
ADDENDUM A: QUESTIONNAIRE

Dear Participant,

This study forms part of my PhD degree in Consumer Science: Clothing Management. The purpose of this research project is to investigate **the influence of motivation, knowledge and social media on FEMALE consumers' voluntary simplistic clothing consumption practices in South Africa.**

Voluntary simplicity can be seen as a way of life where people choose to reduce the harmful impact they have on the natural and social environment as well as remove the clutter from their lives by minimising the number of products they consume or own. Sustainable clothing practices forms part of the voluntary simplistic lifestyle.

RESEARCH PROCEDURE

- No prior preparation is needed to complete the questionnaire.
- Please be reminded that participation is completely voluntary with no penalty or loss of benefit if you decide not to take part.
- Completion of the questionnaire takes approximately **15 minutes**.
- Should you be interested to participate in a follow-up study regarding a 10-week blog, please provide your contact details at the end of the questionnaire.
- Please note, this questionnaire in no way obligates you to participate in the follow-up study, since participation in either aspect of the study is completely voluntary.

PRIVACY AND CONFIDENTIALITY

Participants' responses are strictly confidential, and only members of the research team will have access to the information. Your response will be bulked with those obtained from other participants and appropriate statistical analysis will be performed on the bulked data. At no time will personal opinions be linked to specific individuals. Data will also be safely and securely stored and will not be accessible from the public domain. The privacy and anonymity of your participation is therefore ensured.

WITHDRAWAL CLAUSE AND RIGHTS OF ACCESS TO DATA

Participants may withdraw at any stage of the research without having to explain why. By no means will your withdrawal be held against you. As a participant you also have the right of access to your data.

ADDITIONAL INFORMATION

Hanri Taljaard can be contacted at hanri.taljaard@up.ac.za or at (012) 420 4310 for further information about the research project or for future participation in the study.

CONSENT

I have read the above information relating to the research project and declare that I understand it. I have been afforded the opportunity to contact and discuss relevant aspects of the project with the project leader and hereby declare that I voluntarily agree to participate in the project. I indemnify the university and any employee or student of the university against any liability that I may incur during the course of the project.

- I agree to the terms and conditions as stated above.
- I do not agree to the terms and conditions as stated above.
-

SECTION A:

What is your gender?

- Male
- Female

Are you between the ages of 21 and 65 years old?

- Yes
- No

SECTION B:

Please indicate to what degree the following questions regarding sustainable clothing practices are true or false.

Sustainable clothing practices should include:

	Definitely false	Most likely false	Probably false	Neither true nor false	Probably true	Most likely true	Definitely true
A refusal to buy clothing from companies that are unethical.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A refusal to buy the latest fashion every season.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Altering clothes that do not fit you anymore to wear it again.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Efforts to make your clothes last longer.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reusing old clothing scraps for other purposes.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Buying clothes that you really need and not just because you want it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Buying good quality clothing that lasts longer.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Donating unwanted clothes to family/friends.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Supporting clothing manufacturers who support fair working conditions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fixing torn clothes to reuse it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

SECTION C:

The previous questions may have had you wondering what it means to engage in sustainable clothing practices. In order to complete the rest of the questionnaire we would like to summarise **SUSTAINABLE CLOTHING PRACTICES** as follows:

- **REDUCE** the amount of clothing you buy, use or throw away
- **REPAIR** your clothes or recycle it (E.g. make rags out of worn out clothing)
- **RECYCLE OR REUSE** clothing in an eco-friendly manner (E.g. donate it to friends/charities, re-sell/exchange it)
- **REFUSE** to buy clothing that is bad for the environment and rather buy 100% organic cotton or recycled polyester
- **REFUSE** to buy unethical/imported clothing brands and rather support "Proudly SA" or "Made in SA"



SECTION D:

Please complete the rest of the questionnaire with the above in mind.

Which of the following (if any) do you do? (You may tick more than one option).

- REDUCE the amount of clothing you buy or use or throw away
- REPAIR your clothes or recycle it (E.g. make rags out of worn out clothing)
- RECYCLE OR REUSE clothing in an eco-friendly manner (E.g. donate it to friends/charities or re-sell/exchange it)
- REFUSE to buy clothing that is bad for the environment and rather buy 100% organic cotton or recycled polyester
- REFUSE to buy unethical/imported clothing brands and rather support "Proudly SA" or "Made in SA"
- None

SECTION E:							
	Please answer the following questions regarding your personal clothing practices:						
	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
I try to buy good quality clothes so that I do not have to buy clothes so frequently.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have an appreciation for handcrafted garments.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I recycle old clothing into something new (e.g. using old T-shirts as cleaning rags or making patchwork cushions from old jeans).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Given the option, I would rather buy eco-friendly clothing than the clothes that are conventionally produced.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I look after my clothes so that it lasts longer.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I would much rather wear clothes that are handcrafted than clothes that are mass-produced.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I dispose of clothing in an eco-friendly way (e.g. donating it to charities).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I support clothing manufacturers who create employment and fair working conditions.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I wear my clothes for more than one season.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I repair my damaged clothes rather than throwing them away to reduce my overall waste.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
If we do not wear certain clothes anymore, we pass them on to family or friends to be reused.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am inspired by clothing brands that have a reputation for being ethical and socially responsible.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

I make a conscious effort to only buy clothes that I really need.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have clothing altered if it no longer fits me so that I can wear it again.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I will rather sell unwanted clothing so that it is reused by others than to throw it away.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I prefer clothes that are made in South Africa to imported brands.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
When going to a special occasion - I rather wear something I already have than buying a new outfit.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Whenever it is possible I buy clothes with eco-friendly features (e.g. organic cotton).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I shop at stores that promote "Proudly South African" clothing.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I buy clothes that are good for the environment (e.g. recycled polyester or bamboo).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I support clothing labels that are produced by local South African communities.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I try to be pro-environmental by rather shopping at places that are known to be eco-friendly.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

SECTION F:							
Explain how you feel when taking part in sustainable clothing practices.							
	Definitely false	Most likely false	Probably false	Neither true nor false	Probably true	Most likely true	Definitely true
I feel confident that I can do it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am free to choose what I take part in.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel connected to the other people who do it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am capable of doing it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I have a say in choosing what I do.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I share a common bond with others who do it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am able to live more sustainable.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel close to people who support sustainable clothing.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I decide what practices I take part in.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel a sense of belonging to others who live sustainable.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am sure that I can consume clothing in a sustainable manner.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel free to make my own decisions on how I do it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I get along with people who also take part in it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel good about my ability to take part in it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I feel free to take part in it in my own unique way.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

SECTION G:							
	Indicate your level of agreement for taking part in sustainable clothing practices:						
	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
I enjoy succeeding at it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is an integral part of my life.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is the sensible thing to do.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I find it rewarding to improve the quality of the environment.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It seems that taking care of myself and the environment are inseparable.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is the way I have chosen to contribute to the environment.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I like how I feel when doing it.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It has become a fundamental part of who I am.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is a reasonable thing to do.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I enjoy positively contributing towards sustainability.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is part of the way I have chosen to live my life.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
It is a good idea to do something to improve our lives.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

SECTION H:							
	Please answer the following questions regarding <u>your personal sustainable clothing practices:</u>						
	Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
I am knowledgeable about sustainable clothing practices.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Among my friends I am an "expert" on sustainable clothing practices.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am familiar with sustainable clothing practices.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Compared to most other people I know more about sustainable clothing practices.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
I am well-acquainted with sustainable clothing practices.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How often have you taken part in **sustainable clothing practices?**

- Never
- Sometimes
- About half the time
- Most of the time
- Always

SECTION I:

Demographic information:

What is your age?

What is your highest level of education?

- Lower than Grade 12
 - Grade 12
 - Tertiary degree/diploma
 - Postgraduate
 - Other - Please specify _____
-

In which town/city in South Africa do you live?

What is your approximate individual income per month (after tax deductions)?

- Less than R 5 000
 - Between R 5 001 and R 15 000
 - Between R 15 001 and R 25 000
 - Between 25 001 and R 35 000
 - Between R 35 001 and R 45 000
 - More than R 45 000
-

According to the Employment Equity Act - how would you classify yourself?

- Black
 - Coloured
 - Indian
 - White
 - Other - Please specify _____
-

SECTION J:

Will you be willing to participate in a 10-week follow-up blog regarding the same topic?

Yes

No

Please provide your cellphone number (no spaces between numbers) so that the researcher can get hold of you for a possible follow-up session.

Please provide your e-mail address so that the researcher can get hold of you for a possible follow-up session.

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

29 January 2018

ETHICS SUBMISSION: LETTER OF APPROVAL

Dr Nadine Sonnenberg
Department of Consumer and Food Sciences
Faculty of Natural and Agricultural Science
University of Pretoria

Reference number: NC SONNENBERG EC1711128-165
Project title: The influence of motivation, knowledge and social media on female consumers' voluntary simplistic clothing consumptions practices in South Africa

Dr Nadine Sonnenberg

We are pleased to inform you that your submission conforms to the requirements of the Faculty of Natural and Agricultural Sciences Ethics committee.

Also 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,

A handwritten signature in black ink, appearing to be 'N. Sonnenberg'.

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 it 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.

