≤Grade 12	168	33.53	≤Grade 12	175	34.93
Grade 12 + Degree/diploma	204	40.72	Grade 12 + Degree/diploma	208	41.52
≥Postgraduate	129	25.75	≥Postgraduate	115	22.95
TOTAL	**501**	**100**	**TOTAL**	**498**	**99.4**

Most respondents in both samples, (41% in the first sample and 42% in the second sample), obtained a grade 12 certificate in addition to a tertiary degree or diploma. A mere third of both samples obtained a grade 12 certificate or lower (34% of the first sample and 35% in the second sample). A number of respondents in fact completed further studies including a postgraduate degree – this tendency seemed relevant in dataset one (25.75%/ n = 129) and dataset two (22.95%/ n = 115). The fact that many of the respondents had a higher education may be attributed to the convenience sampling approach, whereby most of the respondents were recruited on campus and/ or in the surrounding vicinity of the University of Pretoria's main campus. On the other hand it should also be noted that since 1994 the number of tertiary learners has increased vastly and altogether, since 2000, there has been a 4.2% growth in students numbers enrolling at higher education institutions in South Africa (Matsolo, Ningpuanyeh & Susuman, 2018). State expenditure currently allocates 20% of tax payers' money towards education, thus allowing students from poorer communities to further their education by means of grants and other financial instruments (Matsolo *et al*., 2018). With this being said, there is still a large percentage of the population who are unable to obtain a higher education as well as those who are given the opportunity, yet, due to various reasons, are unable to complete their higher education (Matsolo *et al*., 2018).

4.2.4 Respondents' income per month

Respondents were asked to indicate their monthly household income (before deductions) in terms of categories ranging from "Less than R 5 000", "Between R 5 000 – R 9 999", "Between R 10 000 – R 14 999", "Between R 15 000 – R 24 999" to "R 25 000 or more". For statistical purposes and ease of interpretation these categories were regrouped into three classifications as indicated in **Table 4.5**

TABLE 4.5: HOUSEHOLD INCOME CATEGORY

PURIFICATION DATASET (n = 501) 3 missing values			VALIDATION DATASET (n = 501) 4 missing values		
Income	**Frequency (n)**	**Percentage (%)**	**Income**	**Frequency (n)**	**Percentage (%)**
≤R10 000	146	29.14	≤R10 000	141	28.14
R10 000–R24 999	156	31.14	R10 000–R24 999	154	30.74
≥R25 000	196	39.12	≥R25 000	202	40.32
TOTAL	**498**	**99.4**	**TOTAL**	**497**	**99.2**

Just under half of the respondents in dataset one indicated a monthly income of R25 000 or more (39.12%/ n = 196), which closely resembles the results for dataset two (40.32%/ n = 202). This could perhaps be due to the fact that more than half the respondents had a tertiary degree or diploma or postgraduate education. It is generally assumed that highly educated respondents will earn higher salaries and find employment in the formal sector. Education could play a vital role in increasing earnings and decreasing poverty (Matolo *et al*., 2018; Potgieter & Doubell, 2018).

4.2.5 Population group

Due to the fact that the South African population consists of a diverse range of cultures, effort was devoted toward recruiting respondents from the different population groups. The respondents were requested to indicate the population group to which they belong according to the South African Employment Equity Act. Groups were hence specified as follows: White, Black, Coloured, Indian, Asian and Other. The responses were regrouped for statistical purposes and ease of interpretation as White, Black and Other. The results are summarised in **Table 4.6.** Most of the respondents were White in both dataset one (53.09%/ n = 266) and two (49.90%/ n = 250), which may be due to the convenience and snowballing sampling method that was employed for recruiting potential respondents. Fieldworkers were however encouraged to reach black respondents and other population groups. Eventually, a substantial number of black respondents were included in dataset one (34.93%/ n = 175) and dataset two (35.13%/ n = 176), although more diversity would have been preferred in recruiting a sample that more closely resembles the larger South African population.

TABLE 4.6: POPULATION GROUP PROFILE

PURIFICATION DATASET (n = 501)			VALIDATION DATASET (n =501)		
Population	**Frequency (n)**	**Percentage (%)**	**Population**	**Frequency (n)**	**Percentage (%)**
White	266	53.09	White	250	49.90
Black	175	34.93	Black	176	35.13
Other	60	11.98	Other	75	14.97
TOTAL	**501**	**100**	**TOTAL**	**501**	**100**

Kang and Johnson (2011) emphasise the importance of commencing scale development procedures by discussing the data procedure including what the questionnaire consisted of, who collected the questionnaires and how many usable questionnaires were collected, all of which were presented in detail in the preceding methodology chapter. In addition to this, a thorough review of the participants' characteristics must be given, which was the focal point of the preceding discussion surrounding the demographic profile of the sample. Having summarised the demographic profile of the total sample, and in particular, describing the demographic communalities between the two datasets (after random splitting of the total dataset), the following discussions will highlight the results for each of the scale purification (objective 1) and validation procedures (objective 2) that were performed on the respective datasets.

4.3 SCALE PURIFICATION (OBJECTIVE 1)

The first objective specified for this study was the purification of a scale (patterned after Leonard Barton's (1981) VS behavioural index) that specifically focuses on clothing consumption behaviour. Scale purification procedures that were performed on the first dataset (n = 501), include initial exploratory- and further confirmatory factor analysis of the responses to the pool of VS clothing consumption scale items that was generated for a 2016 survey. Scale purification commences with an initial scale item analysis whereby scrutiny of an item-total correlation of each of the items that formed part of the questionnaire was performed. This is done to ensure that the items appropriately represent the overarching VS construct. This step must be conducted prior to EFA testing so that the remaining items provide an appropriate basis for exploration of the latent factor structures and the relationships between variables (Kang & Johnson, 2011).

4.3.1 Initial item analysis

A correlation exhibits how much common ground the scale items share (Churchill, 1979) and whether in fact a relationship exists between two or more variables (Mozzocchi, 2008:173).

Corrected item-total correlations were examined for the total VS scale and only items exhibiting corrected item-total correlations above the threshold of 0.30 were retained (see **Table 4.7**). Two items, V4.1 and V4.14, were subsequently deleted. Both of these items were initially developed to tap into the material simplicity dimension of VS that is predominantly focused on reduced consumption. The item V4.1 stated that “I buy good quality clothes so that I can wear it longer” and V4.14 states “I wear my clothes for more than one season”. As can be gathered from **Table 4.7**, the reason for deleting these two items is that they shared little common variance with the other items in the pool. Low correlated items should be deleted due to the items producing subsequent errors and unreliability (Churchill, 1979). Reasons for a low corrected item-total correlation may be that the question item may have been confusing or too vague for the respondents. With the two items deleted, three items were left in the material simplicity dimension. Interestingly the items that had the highest corrected item-total correlations of 0.60 or more were V4.6, V4.12, V4.13, V4.18 and V4.19, all of which focused on the human scale dimension which support ethical and local clothing brands. The high item-total correlations bring to light the connection and mutual relationship of the items for this specific dimension and can be said that these items therefore have an equal common ground (Churchill, 1979). These items all tapped into the importance of supporting smaller-scale institutions and technology that incorporates ethical work procedures for employees as well as the support of local clothing brands. Another item, V4.11 that belonged to the ecological awareness dimension, which was more specifically focused on eco-friendly buying, also achieved an item-total correlation of 0.60. This item relates to buying environmentally responsible brands, which may in fact also imply a preference for ethical clothing brands. The “scale mean if item deleted” column in **Table 4.7** entails a cumulative mean should an item be deleted. Similarly, the “scale variance if item deleted” column reports on the cumulative variance should an item be deleted. The final column in the table shows that the deletion of no single item would change the overall Cronbach’s alpha significantly. The most important values from this table are the Item-total correlation being the main criterion that was looked at, and which led to the elimination of two items (V4.1 and V1.14) that were below the threshold of 0.30.

TABLE 4.7: RESULTS OF THE ITEM-TOTAL STATISTICS (n=501)

DIMENSION	INDICATOR	SCALE ITEMS	VARIABLE NUMBER	SCALE MEAN IF ITEM DELETED	SCALE VARIANCE IF ITEM DELETED	CORRECTED ITEM-TOTAL CORRELATION	CRONBACH'S ALPHA IF ITEM DELECTED
Material Simplicity	Consumers' reduction of clothing consumption	I buy good quality clothes so that I can wear it longer	V4.1	94.82	418.419	0.202	0.880
		I look after my clothes so that it lasts longer	V4.7	94.29	411.285	0.341	0.877
		I wear my clothes for more than one season	V4.14	94.29	414.309	0.288	0.878
		I make a conscious effort to only buy clothes that I really need	V4.20	95.13	401.553	0.425	0.875
		When going to a special occasion, I rather wear something I already have than buying a new outfit	V4.9	95.63	405.867	0.324	0.878
Self Determination	Make and repair clothing	I have an appreciation for handcrafted garments	V4.2	95.85	403.357	0.348	0.877
		I prefer wearing clothes that are handcrafted to clothes that are mass produced	V4.8	96.63	395.380	0.463	0.873
		When possible, I repair damaged clothing rather than to throw it away	V4.15	95.35	397.740	0.419	0.875
		I have clothing altered if it no longer fits me	V4.21	96.51	392.238	0.430	0.875
Ecological Awareness	Eco-friendly disposal (recycle/ reuse)	I recycle and repurpose old clothing (e.g. using old T-shirts as cleaning rags)	V4.3	96.09	386.945	0.518	0.872
		I dispose of clothing in an eco-friendly way e.g. donating it to charities	V4.10	94.96	400.367	0.407	0.875
		In our household, we pass clothes on to siblings, friends or other family members to be reused	V4.16	95.17	396.519	0.431	0.875
		Given the opportunity, I will sell unwanted clothing so that it is reused by others	V4.22	96.54	400.856	0.300	0.880
	Eco-friendly buying	Whenever possible, I buy clothes with eco-friendly features (e.g. organic cotton)	V4.4	96.94	392.511	0.552	0.871
		I buy clothing brands that are known to be environmentally responsible	V4.11	96.51	387.059	0.616	0.869
		I try to reduce the environmental impact of my purchases by shopping close to home	V4.17	95.96	388.284	0.547	0.871
Human Scale	Support ethical clothing brands	I refuse to buy clothing from companies that are guilty	V4.5	95.99	389.131	0.447	0.874
		I support clothing manufacturers who create employment and fair working conditions	V4.12	95.82	384.638	0.622	0.869
		I am inspired by clothing brands that have a reputation for being ethical and socially responsible	V4.18	96.00	383.123	0.621	0.868
	Support local clothing brands	I prefer clothes that are made in South Africa to imported brands	V4.6	96.42	384.220	0.624	0.868
		I shop at stores that promote South African clothing	V4.13	96.21	384.212	0.652	0.868
		I support clothing labels that are produced by local South African communities	V4.19	96.26	383.514	0.674	0.867

Note: Only items exhibiting corrected item-total correlations above .30 were retained therefore V4.1 and V4.14 were deleted. Items that had the highest corrected item-total correlations of .60 or more were V4.6, V4.11, V4.12, V4.13, V4.18 and V4.19.

4.3.2 Exploratory Factor Analysis (EFA) of dataset one

An EFA is essentially a data reduction technique (Mazzocchi, 2008:219), and involves grouping items or variables based on their underlying relationship (Beavers, Lounsbury, Richards, Huck, Skolits & Esquivel, 2013). As pointed out in the previous section, two of the 22 items were deleted due to their low item-total correlation. An EFA was run on the remaining 20 items in order to examine any underlying factor structures and their relationships with the observed variables. A Varimax rotation with Kaiser Normalization was employed in addition to Principal Axis Factoring as an extraction method. Using Kaiser's Criterion, factors with eigenvalues equalling one or greater than one was retained (Beavers *et al*., 2013; Kang & Johnson, 2011). The reason such factors are retained is that they may contribute to the explication of more of the underlying variance in the dataset (Beaver *et al*., 2013). In so far as the individual items/ variables are concerned, those having practical significance were ones that exhibited factor loadings of .40 or more and those items displaying low factor loadings (<.40) were candidates for elimination (Kang & Johnson, 2011). Items containing high cross-loadings of (>.40) were also deleted. Beavers *et al*., (2013) state that the chosen factors should display a good representation of the data and factors should be deleted if not applicable in a statistical or theoretical manner. Too many unrelated items can also weaken the factor structure and therefore each item should be carefully examined in terms of its contribution to the overall factor structure. When deleting items, one item was removed at a time and an EFA was rerun because removal of one item can change the overall factor structure.

Based on the above criteria the following items were candidates for elimination during the item purification process: The first item removed from the initial four-factor solution was V4.3 due to the high cross-loading on three factors. Similarly, V4.11 was removed next due to high cross-loadings on three factors. V4.17 exhibited low factor loadings (<.40) and was therefore also deleted. V4.16 displayed high cross-loadings, while V4.5 and V4.9 exhibited low factor loadings of (<.40) and was therefore all in line for elimination. Following the elimination of these items, the resulting four-factor solution exhibited eigenvalues over 1.00 and accounted for 47,88% of the total variance. All the remaining items exhibited factor loadings higher than .40 on a specific factor with no further cross-loadings. The resulting factors from the EFA were initially labelled as "supporting local, ethical and socially responsible brands" (V4.19, V4.13, V4.12, V4.18 & V4.6), "preference for unique handcrafted features" (V4.8, V4.2 & V4.4), "reduced consumption" (V4.10, V4.7 & V4.20) and lastly, "extending lifespan" (V4.22, V4.21 & V4.15). These factors soon changed once further statistical analysis was completed.

Once the factors were determined through the initial EFA procedure, a Cronbach alpha coefficient was run to test the internal consistency of responses for each of the factors. Kang and Johnson (2011) state within their study that an acceptable reliability value of 0.70 is deemed desirable. Based on this assessment it became apparent that the Cronbach alpha coefficient values for factors three and four were very low. Throughout the initial EFA, factors three and four would at times converge and hence the decision was made to further eliminate items to potentially reach a three-factor solution with a third factor that achieved a higher Cronbach alpha. The following items were eliminated V4.22, V4.7 and V4.10 based on close scrutiny of their factor loadings on each of the factors respectively. The elimination of these items resulted in a three-factor solution with 51,18% of the total variance explained, which was then also higher than the initial four factor solution. Within the three-factor solution all factor loadings were above 0.45 with no cross-loadings. The Cronbach alpha coefficient of the third factor also improved and whilst the value ($\alpha = 0.63$) is still below the 0.7 threshold, it was much improved from the initial results. The label, “reduced consumption”, was retained for the third factor as it was mostly comprised of items that relate to efforts to reduce the consumption of clothing items. The final three factor solution therefore consisted of the following:

Factor One: Local ethical brands (LEB)
Factor Two: Distinct product features (DPF)
Factor Three: Reduced consumption (RC)

Table 4.8 provides an overview of the items that were eliminated as well as those that were retained during the EFA procedure. **Table 4.9** then summarises the final three factor solution comprising of Factor one (i.e. local ethical brands), Factor two (i.e. distinct product features) as well as for Factor three (i.e. reduced consumption). **Table 4.9** also highlights some of the descriptive statistics for each of these factors. The values derived from the mean calculation are as follows: local ethical brands ($M = 4.14$), distinct product features ($M = 3.87$) and reduced consumption ($M = 1.37$). Of the three factors, local ethical brands therefore had the highest mean value, which may relate to South African consumers’ strong willingness to support local brands and their “proudly South African” stance. The standard deviation ranged between 1,374 and 1.419. For the three-factors, consisting of 11 retained items, the cumulative percentage variance explained amounted to 51.18%, which is deemed acceptable. Each of the factors will be discussed in greater detail in the section to follow.