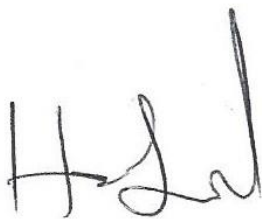
The declaration which follows must accompany all written work submitted while you are a student of the Department of Consumer and Food Sciences. No written work will be accepted unless the declaration has been completed and attached.

Full names of student: **Hanri Taljaard**
Student number: **29111774**
Topic of work: **Basic psychological needs and self-determined motivation as antecedents of female consumers' voluntary simplistic clothing consumption practices 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 thesis 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



**ADDENDUM D: PUBLISHED ARTICLE IN
SUSTAINABILITY JOURNAL**

Article

Basic Psychological Needs and Self-Determined Motivation as Drivers of Voluntary Simplistic Clothing Consumption Practices in South Africa

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Received: 30 May 2019; Accepted: 25 June 2019; Published: 9 July 2019



Abstract: Consumers' clothing consumption is the cause of many social and environmental consequences, especially in emerging economies where consumption continues to escalate. It is therefore vital that consumers adopt more voluntary simplistic lifestyles with sustainable clothing practices. This study relies on the self-determination theory to explore the influence of basic psychological needs (i.e., competence, autonomy, and connectedness) and self-determined motivation (i.e., identified- and integrated regulation as well as intrinsic motivation) on female consumers' voluntary simplistic clothing practices. Data were derived from 469 online questionnaires and structural equation modeling was employed to test the hypotheses. Competence was identified as the most influential basic psychological need, followed by the need for connectedness and autonomy. Moreover, intrinsic motivation is the strongest predictor of voluntary simplistic clothing practices, while integrated regulation is deemed insignificant and identified regulation has a negative association with the practices in question. In summary, it would seem that female consumers are keen on adopting voluntary simplistic clothing behaviors. This may be due to their intrinsic motivation and competence rather than their exposure to extrinsic influences. This study provides valuable insight into the motivational determinants of voluntary simplistic clothing consumption in South Africa and may thus serve as a platform for further investigation into other emerging markets.

Keywords: clothing consumption; voluntary simplicity; well-being; self-determination theory; self-determined motivation; basic psychological needs; sustainability; structural equation modeling

1. Introduction

Developed countries consume almost 90% of the earth's natural resources and an estimated 75% of the energy resources [1]. Yet, increasing concern relates to emerging economies such as South Africa due to growing populations and rising consumption levels [2]. The South African apparel retail sector for example grew by 4.8% in 2017 to reach a value of \$7502 million, with a compound annual growth rate of 4.3% between 2013 and 2017. Based on the market value forecast, the South African apparel retail industry is said to reach a value of \$9577.7 million by 2022, which is a 27.7% increase since 2017 [3]. This has attracted international retailers such as Zara and H&M to compete for local market share. Conversely, growth in the retail sector has not benefitted local manufacturing. In fact, approximately 90% of the apparel that is available in the local South African market is imported [4,5] resulting in the reduction of local garment manufacturing, mass factory closures, and significant job losses over the past few years [6]. Apart from the social impact, imports have severe environmental repercussions linked to the transportation and distribution of the products with associated carbon emissions. This in conjunction with the environmental consequences of initial fiber and garment

production in the country of origin [7] calls for more stringent effort among various stakeholders in the clothing value chain to curb overall natural resource depletion, loss of biodiversity and climate change [8].

Establishing a more sustainable value chain requires focus throughout the product life cycle i.e., from the raw, natural resources to the production processes, care, maintenance, as well as the disposal of products [9,10], but, importantly, also depends on consumers' willingness to adapt their lifestyles towards lowering consumption levels and/or choosing more sustainable alternatives. Yet, introducing such alternatives into an emerging market context such as South Africa remains challenging. Notwithstanding the country's economic progress, many third world issues endure e.g., local consumer populations are characterized by extreme levels of income inequality with a growing middle-class segment that continue to consume conspicuously, while other segments are subject to poor living standards. Ultimately, all segments are affected by social and environmental problems relating to unsustainable ways of living and overconsumption. For these reasons, voluntary simplistic clothing consumption lifestyles must be adopted across the entire spectrum of the population, but especially amongst the upper- and middle-class consumers who tend to burden the entire population by overconsuming and living conspicuously [11].

Reduced consumption and opting for local, ethical, and sustainable alternatives all relate to a lifestyle of voluntary simplicity. Voluntary simplicity can be traced back to the work of Richard Gregg in 1936 and can be described as a lifestyle that acts in service of both the goals of personal well-being and sustainable consumption [12]. Elgin and Mitchell [13], who produced seminal work on this topic, explain that voluntary simplicity involves a personal choice to become inwardly rich by living a simple life based on underlying views that such a lifestyle creates stronger communities and reduces ecological harm. Essentially, consumers may adopt voluntary simplistic lifestyles to counteract environmental and social problems, such as those caused by the acquisition, use, and disposal of clothing. Voluntary simplicity can further be sub-divided into various dimensions, namely material simplicity (i.e., consuming less), self-determination (i.e., desire to control one's destiny and striving toward self-sufficiency), ecological awareness (i.e., concern for environmental issues), and human scale (i.e., supporting community and small scale/local institutions) [14].

Deci and Ryan's (1985) self-determination theory (SDT) suggests that "eudaimonia" i.e., living well and/or actualizing the human potential might be key in realizing the aforementioned goals. Behavior is often guided by the desire to consume; however many consumers are starting to distance themselves from overconsumption and adopting more simplistic, sustainable lifestyles [15]. According to the assumptions of the SDT, such lifestyles and behaviors require self-determined motivation in the form of either intrinsic motivation, integrated regulation, or identified regulation. Intrinsic motivation is associated with the human need for competence and self-determination whereas integrated regulation is focused on personal outcomes. During the process of identified regulation, a person identifies with the behavior (e.g., voluntary simplistic lifestyles) on a conscious level and personally endorses it, thus leading to a high level of perceived autonomy [16]. In addition, motivation can only be deemed self-determined if three basic psychological needs are met namely competence (i.e., allowing consumers' to have a sense of control and proficiency), autonomy (i.e., the ability to act independently), and connectedness or relatedness (i.e., a sense of belonging to a social group) [17].

Based on the aforementioned background, the SDT was deemed an appropriate theoretical basis for exploring the influence of basic psychological needs, and particularly self-determined motivation, on consumers' voluntary simplistic clothing consumption lifestyles in the local emerging market context. The study purposively focused on upper- and middle-income groups as they are inclined to spend more on clothing and more specifically female consumers, who tend to be early adopters of particular clothing practices.

2. Theoretical Framework

2.1. Well-Being and Eudaimonia

Well-being is a broad term that is used to explain people's positive life experiences and includes concepts such as happiness, satisfaction, and morale [18,19]. Well-being is centered on an ideal psychological state that may relate to two opposing views of human nature namely hedonism and eudaimonism [20]. Hedonism is associated with positive and negative affect in the short-run, whereas eudaimonism encompasses long-term perspective. Though pleasure might be derived from short term outcomes and wellness in the forms of selfishness, materialism, and ecological destructiveness, it cannot be described as eudaimonic [21]. Eudaimonia can be defined as living well or actualizing human potential and fulfilling one's true nature [22]. Essentially, it is a lifestyle and emphasizes the content and processes involved in living well, rather than specific outcomes such as in the case of hedonism [21]. Research has in fact established that consumers who have intrinsic goals for personal growth tend to display psychological well-being as an indicator of eudaimonia [20]. Psychological well-being is associated with six aspects of human actualization, namely autonomy, personal growth, self-acceptance, life purpose, environmental mastery, and positive relatedness [22]. Autonomy, in particular, is a concept that refers to having the experience of choice and making the right choices (such as opting for voluntary simplistic lifestyles), and is closely related to eudaimonia [20]. Ryan, Huta and Deci [21] further argued that eudaimonic living can be characterized by four motivational concepts, namely pursuing intrinsic goals rather than external goals, behaving autonomously, being mindful and aware and behaving in ways that satisfy basic psychological needs for competence, autonomy, and relatedness. These aspects are captured in the self-determination theory, which served as an appropriate theoretical basis for this study.

2.2. Self-Determination Theory

Deci and Ryan's (1985) self-determination theory (SDT) embraces the concept of eudaimonia as the basis of well-being and further emphasizes actualization of the self and how it can be accomplished. Humans are seen to be active in their pursuit of behaviors to such an extent that these behaviors will lead to desired goals or outcomes [23,24]. As an initial basis to the development of the SDT, Deci and Ryan [25] postulated that there are two types of motivated behaviors, namely (1) self-determined behaviors, that are chosen based on conscious information-processing in the service of intrinsic and extrinsic needs, and (2) automated behaviors or "mindless" behaviors that require much less involvement and are unintentionally chosen. Self-determined behaviors thus require a strong relationship between the mind and the behavior.

In further developing the SDT, Deci and Ryan [24] proposed various motives (i.e., regulations) that form part of a self-determination continuum, and identify psychological conditions (i.e., nutriments) that are accountable for motivational development [26]. Social contexts in which the behaviors take place satisfy the basic psychological needs (i.e., competence, autonomy, relatedness) that, in turn, cultivates the development of more self-determined regulations, to enhance the persistence and ultimately the psychological well-being of the person performing the task [26]. A motivational sequence thus occurs, as suggested by Vallerand and Losier [27], in which one's social context leads to the fulfilment of basic psychological needs, which in turn, influences one's motivation, that ultimately predicts one's cognitive, affective, and behavioral consequence.

2.2.1. Basic Psychological Needs—Social and Contextual Influences on Motivation

Basic psychological needs can be described as the reception of psychological nutriments that facilitate psychological growth, integrity, and well-being [28]. SDT postulates that consumers are motivated if the frequency or intensity of their behaviors are elevated in the presence of certain social/contextual factors [29]. In addition, the degree to which motivated actions are self-determined would depend on three psychological needs, namely competence, autonomy, and relatedness [17].

Firstly, competence is accomplished when social behaviors of others are perceived to provide structure. This, in turn, provides consumers with a sense of control and an effective interaction with the environment, while producing the desired outcomes [29]. The need for competence encourages consumers to challenge themselves and to continuously attempt to maintain and enhance their skills through new activities [30]. This could be a challenging need to satisfy when consumers try new activities (such as consuming clothing in a voluntary simplistic manner) and the behaviors of others cannot provide the desired structure. Once consumers overcome these obstacles and learn to voluntarily engage in the simplified, alternative behaviors, they might experience more competence [12]. It is thus crucial to assist consumers in overcoming feelings of incompetence in order for them to persevere with newfound behavior. In the end, competence is based on the sense of confidence in oneself [16,31].

Secondly, autonomy is described as the need to engage in activities out of own free will—it is important that the origin of behavior should reside within the consumer [17]. Research has indicated that consumers who act based on autonomous reasons rather than controlled reasons have more persistence and higher levels of well-being because of their need to be self-directed [16]. Consumers who engage in voluntary simplicity and accompanying sustainable clothing consumption practices out of their own free will, will be more inclined to persist in their pursuits to live such a lifestyle and may experience higher levels of well-being, because the change was made on a voluntary basis and not because of external influences. Mindfulness and awareness are also recognized as important concepts linked to autonomy; so much so that mindful consumers tend to be less materialistic, embrace more intrinsic values, and therefore experience less divergence between what they have and what they want [21].

Thirdly, connectedness or relatedness emerges when consumers perceive others as being interested or concerned about them [16]. Connectedness essentially relates to a sense of belonging to a social group [17]. If consumers feel part of a group that incorporates voluntary simplistic principles into their clothing consumption, they might feel more connected and thus be more motivated to continue such behaviors because their newfound lifestyles and behavior are more relatable to others who follow similar lifestyles.

In conclusion, when all three needs are met, consumers' motivation will be enhanced and it will lead to increased self-determination [18].

2.2.2. Motivations that Underscore the SDT

Recent studies indicate the link between voluntary simplistic consumption and the formation and/or reinforcement of the self [32]. Bly, et al. [33] found that sustainable fashion is a source of pleasure and well-being and that sustainable consumption provided a sense of personal growth, well-being and experiential pleasure. Moreover, consumers tend to perform certain behaviors because it leads to positive social relationships and this socialization occurs through a process called internalization [26]. The more external behaviors are internalized, the more consumers become autonomous and self-regulate their behavior [17]. From these self-regulated behaviors and those that are regulated by outside forces, a continuum occurs which popularized the SDT's classifications of motivation, ranging from intrinsic motivation (also referred to as autonomous motivation) to extrinsic motivation and then amotivation (also referred to as controlled motivation) [21]. The five classifications on this continuum, excluding amotivation, are all related to motivated behavior and each of them describes a distinct type of regulation [16].

As early as 1975, Deci describes intrinsically motivated behaviors as those that are associated with the human need for competence and self-determination [34]. These intrinsically motivated behaviors originate from the self rather than from external sources such as pressures and rewards [26]. Earlier studies [35,36] explored the differences between intrinsic and extrinsic aspirations and determined seven life goals of which four represent intrinsic goals including personal growth, affiliation and intimacy, community engagement, and physical health. The three remaining goals were classified as extrinsic and included wealth and material possessions, social recognition and fame, as well as

image [37]. In general, intrinsic goal fulfilment is beneficial for well-being whereas extrinsic goal fulfilment is mostly unrelated to psychological health [21].

The remaining types of regulation fall along a continuum between intrinsic motivation and amotivation, and are classified as extrinsic [30]. Four types of extrinsic motivation are distinguished based on the degree of autonomy, including integrated, identified, introjected and external regulation [29]. The most autonomous type of extrinsic motivation, namely integrated regulation, is positively experienced and closely related to intrinsic motivation, but remains extrinsic because it is focused on personal outcomes rather than inherent enjoyment [30]. Identified regulation plays an important role in the transition between external regulation into self-regulation—the person identifies with the behavior and personally endorses it, thus leading to a high degree of perceived autonomy [16]. Consumers tend to imbue these behaviors with personal value and importance [28]. Introjected regulation is an external regulation that has been internalized, but not to the extent that it is perceived as one's own [38]. These behaviors are often performed to evade guilt or to boost the ego and is self-esteem-related [28]. External regulation represents the least autonomous type of motivation and includes behavior that is performed to either avoid punishment or receive a controlled reward [16]. Lastly, amotivation represents the total lack of motivation to perform in a specific manner [17].

To simplify the aforementioned classification, motivations have been re-grouped to form a global score of self-determined or autonomous motivation (combining intrinsic, integrated, and identified regulation), and non-self-determined motivation (combining introjected, external regulation, and amotivation) [29]. Of importance is the fact that self-determined motivation leads to behaviors originating from the consumer and not controlled by any external forces [17]. In this regard, higher psychological well-being and increased behavioral persistence is often connected to self-determined motivation [21] and is therefore imperative in the promotion of voluntary simplistic clothing consumption lifestyles.

2.2.3. Voluntary Simplistic and Sustainable Outcomes of Self-Determined Motivation

Pelletier [29] explored how the different types of motivation relate to certain voluntary simplistic and sustainable behaviors such as recycling and purchasing specific products that are eco-friendly. Research has indicated that high levels of self-determination towards the environment results in higher levels of such behavior [39]. Furthermore, Sheldon and McGregor [40] indicated that people with intrinsic goals tend to consume less and were more likely to nurture a more simplistic, sustainable environment [21]. Therefore, it can be assumed that consumers with high levels of self-determined motivation will act in a voluntary simplistic manner when it comes to clothing consumption. It can also be assumed that eudaimonic consumers, who pursue worthwhile goals and are mindfully self-regulated, tend to be more socially responsible [21]. Consumers who act in a sustainable manner for self-determined reasons tend to behave accordingly at frequent intervals and persevere in maintaining the behavior. As the voluntary simplistic behaviors become more integrated in a consumer's lifestyle, its perceived difficulty decreases [29].

2.3. Voluntary Simplistic Lifestyle

As mentioned before, voluntary simplicity can be explained as a way of life in which people choose to minimize their consumption to cultivate non-materialistic resources of satisfaction and meaning [41]. Voluntary simplicity is therefore closely related to concepts such as sustainable consumption, which involves acting or behaving in a way that will protect the environment by using fewer resources for personal gain [42–44]. It can also be defined as removing all the clutter from one's life and choosing to limit the expenditures on consumer goods, rather than being forced by poverty or government programs [45,46]. Various research has suggested that voluntary simplifiers have higher levels of life satisfaction and are often happier [15,47,48]. Following its early descriptions, the concept of voluntary simplicity has broadened over time and while it still encapsulates the macro goal of simplifying one's life, different consumers have adopted a wide range of micro strategies to achieve this lifestyle

through their own interpretation of simplification. Some researchers have proposed the five “R” approach, namely recycle, repair, reuse, reduce, and refuse [41] to live a more sustainable voluntary simplistic lifestyle. In terms of clothing consumption, consumers could for example, reduce the amount of clothing they buy, use, or throw away (e.g., buying good quality and/or classic styles that surpasses seasonal trends) and repair or repurpose clothing (e.g., making rags out of worn out clothing). They could also opt for a more sustainable option like recycling or reusing clothing in an eco-friendly manner (e.g., donate it to friends/charities or engage in re-selling/exchanging activities) [49]. They may also refuse to buy clothing that is detrimental to the environment and instead opt for eco-friendly alternatives such as organic cotton or recycled polyester [50]. In addition, they would forego unethical or imported goods, and opt for locally produced garments instead. Such behavioral changes are crucial to counter the impact of overconsumption [9] and to ensure a sustainable economy in which consumers live more sustainably and ensure that future generations’ needs are met [7].

2.4. Conceptual Framework and Hypotheses Formulation

Figure 1 summarizes the proposed conceptual model for this research study. The overarching aim of this study was focused on understanding the influence of basic psychological needs and self-determined motivation on female consumers’ voluntary simplistic clothing consumption practices in the South African emerging market context. The SDT was used as a reference to develop the conceptual framework. SDT suggests that the fulfilment of basic psychological needs (i.e., competence, autonomy, connectedness/relatedness) enhances local consumer’s motivation and cultivates the development of more self-determined regulations (i.e., identified regulation, integrated regulation, intrinsic motivation). In turn, self-determined motivation leads to behaviors such as voluntary simplistic clothing consumption which originates from the consumer and is not always purely controlled by external forces [17].