TABLE 4.8: ITEMS ELIMINATED DURING EXPLORATORY FACTOR ANALYSIS (n=501)

DIMENSION	INDICATOR	SCALE ITEMS	VARIABLE NUMBER	ITEM DELETED	ITEM RETAINED	FACTOR		
						1	2	3
						Local Ethical Brands	Distinct Product Features	Reduced Consumption
						(LEB)	(DPF)	(RC)
		I look after my clothes so that it lasts longer	V4.7	x				
		I make a conscious effort to only buy clothes that I really need	V4.20		x	0.253	-0.081	0.517
		When going to a special occasion, I rather wear something I already have than buying a new outfit	V4.9	x				
Self Determination	Make and repair clothing	I have an appreciation for handcrafted garments	V4.2		x	0.149	0.607	-0.024
		I prefer wearing clothes that are handcrafted to clothes that are mass produced	V4.8		x	0.265	0.731	0.075
		When possible, I repair damaged clothing rather than to throw it away	V4.15		x	0.107	0.009	0.632
		I have clothing altered if it no longer fits me	V4.21		x	0.118	0.246	0.562
Ecological Awareness	Eco-friendly disposal (recycle/ reuse)	I recycle and repurpose old clothing (e.g. using old T-shirts as cleaning rags)	V4.3	x				
		I dispose of clothing in an eco-friendly way e.g. donating it to charities	V4.10	x				
		In our household, we pass clothes on to siblings, friends or other family members to be reused	V4.16	x				
		Given the opportunity, I will sell unwanted clothing so that it is reused by others	V4.22	x				
	Eco-friendly buying	Whenever possible, I buy clothes with eco-friendly features (e.g. organic cotton)	V4.4		x	0.358	0.533	0.142
		I buy clothing brands that are known to be environmentally responsible	V4.11	x				
		I try to reduce the environmental impact of my purchases by shopping close to home	V4.17	x				
Human Scale	Support ethical clothing brands	I refuse to buy clothing from companies that are guilty	V4.5	x				
		I support clothing manufacturers who create employment and fair working conditions	V4.12		x	0.718	0.182	0.128
		I am inspired by clothing brands that have a reputation for being ethical and socially responsible	V4.18		x	0.638	0.229	0.188
	Support local clothing brands	I prefer clothes that are made in South Africa to imported brands	V4.6		x	0.624	0.317	0.223
		I shop at stores that promote South African clothing	V4.13		x	0.797	0.234	0.159
		I support clothing labels that are produced by local South African communities	V4.19		x	0.788	0.236	0.250

TABLE 4.9: EXPLORATORY FACTOR ANALYSIS RESULTS (DATASET ONE, n=501)

ITEM	VARIABLE	FACTOR		
		1	2	3
		Local Ethical Brands	Distinct Product Features	Reduced Consumption
		(LEB)	(DPF)	(RC)
I shop at stores that promote South African clothing	V4.13	0.797	0.234	0.159
I support clothing labels that are produced by local South African communities	V4.19	0.788	0.236	0.250
I support clothing manufacturers who create employment and fair working conditions	V4.12	0.718	0.182	0.128
I am inspired by clothing brands that have a reputation for being ethical and socially responsible	V4.18	0.638	0.229	0.188
I prefer clothes that are made in South Africa to imported brands	V4.6	0.624	0.317	0.223
I prefer wearing clothes that are handcrafted to clothes that are mass produced	V4.8	0.265	0.731	0.075
I have an appreciation for handcrafted garments	V4.2	0.149	0.607	-0.024
Whenever possible, I buy clothes with eco-friendly features (e.g. organic cotton)	V4.4	0.358	0.533	0.142
When possible, I repair damaged clothing rather than to throw it away	V4.15	0.107	0.009	0.632
I have clothing altered if it no longer fits me	V4.21	0.118	0.246	0.562
I make a conscious effort to only buy clothes that I really need	V4.20	0.253	-0.081	0.517
n		501	501	501
Mean		4.1497	3.8756	4.6906
Standard deviation		1.41891	1.38894	1.37367
Variance explained		26.176	40.285	51.18
Cronbach Alpha		0.881	0.711	0.603

Factor One: Local ethical brands (V4.19, V4.13, V4.12, V4.18 & V4.6)

All items relating to factor one that was labelled “local ethical brands” (LEB) are derived from the initial human scale dimension of VS, depicting clothing that has been acquired through the support of local and ethical South African clothing brands. The Cronbach’s Alpha for this factor was 0.881, which means that the respondents had consistent responses to the LEB items. The factor mean of 4.14 relates to the respondents’ agreement within their answers regarding the support of local and ethical brands. Empirical evidence reported by Muposhi *et al.,* (2018) bring to light that South African consumers prefer to purchase local products as nationalism continues to grow within the country creating high levels of ethnocentrism. This may be as a result of the promotion of the “Proudly South African” campaign that supports local handmade products (Muposhi *et al*., 2018). Interestingly, the results of their study also show that even though South African consumers do not display extreme ethnocentrism values, they do display high levels of ethnocentrism for the protection of local economic growth against foreign products to promote local employment thereby showing a concern for unemployment in the country (Muposhi *et al*., 2018). The contextual reality of the current South African marketplace has in recent years led to significant emphasis directed toward job creation in light of extreme levels of unemployment and the intense pursuit of ethical/ fair treatment of the local labour force. Clearly, these aspects are also manifested in consumers’ consumption behaviour, which underscores the assumptions of Arnould and Thompson's (2005) consumer culture theory (CCT) that emphasises the link between consumers’ behaviour and the unique marketplace in which they find themselves.

Factor Two: Distinct product features (V4.8, V4.2 &V4.4)

Factor two that was labelled “distinct product features” (DPF), includes two of the initial voluntary simplicity dimensions referring to self-determination and ecological awareness. These items portray an approach whereby consumers attain clothing that are either handcrafted or display eco-friendly features, which may be judged as unique or distinct. Such features may differentiate the product from those that are mass produced and may therefore be valued in the local marketplace. This factor’s items had a Cronbach’s Alpha of 0.711, which was deemed acceptable having surpassed the minimum reliability coefficient threshold of 0.70. The factor mean was calculated as 3.86, which indicates that respondents may prefer products that have distinct handcrafted and/ or eco-friendly features. Such features strongly relate to items that are manufactured according to slow fashion principles including an appreciation for the sustainable use of natural resources and production that is quality driven such as when items are handcrafted (Clark, 2008). DPF therefore coincides with some of the underlying dimensions of the first factor, LEB, because, as Clark (2008)

explains, items that are handmade will undoubtably increase labour demands, thus raising employment and potentially delivering products that comply with better ethical practices. In addition, DPF may be particularly important for a growing middle-class consumer segment in South Africa, who might prefer clothing items that are unique and differ from those that are mass produced (PricewaterhouseCoopers (PWC), 2012).

Factor Three: Reduced consumption (V4.15, V4.21 & V4.20)

The third factor known as "reduced consumption" (RC) derives from the voluntary simplicity dimensions of self-determination and material simplicity. These items had a Cronbach's Alpha of 0.603, which is below the acceptable reliability value of 0.7, thus indicating that respondents' answers were not always consistent. The low Cronbach's alpha may imply that the construct being tested was vague and that the respondents were not entirely sure how to respond to specific scale items thereby contributing to an error in the measurement (Churchill, 1979). Therefore, it can be recommended that further scale development should be done with regard to this factor. Nonetheless, it should be noted that the mean for this factor had the highest value of 4.69 compared to the other two factors. This indicates a strong association with regards to consumers' willingness to repair clothing and only purchase new items that are of a necessity. The argument brought forward is that local economic conditions have forced consumers to adopt a more frugal approach (PricewaterhouseCoopers (PWC), 2012), whereby they re-evaluate the longevity of their clothing items and either attempt to extend the lifespan of their garments and/ or focus on absolute need as opposed to seasonal fast fashion trends in their acquisition of new garments.

Due to this factor having displayed a poor Cronbach's alpha, a decision had to be made in terms of either eliminating it and subsequently pursuing a two-factor structure, or to retain it and hence continuing with a three factor solution. With the intent of developing the best possible scale and for the sake of exploring all potential solutions, it was decided to continue testing on both the two-factor and three-factor structures during the upcoming CFA phases in order to find the best possible model fit and to ensure that an objective comparison is made (Hair *et al*., 2014:125).

4.3.3 Confirmatory Factor Analysis (CFA) of dataset one

As part of the first objective of this study that relates to the purification of the scale items by means of the first dataset, the items/ variables and constructs that were retained from the EFA were specified as measurement models. As pointed out in the preceding section, the decision was made to specify two models, one depicting a two-factor structure (including "local ethical brands" and

“distinct product features”) as well as a three-factor structure (including “local ethical brands”, “distinct product features” and “reduced consumption”). Yong and Pearce (2013) confirm that a means for validating such factor structures is through running a CFA on the results derived from the EFA. CFA has been used by several researches in scale development processes by confirming the number of factors and the original loadings of variables (Mazzocchi, 2008:319). In terms of purifying and validating a scale, a CFA is deemed as an important measure, as it offers the opportunity of establishing a model fit for a predetermined factor structure (Perry, Nicholls, Clough & Crust, 2015). Further refinement within the scale development process is imperative and is achieved through vigorous CFA testing (Jang & Johnson, 2011). The two latent factor structure and its relationship with the eight VS items as well as the three latent factor structure with the eleven VS items were formulated with the use of SPSS AMOS 16.0 software.

Factor loadings from a CFA standpoint is defined as a statistical measure of a hypothesized relationship between variables and factors (Mazzocchi, 2008:378). This means that (in contrast to the EFA procedure) the relationship between the variables and factors need to be specified prior to conducting the analysis (Mazzocchi, 2008:317). **Table 4.10** provides an overview of the factor loadings obtained from the CFA procedure for each of the specified latent factors including local ethical brands, distinct product features and reduced consumption. The table also includes additional measures that were deemed important in evaluating the overall scale reliability, which will be discussed in the section to follow.

As per the recommendations of Kang and Johnson (2011), certain criterion must be followed in evaluating CFA factor loadings. They recommend that factor loadings of less than .40 must be considered for deletion and that factor loadings of .40 or more show practical significance. As for the CFA reported in this section, no items were deleted as all items loaded above the minimum threshold of .40. As can be gathered from the factor loadings reported in **Table 4.10**, all surpassed the minimum threshold of 0.4, displaying practical significance ranging from 0.576 – 0.870. In addition to the factor loadings, which specify the hypothesized relationship between the individual variables/ items and the latent factors, additional measures of reliability had to be taken into consideration. These measures include the average variance extracted (AVE), the items squared correlations (SMCs), composite reliability (CR) and then the Cronbach alpha coefficient.

TABLE 4.10: STANDARDIZED FACTOR LOADINGS AND RELIABILITY MEASURES (DATASET ONE, n = 501)

SCALE ITEMS	VARIABLE NUMBER	FACTOR LOADINGS	*SMC (≥0.3)	*CR (≥0.7)	*AVE (≥0.5)	*α (≥0.7)
Factor One: Local Ethical Brands (5 Items)						
I prefer clothes that are made in South Africa to imported brands	V4.6	0.758	0.564	0.880	0.597	0.881
I am inspired by clothing brands that have a reputation for being ethical and socially responsible	V4.18	0.655	0.562			
I support clothing manufacturers who create employment and fair working conditions	V4.12	0.694	0.606			
I shop at stores that promote South African clothing	V4.13	0.862	0.691			
I support clothing labels that are produced by local South African communities	V4.19	0.870	0.686			
Factor Two: Distinct Product Features (3 Items)						
Whenever possible, I buy clothes with eco-friendly features (e.g. organic cotton)	V4.4	0.684	0.487	0.712	0.455	0.711
I have an appreciation for handcrafted garments	V4.2	0.576	0.369			
I prefer wearing clothes that are handcrafted to clothes that are mass produced	V4.8	0.751	0.435			
Factor Three: Reduced Consumption (3 Items)						
I make a conscious effort to only buy clothes that I really need	V4.20	0.562	0.349	0.610	0.343	0.603
I have clothing altered if it no longer fits me	V4.21	0.591	0.316			
When possible, I repair damaged clothing rather than to throw it away	V4.15	0.602	0.389			

Note: SMCs = item squared multiple correlations; CR = composite reliability; AVE = average variance extracted; **α** = Cronbach alpha coefficient. Response format: 7-point Likert-type rating scale with behavioural response options ranging from "1" (Never) to "7" (Always)

AVE displays the variance amongst the constructs and 0.50 is considered the minimum threshold (Kang & Johnson, 2011). As reported in **Table 4.10**, the AVE value obtained for the first factor i.e. “local ethical brands” obtained a score of 0.597 which is above the minimum threshold of 0.5 therefore depicting an adequate convergence. Values reaching below 0.5 meant that more error remained in the items than the variance explained by the factor structure in question. In this regard it should be noted that factor two (distinct product features) and in particular, factor three (reduced

consumption) underachieved on this threshold. However, the item squared multiple correlations (SMCs) must also be considered. SMCs measure the variability and the communality of each of the items according to the loaded factor (Kang & Johnson, 2011). The threshold for this value should amount to higher than 0.30 (Kang & Johnson, 2011) and as can be gathered from **Table 4.10**, the SMCs for the items all ranged between 0.316 to 0.686 therefore meeting the required standards.

The Cronbach's alpha for the latent factors specified in the CFA purification stage remained unchanged due to no further items being deleted as well as the constructs and sample remaining exactly the same. As mentioned previously, the Cronbach's alpha (α) was used to test the reliability of each of the factors during the EFA purification stage and although the third factor, "reduced consumption", did not achieve the minimum threshold of 0.70, it was decided to test both a two-factor structure (without the reduced consumption factor) and the three-factor structure (including the reduced consumption factor). This was done to ensure the most appropriate CFA solution with the best possible model fit is achieved. The composite reliability is similar to that of the Cronbach alpha as it measures for internal consistency of the scale items providing the measures reliability (Hair *et al.,* 2014:123). Both "local ethical brands" and "distinct product features" reached an internal consistency by obtaining values above the minimum threshold of 0.7, the third factor "reduced consumption" did not meet the threshold value.

Another important factor to consider during the CFA procedure, is whether the latent factors achieved discriminant validity. Correlations between measures should prove discriminant validity, which indicates that the measure (or in this case, the VS sub-constructs including local ethical brands, distinct product features and reduced consumption) are indeed different and do not measure the same items between them or represent a similar construct. In this regard, the lower the value, the more distinctive the correlation (Churchill, 1979). As seen in **Figure 4.3,** which depicts the two-factor CFA structure, the correlation value between the two sub-constructs, namely "local ethical brands" and "distinct product features", derived a value of 0.66, which indicates that there is a distinction between these sub-constructs even though they are conceptually related to the overarching VS construct.

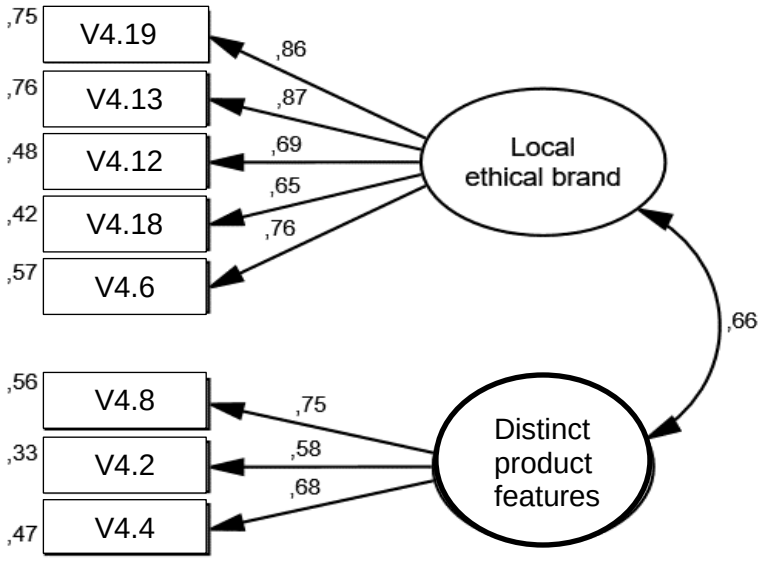

FIGURE 4.3: TWO-FACTOR CFA FOR SCALE PURIFICATION OF DATASET ONE

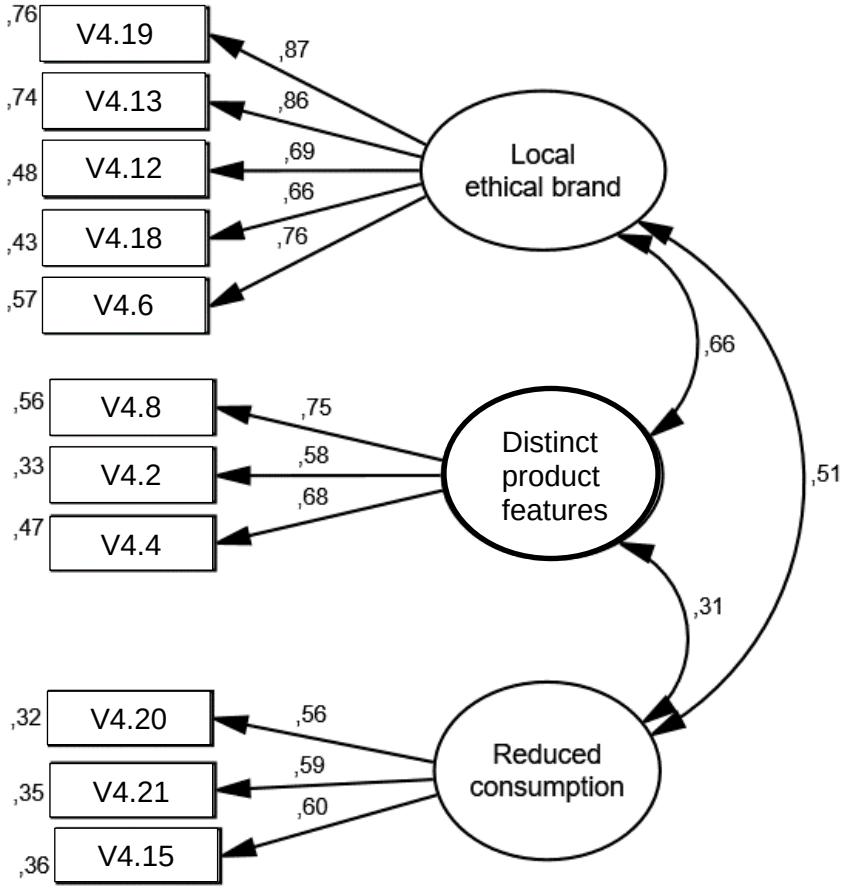

FIGURE 4.4: THREE-FACTOR CFA FOR SCALE PURIFICATION OF DATASET ONE

The three-factor structure (depicted in **Figure 4.4)** consisting of the sub-constructs labelled as "local ethical brands", "distinct product features" and "reduced consumption", further revealed a

lower correlation between the first and the third sub-construct of 0.51, while the second and third sub-construct obtained a much lower correlation of 0.31. Both of these values provide a lower correlation therefore confirming individuality and discriminant validity of the sub-constructs.

Having scrutinised the factor loadings, reliability measures and correlations between the specified sub-constructs, it is necessary to divert attention to the overall model fit of the two-factor and three-factor CFA structures depicted in **Figure 4.3** and **4.4** respectively. The model fit indices are assessed through both absolute fit indices as well as incremental fit indices (Hooper, Coughlan & Mullen, 2008). Absolute fit indices indicate how well the model fits the sample data and is calculated through measuring the chi-squared test (X^2), root mean squared error of approximation (RMSEA), goodness-of-fit statistic (GFI) and adjusted goodness-of-fit statistic (AGFI) (Hooper *et al*., 2008). The Chi-square (X^2) is a measure that displays statistical significance and is regarded as being a measure that is sensitive to sample size (Hair *et al*., 2014:323). For these reasons most researchers use X^2/df to assess model fit (Mazzocchi, 2008:322). An acceptable threshold range varies between 5.0 and 2.0 thus entailing a low-level comparative to the degrees of freedom whilst obtaining a probability value of less than 0.05 (Hooper *et al*., 2008). Perry *et al.,* (2015) state that X^2 gives a good indication of an acceptable model fit. To examine model distinctiveness a chi-square difference test is calculated to display that each of the factors are indeed different from each other (Kang & Johnson, 2011).

The RMSEA gives us an indication of "how well the model with unknown, but optimally chosen parameter, would fit the populations covariance matrix" (Hooper *et al.,* 2008). According to Mazzocchi, (2008:322) a good model will display a RMSEA value of 0.05 or less. However according to Hooper *et al.,* (2008) a mediocre fit will display a RMSEA value of between 0.08 to 0.10 while a good fit is a value below 0.08, Hooper *et al*., (2008) continues to add that due to recent reports, 0.07 is the acceptable threshold value to achieve a good model fit.

GFI is used to calculate the variance proportion from the estimated population covariance as an alternative test for X^2, the main objective for this index is to see if the observed covariance matrix can be replicated (Hooper *et al*., 2008). This index is sensitive to sample size and factor loadings and the recommended threshold is 0.90 (Hooper *et al*., 2008), while Kang and Johnson (2011) state a satisfactory model fit will achieve values close to 1, but according to Hooper *et al.,* (2008) they further elaborate that low factor loadings and small sample sizes should achieve a threshold of 0.95 to be deemed acceptable. AGFI is another index that is sensitive to sample size and is related to GFI (Hooper *et al*., 2008). The acceptable threshold for this index ranges from 0.90 to

1 therefore indicating a good model fit. Both of these indices are particularly sensitive to sample size, but are regarded as important for covariance structure analyses (Hooper *et al*., 2008).

Incremental fit indices (in contrast to absolute fit indices) give us an indication of how well a measurement fits without comparing it to a baseline model, Normed-fit index (NFI) and Comparative fit index (CFI) are required for this kind of measurement (Hooper *et al*., 2008). NFI is calculated by subtracting the X^2 value of the fitted model by the null model then dividing that value by the X^2 value of the null model (Hair *et al*., 2014:580). By implication, a comparison is drawn between the X^2 value of the model and the X^2 of the null model (Hooper *et al*., 2008). The threshold for this index range between 0 to 1 suggesting 0.90 is acceptable and 0.95 is a good fit, bearing in mind that sample size affects this index (Hooper *et al.,* 2008). Both Hair *et al*., (2014:323) and Hooper *et al*., (2008) suggest not using this index as a measurement on its own to deduce model fit as this index is sensitive to sample size and complex models. A better version of the NFI index that is widely used is the CFI measure, which accounts for sample size (Hair *et al*., 2014:581; Hooper *et al*., 2008). This index has a threshold range of 0 to 1, but values above 0.9 is acceptable whereas values above 0.95 to 1 are considered as good fit (Hair *et al*., 2014:581; Hooper *et al*., 2008).

According to Kang and Johnson (2011) a combination of GFI and AGFI (with values above 0.90 or as close to 1.00 as possible) as well as NFI and CFI (with values equal or greater than 0.90) should be considered in assessing model fit. In addition, RMSEA (with values equalling to or less than 0.80) provides an indication of a satisfactory model fit. **Table 4.11** summarises the model fit that were achieved for both CFA models.

TABLE 4.11: CFA MODEL FIT INDICES (DATASET TWO, n=501)

Goodness of fit criterion									
Model fit indices	**CMIN**	**DF**	**P**	**CMIN/DF (X^2)** <5	**GFI** ≥0.9	**AGFI** ≥0.9	**NFI** ≥0.95	**CFI** ≥0.95	**RMSEA** ≤0.070
Scale Purification Phase Two (n=501)									
2 Factor, CFA model	75.674	18	0.000	4.204	0.965	0.931	0.959	0.969	0.080
3 Factor, CFA model	139.756	40	0.000	3.494	0.954	0.923	0.935	0.953	0.071

Note: Best value is highlighted in blue

After rigorous CFA testing during the scale purification phase, it became evident that the two-factor structure and the three-factor structure differed slightly in terms of certain criterion, but both models achieved comparatively good model fit according to the threshold values. Both factor

structures displayed a good fit according to the chi-square measure, achieving values below the acceptable threshold of 5, although the three-factor model obtained a slightly improved value of 3.494. The two-factor model obtained the best values for the GFI = 0.965, AGFI = 0.931, NFI = 0.959 and CFI = 0.969, whilst bearing in mind that the three-factor model still met the acceptable threshold for all the indices except for the NFI =0.935, which was just below the threshold of 0.95 for good fit. The RMSEA value for the three-factor structure achieved a good fit obtaining a value of 0.071, while the two-factor structure obtained a fit of 0.080, which according to Kang and Johnson (2011) is deemed acceptable since they subscribe to a threshold value of 0.08. Having completed the results for the scale purification phase (objective 1), further scale validation procedures could be pursued as part of the second objective of the study. The second dataset (that was randomly derived from the original dataset and dubbed “dataset two”), served as the basis for the envisaged scale validation procedures.

4.4 SCALE VALIDATION (OBJECTIVE 2)

The second objective of this study revolves around the further validation of the scale items, including reconfirmation of the initial factor structure (as presented in the preceding section) as well as construct validity and predictive validity tests to establish a scale that can be of value for future research endeavours that is focused on measuring VS clothing consumption behaviour. This phase therefore includes three main activities; the first of which entails a CFA on a completely independent and separate sample in order to reconfirm the factor structures that were established in the initial scale purification phase; secondly to prove construct validity whereby VS constructs are correlated with existing scales; and lastly, to examine the practical usefulness of the scale by establishing the predictive validity of the VS constructs (Kang & Johnson, 2011). Since the procedures will be based on the second dataset, it was deemed appropriate to briefly recap on the demographic profile of the participants whose responses formed part of this second dataset.

4.4.1 Recap of the demographic characteristics of dataset two

Dataset two, which was randomly split from the original dataset (N = 1002) at the beginning stages of the study, included the responses of 501 respondents. Of these respondents, 217 were male and 284 were female, all of whom ranged between the ages of 19-78. Most of the respondents (32.93%/ n = 165) were between the ages of 19-30 and the majority had obtained a secondary or tertiary education (41.52%/ n = 208). Slightly less than half of them earned a monthly income of

more than R25000 (40.32%/ n = 202) and most belonged to the white population group (49.90%/ n = 250). In terms of demographic profile, this sample therefore closely resembled the profile of respondents whose responses were included in the first dataset. The second dataset hence served as the basis for further scale validation procedures, commencing with confirmatory factor analysis and the reconfirmation of the factor structure that was derived from the first dataset.

4.4.2 Confirmatory Factor Analysis (CFA) of dataset two

In order to further refine and validate the voluntary simplistic clothing consumption scale, a CFA was conducted on the second dataset that was up until this point not used for any prior statistical purposes. Based on the outcomes from the initial scale purification process, a two-factor CFA model with eight remaining items as well as a three-factor CFA model with eleven items were retained. During this specific stage of the scale validation process, a second set of CFA procedures had to be performed to verify the initial two-factor and three-factor structures, but instead of using the first dataset, the second dataset would form the basis of these procedures. This would allow further validation of the previous CFA models in order to establish the best overall model fit and in addition, whether the final scale should consist of all of the items identified through prior scale purification procedures.

As was the case for the CFA reported in the scale purification phase, this CFA also commenced with scrutiny of the factor loadings that represent the hypothesized relationship between variables and factors (Mazzocchi, 2008:378). Similar to the first CFA, all factor loadings surpassed the specified 0.40 threshold and achieved practical significance with factor loadings ranging from 0.512 to 0.871 as reported in **Table 4.12**. The AVE values for the three factors i.e. “local ethical brands”, “distinct product features” and “reduced consumption” achieved similar values to those reported in the first round of CFA, ranging from 0.310 to 0.589, with only one of the factors, namely “local ethical brands”, surpassing the 0.5 AVE threshold. This may imply that previous conclusions pertaining to measurement error still remain. The SMC values ranged from 0.155 to 0.654 with some items (specifically those relating to “distinct product features” and “reduced consumption”) achieving lower values than those reported in the previous CFA. Since the SMC values should exceed a threshold of 0.3, future research may benefit from taking note of these results and developing additional items to measure consumers’ engagement in “reduced consumption” and their propensity to acquire clothing with “distinct product features”.

Since the CFA procedures reported in this section relate to an entirely different dataset from those reported in the previous section, the Cronbach’s alpha had to be re-calculated for each of the

respective factors. Internal consistency of responses may differ from one set of data to another, despite the fact that such responses relate to the same variables and factors. The first factor i.e. “local ethical brands” achieved a Cronbach’s alpha of 0.878, while the second factor, namely “distinct product features” obtained a Cronbach alpha of 0.698, which falls within the acceptable threshold of 0.7. The third factor, i.e. “reduced consumption” achieved a substantially lower Cronbach’s alpha of 0.571. Similar to the conclusions drawn from previous Cronbach’s alpha calculations, “reduced consumption” remains a construct worthy of further investigation and with that, the development of addition scale items to ensure that it is adequately measured. The composite reliability achieved similar to that of the Cronbach alpha, with the first two factors achieving above the minimum threshold of 0.7 while the third factor underscored achieving a 0.572.

TABLE 4.12: STANDARDIZED FACTOR LOADINGS AND RELIABILITY MEASURES (DATASET TWO, n = 501)

SCALE ITEMS	VARIABLE NUMBER	FACTOR LOADINGS	*SMC (≥0.3)	*CR (≥0.7)	*AVE (≥0.5)	*α (≥0.7)
Factor One Local Ethical Brands (5 Items)						
I prefer clothes that are made in South Africa to imported brands	V4.6	0.732	0.503	0.876	0.589	0.878
I am inspired by clothing brands that have a reputation for being ethical and socially responsible	V4.18	0.718	0.478			
I support clothing manufacturers who create employment and fair working conditions	V4.12	0.669	0.515			
I shop at stores that promote South African clothing	V4.13	0.828	0.660			
I support clothing labels that are produced by local South African communities	V4.19	0.871	0.654			
Factor Two Distinct Product Features (3 Items)						
Whenever possible, I buy clothes with eco-friendly features (e.g. organic cotton)	V4.4	0.658	0.267	0.696	0.433	0.698
I have an appreciation for handcrafted garments	V4.2	0.640	0.260			
I prefer wearing clothes that are handcrafted to clothes that are mass produced	V4.8	0.675	0.340			
Factor Three Reduced Consumption (3 Items)						
I make a conscious effort to only buy clothes that I really need	V4.20	0.512	0.169	0.572	0.310	0.571
I have clothing altered if it no longer fits me	V4.21	0.616	0.155			
When possible, I repair damaged clothing rather than to throw it away	V4.15	0.536	0.207			

Note: SMCs = item squared multiple correlations; CR = composite reliability; AVE = average variance extracted; **α** = Cronbach alpha coefficient. Response format: 7-point Likert-type rating scale with behavioural response options ranging from "1" (Never) to "7" (Always).

As can be gathered from **Figure 4.5** and **4.6**, the correlation between the sub-constructs obtained similar values as to those reported in the scale purification stage. For the two-factor and three-factor structure a value of 0.63 was derived for the sub-constructs, “local ethical brands” and “distinct product features”, keeping in mind that these sub-constructs are linked to the same overarching VS construct. For the three-factor structure “local ethical brands” and “reduced consumption” achieved a value of 0.53 while “distinct product features” and “reduced consumption” obtained a value of 0.37 in the three-factor structure. These scores once again point toward discriminant validity between the sub-constructs in question.