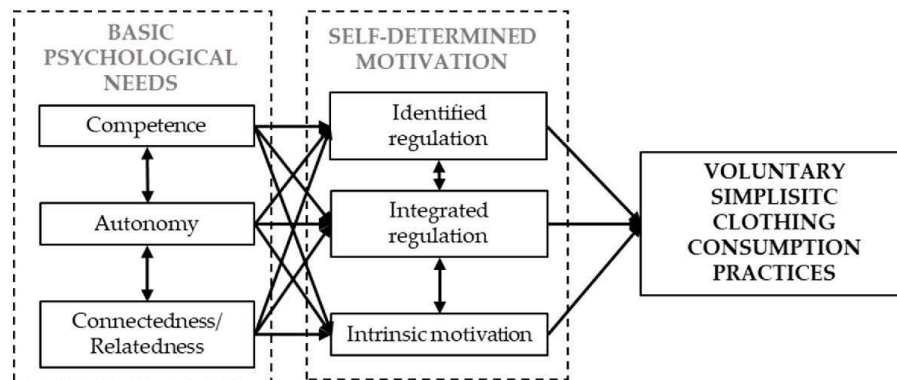


Figure 1. Proposed conceptual model.

Based on theoretical background and the conceptual model presented in Figure 1, the following hypotheses were developed:

H1. *There is a significant positive relationship between competence and self-determined motivation, more specifically:*

H1a. *There is a significant positive relationship between competence and identified regulation.*

H1b. *There is a significant positive relationship between competence and integrated regulation.*

H1c. *There is a significant positive relationship between competence and intrinsic motivation.*

H2. There is a significant positive relationship between autonomy and self-determined motivation, more specifically:

H2a. There is a significant positive relationship between autonomy and identified regulation.

H2b. There is a significant positive relationship between autonomy and integrated regulation.

H2c. There is a significant positive relationship between autonomy and intrinsic motivation.

H3. There is a significant positive relationship between connectedness and self-determined motivation, more specifically:

H3a. There is a significant positive relationship between connectedness and identified regulation.

H3b. There is a significant positive relationship between connectedness and integrated regulation.

H3c. There is a significant positive relationship between connectedness and intrinsic motivation.

H4. There is a significant positive relationship between self-determined motivation and voluntary simplistic clothing consumption, more specifically:

H4a. There is a significant positive relationship between identified regulation and voluntary simplistic clothing consumption.

H4b. There is a significant positive relationship between integrated regulation and voluntary simplistic clothing consumption.

H4c. There is a significant positive relationship between intrinsic motivation and voluntary simplistic clothing consumption.

3. Method

A structured online questionnaire was developed and distributed via Qualtrics in 2018 among a target population of female consumers aged 21 to 65. Basic psychological needs (i.e., competence, autonomy, and relatedness) were assessed by means of 15 items that were derived from a combination of the Basic Psychological Needs Scale [51] and the Psychological Need Satisfaction in Exercise Scale [52]. The items were adapted and rephrased to tap into voluntary simplistic clothing consumption practices with seven response options ranging from “definitely false” to “definitely true.” The items were based on an initial statement of how they would feel when taking part in sustainable clothing practices. The section relating to self-determined motivations (i.e., intrinsic motivation, integrated regulation, and identified regulation) included 12 items that were derived from the Motivation Toward the Environment Scale [53] that was also adapted to relate to the topic of investigation. The items were based on an initial statement in which they had to indicate their level of agreement for taking part in sustainable clothing practices. A seven-point Likert scale ranging from “strongly disagree” to “strongly agree” was used to indicate their responses. Voluntary simplistic clothing consumption practices were measured by means of self-developed items that relate to local market conditions and tapped into sustainable clothing consumption options such as the acquiring clothing that is either eco-friendly or locally sourced (e.g., “Whenever it is possible, I buy clothes with eco-friendly features (e.g., organic cotton)” and “I shop at stores that promote “Proudly South African” clothing).” Respondents were asked to indicate their responses on a seven-point Likert scale ranging from “strongly disagree” to “strongly agree”.

The online survey was pre-tested to eliminate problems prior to main data collection. Before initiating data collection, the confirmation of the Ethics Committee of the Faculty of Natural and Agricultural Sciences at the University of Pretoria was sought, and ethics approval was subsequently granted in January 2018 (reference code: EC1711128-165). Data collection yielded 482 responses of which 469 (97.3%) responses were useable and 13 (2.7%) were deemed incomplete and thus discarded. All respondents that took part in this study were guaranteed anonymity and provided their informed consent before participating in this study. Obtaining representative data in emerging market contexts

such as South Africa is often challenging due to the lack of sampling frames and the diverse composition of the population. For these reasons, a non-probable purposive sampling approach was used that exclusively focused on younger to middle-aged, female consumers because they are generally more willing to take part in socially responsible initiatives and may possibly act as early adopters of voluntary simplistic clothing consumption behavior. They could also be prominent role players in households' overall clothing consumption practices and may encourage fellow household members to adopt more sustainable lifestyles.

The eventual sample thus only included female consumers of whom the majority were between 21 and 39 (78.7%), White (77.4%) and had some sort of tertiary degree or diploma (78.5%). As summarized in Table 1, almost half of the respondents (46.9%) indicated that they earn an approximate income of between R 5 001 (\$345) and R 25 000 (\$1720) per month and may therefore have more disposable income to spend on clothing compared to those in lower income groups. Purposive and convenience sampling techniques were employed to gather the data for this study. It should however be noted that the findings of study cannot be generalized. Future research could thus benefit from representative samples to explore demographic differences pertaining to voluntary simplistic clothing consumption behavior. This may be of particular value in light of local lifestyle changes over the last 20 years due to political reform and empowerment [54].

Table 1. Demographic profile of the sample.

Demographics	Sample		
		Frequency (N = 469)	Percentage (%)
Age	21–39	369	78.7
	40–59	91	19.4
	60–65	9	1.9
Population group	Black and other	106	22.6
	White	363	77.4
Level of education	Grade 12/Matric	101	21.5
	Tertiary degree/diploma	204	43.5
	Postgraduate	164	35.0
Income per month	Less than R 5000 (\$345)	141	30.1
	R 5001–R 25,000 (\$345–\$1720)	220	46.9
	R 25,001–R 45,000 (\$1720–\$3090)	85	18.1
	More than R 45,000 (\$3090)	23	4.9

4. Results

4.1. Measurement Model

A measurement model was established by means of confirmatory factor analysis using IBM SPSS AMOS software (version 25). Factors were specified as postulated in existing theory and the hypotheses formulated for this study. Standardized factor loadings relating to self-determined motivation items ranged between 0.726 and 0.863, whereas basic psychological needs items achieved loadings ranging from 0.735 to 0.913. Voluntary simplistic clothing consumption items loaded between 0.722 and 0.825. All the items were at least more than 0.5 and basically higher than the 0.7 threshold, indicating a strong relation between the items and their respective constructs or factors [55]. Overall, the measurement model was satisfactory and results pertaining to reliability is reported in Table 2. The composite reliabilities (CR) varied between 0.784 and 0.916, all exceeding the recommended cut-off value of 0.7 [56]. The average variance extracted (AVE) for all constructs were more than 0.54, exceeding the minimum threshold of $AVE \geq 0.5$, indicating convergent validity [55]. The Cronbach's alphas (α) varied between 0.784 and 0.914, surpassing the threshold of 0.7, indicating good internal consistency and stability of scales [57].

Table 2. Descriptive analysis and assessment of measurement model.

Construct	Item Code	Item	Mean	Cronbach's α	Convergent Validity		
					Factor Loadings	AVE ^a	CR ^b
Competence	BPN_1	I feel confident that I can do it.	5.603	0.809	0.738	0.593	0.813
	BPN_7	I am able to live more sustainable.			0.735		
	BPN_14	I feel good about my ability to take part in it.			0.833		
Autonomy	BPN_5	I have a say in choosing what I do.	6.183	0.853	0.795	0.658	0.853
	BPN_9	I decide what practices I take part in.			0.816		
	BPN_12	I feel free to make my own decisions on how I do it.			0.823		
Connectedness	BPN_3	I feel connected to the other people who do it.	4.830	0.914	0.832	0.784	0.916
	BPN_8	I feel close to people who support sustainable clothing initiatives.			0.909		
	BPN_10	I feel a sense of belonging to others who live sustainable.			0.913		
Identified regulation	SDM_3	It is the sensible thing to do.	6.124	0.784	0.726	0.548	0.784
	SDM_9	It is a reasonable thing to do.			0.745		
	SDM_12	It is a good idea to do something to improve our lives.			0.749		
Integrated regulation	SDM_2	It is an integral part of my life.	4.646	0.889	0.839	0.728	0.889
	SDM_8	It has become a fundamental part of who I am.			0.858		
	SDM_11	It is part of the way I have chosen to live my life.			0.863		
Intrinsic motivation	SDM_1	I enjoy succeeding at it.	5.684	0.820	0.769	0.605	0.821
	SDM_4	I find it rewarding to improve the quality of the environment.			0.758		
	SDM_7	I like how I feel when doing it.			0.806		
Voluntary simplistic clothing consumption	VSC_18	Whenever it is possible, I buy clothes with eco-friendly features.	4.455	0.856	0.743	0.602	0.809
	VSC_19	I shop at stores that promote "Proudly South African" clothing.			0.722		
	VSC_20	I buy clothes that are good for the environment.			0.825		
	VSC_22	I try to be more pro-environmental by rather shopping at places that are known to be eco-friendly.			0.809		

BPN: Basic Psychological Needs; SDM: Self-determined Motivation; VSC: Voluntary Simplistic Clothing Consumption. ^a Average variance extracted (AVE) = (summation of the square of the factor loadings)/[(summation of the square of the factor loadings) + (summation of the error variances)]. ^b Composite reliability (CR) = (square of the summation of the factor loadings)/[(square of the summation of the factor loadings) + (square of the summation of the error variances)].