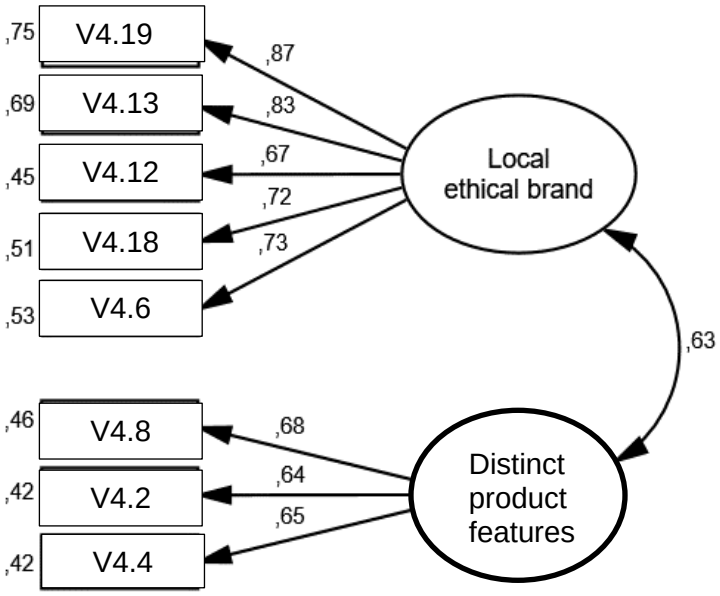

FIGURE 4.5: TWO FACTOR CFA OF DATASET TWO FOR SCALE VALIDATION

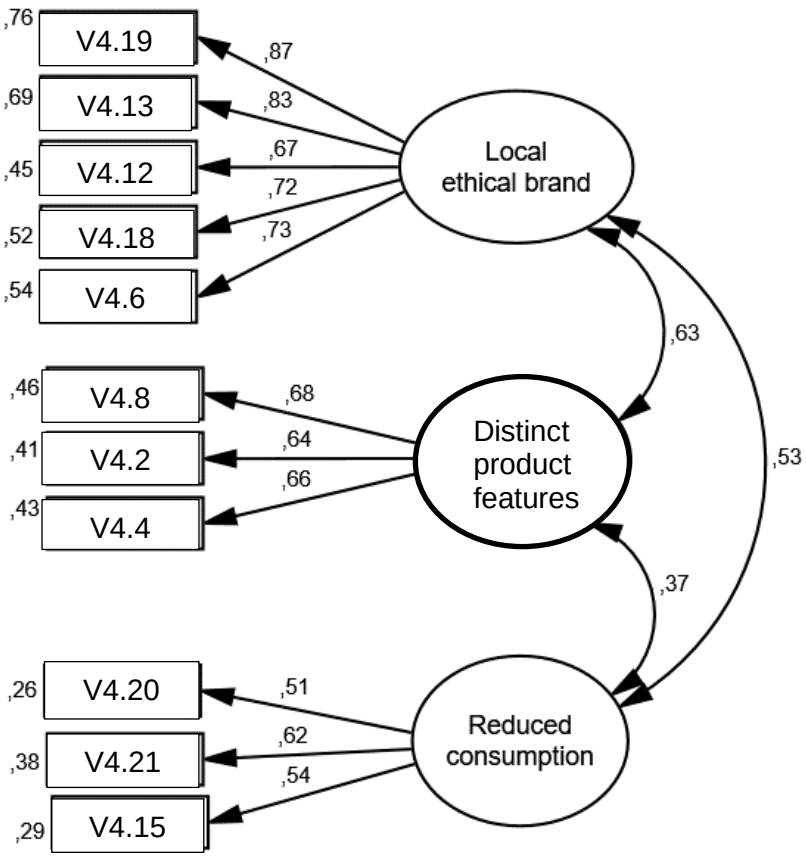

FIGURE 4.6: THREE FACTOR CFA OF DATASET TWO FOR SCALE VALIDATION

Table 4.13 depicts the fit indices that were achieved for both CFA models during the scale validation phase.

TABLE 4.13: CFA MODEL FIT INDICES (DATASET TWO, n=501)

Goodness of fit criterion									
Model fit indices	**CMIN**	**DF**	**P**	**CMIN/DF** (X2) <5	**GFI** ≥0.9	**AGFI** ≥0.9	**NFI** ≥0.95	**CFI** ≥0.95	**RMSEA** ≤0.070
Scale Validation Phase Three (n=501)									
2 Factor, CFA model	111.332	18	0.000	6.185	0.950	0.901	0.938	0.947	0.102
3 Factor, CFA model	160.988	40	0.000	4.025	0.947	0.912	0.921	0.939	0.078

Note: Best value is highlighted in blue

From the results reported in **Table 4.13**, it can be deduced that the two-factor structure (depicted in **Figure 4.5**) only achieved a good model fit on the GFI measure having reached a score of 0.950. The other fit indices obtained for this model did not achieve desirable levels and compared poorly with those achieved by the three-factor model (**Figure 4.6**). The three-factor model obtained good model fit for three indices, namely the X^2 value was 4.025 which was well below the threshold of 5.0, whereas the AGFI obtained a value of 0.912 and the RMSEA reached a value of 0.078. The other indices GFI, NFI and CFI of this model achieved satisfactory fit, although slightly below the desired threshold values.

In summary, **Table 4.14** below depicts a comparison of the CFA model fit indices obtained for both the scale purification and scale validation stages with figures reported for each of the two-factor and three-factor structures as presented in **Table 4.11** and **Table 4.13**. The model fit indices reported in the scale validation stage differ slightly from those reported in the scale purification stage. During the scale purification phase, both models achieved good model fit with only two indices not reaching ideal levels, specifically those relating to the RMSEA for the two-factor model and the NFI for the three-factor model. With that being said, both these indices were still at an acceptable level, reaching values just slightly below the desired thresholds. The CFA procedures performed during the scale validation stage however brought to light that the three-factor model outperformed the two-factor model in terms of model fit. Even though some of the reliability measures seemed problematic for the three-factor structure (such as the Cronbach's alpha and the low item squared multiple correlations) as reported in **Table 4.12**, the three-factor structure was retained to support further content validity analysis. The third VS sub-construct specified in the three-factor model, i.e. "reduced consumption", may represent an important and vital underlying dimension of voluntary simplistic clothing consumption behaviour in the local context.

Low or reduced consumption has always been viewed as an integral manifestation of voluntary simplistic lifestyles (Rich *et al*., 2017) and for this reason, it should remain worthy of further consideration in future empirical research pertaining to voluntary simplistic clothing consumption behaviour.

TABLE 4.14: COMPARISON CFA MODEL FIT INDICES

Goodness of Fit Criterion									
Model Fit Indices	**CMIN**	**DF**	**P**	**CMIN/DF (X^2)**	**GFI**	**AGFI**	**NFI**	**CFI**	**RMSEA**
				<5	≥0.9	≥0.9	≥0.95	≥0.95	≤0.070
Scale Purification Phase (Dataset One, n=501)									
2 Factor, CFA model	75.674	18	0.000	4.204	0.965	0.931	0.959	0.969	0.080
3 Factor, CFA model	139.756	40	0.000	3.494	0.954	0.923	0.935	0.953	0.071
Scale Validation Phase (Dataset Two, n=501)									
2 Factor, CFA model	111.332	18	0.000	6.185	0.950	0.901	0.938	0.947	0.102
3 Factor, CFA model	160.988	40	0.000	4.025	0.947	0.912	0.921	0.939	0.078

Note: Best value is highlighted in blue

4.4.3 Preliminary analysis of existing scales

To further assess the validity of the newly developed voluntary simplistic clothing consumption scale, a correlation between the scale in question and other existing scales were examined (Kang & Johnson, 2011). Validity ensures that the given concept is well represented by the scale (Hair *et al*., 2014:582) and can be brought in relation to other well-defined constructs in existing literature. It was therefore decided to test the newly developed voluntary simplistic clothing consumption scale against materialism and status consumption items that were included in the original 2016 survey. Here it should be noted that an extensive review of materialism and status consumption constructs were not included in this study's literature review as the materialism and status consumption constructs (and their measures) were merely used for verification purposes of the newly developed scale. However, brief explication of these constructs may clarify their relation to the key concept and focus of this study, namely VS, and its subsequent manifestation in clothing consumption behaviour.

The underlying dimensions of materialism that were measured in the 2016 survey were listed as material success, material happiness, material essentiality and material distinctiveness. These dimensions and the accompanying scale that was used to measure them, was originally developed by Trinh and Phau (2012). According to these authors, materialism can be defined as

a quest for material gain and involves the attainment of happiness through the purchasing of products to achieve material well-being (Trinh & Phau, 2012). Status consumption, on the other hand, is defined as efforts toward increasing one's social advantage through material acquisitions (Kolatsis, 2017). In the 2016 survey, status consumption was measured by means of a scale that was originally developed by Eastman *et al.,* (1999). The distinction between the constructs in question can be further summarised as follows: while materialism is focused on material well-being and high profit margins (Trinh & Phau, 2012), status consumption is concerned with image well-being and social advantage (Eastman *et al*., 1999). In contrast to the aforementioned, VS is based on personal well-being and the pursuit of simple sustainable living. Current theoretical insight seems to suggest that materialism and status consumption are both contrary to the beliefs adopted in a voluntary simplistic lifestyle and would therefore manifest differently in terms of actual consumption behaviour (Trinh & Phau, 2012; Eastman *et al*., 1999). All three constructs thus share some sort of manifestation in terms of actual behaviour although the underlying motives for such behaviour may differ from seeking material well-being, social advantage to living a simpler more sustainable life on the opposite side of the continuum.

Despite differences in underlying motives and behavioural manifestation, all three constructs represent important topics for marketing and consumer research, especially in the current South African emerging market context. These constructs and their measures where therefore deemed appropriate for the completion of the final stages of the scale validation process. **Table 4.15** summarises the factor loadings and Cronbach alphas for the underlying dimensions of the materialism scale as well as the status consumption scale.

TABLE 4.15: ANALYSIS OF THE MATERIALISM AND STATUS CONSUMPTION SCALES

CONSTRUCT	SCALE ITEMS	VARIABLE NUMBER	FACTOR LOADINGS	*α (≥0.7)	SOURCE
Materialism 16 Items (N=1012)					
Material Success	I like to own things that impress people	V1.1	0.695	0.875	Trinh and Phau (2012).
	I like to own expensive things because people see that as a sign of success	V1.8	0.852		
	The only way to let people know about my high status is to show it through the way that I live and/or goods that I own and consume	V1.11	0.807		
	I feel good when I buy expensive things because people think of me as successful	V1.15	0.855		
Material Happiness	Material possessions are important because they contribute a lot to my happiness	V1.2	0.755	0.818	
	When friends have things I cannot afford, it bothers me	V1.16	0.577		
	Obtaining valuable things is important for my happiness	V1.3	0.763		
	To me, it is important to own expensive things such as an expensive home, car, clothes and other things because it makes me happy	V1.9	0.832		
Material Essentiality	Material growth (increase in money and possession) has an irresistible attraction for me	V1.4	0.776	0.815	
	Material accumulation (increase in material possessions) helps raise the level of civilization	V1.6	0.611		
	Growth (increase) in material consumption (consumption of goods) helps to raise the level of civilization	V1.10	0.580		
	To buy and possess expensive/ luxurious things is very important to me	V1.5	0.849		
Material Distinctiveness	I usually buy things that make me look distinctive/ unique/ different	V1.12	0.761	0.788	
	I like to own things that make people think that I am unique/ different	V1.7	0.737		
	I feel uncomfortable when someone else in public is wearing the same clothes that I am	V1.13	0.543		
	I am prepared to pay more to get a more distinctive/ unique item	V1.14	0.751		
Status Consumption 4 Items (N=1024)					
Status Consumption	A clothing brand is more valuable to me if it has some snob appeal	V2.3	0.754	0.891	Eastman, Goldsmith and Flynn (1999)
	I would pay more for a clothing brand if it had status	V2.14	0.863		
	I am interested in new clothing brands with status	V2.17	0.858		
	I would buy a clothing brand just because it has status	V2.23	0.808		

Note: **α** = Cronbach alpha coefficient. Response format: 7-point Likert-type rating scale with behavioural response options ranging from "1" (Never) to "7" (Always).

As can be gathered from **Table 4.15**, factor loadings for materialism-related items/ variables all achieved values in excess of 0.5, ranging from 0.543 to 0.855. The status consumption variables also achieved high factor loadings ranging from 0.754 to 0.863. Moreover, all of the measures

related to the materialism dimensions and the status consumption construct achieved Cronbach alphas in excess of the minimum threshold of 0.7, ranging from 0.788 to 0.875 for the materialism dimensions to 0.891 for the status consumption scale. Scale reliability was therefore evidenced which paved the way for further construct validity measures of the newly developed voluntary simplistic clothing consumption scale.

4.4.4 Construct validity

Up until this point, measurement items for the newly developed scale have been subjected to rigorous purification and validation procedures whereby items have been reduced to those that essentially measure the key construct (namely voluntary simplistic clothing consumption behaviour) in a valid and reliable manner (Churchill, 1979). Cumulatively, these efforts lead to a measure of construct validity that examines what exactly the newly developed instrument is measuring (Churchill, 1979). According to De Vellis (2012), this type of validity measurement allows the researcher to establish if a relationship exists between various constructs (e.g. materialism, status consumption and voluntary simplistic clothing consumption behaviour), regardless of whether such a relationship is of a positive or negative nature. Construct validity commences with the testing of convergent and discriminant validity (Kang & Johnson, 2011). In brief, convergent validity involves the measurement of constructs in relation to other constructs in order to prove a theoretical similarity in terms of certain specified criteria (Kang & Johnson, 2011) e.g. consumption behaviour. Discriminant validity, on the opposite side of the coin, demands that the construct measured in one scale should not overlap with a construct measured in another scale (Kang & Johnson, 2011). Hair *et al*., (2014:619) explain that concepts can be theoretically alike, but they should retain a certain amount of distinctiveness to allow for separate measurement. In other words, discriminant validity provides evidence that scales measure similar, yet distinct concepts (Hair *et al*., 2014:619).

To achieve convergent and discriminant validity, the voluntary simplistic clothing consumption measurement was compared to the data collected for the materialism scale (derived from Trinh and Phau [2012]) and the status consumption scale that is based on the work of Eastman *et al*., (1999). These scales were included in the first two sections of the original 2016 survey, which also incorporated the initial pool of voluntary simplistic clothing consumption items. Based on current theoretical insight, materialism, status consumption and voluntary simplistic consumption behaviour are distinct constructs, yet all of these constructs influence consumption behaviour in some way or another. **Table 4.16** includes a matrix that summarises the correlations, AVEs and squared interconstruct correlations for the voluntary simplistic clothing consumption dimensions

(i.e. “local ethical brands”, “distinct product features” and “reduced consumption”), the materialism dimensions (i.e. “material success”, “material happiness”, “material essentiality” and “material distinctiveness”) and status consumption. Scrutiny of the measures included in the matric provides essential evidence toward verification of both convergent and discriminant validity as discussed in the preceding sections.

TABLE 4.16: CORRELATION MATRIX

		1	2	3	4	5	6	7	8
1	Local Ethical brands	**0.589**	0.280	0.151	0.005	0.006	0.004	0.005	0.004
2	Distinct Product Features	0.530**	**0.433**	0.054	0.039	0.020	0.020	0.017	0.068
3	Reduced Consumption	0.388**	0.229**	**0.310**	-0.032	-0.019	-0.017	-0.013	-0.007
4	Status Consumption	0.071*	0.198**	-0.178**	**0.676**	0.543	0.498	0.373	0.352
5	Material Success	0.025$^{n.s.}$	0.141**	-0.139**	0.737**	**0.684**	0.654	0.558	0.411
6	Material Happiness	0.068*	0.140**	-0.129**	0.701**	0.809**	**0.544**	0.634	0.289
7	Material Essentiality	0.071*	0.130**	-0.114**	0.611**	0.747**	0.796**	**0.508**	0.289
8	Material Distinctiveness	0.060$^{n.s.}$	0.261**	-0.084**	0.593**	0.641**	0.564**	0.538**	**0.495**

Note: **Correlation is significant at the 0.01 level (p<0.01); *Correlation is significant at the 0.05 level (p<0.05); $^{n.s.}$ = not significant. AVE’s are listed diagonally; squared interconstruct correlations are listed above the diagonal line and correlations are listed below reflecting significance

Convergent validity is obtained when indicators on a particular construct either converge or a mutual amount of variance is shared (Hair *et al*., 2014:124). This relates to the AVE measurement of a construct (listed diagonally in **Table 4.16** and highlighted in bold), which should exceed a minimum threshold of 0.5. Hair *et al*., (2014:619) explain that in order to calculate the AVE measurement, the sum of the squared standardized factor loadings per construct (as reported in previous tables e.g. **Table 4.15**) are divided by the number of items that are used to measure the specific construct in question. As stated by Heinberg, Ozkaya and Taube (2016), for AVE’s to exceed the 0.5 threshold, individual factor loadings for each item/ variable should ideally exceed 0.7 in order to obtain the desired AVE threshold (Hair *et al*., 2014:618). As can be gathered from **Table 4.16**, most constructs obtained an AVE value of 0.50 or more, except for “distinct product features” and “reduced consumption” - this was also highlighted in the preceding scale purification and validation procedures, which may be attributed to less items and lower factor loadings for the constructs in question. Convergence was however evidenced for all the other constructs including the support of local ethical brands, status consumption, material success, material happiness, material essentiality and material distinctiveness (which just managed to achieve the desired threshold). Both distinct product features and material distinctiveness are constructs that speak of textile and apparel items that display attributes that are one of a kind and that will set an individual

apart from the crowd. For example, distinct product features may relate to items that are handcrafted and or eco-friendly (which essentially support voluntary simplistic inclinations), yet simultaneously these features can also relate to material distinctiveness that allow the consumer to feel unique and/ or different. This might have important practical implications for the local industry in promoting products with unique product features that support sustainable initiatives, yet simultaneously address consumers' inherent desire for material distinctiveness in the local emerging market context.

In addition to convergent validity, discriminant validity can be derived from a comparison of the AVE values with the squared interconstruct correlations (Fornell & Larcker, 1981; Hair *et al.,* 2014:324; Öberseder, Schlegelmilch, Murphy & Gruber, 2014), which are indicated above the diagonal AVE values in **Table 4.16**. For discriminant validity to be achieved, the squared interconstruct correlations should be lower than the AVE measures (Öberseder *et al*., 2014). As seen in **Table 4.16**, most of the constructs achieved discriminant validity, except for some of the underlying dimensions of materialism including material success, material happiness and material essentiality. This may point to the fact that these underlying dimensions of materialism may be so closely related that they do not necessarily represent separate sub-dimensions/ constructs (Hair *et al*., 2014:620). More importantly though, the underlying dimensions of voluntary simplistic clothing consumption behaviour is discriminated and substantially differentiated from status consumption and the underlying dimensions of materialism as postulated in the preceding theoretical background, which provides evidence for the sought-after construct validity.

4.4.5 Criterion validity

Criterion validity is a test to see if actual behaviour is related to a measure and to what extent the measure assesses the behaviour in question (Eastman *et al*., 1999). Criterion validity therefore relates to the extent to which a measure can predict particular outcomes (Diamantopoulos & Schlegelmilch, 1997). The assessment approaches for criterion validity includes concurrent validity and predictive validity (Diamantopoulos & Schlegelmilch, 1997). Concurrent validity provides an indication of the extent to which measures are correlated, whereas predictive validity relates to the ability of an existing measure to forecast upcoming scores (Diamantopoulos & Schlegelmilch, 1997). Concurrent validity could be used as a validation measure for this particular project as data was collected for different scales at the same time by means of a single instrument/ questionnaire in the 2016 survey.

To test for concurrent validity, the dimensions underlying voluntary simplistic clothing consumption behaviour were correlated with the underlying dimensions of the materialism scale (developed by Trinh and Phau [2012]) and the status consumption scale (derived from Eastman *et al*., [1999]) that formed part of the first two sections of the 2016 survey. As pointed out by Diamantopoulos and Schlegelmilch (1997), concurrent validity will illustrate if measures are related should they correlate well. Based on existing theorical insight, materialism and status consumption may be very different from voluntary simplistic inclinations, although all of these constructs are manifested in some form of consumption behaviour. The preceding section highlighted convergent and discriminant validity among the overarching constructs. In addition, the analysis also provided insight into the correlation among the various dimensions of materialism, status consumption and voluntary simplistic clothing consumption behaviour (as reported in **Table 4.16**). These correlations were significant at the 0.01 level ($p<0.01$) and the 0.05 level ($p<0.05$), except for the support of local ethical brands and material success as well as the support of local ethical brands and material distinctiveness, which had no significant correlation. Clearly, consumers' support of local ethical brands (which includes consideration of fair-trade principles, better working conditions and locally made products) have little to do with their underlying desire for material success that is based on an assessment of personal success in relation to the amount of possessions owned (Trinh & Phau, 2012). Similarly, there was no significant correlation between consumers' support for local ethical brands and material distinctiveness. Material distinctiveness speaks of using possessions to make oneself appear more unique or different from others (Trinh & Phau, 2012). This is in contrast to the support of local ethical brands that may be more closely aligned to a genuine underlying desire to contribute to the larger community and embrace pro-social motives.

Apart from the two instances reported above, most of the other correlations were in fact significant. The support of local ethical brands and distinct product features was, for example, significantly correlated. Both constructs underlie dimensions of voluntary simplicity and may relate to the preference for clothing that are either locally made, ethically sound, socially responsible, eco-friendly and/ or bespoke. A significant correlation between distinct product features and material distinctiveness was also noted - both constructs underlie the desire to acquire clothing that is unique or distinctive and simultaneously differentiate the owner from the "masses". As could be gathered from existing empirical insight, there was a significant negative correlation between reduced consumption and status consumption. Reduced consumption entails a cognitive choice to acquire less clothing or buying clothes based on sheer need, whilst repairing items that require mending in order to prolong the garment's lifecycle. In contrast, status consumption involves the acquisition of products in order to gain a social standing. Needless to say, that "keeping up with

the Joneses" does not necessarily underscore a voluntary simplistic lifestyle that emphasises reduced consumption (Eastman *et al*., 1999).

In addition to the above, there was a very high correlation between status consumption and material success. These two constructs would (from a theoretical perspective) be closely related as both underscore a consumption approach with the underlying principle/ motive to achieve a higher social status (Eastman *et al*., 1999). The highest correlation exists between material happiness and material success, whereby both constructs emphasise the use of material possessions to acquire personal enrichment (Trinh & Phau, 2012). Material happiness involves using possessions to induce satisfaction, while material success entails using possessions to indicate achievement (Trinh & Phau, 2012). Another high correlation was evidenced between material essentiality and material happiness (0.796). These two constructs are interlinked as material happiness involves fulfilment derived from owning multiple possessions, whereas material essentiality is the justification of possessing items as necessities for everyday existence (Trinh & Phau, 2012). Interestingly, there was also a significant positive correlation between status consumption and local ethical brands as well as between status consumption and distinct product features. These correlations are plausible. As stated by Kolatsis (2017), status consumption refers to the achievement of social standing through the acquisition of possessions. While the support for local ethical brands and distinct product features may demonstrate elements of a voluntary simplistic stance, the behaviour in question still involves the purchasing of items, which by implication, may be driven by a desire to acquire social standing through the support of local ethical trade and unique handcrafted items. As Eastman *et al*., (1999) states moderate correlations may infuse symbolic meaning to the constructs. Taken altogether, the positive correlations between the constructs provided enough support for concurrent validity.

Having addressed concurrent validity, the last section of the scale validation stage is focused on predictive validity. To achieve predictive validity, the results of this study had to be compared to that of another study (within the local context), that was also focused on the topic of voluntary simplistic clothing consumption behaviour. Predictive validity addresses the scale's practical usefulness by providing solid evidence of good correlations between constructs (Kang & Johnson, 2011). To date, studies surrounding voluntary simplicity in the local context remain limited. However, a recent study by Taljaard (2019) provided a basis for the estimation of the scale's predictive validity. Taljaard's (2019) study was based on a gender specific female sample (N = 469). A section of Taljaard's (2019) study was devoted toward the implementation of the scale items that were generated to measure voluntary simplistic clothing consumption behaviour.
Table 4.17 provides a brief synopsis of the results that were obtained from Taljaard's (2019) study.

TABLE 4.17: PREDICTIVE VALIDITY OF THE VOLUNTARY SIMPLISTIC CLOTHING CONSUMPSION SCALE BASED ON THE RESULTS OF TALJAARD'S (2019) STUDY

CONSTRUCT	SCALE ITEMS	VARIABLE NUMBER	FACTOR LOADINGS	*α (≥0.7)	*AVE (≥ 0.5)	SOURCE
Voluntary Simplicity Dimensions 16 Items (N=1012)						
Ethical Clothing	I support clothing manufacturers who create employment and fair working conditions.	VSD_8	0.545	0.876	0.616	Taljaard (2019).
	Whenever it is possible, I buy clothes with ec0-friendly features (e.g. organic cotton)	VSD_18	0.762			
	I shop at stores that promote "Proudly South African" clothing.	VSD_19	0.757			
	I buy clothes that are good for the environment (e.g. recycled polyester or bamboo).	VSD_20	0.807			
	I support clothing labels that are produced by local South African communities.	VSD_21	0.824			
	I try to be pro-environmental by rather shopping at places that are known to be eco-friendly.	VSD_22	0.772			
Clothing Longevity	I dispose of clothing in an eco-friendly way (e.g. donating it to charities).	VSD_7	0.618	0.648	0.384	
	I wear my clothes for more than one season.	VSD_9	0.573			
	If we do not wear certain clothes anymore, we pass them on to family or friends to be reused.	VSD_11	0.665			
Repurposed Clothing Consumption	I recycle old clothing into something new (e.g. using old T-shirts as cleaning rags or making patchwork cushions from old jeans).	VSD_3	0.583	0.704	0.507	
	I repair my damaged clothes rather than throwing them away to reduce my overall waste.	VSD_10	0.744			
	I have clothing altered if it no longer fits me so that I can wear it again.	VSD_14	0.678			
Unique Handcrafted Clothing	I have an appreciation for handcrafted garments.	VSD_2	0.715	-	0.508	
	I would much rather wear clothes that are handcrafted than clothes that are mass-produced.	VSD_6	0.825			
Need-based Clothing Consumption	I make a conscious effort to only buy clothes that I really need.	VSD_13	0.685	-	0.484	
	When going to a special occasion, I rather wear something I already have than buying a new outfit.	VSD_17	0.670			

Note: α = Cronbach alpha coefficient. AVE = average variance extracted; Response format: 7-point Likert-type rating scale with behavioural response options ranging from "1" (Strongly disagree) to "7" (Strongly agree).

As can be gathered from **Table 4.17**, Taljaard's (2019) study reported a five-factor solution namely, "ethical clothing", "clothing longevity", "repurposed clothing consumption", "unique handcrafted clothing" and "need-based clothing consumption". In essence, these factors closely resemble those identified in this particular study (including local ethical brands, distinct product

features and reduced consumption). Interestingly, the Cronbach alpha for the factor labelled "ethical clothing" in Taljaard's (2019) study, achieved a value above 0.8, similar to the Cronbach Alpha values achieved for "local ethical brands" in this particular study. The high Cronbach Alpha's reported in both Taljaard's (2019) study and this particular study, point to local respondents' consistent agreement with statements regarding the support of "Proudly South African" products and manufacturers that contribute to job creation and fair working conditions in the local emerging market context. Another comparable factor/ construct between Taljaard's (2019) study and the results obtained for this particular study, is the emphasis directed toward extending the lifespan of a garment and/ or buying clothes on a need-to-have basis. This underscores the "reduced consumption" dimension of voluntary simplistic clothing consumption practices. As suggested in this study, further item development is needed for this particular construct as it represents an important underlying dimension of voluntary simplistic clothing consumption behaviour and is worthy of further investigation in the local context. The AVE values reported in Taljaard's (2019) study ranged from 0.384 to 0.616 meeting the minimum threshold for three out of the five constructs, namely "ethical clothing", "repurposed clothing consumption" and "unique handcrafted clothing". These three factors simulate the overarching sub-constructs identified in this particular study. Predictive validity is therefore achieved as both studies' direct emphasis toward three similar dimensions of voluntary simplistic clothing consumption behaviour.

4.5 CONCLUSION

This chapter presented the results of the scale purification and validation procedures that was pursued as part of the objectives of this study. Initial sections of the chapter described the demographic profile of the total sample that was recruited for the original 2016 survey. The data collected from this survey served as the basis for two datasets that were randomly split to achieve the objectives of scale purification (on the first dataset) and scale validation (on the second dataset) as per the guidelines of Kang and Johnson (2011). Scale purification procedures included EFA and CFA tests. As for the scale validation process, CFA, construct validity, convergent validity, discriminant validity, criterion validity, predictive validity and concurrent validity testing was executed on the second dataset. Based on the initial EFA purification procedure, a three-factor solution with a total of eleven items was achieved. The three factors were labelled as "local ethical brands", "distinct product features" and "reduced consumption". Despite problematic measures of internal consistency on the third factor, further CFA testing was conducted, which eventually led to the finalised three factor model that achieved good model fit and served as the basis for the newly developed voluntary simplistic clothing consumption scale. The final chapter of this

dissertation provides an overview of the findings, the conclusions drawn from them as well as implications for future research and limitations of the current study.

CHAPTER 5

CONCLUSIONS

This chapter provides an overview of the research study, after which the study's findings, conclusions, implications for industry, theoretical contribution, and limitations as well as recommendations for future research are discussed. Lastly, a final conclusion is reflected in accordance with the problem statement and objectives.

5.1 INTRODUCTION

The main aim of this study was to develop an instrument to measure the South African population's acceptance of voluntary simplistic lifestyles that is manifested through their clothing consumption behaviour. This aim hence required verifying validity as well as reliability of scale items that were initially developed for exploratory purposes. The conceptual framework for this study followed the scale development procedure based on the guidelines of Kang and Johnson (2011). Initial scale item generation was based on empirical evidence and the theoretical basis presented by Leonard-Barton (1981). Data pertaining to the topic at hand was initially collected in 2016 for a Consumer Science fourth year Clothing Retail research project by means of a self-administered survey and the dataset subsequently served as the basis for this particular scale development project. From the collected questionnaires 1002 responses were deemed useable and formed part of the final data as used in this study. For the purposes of this study, the data was randomly split into two datasets for each of the phases pertaining to scale purification and validation. Once the scale item generation had been concluded, the next phase, namely the scale purification commenced in which item-total analysis, EFA and CFA were performed on dataset one to determine which items should be retained for the purposes of this study. Lastly the scale validation phase was initiated in which CFA was performed on dataset two to reconfirm the factor structure, after which a series of validity tests were conducted to ensure a valid and reliable scale is presented for future research purposes. The reflection of the study below will create an awareness of the necessity for the development of this scale.

5.2 REFLECTION OF THE STUDY

From reported research it is evident that the earth's natural resources are being rapidly depleted, thus resulting in a downgrade of the ecosystem. Human activities that are manifested in overconsumption, overproduction and overpopulation have been attributed as some of the root causes of this occurrence (Read *et al*., 2018). The clothing industry in particular, is one of the major contributors to this environmental degradation, as various parts of the supply chain contribute to degradation; whether it be related to water pollution, harmful pesticides on fibres or unsustainable waste disposal methods (Gwozdz *et al*., 2017). That said, the notion of "fast fashion" also contributes negatively towards the environment and society in the sense that it encourages overconsumption and subsequently excessive discarding of fashion items that are no longer deemed fashionable. Furthermore, the retailers involved in this movement often resort to unethical methods of manufacturing to produce their clothing in unreasonably quick turnaround times to generate fast fashion and remain competitive in the market (Cho & Kim, 2017; Gwozdz *et al*., 2017).