Discriminant validity was reported in Table 3 and achieved through the ratio between the square root of AVE as well as the correlations of the constructs. The diagonal insertions of the matrix (in bold), representing the square root of AVEs, were all higher than the corresponding inter-construct correlations, indicating discriminant validity [58] and constructs were sufficiently different from one another, because the correlations between the latent constructs' composite and all the other constructs were less than 0.7 [59]. Additionally, discriminant validity was also established by examining the cross loadings and confirming that all indicator loadings were higher than their respective cross loadings [55].

The resulting measurement model achieved good fit: CMIN (χ^2) = 417.633, DF = 188, CMIN/DF = 2.221, $p < 0.001$, GFI = 0.927, NFI = 0.939, TLI = 0.957, CFI = 0.965 and RMSEA = 0.051, and was therefore deemed appropriate for the purposes of further structural equation modeling.

Table 3. Discriminant validity (intercorrelations) of constructs.

Latent Variables	1	2	3	4	5	6	7
1. Competence	0.770						
2. Autonomy	0.567 **	0.812					
3. Connectedness	0.654 **	0.389 **	0.885				
4. Identified regulation	0.556 **	0.489 **	0.412 **	0.740			
5. Integrated regulation	0.605 **	0.307 **	0.604 **	0.433 **	0.854		
6. Intrinsic motivation	0.691 **	0.426 **	0.669 **	0.676 **	0.683 **	0.765	
7. Voluntary simplistic clothing consumption	0.577 **	0.303 **	0.483 **	0.375 **	0.575 **	0.505 **	0.775

Note: Diagonals (in bold) represent square roots of average variance extracted (AVE) while off-diagonal represent correlations. **. Correlation is significant at the 0.01 level (2-tailed). Sig. (2-tailed) = 0.000 for all variables.

4.2. First Order Structural Equation Model

In specifying the first order structural equation model (SEM) (Figure 2), covariances were added between the three basic psychological needs (i.e., competence, autonomy, and connectedness) as well as the three types of self-determined motivation (i.e., identified regulation, integrated regulation, and intrinsic motivation) as they essentially form sub-dimensions of one core construct. The resulting model fit was adequate with fit indices indicating the following: CMIN (X^2) = 439.652, DF = 191, CMIN/DF = 2.302, $p < 0.001$, GFI = 0.924, NFI = 0.935, TLI = 0.954, CFI = 0.962 and RMSEA = 0.053. Figure 2 and Table 4 show the standardized path coefficients as well as the explained variance of the dependent variables (R^2).

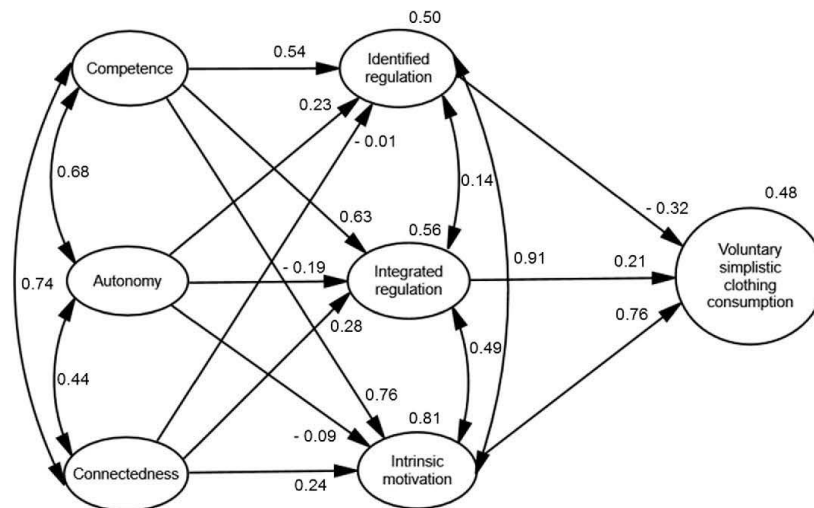


Figure 2. First order structural equation model (SEM) with standardized path coefficients and multiple squared correlations (R^2) for dependent variables in the top right corners.

In terms of the SEM analysis illustrated in Figure 2, basic psychological needs (i.e., competence, autonomy, connectedness/relatedness) and self-determined motivation (i.e., identified regulation, integrated regulation, intrinsic motivation) explained 48% of voluntary simplistic clothing consumption. That being said, the variance explained is 50% for identified regulation, 56% for integrated regulation, and 81% for intrinsic motivation.

Table 4. Summary of the structural model.

Hypotheses	Hypotheses Paths		Standardized Path Coefficients (β)	p	SE	Supported	
H1a	Competence	→	Identified regulation	0.544	***	0.087	Yes
H1b	Competence	→	Integrated regulation	0.627	***	0.154	Yes
H1c	Competence	→	Intrinsic motivation	0.762	***	0.108	Yes
H2a	Autonomy	→	Identified regulation	0.228	** (0.002)	0.060	Yes
H2b	Autonomy	→	Integrated regulation	-0.195	** (0.004)	0.105	Yes
H2c	Autonomy	→	Intrinsic motivation	-0.089	0.141	0.069	No
H3a	Connectedness	→	Identified regulation	-0.013	0.874	0.038	No
H3b	Connectedness	→	Integrated regulation	0.283	***	0.067	Yes
H3c	Connectedness	→	Intrinsic motivation	0.245	***	0.044	Yes
H4a	Identified regulation	→	Voluntary simplistic clothing consumption	-0.325	* (0.021)	0.229	Yes
H4b	Integrated regulation	→	Voluntary simplistic clothing consumption	0.209	0.074	0.098	No
H4c	Intrinsic motivation	→	Voluntary simplistic clothing consumption	0.759	***	0.238	Yes

Note: *** $p \leq 0.001$; ** $p \leq 0.01$; * $p \leq 0.05$.

The standardized path coefficients relating to H1a, H1b, and H1c (seen in Figure 2), indicating the relationship between competence and the three types of self-determined motivation, are all positive as well as statistically significant ($p \leq 0.001$) thus supporting H1a, H1b, and H1c. Competence is the strongest predictor of intrinsic motivation ($\beta = 0.762$; $p \leq 0.001$), while the relationship between competence and integrated regulation ($\beta = 0.627$; $p \leq 0.001$) is also relatively strong. H2a, H2b, and H2c, that postulate the relationship between autonomy and the three types of self-determined motivation, are not all positive and only some achieved statistical significance ($p \leq 0.01$). More specifically, the relationship between autonomy and identified regulation is positive as well as statistically significant ($\beta = 0.228$; $p = 0.002$). The relationship between autonomy and integrated regulation is negative, yet statistically significant ($\beta = -0.195$; $p = 0.004$). However, the relationship between autonomy and intrinsic motivation is negative, weak, and not significant ($\beta = -0.089$; $p = 0.141$). Consequently, H2a and H2b are supported but the same does not hold true for H2c. The standardized path coefficients that relate to H3a, H3b, and H3c display varying results. Connectedness and identified regulation indicate a weak negative relationship ($\beta = -0.013$) that is not statistically significant ($p = 0.874$) and thus does not support H3a. The relationship between connectedness and integrated regulation ($\beta = 0.283$; $p \leq 0.001$) as well as connectedness and intrinsic motivation ($\beta = 0.245$; $p \leq 0.001$) are however both positive and statistically significant, which supports H3b and H3c. Lastly, H4a, H4b, and H4c postulate the relationship between the three types of self-determined motivation and voluntary simplistic clothing consumption. Of these, the relationship between intrinsic motivation and voluntary simplistic clothing consumption is the only positive and statistically significant relationship ($\beta = 0.758$; $p \leq 0.001$), supporting H4c. H4a, indicating the relationship between identified regulation and voluntary simplistic clothing consumption, is negative, yet statistically significant ($\beta = -0.325$; $p = 0.021$), while H4b, indicating the relationship between integrated regulation and voluntary simplistic clothing consumption is not statistically significant ($\beta = 0.209$; $p = 0.074$).

4.3. Second Order Structural Equation Model (SEM)

Stemming from the argument that socio-psychological factors and their sub-dimensions are often theoretically driven, yet prove to be less distinct in the mind of the consumer [60], in addition to the high inter-correlations among the sub-dimensions of the key theoretical constructs (i.e., basic psychological needs and the self-determined motivation), a second order SEM was performed. The purpose of this SEM was to determine whether (1) the first order constructs, namely competence, autonomy and connectedness could be compounded into the higher order construct namely basic psychological needs and similarly whether (2) identified regulation, integrated regulation, and intrinsic motivation could be consolidated as self-determined motivation. The overall model fit proved to be very good

with fit indices as follows: CMIN (X^2) = 39.895, DF = 25, CMIN/DF = 1.596, $p = 0.030$, GFI = 0.982, NFI = 0.985, TLI = 0.992, CFI = 0.994 and RMSEA = 0.036. The standardized regression weights were all above 0.63 and the AVEs ranged from 0.728 to 0.784, exceeding the minimum threshold of $AVE \geq 0.5$, thereby also indicating convergent validity [55]. Discriminant validity was also achieved as all inter-construct correlations were lower than the square root of AVEs. In terms of the SEM analysis illustrated in Figure 3, basic psychological needs and self-determined motivation explained 40% of voluntary simplistic clothing consumption behavior, and the variance explained is 45% for self-determined motivation.