Notwithstanding, Read *et al.,* (2019) state that one way of fixing overproduction and overconsumption is by correcting the pricing of items thus encouraging consumers to consume better. It is believed that consumers are able to shape the given marketplace (Helm, Moulard & Richins, 2015) by either boycotting or buycotting a brand. This is due to their increasing awareness regarding ecological sustainability thus prompting the promotion of better corporate social responsibility from industry and political stakeholders (Hoffmann, Balderjahn, Seegebarth, Mai & Peyer, 2018). Fast fashion could ultimately be replaced by slow fashion, to counteract the degradation of natural resources and production of excessive waste that is generated from the fast fashion movement. Helm *et al*., (2015) refer to consumers who make socially conscious decisions (such as avoiding excessive purchasing or withdrawing from the market) as "cynical consumers". These consumers tend to opt for simpler lifestyle choices known as voluntary simplicity, which is then also focused on the support of ethical consumption.

Cho and Kim, (2017) have stated in their research that there are two reasons why consumers are driven to choose a voluntary simplistic lifestyle with such reasons being either "me-orientated" or "other-orientated". A me-orientated voluntary simplistic lifestyle relates to an internal decision whereby consumers reclaim control over their life while another-orientated voluntary simplistic lifestyle is an external decision resulting in consumers choosing to support the environment by consuming less (Cho & Kim, 2017). VS is furthermore defined as a lifestyle choice to optimally live for inward enrichment of self-satisfaction without overconsuming (Cho & Kim, 2017; Leonard-

Barton, 1981). This lifestyle choice and decision to not overconsume will have a positive effect on the environment because it leads to saving environmental resources as well as inducing a positive self-wellbeing of spending quality time with family without having a burden of debt and being overworked (Cho & Kim, 2017; Alexander & Ussher, 2012). The most significant aspect of this VS lifestyle is the "reduce" principle of maximising reduction as well as refusing to overconsume, thereby minimizing overall consumption (Zamwel *et al*, 2014). Other important principles of this lifestyle include repairing items that need mending, reusing items for alternative purposes when it reaches the end of its lifecycle (for example old t-shirts can be reused as wash cloths) and lastly, recycling items that cannot be repaired or reused. Thus, to summarise, voluntary simplifiers' actions are based on the five R's including recycling, repairing, reusing, reducing and refusing (Zamwel *et al*., 2014).

In relation to the above mentioned, Elgin and Mitchell (1977) developed five dimensions that encapsulate the measure of a voluntary simplistic lifestyle. These dimensions include material simplicity (which refers to embracing non-consumption), self-determination (referring to control over one's purpose), ecological awareness (referring to the relationship between people and resources), human scale (referring to encouraging small-scale operations) and personal growth (referring to the development from within) (Leonard-Barton, 1981). For this study, the last dimension was excluded from the study as personal growth can be based on attitudinal underpinnings while the first four dimensions can be directly linked to actual behaviour. Based on Leonard-Barton's (1981) recommendation for future research, the index should be refined for the specific study population, especially since her index was tested in a developed country and on energy conservation. Since populations of emerging markets may differ from those in more developed countries together with diverse socio-economic circumstances that govern lifestyles and behaviour (as per the assumptions of CCT), the measurement index may fail to adequately capture the VS status quo in those contexts. The original index was not focused on clothing consumption specifically and hence needed to be adapted to the purposes of this research study. Therefore, this research focused on developing and validating a scale that measures consumers' engagement in voluntary simplistic clothing consumption behaviour in South Africa.

To achieve the aforementioned research aim, scale items, derived from previous literature, were refined to measure clothing consumption by means of the four VS dimensions and the five R's as the indicators. To date limited research has been done within the South African context relating to the measurement of voluntary simplistic behaviour, and therefore it was deemed appropriate to develop and validate a scale that relates to the South African population. The original cross-sectional study, conducted in 2016, was of an exploratory nature with quantitative data that was

collected from self-administrative survey questionnaires. The study was conducted within the geographical scope of the Tshwane Metropolitan area and a sample size of 1025 was achieved. To ensure an appropriate database for this study, the sample was reduced to 1002 due to missing values from incomplete questionnaires. The data were analysed with the use of descriptive and inferential statistics while making use of the guidelines for scale development as presented by Kang and Johnson (2011). The subsequent heading provides an overview of the scale procedure that was followed and findings that were presented in Chapter four.

5.3 SUMMARY OF FINDINGS

The purpose of this research study was to purify and validate a scale that was patterned after Leonard-Barton's (1981) VS behavioural index with the intention of specifically focusing on clothing consumption behaviour in the South African emerging market context. That said, before the commencement of the scale development and validation procedures, the topic of interest, namely voluntary simplistic clothing consumption behaviour, had to first be conceptualised in the form of a literature review to generate valid items for scale item generation purposes. This formed part of the first phase of the guidelines for scale development as presented by Kang and Johnson (2011) as depicted in **Figure 5**.

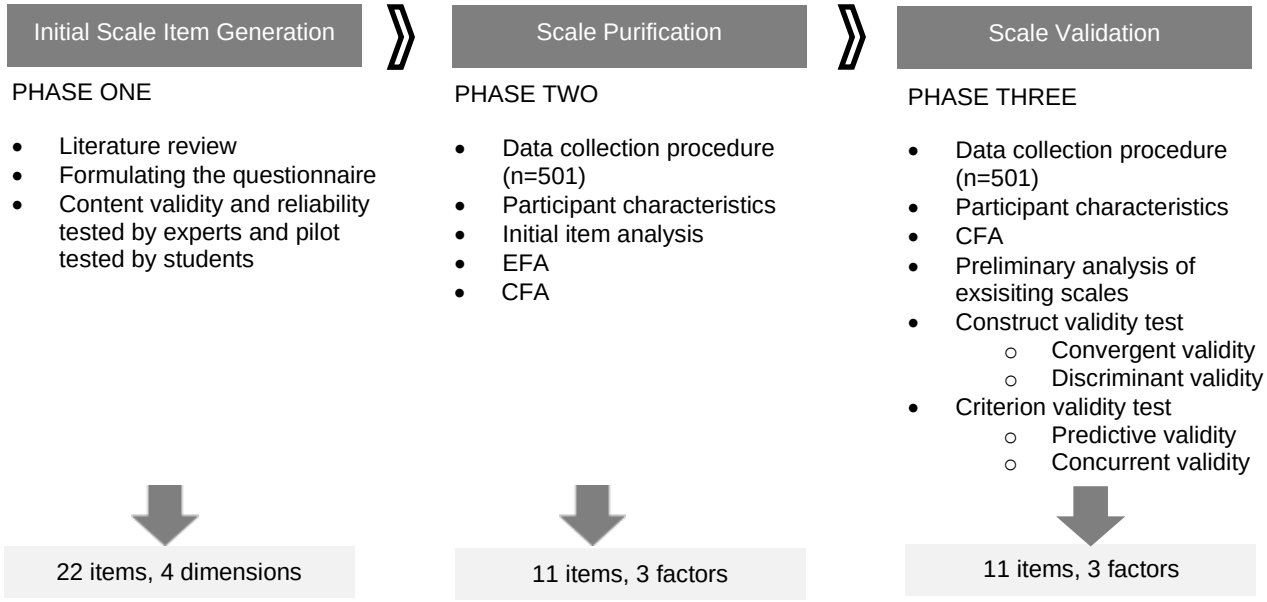

FIGURE 5: FLOW CHART PROCEDURE OF SCALE DEVELOPMENT AND VALIDATION (Adapted from Joyner Armstrong, Kang & Lang, 2018; Guidelines followed from Kang & Johnson, 2011)

The second and third phases included the scale purification and scale validation procedures. More specifically, initial item generation not only included the review of existing literature pertaining to the topic at hand, but also included the formulation of the scale items that were used to collect the dataset that was used in this study. The initial development of scale items was overseen by experts in the clothing and textiles division in the Department of Consumer and Food Sciences to ensure that content validity was achieved and that consensus was reached about a pool of 22 items that reflected the VS dimensions. These scale items formed part of a larger study that was conducted in 2016. More specifically, a total of 22 VS clothing consumption scale items reflecting the four VS dimensions, namely (i) *material simplicity*, (ii) *self-determination*, (iii) *ecological awareness* and (iv) *human scale*, were included in a survey that was distributed in 2016 by the fourth year Clothing Retail Management students as part of their final year research project. Before any analysis of phase two or three could commence the dataset (N = 1002) was randomly split with the use of a statistical SPSS program into two datasets each containing 501 responses. The two datasets were required for the purpose of phase two being scale purification and phase three being scale validation.

Prior to the inferential statistics concerning the scale purification and validation phases, the demographic results were analysed and compared between the two datasets. Both datasets obtained a slight majority of female respondents, but had a very similar gender split. The age group that appeared the most for dataset one and two ranged between the ages of 19-30. In terms of highest level of education, respondents from both dataset one and two had obtained a grade 12 certificate as well as a tertiary degree or diploma. Most of the respondents for dataset one and two obtain a monthly household income of R25000 or more while a majority of the respondents from both datasets were white and resided in the Tshwane Metropolitan area.

The second phase of the scale development procedure involved scale purification, which focused on a reduction in variables or items that can be used to measure VS. This phase also formed part of objective one of the research study. This phase of purification involved the first dataset (n = 501) to be subjected to the scrutiny of an item-to-total correlation, where two items with values underscoring a 0.3 threshold were deleted, retaining 20 items that were put forth to be subjected to the EFA. The EFA is a method that is used to identify relationships between variables and indicators (Mazzocchi, 2008) thereby examining and understanding factor loadings that are presented in the data matrix. Of the 20 remaining scale items that were brought forth from the item-total correlations, 9 more items were deleted due to the items either presenting low factor loadings (<.40), high cross-loadings (>.40) or eigenvalues of less than one. The 11 remaining items produced a three-factor structure, which was subsequently labelled “Local ethical brands”,

LEB (FACTOR 1), “Distinct product features”, DPF (FACTOR 2) and “Reduced consumption”, RC (FACTOR 3). The first factor LEB mainly tapped into the human scale dimension presenting two items of support of ethical clothing brands and all three items displaying a support of local clothing brands. The second factor DPF tapped into the self-determination dimension consisting of two items relating to unique handcrafted garments as well as an ecological awareness dimension pertaining to an item of eco-friendly organic cotton attributes. The third factor, RC, is comprised of one item that tapped into the material simplicity dimension and two items that focus on self-determination, but essentially all of these items relate to reduced consumption and was therefore labelled accordingly. Factor 1 LEB and factor 2 DPF both obtained an acceptable Cronbach’s α above the 0.70 threshold, while factor 3 RC attained a Cronbach’s α of 0.603, just below the acceptable threshold, but was retained for further statistical testing due to the mean reaching the highest value of all three factors.

Following the initial EFA, dataset one was exposed to further purification by means of CFA testing. CFA is a statistical testing of hypothesized variables and factors and the relationship among them (Mazzocchi, 2008). This was done to verify the variables and factors that were developed through the EFA stage and were identified as Local ethical brands, LEB (FACTOR 1), Distinct product features DPF (FACTOR 2) and Reduced consumption, RC (FACTOR 3). After rigorous CFA testing during the scale purification phase, it became evident that the two-factor structure and the three-factor structure differed slightly in terms of certain criterion, but both models achieved comparatively good model fit according to the threshold values. Both factor structures displayed a good fit according to the CMIN/DF, RMSEA, GFI and CFI. From this assessment both factor structures achieved good model fit and no further items were deleted providing a solid foundation to continue with the two-factor and three-factor structure into the validation phase.

Having completed the results for the scale purification phase (objective 1), further scale validation procedures could be pursued as part of the second objective of the study. The second dataset (that was randomly derived from the original dataset and dubbed “dataset two”), served as the basis for the envisaged scale validation procedures. This phase involved the validation of scale items for the second set of data (n = 501) by reconfirming the initial factor structure as well as conducting construct validity and predictive validity tests to establish a scale that can be of value for future research endeavours that are focused on measuring VS clothing consumption behaviour. During this specific stage of the scale validation process, a second set of CFA procedures were performed to verify the initial two-factor and three-factor structures, but instead of using the first dataset, the second dataset formed the basis of these procedures. As were the

cases for the CFA reported in the scale purification phase, this CFA also commenced with scrutiny of the factor loadings that represent the hypothesized relationship between variables and factors (Mazzocchi, 2008:378). Similar to the first CFA, all factor loadings surpassed the specified 0.40 threshold and achieved practical significance with factor loadings. The two-factor structure only achieved a good model fit on the GFI measure, while the other fit indices did not achieve desirable levels and compared poorly with those achieved by the three-factor model. The three-factor model obtained good model fit for three indices, namely the X^2, AGFI and the RMSEA. The other indices GFI, NFI and CFI of this model achieved satisfactory fit, although slightly below the desired threshold values.

In order to realize the reliability of this newly developed scale construct validity tests of convergent and discriminant validity as well as criterion validity tests of predictive and concurrent validity were examined. Convergent validity was achieved on most constructs, except for “distinct product features” and “reduced consumption” - this was also highlighted in the preceding scale purification and validation procedures, which may be attributed to fewer items and lower factor loadings for the constructs in question. Convergence was however evidenced for all the other constructs including the support of local ethical brands, status consumption, material success, material happiness, material essentiality and material distinctiveness (which just managed to achieve the desired threshold). Therefore, most of the constructs achieved discriminant validity, except for some of the underlying dimensions of materialism including material success, material happiness and material essentiality.

Predictive validity was achieved as the results of this study as well as the another study that was recently completed (i.e. Taljaard (2019)) indicated three similar dimensions of voluntary simplistic clothing consumption behaviour. Lastly, concurrent validity was achieved on most constructs, except for the support of local ethical brands and material success as well as the support of local ethical brands and material distinctiveness, which had no significant correlation. Interestingly, a significant negative correlation between reduced consumption and status consumption was recorded. This is in accordance with existing literature, which clearly distinguishes these two concepts as vastly different from each other.

5.4 CONCLUSIONS

With information brought to light by conservationists regarding environmental degradation, overconsumption and consequently, the continued appeal for consumers to abide by better sustainable practices for future generations, it is imperative that additional investigation must be directed toward VS. It is said that attitudinal variables are not always an accurate reflection of consumer behaviour (Leonard-Barton, 1981) and existing literature constantly points toward an attitude-behaviour gap as consumers mostly know the impact of their actions but are still behaving to the detriment of the environment (Anvar & Venter, 2014; Leonard-Barton 1981). In light of this, good measures that can overcome attitudinal bias and rather focus on actual behaviour becomes exceedingly important in establishing the current status quo on consumers' acceptance of VS principles. Thus, the objective of this research study was to purify and validate a VS behavioural scale that was patterned after Leonard-Barton's (1981) VS behavioural index, but which was also more specifically focused on clothing consumption.

Leonard-Barton's (1981) VS behavioural index was based on seminal work conducted by Elgin and Mitchell (1977) and was focused on measuring material simplicity, self-determination, ecological awareness, human scale and personal growth of California homeowners relating to energy conservation. Leonard-Barton's (1981) study achieved six factors namely "conservation through biking, self-sufficiency in services, recycling of resources (metals, glass), self-sufficiency through making goods, recycling of durable goods (clothes, furniture), and closeness with nature as well as a desire to live productively with nature, as through gardening". From the original behavioural index measurement developed by Leonard-Barton it can be seen that for the purpose of this study there was no relevance pertaining to clothing consumption. The scale offered a basic foundation of the VS dimensions, namely material simplicity, self-determination, ecological awareness and human scale that relate quite strongly to the five R's including recycle, repair, reuse, reduce and refuse; however the subject of interest, namely clothing consumption was lacking from this scale (Zamwel *et al*, 2014). Hence it was imperative to develop a new scale that was purified and validated but still patterned after the original scale. Although the scale developed and validated in this study tapped into five R's and the VS dimensions as presented by Leonard-Barton (1981) as well as Elgin and Mitchell (1977), the scale items included in the current study took on a more focused approach by measuring behaviour within the apparel domain.