Figure 3. Second order structural equation model (SEM) with standardized path coefficients and multiple squared correlations (R^2) for dependent variables in the top right corners.

5. Discussion

This study used the SDT as a theoretical basis to explore the influence of basic psychological needs and self-determined motivation on female consumers' voluntary simplistic clothing consumption practices in the South African emerging market context. A conceptual framework was developed including basic psychological needs (i.e., competence, autonomy, connectedness/relatedness), the three types of self-determined motivation (i.e., identified regulation, integrated regulation, intrinsic motivation) and voluntary simplistic clothing consumption; this led to the formulation and subsequent testing of various hypotheses. The results support most of the hypotheses and are in line with previous empirical findings related to the SDT. In this study, competence emerged as the most prominent, significant basic psychological need in relation to self-determined motivation and voluntary simplistic clothing consumption, followed by the need for connectedness and lastly, autonomy. These findings are partially supported by previous investigations that found that when all three needs are met, consumers' motivation will be enhanced and it will lead to increased self-determination [17,18,29]. Of the three basic psychological needs, competence is the strongest predictor of self-determined motivation, and more specifically the strongest determinant of intrinsic motivation, that originates from the self and is associated with the human need for competence and self-determination [26]. Competence provides consumers with a sense of control and is an effective means for interaction with the environment as it may guide desired outcomes such as sustainable clothing behaviors [17]. The need for competence is said to encourage consumers to challenge themselves and to continuously attempt to maintain and enhance their skills [16]. In the local context, this relates to the focus on female empowerment and gender equality, which may have increased a sense of competence among local female consumer populations.

Furthermore, the results reveal that intrinsic motivation, which is the most self-determined or autonomous type of motivation, is subsequently the strongest predictor of voluntary simplistic clothing consumption practices. This is also in line with previous research relating to the SDT. More specifically, Sheldon and McGregor [40] report that people with intrinsic goals tend to consume less and were more likely to nurture a sustainable environment [21]. Self-determined motivation leads to behaviors originating from the consumer itself and is not extensively controlled by external forces [17]. The more self-determined a consumers' motivation is, the more persistent they are to execute particular behaviors such as voluntary simplistic clothing consumption, and in turn, the more they will achieve psychological well-being [21,29]. The postulated relationship between integrated regulation and voluntary simplistic clothing consumption proved to be insignificant. Female consumers' voluntary simplistic clothing

consumption behavior therefore do not stem from integrated regulation (that is closely related to intrinsic motivation), but remains extrinsic in the sense that it is executed to accomplish personal outcomes rather than inherent enjoyment [30]. Lastly, identified regulation, that also falls under the self-determined side of extrinsic motivation, has a negative relationship with voluntary simplistic clothing consumption, indicating that female consumers do not identify with the voluntary simplistic clothing consumption practices on a conscious level [16]. The last two mentioned relationships often lead to consumers perceiving their behaviors to be of personal value and importance and are executed to avoid guilt or to boost the ego and is self-esteem-related [28]. In summary, this may indicate that South African female consumers are more prone toward voluntary simplistic lifestyles as exemplified through clothing consumption behaviors. These behaviors stem from the self and a sense of competence that is intrinsically motivated rather than extrinsically influenced or because they feel guilty. In turn, this behavior may enhance their basic psychological needs, which also heightens their self-determined motivation and ultimately increases their behavioral persistence and psychological well-being.

6. Conclusions

Based on the findings of this study, it would seem that local female consumers tend to be quite competent and self-determined to take part in voluntary simplistic clothing consumption. This could be due to their independent decisions to engage in voluntary simplistic lifestyles and processing relevant information on what they believe to be good and right rather than taking part in “mindless” behaviors that require much less involvement and are not consciously chosen. In this regard, the study’s findings add new insights pertaining to SDT as a theoretical basis for understanding the underlying motivation that drive sustainable voluntary simplistic clothing consumption practices among female consumers in emerging markets. Consequently, it also provides a platform from which future researchers can explore the topic more intricately. To date, empirical evidence pertaining to voluntary simplistic clothing consumption behavior has mainly originated in developed countries such as the United States of America and other European countries, which might not reflect the contextual realities of consumption patterns in South Africa. This study thus addresses an important theoretical gap in existing literature and creates a basis for further empirical research, especially in terms of Deci and Ryan’s (1985) SDT and voluntary simplistic clothing consumption practices in emerging markets such as South Africa.

7. Managerial Implications

Empirical evidence gained through research of this nature, can assist in developing effective policies to facilitate the transition to voluntary simplistic clothing consumption lifestyles that originate from the consumers themselves [31], rather than rules and regulations that enforce such behaviors. In addition, insight gathered from the findings can, for example, be added to strategies such as the National Strategy for Sustainable Development and Action Plan and the South African Green Economy strategy in terms of voluntary simplistic clothing consumption [61,62]. Furthermore, government institutions could benefit by making use of the research to encourage businesses to market the sustainable options in such a way that will promote self-determined behaviors amongst consumers. The findings could further serve as imputes for marketers to create awareness and educate consumers through, for example, proper labeling (i.e., providing information regarding the country of origin, sustainable ways of washing) and advertising (i.e., explaining the benefits of purchasing the product and including information on how best to take care of and recycle the product). This may enhance consumers’ basic psychological needs by making them feel competent to search for and acquire sustainable clothing options, as well as giving them the choice to make decisions regarding sustainable clothing based on their own free will [2]. Furthermore, marketers could market it in such a way (i.e., adding labelling that includes the entry to an online community via social media) that consumers feel a sense of belonging when they purchase sustainable clothing options and consume it in a voluntary simplistic manner. The South African government has also initiated sustainable consumption behaviors through the implementation of Local Agenda 21 programs. They play a key role in promoting the

principles of sustainable development at the local level, and also encourage the population of South Africa to work towards a society where everybody contributes to living more sustainably and preserving the environment for future generations.

8. Limitations and Future Research Recommendations

This research study contributes to an understanding of female consumers' basic psychological needs and self-determined motivation toward voluntary simplistic clothing consumption lifestyles in an emerging market context and could thus serve as a theoretical basis for future research studies. However, insight derived from this study is subject to certain limitations, including the following: Firstly, a non-probable purposive sampling approach was chosen that exclusively focused on younger and middle-aged female consumers in upper- and middle-income groups who may act as early adopters of voluntary simplistic clothing consumption. Despite the fact that they may be prominent role players in households' overall clothing consumption behavior, the results derived from this sample cannot be generalized to the larger South African population. Future research should thus endeavor to recruit more representative samples. This will enable further insight and provide the opportunity to compare various demographic categories. Secondly, future research could include a broader geographical scope and also be conducted in other developing countries to compare whether the outcomes regarding the SDT and voluntary simplistic clothing consumption in South Africa correspond to other emerging contexts and hence allow for broader insight into such markets. Thirdly, response bias is a continual concern in sustainable consumption studies, because consumers have a tendency to overrate their current sustainable behaviors that may distort results and findings [63]. Efforts should thus be made to combat response bias as far as possible. Fourthly, quantitative methodologies such as this research study offer a lot of potential in exploring consumers' basic psychological needs and self-determined motivation in terms of voluntary simplistic clothing consumption lifestyles; however, a need also exists in the research domain for a more in-depth understanding of how and why consumers feel the need to satisfy their basic psychological needs to enhance their self-determined motivation to persist in living a voluntary simplistic lifestyle in terms of clothing. Qualitative approaches are especially useful in emerging markets where methodological challenges, such as incomplete questionnaires due to lower literacy, are often experienced during survey-based projects. Lastly, future studies could benefit from further developing the existing measurement scales to improve the statistical results.

Author Contributions: Conceptualization, H.T. and N.S.; Data curation, H.T.; Formal analysis, H.T. and N.S.; Funding acquisition, H.T.; Investigation, H.T.; Methodology, H.T. and N.S.; Project administration, H.T. and N.S.; Supervision, N.S.; Validation, H.T. and N.S.; Visualization, H.T. and N.S.; Writing—original draft, H.T.; Writing—review & editing, N.S.

Funding: This work is based on the research supported in part by the NATIONAL RESEARCH FOUNDATION OF SOUTH AFRICA, grant numbers: 118025 and 98902, and the University of Pretoria.

Conflicts of Interest: The authors declare no conflict of interest.

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ADDENDUM E: CONFERENCE PROCEEDINGS – SAAFECs 2018

SAAFECs (South African Association of Family Ecology and Consumer Science)



13th International SAAF ECS Conference

Saint George Hotel and Conference Centre, Pretoria,

5-9 March 2018

Book of Abstracts

	Venue: Dorian 1 Theme: Education/Teaching & Learning Session Chair: Dr PJ Musi	Venue: Dorian 2 Theme: Clothing, Textiles & New Technologies Session Chair: Miss MM Phasha	Venue: Dorian 3 Student Session Theme: Clothing, Textiles & New Technologies Session Chair: Dr NC Sonnenberg	Venue: Dorian 4 Theme: Clothing, Textiles & New Technologies and Education/Teaching & Learning Session Chair: Dr M Mpfu
13:00 - 13:30	Knowledge of clothing quality: are curriculums for traditional apprenticeships meeting needs of traditional tailoring industry in the informal sector? <u>Dr EA Apunda, Prof HM DeKlerk, Dr TA Ogina – University of Pretoria</u>	Fashion design in action: looking at the practices of professional fashion designers in Johannesburg through the lens of activity theory <u>Mrs TL Potgieter – Vega School, Mrs CA Lavelle – University of Johannesburg</u>	Consumers' voluntary simplistic clothing consumption practices in South Africa: a proposed conceptual framework <u>Miss H Taljaard, Dr NC Sonnenberg – University of Pretoria</u>	Effects of the realms of experience and pleasurable pop-up retail experiences on patronage intention <u>Mrs BM Jacobs, Mrs E Cassel – University of Pretoria</u>
13:30 - 14:00	Entrepreneurship as part of Southern African Consumer Studies curricula: room for improvement <u>Ms A Du Toit – North-West University</u>	Inclusive and desirable garment designs for people with physical disabilities <u>Dr BM Mantyi-Ncube, Mrs G Zulu – Solusi University</u>	Developing a scale to measure consumers' engagement in voluntary simplistic clothing consumption behaviour in the south african emerging market context <u>Mrs TL Reis, Dr NC Sonnenberg, Miss H Taljaard – University of Pretoria</u>	Determinants of Low Enrolments in Home Economics Pre-Vocational Education in Swaziland <u>Dr M Mpfu – University of Swaziland, Mrs R Manana – Examinations Council of Swaziland, Ms S Moyo – University of Swaziland</u>
14:00 - 14:30	Incorporation of Universal Design for Learning in Family and Consumer Sciences (FCS) Tertiary Education's Curriculum in Botswana <u>Dr S Trivedi, Mrs FM Mthombeni – University of Botswana</u>	Is There a Future in Fashion Design? Challenges Facing Local Swazi Fashion Designers and the Way Forward <u>Ms S Moyo, Dr M Mpfu, Mr L Lukhele – University of Swaziland</u>	The influence of perceived behavioural control in determining consumers' pro-environmental intent and disposal of active wear <u>Mr GD Muller, Dr NC Sonnenberg, Mrs BM Jacobs – University of Pretoria</u>	
14:30 - 15:00	The significance of Home economics and Consumer Studies Education for high school learners in Lesotho, Swaziland and South Africa <u>Ms A du Toit – North West University, Mrs MAM Manonyane – Ministry of Education and Training, Mrs BM Pheto-Moeti – Lesotho College of Education</u>	Total quality management practices in Nigerian textile industry <u>Dr U Diyaolu, Dr I A Irefin, Prof JB Akarakiri – Obafemi Awolowo University, Ile-Ife</u>		
15:00 - 15:30	Indigenous knowledge in Consumer Studies: contributing to Africanising the curriculum <u>Ms A du Toit – North-West University Dr PJ Musi – University of Swaziland</u>			
16:30	Cocktail function			

DAY 4 (8 MARCH 2018): VENUE 3

CONSUMERS' VOLUNTARY SIMPLISTIC CLOTHING CONSUMPTION PRACTICES IN SOUTH AFRICA: A PROPOSED CONCEPTUAL FRAMEWORK

Miss H Taljaard, Dr NC Sonnenberg – University of Pretoria

Keywords:

Voluntary simplicity, clothing consumption practices, Self Determination Theory, South African consumers

Introduction and Problem:

Globally, biodiversity has declined by 58% between 1970 and 2012 and if this trend continues to 2020, all vertebrate populations could decline by a further 67% (World Wild Fund, 2016). Many of today's environmental problems can be traced back to people's everyday behaviour (Steg, Bolderdijk, Keizer & Perlaviciute, 2014). Several environmentalists and researchers have attempted to find ways of creating awareness and endorsing more sustainable, voluntary simplistic behaviours (Deci & Ryan, 2002:207). The clothing sector, in particular, have been criticised with appeals for more stringent effort to promote sustainable clothing consumption practices that minimise the impact on the environment and the larger community (Wahnbaeck & Roloff, 2017). Reduced consumption and opting for local, ethical and sustainable alternatives all relate to a lifestyle of voluntary simplicity. Elgin and Mitchell (1977), who produced seminal work on this topic, explain that voluntary simplicity involves a personal choice to become inwardly rich by living a simple life based on underlying views that such a way of life creates stronger communities and reduces ecological harm. Essentially, individuals may adopt voluntary simplistic lifestyles to counteract environmental and social problems, such as those caused by the clothing industry. Various dimensions fall under the voluntary simplicity concept including material simplicity (i.e. consuming less), self-determination (i.e. desire to control one's destiny and striving toward self-sufficiency), ecological awareness (i.e. concern for environmental issues) and human scale (i.e. supporting community and small scale/ local institutions) (Elgin & Mitchell, 1978; Leonard-Barton, 1981). In adopting a voluntary simplistic lifestyle, these dimensions should manifest in consumers' voluntary simplistic clothing consumption practices. Based on the scope of their behaviour and practices, consumers can be classified as either full, partial or non-voluntary simplifiers (Etzioni, 1998; McDonald, Oates, Young & Hwang, 2006).

Based on the underlying assumptions of Deci and Ryan's (1985) theory of intrinsic motivation and self-determination (more commonly known as the Self Determination Theory (SDT)), the concept of "eudaimonia" i.e. living well and/ or actualising the human potential, might be key in realising the aforementioned goals. Outcomes resulting from living well include vitality, health as well as a sense of meaning and community (Deci & Ryan, 1985; Ryan, Huta & Deci, 2008). Behaviour is often guided by the desire to consume; however an increasing amount of consumers are now distancing themselves from the lifestyle of overconsumption and voluntarily moving towards more simplistic, non-materialistic lifestyles (Boujbel & d'Astous, 2012).

According to the assumptions of the SDT, adopting simplistic, non-materialistic lifestyles and practices would require self-determined motivation. This motivation is supported by three psychological needs including competence (i.e. allowing consumers' to have a sense of control and proficiency), autonomy (i.e. the ability to act independently) and relatedness (i.e. a sense of belonging to a social group) (Darner, 2009; Deci & Ryan, 2002:221). Knowledge (whether it be objective, subjective or experience related) of environmental and social issues may also fulfil a vital role in adopting pro-environmental and voluntary simplistic consumer behaviour (Barber, Taylor & Strick, 2009). Furthermore, information exposure via social media platforms have increased exponentially over the past few years (Kietzmann, Hermkens, McCarthy & Silvestre, 2011), including efforts to educate and increase consumers' knowledge about sustainable and voluntary simplistic clothing consumption. To date, this form of media exposure has not been extensively studied in the local context and thus the question remains as to whether it can be utilised to increase knowledge and ultimately effect behavioural change in the apparel sector.

Based on the aforementioned arguments, this theoretical review proposes a unique conceptual framework that includes the influence of motivations, knowledge and information exposure on female consumers' voluntary simplistic clothing consumption practices (VSCCP) in the South African emerging market context.

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DEVELOPING A SCALE TO MEASURE CONSUMERS' ENGAGEMENT IN VOLUNTARY SIMPLISTIC CLOTHING CONSUMPTION BEHAVIOUR IN THE SOUTH AFRICAN EMERGING MARKET CONTEXT

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Keywords:

Voluntary simplicity, self-determination, ecological awareness, human scale, sustainability

Introduction:

Population figures have increased drastically, from a mere estimated 600 million in the 1700's to an astonishing 7.3 billion people today (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). Yet, in the world we live in today consumerism and overconsumption, fueled 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 ecological implications.

Problem:

With populations increasing at a rapid rate and natural resources that are depleted faster than the earth can sustain, it is imperative to reduce unnecessary production, consumption and disposal of clothing and textiles in order to sustain our environment (Ruppert-Stroescu *et al.*, 2015). The vast multi-million clothing and textile industry contributes significantly to resource depletion in producing fashionable, cheap, low quality and easily replaceable items that encourage consumers to indulge in overconsumption. Most consumers will unfortunately not repair, recycle or reuse these items but instead discard to landfills where it ends up as clothing and textile waste (Kozlowski, Bardecki, & Searcy, 2012). Alternative lifestyle choices that promote voluntary simplistic clothing consumption practices (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 then warrants further empirical research. Based on the conceptual foundation of voluntary simplicity (VS) and its dimensions, the first overarching aim of this study is to develop a valid and reliable scale to measure voluntary simplistic clothing consumption practices. In addition to the conceptual foundation of VS, another important aspect to highlight for the purposes of this research is the potential gender differences that may exist in consumers' engagement of various voluntary simplistic practices. Apart from men and women's physiological differences, their masculinity and femininity is said to be comprised of social and cultural differences thus causing behavioural differences from one society to a next (Casimir & Dutilh, 2003). It is further reported that men have more environmental knowledge/ awareness, but women tend to be more emotionally in tune and will show a deeper concern and willingness to change (Kollmuss & Agyeman, 2002). This gave way to the underlying theoretical framework for this study, namely the social cognitive theory of gender development and differentiation.