In order to accomplish the objectives of this study, scale development procedures were followed as recommended by Kang and Johnston (2011), which in turn were based on the guidelines

established by Churchill (1979) and later improved upon by others (DeVellis, 2003; Gerbing & Anderson, 1988; Peter, 1981). The scale development procedure comprised of an initial scale item generation, scale purification and scale validation process. During the scale purification process the three factors that emerged from the VS clothing consumption behaviour in South Africa were characterised as (1) local ethical brands, (2) distinct product features and (3) reduced consumption. Local ethical brands included items pertaining to local brands and ethical working conditions. Distinct product features referred to handcrafted items with unique features. The last construct, reduced consumption, denoted increased thought provoked low consumption purchasing decisions. These scale items were developed to apply to the local consumer populations that are very diverse and heterogeneous.

From the original pool of 22 items that were generated in 2016, many of the items that were designed to measure material simplicity and ecological awareness (e.g. items pertaining to eco-friendly disposal) were eliminated based on various rationales such as low factor loadings. It is therefore suggested that future research could further explore the material simplicity and ecological awareness dimensions and perhaps devise better indicators for the dimensions in question. As Leonard-Barton (1981) concluded in her research "voluntary simplicity is multidimensional" and a high score on any single of the VS factors might not necessarily indicate overall interest and acceptance of a voluntary simplistic lifestyle. Individuals may for example adopt certain traits of VS due to economic reasons or due to pleasure obtained from leisure activities that underscore VS (Leonard-Barton, 1981). However, should individuals' practice many of the VS behavioural items simultaneously it may point to a VS lifestyle.

Overall the results and findings of this study resulted in a valid and reliable VS scale pertaining to clothing consumption in an emerging market context. The findings furthermore indicated that South African consumers regard local ethically manufactured clothing as an important aspect of VS clothing consumption behaviour, thereby implying that consumers are patriotic in the support of local job security, ethical working conditions and the support of the "Proudly South African" campaign. It also gives insight that consumers appreciate tailor made quality items that last longer. With this being said there is still scope to further develop the scale to include more items and to develop more factors. The practical implications and theoretical contributions pertaining to this research study will be discussed in more detail below.

5.5 PRACTICAL IMPLICATIONS AND THEORETICAL CONTRIBUTIONS

As presented in this study, VS has a direct relationship with consumption (Saygili & Erkan, 2017) and more specifically, sustainable consumption, which is regarded as an important behaviour to adopt both from the viewpoint of academia as well as the general public (Manchiraju, May, Kim & Fincham, 2016). Consumption over the past few decades has had a negative effect on the society and the environment, and will in future continue to have detrimental effects due to growing populations that overconsume (Saygili & Erkan, 2017). The main aim of a marketer is to study its consumer by understanding the characteristics of their personality, their purchasing behaviours (both prior and after the actual behaviour) as well as influencing factors that gratify needs and desires (Saygili & Erkan, 2017). Marketers should therefore have a good understanding of their target markets and influence them accordingly. In this regard, Smith (2014) states that environmental degradation and unsustainable consumption are due to poor business practices and businesses should therefore rather endeavour to lead the way toward more sustainable behaviour. Business should essentially change their practices to lessen the impact on the environment by engaging in green marketing. Nevertheless marketers should constantly assess consumers' acceptance of such initiatives and adapt their green marketing campaigns and strategies accordingly. Thus, this newly purified and validated scale could assist marketers with the assessment of their consumers' engagement in VS behaviour within the clothing domain and could consequently provide value and insight into their marketing strategies to accurately evaluate consumers' VS behaviours and act on it in an appropriate manner.

To put this abovementioned discussion into perspective, concepts such as sustainable change and green marketing are explained and applied to this study. Sustainable change within the clothing and textile industry includes accepting and developing effective systems that support environmental management and waste minimisation as well as the integration of environmental issues into all organisational activities including marketing (Smith, 2014). The approach that should be implemented to generate sustainable change from the business as well as the consumers' side, can be described as green marketing. This approach encourages businesses to communicate their commitment toward decreasing the impact they have on the environment while producing, manufacturing and using energy to others in order to promote more sustainable living throughout the lifecycle of the products (Anvar & Venter, 2014). With accepting this sort of change a competitive advantage can be gained over other corporate competitors as well as lowered overhead costs for the business by just adhering to greener practices (Anvar & Venter, 2014; Smith, 2014). One important thing to remember is that sustainable development should not be forced onto consumers from the political powers above, but should rather be incorporated in such

a way that educates the consumer and create an awareness of the environmental and social impact of the product, so that consumers will start to become enthusiastically engaged and choose to live more sustainably (Barr, 2003). This however sounds easier said than done as marketers will need to develop strategies while keeping in mind the contributing factors that stimulate the selection and decision process that consumers make (Anvar & Venter, 2014). Future investigation will provide benefits for marketers in understanding and segmenting their consumers as well as providing government with insight into planning and meeting the needs for future generations.

Balderjahn *et al*., (2018) state that there is limited correlation between an individual's sustainable concern and their actual buying behaviour. Consequently, there is even less research pertaining to consumers' engagement in voluntary simplistic clothing consumption behaviour in a developing market context such as South Africa. South Africa is comprised of a vastly diverse population and measurement scales developed elsewhere might not be as suitable for these contexts due to the alternative needs and desires that the South African consumer markets require. Based on the aforementioned, this study provides significant research in terms of a newly developed VS scale that focuses on clothing consumption in an emerging market context. It serves as a foundation for future studies within the Consumer Science field. In addition to this, the development of a reliable and valid scale delivers unique constructs that provide insight into consumers' engagement in VS clothing consumption behaviour within a South African emerging market.

5.6 LIMITATIONS AND RECOMMENDATIONS FOR FUTURE RESEARCH

The VS scale development procedure that formed the main aim of this study provides a foundation for further research and development of theory regarding the acceptance of the VS clothing consumption behaviour within the South African market context. It could furthermore serve as a starting point for future research relating to the relationship between VS behaviour and other variables such as motivational factors and knowledge that underpin consumers' engagement in such behaviour. Thus, despite the benefits that the development of the scale may hold for future research, this study had a few limitations that should be documented and taken into consideration going forward.

Firstly, the sample of the study conducted in 2016 was generated through non-probability, convenience and snowball sampling techniques, which implies a certain amount of bias pertaining to the datasets that were used for scale purification and validation procedures and can furthermore not be generalised to the entire population. Secondly, all 22 items pertaining to VS, together with

the different subsections measuring materialism and status, were included as part of the questionnaire and were completed by the respondents. Thought must be given to the idea that responses might perhaps have differed if only the 11 purified items formed part of the questionnaire, which could thus affect the validation results at the end of the day (Kang & Johnson, 2011). It is therefore imperative for future research to make use of the newly developed scale for further consumer analysis. Thirdly, future research could focus on diversifying their sample beyond the scope of the Tshwane Metropolitan area to further test the resulting dimensions and items that form part of this scale.

Fourthly, half the respondents that participated in the original 2016 study were white and therefore the datasets that were used for scale development did not reflect a balanced ethnic perspective. It is therefore suggested that an even distribution between ethnicities should be obtained for future empirical testing of the scale because South Africa is made up of diverse and complex cultures and backgrounds that may impact on the relevance of items included in the scale. These findings may be further utilised to provide an overview of any potential differences between ethnic or cultural groups with regards to the acceptance of VS behaviour. Such findings could provide key information to marketers in terms of refining their marketing campaigns to address/ target specific consumption behaviour. The datasets used in this study served their purpose appropriately in the development of a scale for future empirical investigation into the VS topic. Such a scale may have several purposes such as further developing a descriptive profile of consumers based on their engagement in VS clothing consumption as well as their actual purchasing behaviours relating to these matters. An additional shortcoming with the use of the 2016 dataset is the interpretation of the data and conclusions are specific to the 2016 dataset. The data was generated in 2016 and the measurement obtained still however applies to consumers in 2019 as many scales have been used on passed datasets and used in subsequent studies. In terms of future research it would be imperative to reassess the validity of the items and to further develop them.

A particular limitation of the scale that was developed in this particular project is the limited number of items that could eventually be incorporated as the final scale. Future projects could thus develop a greater pool of VS items for the three developed constructs. It is recommended that additional scale items are to be developed for the material simplicity reflecting reduced clothing consumption and ecological awareness dimensions reflecting eco-friendly disposal of VS that may be more closely aligned to the status quo within the local context. It is further recommended to develop the reduced consumption construct as this construct failed to reach an acceptable Cronbach's alpha of 0.7 in both datasets. In addition to that, the VS behavioural scale developed in this project was specifically focused on clothing consumption behaviour and therefore other measures could be

developed to measure other VS behaviour items that do not only relate to clothing, thereby broadening the scope and application of this scale to a variety of research fields. Finally, although the newly developed scale will permit additional VS behavioural insight from a quantitative point of view, future research should not discount the value and insight that can be derived from qualitative studies. Future empirical investigations could employ a mixed method approach allowing for the pragmatic incorporation of additional research techniques to gain a deeper and more encompassing insight into the VS topic. As a further research study, it would be interesting to test this study again but with an opposite demographic profile, reflecting the different types of consumers that form part of the South African economy.

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5.7 FINAL CONCLUSION

This chapter included the reflection of the study, a summary of the findings (as can be found in chapter four), the conclusions relating to the overall research study, the practical implications and theoretical contributions, as well as the limitations and recommendations for future research. Overall, this study has conceptually defined the VS construct while providing a basis for future research within an emerging market context. It is essentially clear that overconsumption unfortunately has a negative effect causing a downward spiral on so many facets of life. One of them is fast fashion enticing complex fashion consumption that is driven by social imagery and the effects of social self-evaluations that influence consumers to create an identity that is required for an incessant fashion upkeep (Joyner Armstrong *et al*., 2018). As academic research states, the social and natural phenomenon presents the promotion of better sustainable practices that consumer's, retailers, manufacturers, educators and government powerhouses are encouraged to pursue sustainable development and to explore the behaviour surrounding it. Therefore, it was of essence to develop a valid and reliable scale surrounding VS clothing consumption behaviour, that could measure a diverse developing emerging market, and that can be utilised in this context in future research endeavours.

"As consumers, we have so much power to change the world by just being careful in what we buy." - Emma Watson

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ADDENDUM A: QUESTIONNAIRE

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Faculty of Natural and Agricultural Sciences
Department of Consumer Science
+27 012 420 2488/ 2575
3 May 2016

Dear respondent

RESEARCH PROJECT: An investigation of consumer-related characteristics influencing specific types of purchase decisions

Thank you for considering participation in this research project that the final year students in the Department of Consumer Science have to execute as part of an investigation that has been on-going for the past four years. Our research has attracted the interest of prominent industries in South Africa, as part of a specific research focus in our department. Students have to submit their contributions in the form of a scientifically documented research script as part of the prerequisites for obtaining their B Consumer Science degrees.

The purpose of the 2016 research endeavour is to gain a better understanding of consumer-related characteristic influencing specific types of purchase decisions. To take part in this study, you must reside in Tshwane. It will take approximately 15 minutes of your time to complete this questionnaire. Please answer the questions carefully and give your honest opinion throughout. There are no right or wrong answers;

All information will be dealt with anonymously and it will not be possible to eventually trace your information back to you in any way as the questionnaires are completed anonymously and are returned in sealed envelopes. If, for any reason, you wish to withdraw anyway, please feel free to inform the student. Respondents may provide their cell phone details voluntarily on the tear off strip below and enter it into a separate envelope for participation in a lucky draw to win a gift voucher to the value of R500 at the closure of data collection. Three names will be drawn, and the winner will be notified telephonically.

Please read the questions carefully and give your honest opinion throughout. **Thank you for your participation!**

RESEARCH COORDINATORS: DR S DONOGHUE AND PROF ALET C ERASMUS
CONTACT: 012 420 2488/ 012 420 2575

IF YOU WISH TO PARTICIPATE IN THE LUCKY DRAW, PLEASE PROVIDE YOUR CELL NUMBER ONLY AND PLACE THE STRIP IN THE ENVELOPE WHEN RETURNING YOUR COMPLETED QUESTIONNAIRE

CELL NUMBER:_____

Please follow the instructions for each section very carefully. There are no correct or incorrect answers and you will remain anonymous. Your identity can therefore not be retrieved and disclosed in any way.

Section A: IMPORTANCE OF POSSESSIONS	**Respondent number:**								
1. The following statements investigate your personal regard of the importance of the products that you buy and own in terms of how they contribute to your state of happiness and how you feel. **This is a very personal issue that one does not necessarily openly discuss with other people. Therefore, please respond to every statement honestly.** Please indicate your response to every statement with an ***X*** in the relevant column.	Strongly disagree	Disagree	Slightly disagree	Undecided/neutral	Slightly agree	Agree	Strongly agree	**Office use**	
I like to own things that impress people	1	2	3	4	5	6	7	V1.1	
Material possessions are important because they contribute a lot to my happiness	1	2	3	4	5	6	7	V1.2	
Obtaining valuable things is important for my happiness	1	2	3	4	5	6	7	V1.3	
Material growth (increase in money and possessions) has an irresistible attraction for me	1	2	3	4	5	6	7	V1.4	
To buy and possess expensive/ luxurious things is very important to me	1	2	3	4	5	6	7	V1.5	
Material accumulation (increase in material possessions) helps raise the level of civilization	1	2	3	4	5	6	7	V1.6	
I like to own things that make people think that I am unique/ different	1	2	3	4	5	6	7	V1.7	
I like to own expensive things because people see that as a sign of success	1	2	3	4	5	6	7	V1.8	
To me, it is important to own expensive things such as an expensive home, car, clothes and other things because it makes me happy	1	2	3	4	5	6	7	V1.9	
Growth (increase) in material consumption (consumption of goods) helps to raise the level of civilization	1	2	3	4	5	6	7	V1.10	
The only way to let people know about my high status is to show it through the way that I live and/or goods that I own and consume	1	2	3	4	5	6	7	V1.11	
I usually buy things that make me look distinctive/ unique/ different	1	2	3	4	5	6	7	V1.12	
I feel uncomfortable when someone else in public is wearing the same clothes that I am	1	2	3	4	5	6	7	V1.13	
I am prepared to pay more to get a more distinctive/ unique item	1	2	3	4	5	6	7	V1.14	
I feel good when I buy expensive things because people think of me as successful	1	2	3	4	5	6	7	V1.15	
When friends have things I cannot afford, it bothers me	1	2	3	4	5	6	7	V1.16	
Section B: PRESTIGE OF CLOTHING BRANDS									
2. The following statements investigate your thoughts/ actions about the prestige of the clothing brands that you buy compared to the brands that other people buy or own. **Please respond to every statement honestly** and indicate your response with an ***X*** in the adjacent column. In terms of clothing brands	Strongly disagree	Disagree	Slightly disagree	Undecided/neutral	Slightly agree	Agree	Strongly agree	**Office use**	
I chat about clothing brands with my friends/colleagues on social media	1	2	3	4	5	6	7	V2.1	
Advertisements give me an idea of which clothing brands people with lifestyles similar to mine are using	1	2	3	4	5	6	7	V2.2	
A clothing brand is more valuable to me if it has some snob appeal	1	2	3	4	5	6	7	V2.3	
It is important that others like the clothing brands I buy	1	2	3	4	5	6	7	V2.4	
Advertisements give me an idea of which clothing brands to buy to impress others	1	2	3	4	5	6	7	V2.5	
I ask my friends/colleagues for advice about which clothing brands to buy	1	2	3	4	5	6	7	V2.6	
I like to know which clothing brands will impress others	1	2	3	4	5	6	7	V2.7	
Advertisements are helpful to know which clothing brands will, or will not reflect the kind of person I am	1	2	3	4	5	6	7	V2.8	
I often identify with other people by purchasing the same clothing brands as them	1	2	3	4	5	6	7	V2.9	
If I want to be like someone, I often try to buy the same clothing brands that they buy	1	2	3	4	5	6	7	V2.10	
The status of a clothing brand is irrelevant to me	1	2	3	4	5	6	7	V2.11	
If other people can see which clothing brands I use, I tend to purchase the brands they would expect me to buy	1	2	3	4	5	6	7	V2.12	
I generally purchase clothing brands that I think others will approve of	1	2	3	4	5	6	7	V2.13	
I would pay more for a clothing brand if it had status	1	2	3	4	5	6	7	V2.14	
I often consult others to help me choose the best option available from a range of brands	1	2	3	4	5	6	7	V2.15	
Social media (e.g. Facebook/ Twitter/Instagram) indicates to me what clothing brands to buy to impress others	1	2	3	4	5	6	7	V2.16	
I am interested in new clothing brands with status	1	2	3	4	5	6	7	V2.17	
Social media (e.g. Facebook/ Twitter/Instagram) indicates to me which clothing brands will or will not reflect the kind of person I am	1	2	3	4	5	6	7	V2.18	

2. *Continued……..* Please indicate your response to every statement with an ***X*** in the relevant column.	Strongly disagree	Disagree	Slightly disagree	Undecided/neutral	Slightly agree	Agree	Strongly agree	**Office use**	
I rarely purchase the latest fashion styles unless I am sure my friends/colleagues approve of them	1	2	3	4	5	6	7	V2.19	
Social media (e.g. Facebook/ Twitter/Instagram) helps me keep up with fashion trends	1	2	3	4	5	6	7	V2.20	
I frequently consult family members about a clothing brand before I buy it	1	2	3	4	5	6	7	V2.21	
To ensure I buy the right clothing brand, I often observe what others are buying or using	1	2	3	4	5	6	7	V2.22	
I would buy a clothing brand just because it has status	1	2	3	4	5	6	7	V2.23	
My friends/colleagues encourage me to buy clothing brands that would impress others	1	2	3	4	5	6	7	V2.24	
If I have little experience with a clothing brand, I would ask my family about the brand	1	2	3	4	5	6	7	V2.25	
Social media (e.g. Facebook/ Twitter/Instagram) tells me what clothing brands people with lifestyles similar to mine are using	1	2	3	4	5	6	7	V2.26	
I achieve a sense of belonging by purchasing the same clothing brands that others purchase	1	2	3	4	5	6	7	V2.27	
I get information about clothing brands that have status from my friends/colleagues	1	2	3	4	5	6	7	V2.28	
Advertisements are useful to me to keep up with current fashion trends	1	2	3	4	5	6	7	V2.29	
Section C: IMPORTANT THINGS IN YOUR LIFE									
3. These statements investigate your personal views and opinions about things that you may regard important in your life. **Please respond to every statement honestly** and indicate your answer with an ***X*** in the relevant column.	Strongly disagree	Disagree	Slightly disagree	Undecided/neutral	Slightly agree	Agree	Strongly agree	**Office use**	
It is important to me to always be polite to other people	1	2	3	4	5	6	7	V3.1	
Thinking up new ideas (being creative) is important to me	1	2	3	4	5	6	7	V3.2	
Being very successful is important to me	1	2	3	4	5	6	7	V3.3	
It is important to do things the way I learned from my family	1	2	3	4	5	6	7	V3.4	
It is important that every person in the world should be treated equally	1	2	3	4	5	6	7	V3.5	
I am always looking for new things to do	1	2	3	4	5	6	7	V3.6	
The safety of my country is very important to me	1	2	3	4	5	6	7	V3.7	
It is very important to me to care for the people I know	1	2	3	4	5	6	7	V3.8	
I want people to do what I say	1	2	3	4	5	6	7	V3.9	
Enjoying life is important to me	1	2	3	4	5	6	7	V3.10	
I like to make my own decisions about what to do	1	2	3	4	5	6	7	V3.11	
I believe that people should be satisfied with what they have	1	2	3	4	5	6	7	V3.12	
I want to have a lot of money and expensive things	1	2	3	4	5	6	7	V3.13	
Living an exciting life is important to me	1	2	3	4	5	6	7	V3.14	
Honesty is very important to me	1	2	3	4	5	6	7	V3.15	
It is important to me that everything is clean and in order	1	2	3	4	5	6	7	V3.16	
It is important to me to do things that give me pleasure	1	2	3	4	5	6	7	V3.17	
I believe that people should care for nature	1	2	3	4	5	6	7	V3.18	
I think people should follow rules at all times, even when no one is watching	1	2	3	4	5	6	7	V3.19	
I am ambitious and prepared to work hard to get ahead	1	2	3	4	5	6	7	V3.20	
I would do anything to make sure my family is always safe	1	2	3	4	5	6	7	V3.21	
It is important to me to listen to people who are different from me.	1	2	3	4	5	6	7	V3.22	
I do not like to boast or draw attention to the things I do	1	2	3	4	5	6	7	V3.23	
I think it is important to have interests	1	2	3	4	5	6	7	V3.24	
I want to avoid doing anything people would say is bad or wrong	1	2	3	4	5	6	7	V3.25	
World peace is important to me	1	2	3	4	5	6	7	V3.26	
I want people to admire what I do	1	2	3	4	5	6	7	V3.27	
It is important to me that my friends can always trust me	1	2	3	4	5	6	7	V3.28	
Being religious is important to me	1	2	3	4	5	6	7	V3.29	

Section D: VOLUNTARY SIMPLICITY									
4. These statements investigate your personal views about the purchase and consumption of clothing products. **Please respond to every statement honestly** and indicate your response with an ***X*** in the relevant column.	Never	Rarely	Occasionally	Sometimes	Frequently	Usually	Always	**Office use**	
I buy good quality clothes so that I can wear them longer	1	2	3	4	5	6	7	V4.1	
I have an appreciation for handcrafted garments	1	2	3	4	5	6	7	V4.2	
I recycle and repurpose old clothing (e.g. using old T-shirts as cleaning rags)	1	2	3	4	5	6	7	V4.3	
Whenever possible, I buy clothes with eco-friendly features (e.g. organic cotton)	1	2	3	4	5	6	7	V4.4	
I refuse to buy clothing from companies that are guilty of unethical practices (e.g. child labour)	1	2	3	4	5	6	7	V4.5	
I prefer clothes that are made in South Africa to imported brands	1	2	3	4	5	6	7	V4.6	
I look after my clothes so that they last longer	1	2	3	4	5	6	7	V4.7	
I prefer wearing clothes that are handcrafted to clothes that are mass produced	1	2	3	4	5	6	7	V4.8	
When going to a special occasion, I would wear something I already have rather than buying a new outfit	1	2	3	4	5	6	7	V4.9	
I dispose of useful clothing in an eco-friendly way e.g. by donating it to charities	1	2	3	4	5	6	7	V4.10	
I buy clothing brands that are known to be environmentally responsible	1	2	3	4	5	6	7	V4.11	
I support clothing manufacturers who create fair working conditions	1	2	3	4	5	6	7	V4.12	
I shop at stores that promote South African clothing	1	2	3	4	5	6	7	V4.13	
I wear my clothes for more than one season	1	2	3	4	5	6	7	V4.14	
When possible, I repair damaged clothing rather than to throw it away	1	2	3	4	5	6	7	V4.15	
In our household, we pass clothes on to siblings/ friends/ other family members to be reused	1	2	3	4	5	6	7	V4.16	
I try to reduce the environmental impact of my purchases by shopping close to home	1	2	3	4	5	6	7	V4.17	
I am inspired by clothing brands that have a reputation for being ethical and socially responsible	1	2	3	4	5	6	7	V4.18	
I support clothing labels that are produced by local South African communities	1	2	3	4	5	6	7	V4.19	
I make a conscious effort to only buy clothes that I really need	1	2	3	4	5	6	7	V4.20	
I have clothing altered if it no longer fits me	1	2	3	4	5	6	7	V4.21	
Given the opportunity, I will sell unwanted clothing so that it can be reused by others	1	2	3	4	5	6	7	V4.22	

Section E: YOUR ALLOCATION OF MONEY TO SPECIFIC PURCHASES							
The following section investigates your allocation of money to **three different types of household purchases** **Please respond to every question honestly**						**Office use**	
5. SCENARIO 1 If you have to prepare a special dinner for SIX distinguished guests, **how much money would you be willing to spend on the food, excluding the drinks and décor**? *Stipulate the approximate amount in the adjacent column*	V5.0	R_____					
If you have 50% more than the amount that you indicated in V5.0 to spend on the dinner, how would you revise your plans? Please respond to every statement and mark every relevant answer with an ***X***	Strongly disagree	Disagree	Undecided/Neutral	Agree	Strongly agree	**Office use**	
a) **Extend the menu** and add **additional dishes**	1	2	3	4	5	V5.1	
b) **Adapt the menu** to include **alternative dishes that require more expensive ingredients** that the former menu did not allow for	1	2	3	4	5	V5.2	
c) **Keep to the original menu and save the money**	1	2	3	4	5	V5.3	
d) **Keep to the original menu and spend the money** on something else	1	2	3	4	5	V5.4	
e) Invite the guests to a **restaurant**	1	2	3	4	5	V5.5	
Now reconsider all five of the options listed above and **circle the ONE option** (a or b or c or d or e) that you are most likely to exercise						V5.6	

6. SCENARIO 2 Imagine that you have to attend a special function where you have to look your very best. **How much money would you be willing to spend on an outfit for yourself?** *Stipulate the approximate amount in the adjacent column*	V6.0	R_____					
If you have 50% more than the amount that you indicated in V6.0 to spend on the outfit, how would you revise your plans? Please respond to every statement and mark every relevant answer with an ***X***	Strongly disagree	Disagree	Undecided/neutral	Agree	Strongly agree	**Office use**	
a) Purchase accessories with the extra money **to enhance the original outfit**	1	2	3	4	5	V6.1	
b) **Opt for another more expensive outfit**	1	2	3	4	5	V6.2	
c) **Keep to the original outfit and save the money**	1	2	3	4	5	V6.3	
d) Keep to the original outfit and **spend the money on something else**	1	2	3	4	5	V6.4	
e) Have a unique garment designed and custom made	1	2	3	4	5	V6.5	
Now reconsider all five of the options listed above and **circle the ONE option** (a or b or c or d or e) that you are most likely to exercise						V6.6	
7. SCENARIO 3 Imagine that your washing machine is giving trouble and that you have to replace it soon. **How much money would you be willing to spend on a new washing machine?** *Stipulate the approximate amount in the adjacent column*	V7.0	R_____					
If you have 50% more than the amount that you indicated in V7.0 to spend on the washing machine, how would you revise your plans: Please respond to every statement and mark every relevant answer with an ***X***	Strongly disagree	Disagree	Undecided/neutral	Agree	Strongly agree	**Office use**	
a) Purchase the **same appliance brand but another model** that has more features	1	2	3	4	5	V7.1	
b) Opt for **another more expensive brand**	1	2	3	4	5	V7.2	
c) Keep to the original decision and **save the extra money**	1	2	3	4	5	V7.3	
d) Keep to the original decision and **spend the extra money on something else**	1	2	3	4	5	V7.4	
e) Have the **old machine repaired**	1	2	3	4	5	V7.5	
Now reconsider all five the options listed above and **circle the ONE option** (a or b or c or d or e) that you are most likely to exercise						V7.6	

Section F: TELL US MORE ABOUT YOURSELF This section is as important. **Please answer every question** by marking every relevant answer with an ***X***												**Office use**	
What is your gender?	Male	1	Female	2								V8.1	
What is your age?										Years		V8.2	
What is your completed highest level of education?	Lower than grade 10	1	Grade 10 or 11	2	Grade 12	3	Grade 12 + Degree/ diploma	4	Post graduate	5		V8.3	
What is your approximate total monthly HOUSEHOLD INCOME (Bruto – before deductions)?	Less than R5000	1	R5000 to R9999	2	R10000 to R14999	3	R15000 to R24999	4	R25000 or more	5		V8.4	
What population group do you belong to according to the SA Population Equity Act?													
White	1	Black	2	Indian	3	Coloured	4	Asian-	5	Other: Please specify	6	V8.5	
What is the name of the suburb where you live in Tshwane? ***Please specify.***												V8.6	

Thank you for your participation!

Remember to enter your cell phone number on the separate tear slip if you wish to enter into the lucky draw for the gift voucher.

ADDENDUM B: ETHICS APPROVAL

UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

Faculty of Natural and Agricultural Sciences
Ethics Committee

E-mail: ethics.nas@up.ac.za

Date: 02/07/2016

ETHICS SUBMISSION: LETTER OF APPROVAL

Dr S Donoghue
Department of Consumer Science
Faculty of Natural and Agricultural Sciences
University of Pretoria

Reference number: EC160606-045
Project title: An exploration of the differences in consumers' purchase and consumption of selected products based on specific consumer-related variables in an emerging context

Dear Dr Donoghue,

We are pleased to inform you that your submission conforms to the requirements of the Faculty of Natural and Agricultural Sciences Ethics committee on the condition that the only participation of the subjects is as described in the proposal narrative.

Please note that you are required to submit annual progress reports (no later than two months after the anniversary of this approval) until the project is completed. Completion will be when the data has been analysed and documented in a postgraduate student's thesis or dissertation, or in a paper or a report for publication. The progress report document is accessible of the NAS faculty's website: Research/Ethics Committee.

If you wish to submit an amendment to the application, you can also obtain the amendment form on the NAS faculty's website: Research/Ethics Committee.

The digital archiving of data is a requirement of the University of Pretoria. The data should be accessible in the event of an enquiry or further analysis of the data.

Yours sincerely,

P/p M Potgieter

Chairperson: NAS Ethics Committee

ADDENDUM C: PLAGIARISM DECLARATION

DECLARATION OF ORIGINALITY
UNIVERSITY OF PRETORIA

The Department of Consumer and Food Sciences places great emphasis upon integrity and ethical conduct in the preparation of all written work submitted for academic evaluation.

While academic staff teach you about referencing techniques and how to avoid plagiarism, you too have a responsibility in this regard. If you are at any stage uncertain as to what is required, you should speak to your lecturer before any written work is submitted.

You are guilty of plagiarism if you copy something from another author's work (e.g. a book, an article or a website) without acknowledging the source and pass it off as your own. In effect you are stealing something that belongs to someone else. This is not only the case when you copy work word-for-word (verbatim), but also when you submit someone else's work in a slightly altered form (paraphrase) or use a line of argument without acknowledging it. You are not allowed to use work previously produced by another student. You are also not allowed to let anybody copy your work with the intention of passing if off as his/her work.

Students who commit plagiarism will not be given any credit for plagiarised work. The matter may also be referred to the Disciplinary Committee (Students) for a ruling. Plagiarism is regarded as a serious contravention of the University's rules and can lead to expulsion from the University.

The declaration which follows must accompany all written work submitted while you are a student of the Department of Consumer and Food Sciences. No written work will be accepted unless the declaration has been completed and attached.

Full names of student:	**Tracey Lee Reis**
Student number:	**25017234**
Topic of work:	**Validation of a scale to measure consumers' engagement in voluntary simplistic clothing consumption behaviour in South Africa**

Declaration

1. I understand what plagiarism is and am aware of the University's policy in this regard.
2. I declare that this research proposal is my own original work. Where other people's work has been used (either from a printed source, Internet or any other source), this has been properly acknowledged and referenced in accordance with departmental requirements.
3. I have not used work previously produced by another student or any other person to hand in as my own.
4. I have not allowed, and will not allow, anyone to copy my work with the intention of passing it off as his or her own work.

SIGNATURE