Methodology:

An existing data set (compiled in 2016 by the University of Pretoria's Consumer Science Clothing Retail Management students and lecturers) will be used to generate results for this study. The research conducted in 2016 was exploratory in nature, which inspired a quantitative approach and a cross-sectional study in the form of a survey to gain insight into phenomena that have not yet been extensively studied to date (Salkind, 2012:213; De Vos, Strydom, Fouché & Delpont, 2011:95). For the purposes of this study, the data set (N = 1025) will be randomly split into two, equal data sets to initially perform scale purification on one set of data and to then perform scale validation on the other set of data. Thereafter the complete data set (N = 1025) will be used to explore and describe the gender differences in the engagement of voluntary simplistic clothing consumption practices.

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ADDENDUM F: CONFERENCE PROCEEDINGS – ITAA 2018

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The development of a scale for measuring voluntary simplistic clothing consumption in the South African emerging market context

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The development of a scale for measuring voluntary simplistic clothing consumption in the South African emerging market context

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Keywords: Voluntary simplicity, scale development, sustainability, clothing

Due to ever-increasing population figures and continuous degradation of natural resources by various industries, including the textile and apparel supply chain, it is imperative to sensitize consumers regarding the environmental impact of their lifestyles and consumption (Buenstorf & Cordes, 2007). Clothing consumption, in particular, has severe environmental consequences. Sustainable, simplistic ways of consuming and living should thus be encouraged to counter further environmental deterioration (Ruppert-Stroescu, Armstrong, LeHew, & Connell, 2015). This may include efforts to reduce the amount of clothing that is consumed and to embrace options such as repairing, recycling and/ or reusing clothing. It may also involve endeavors to support locally produced clothing and to refuse/ boycott brands that are guilty of unethical conduct (Wu, Boyd Thomas, Moore, & Carroll, 2013; Zamwel, Sasson-Levy, & Ben-Porat, 2014). Collectively, such efforts may demonstrate voluntary simplistic lifestyles with underlying dimensions of material simplicity, self-determination, ecological awareness and human scale as proposed by Leonard-Barton (1981). Although numerous studies have since the 1980's explored voluntary simplicity in more developed economies, the topic remains understudied in the local South African context, especially in terms of clothing consumption behavior. This study's purpose was to develop and validate a scale to enable further investigation of voluntary simplistic clothing consumption in the local context. Scale development guidelines originally prescribed by Churchill (1979) and later applied by others (e.g. Kang & Johnson, 2011) was followed, which included initial scale generation, scale purification and subsequent validation (Kang & Johnson, 2011).

During initial scale generation, a firm conceptual foundation was used to generate a potential pool of items for measuring voluntary simplistic clothing consumption practices in the local context. These items were patterned after general items and dimensions in Leonard-Barton's (1981) voluntary simplicity behavioral index. However, clothing experts employed rigorous criteria to ensure content validity and reduced the pool to 22 items that were specifically focused on clothing consumption behavior. During scale purification, these items were incorporated into a structured, self-administered paper-based questionnaire that was distributed by means of non-probability sampling among approximately equal amounts of male and female respondents belonging to various ethnic groups, aged 19 to 78, and residing in various suburbs of Gauteng. Following the example of Kang and Johnson (2011), the resulting data was split randomly into two data sets with one half used for scale purification ($n = 501$) and the other half for scale validation ($n = 501$).

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The first scale purification procedure involved the elimination of two items that exhibited corrected item-total correlations lower than .30. The remaining twenty items were subjected to exploratory factor analysis (EFA), whereby four factors with eigenvalues ≥ 1 were retained and criteria for further elimination of six items included high cross-loadings ($>.40$) or low factor loadings ($<.40$) to retained factors. The resulting four factor solution accounted for 47,88% of the total variance. Further confirmatory factor analysis (CFA) however led to the pursuit of a three-factor solution with the elimination of two additional items due to low factor loadings. The final confirmatory model (NFI = 0.91; CFI = 0.93; RMSEA = 0.079) was thus estimated on 12 items that parsimoniously represented three dimensions of voluntary simplistic consumption practices namely, (1) supporting local and ethically responsible clothing brands, (2) demonstrating preference for unique handcrafted clothing and (3) reducing clothing consumption by (among other) extending the lifespan of existing products. This factor solution was re-confirmed through subsequent CFA procedures that was performed on the separate sample ($n = 501$). The final confirmatory model achieved acceptable fit (NFI = 0.90; CFI = 0.92; RMSEA = 0.080) with factor loadings ranging from 0.48 to 0.86. It is envisaged that this scale may serve as an important foundation for much needed future empirical research into voluntary simplistic clothing consumption behavior in emerging market contexts such as South Africa.

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ADDENDUM G: CONFERENCE PROCEEDINGS – GFMC 2019

GFMC Global Fashion Management Conference)

2019 Global Fashion Management Conference at Paris

2019 Global Fashion Management Conference at Paris Proceedings: 277-282 (July 2019)
<https://doi.org/10.15444/GFMC2019.02.08.02>

**VOLUNTARY SIMPLISTIC CLOTHING CONSUMPTION PRACTICES:
A SOUTH AFRICAN EMERGING MARKET PERSPECTIVE**

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ABSTRACT

Adopting voluntary simplistic lifestyles with practices that are socially and environmentally responsible remain key issues in the quest toward saving the planet. This research explores the prevalence of voluntary simplistic clothing consumption practices among female consumers in South Africa, where dramatic increases in consumption must be curbed.

Keywords: voluntary simplicity, clothing consumption, emerging market, sustainability

INTRODUCTION

Developed countries (representing approximately a quarter of the world's population) consume almost 90% of the earth's natural resources and approximately 75% of the energy resources (Intergovernmental Panel on Climate Change, 2018). Although the consumption of developed nations clearly adds to the current status quo, developing countries with rapidly expanding markets are moving towards the same realisation as their populations continue to grow and consumption keeps increasing. South Africa, as an emerging market, faces numerous environmental problems such as natural resource depletion and climate change due to overconsumption in various spheres, specifically within the clothing and textile industry (Wahnbaeck & Roloff, 2017). In 2017 the South African apparel retail sector grew by 4.8% in 2017 to reach a value of \$7,502 million, with a compound annual growth rate (CAGR) of 4.3% between 2013 and 2017 (Marketline, 2018). Although South Africa has made significant progress toward achieving a more developed status, many third world issues still prevail such as income inequality and poor living standards among certain population segments. Despite diverse living standards, everybody is affected by environmental and social problems relating to unsustainable ways of living and overconsumption of clothing.

Therefore, voluntary simplistic ways of living, especially in terms of clothing consumption, need to be adopted across the spectrum of the population, but especially amongst the upper- and middle-class consumers who tend to burden the entire population by overconsuming and living conspicuously. This research was therefore specifically focused on gaining a deeper understanding of the pervasiveness of voluntary simplistic clothing consumption practices among various socio-economic groups (including the more affluent) and also

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more specifically among female consumers, who tend to be early adopters of particular clothing practices.

THEORETICAL BACKGROUND

Reduced consumption and opting for local, ethical and sustainable alternatives all relate to a lifestyle of voluntary simplicity. Voluntary simplicity can be traced back to the work of Richard Gregg in 1936 and can be described as a lifestyle that acts in service of both the goals of personal well-being and sustainable consumption (Kasser, 2009). Elgin and Mitchell (1977), who produced seminal work on this topic, explain that voluntary simplicity involves a personal choice to become inwardly rich by living a simple life based on underlying views that such a lifestyle creates stronger communities and reduces ecological harm. Essentially, consumers may adopt voluntary simplistic lifestyles to counteract environmental and social problems, such as those caused by the acquisition, use and disposal of clothing. Voluntary simplicity can further be sub-divided into various dimensions, namely material simplicity (i.e. consuming less), self-determination (i.e. desire to control one's destiny and striving toward self-sufficiency), ecological awareness (i.e. concern for environmental issues) and human scale (i.e. supporting community and small scale/ local institutions) (Leonard-Barton, 1981).

Following its early descriptions, the concept of voluntary simplicity has broadened over time and while it still encapsulates the macro goal of simplifying one's life, different consumers have adopted a wide range of micro strategies to achieve this lifestyle through their own interpretation of simplification. In particular, some have proposed the five "R" approach, namely recycle, repair, reuse, reduce and refuse (Zamwel, Sasson-Levy, & Ben-Porat, 2014) to live a more voluntary simplistic lifestyle. In terms of clothing consumption practices, they could for example reduce the amount of clothing they buy, use or throw away (e.g. buying good quality clothing or classic styles that surpasses seasonal trends) and repair or repurpose clothing (e.g. making rags out of worn out clothing). They could also recycle or reuse clothing in an eco-friendly manner (e.g. donate it to friends/charities or engage in re-selling/ exchanging activities). They may also refuse to buy clothing that is detrimental for the environment and instead opt for eco-friendly alternatives such as organic cotton or recycled polyester. In addition, they would waiver away from unethical or imported goods, and rather buy "Proudly South African" locally produced garments.

The aforementioned background briefly summarises the topic of investigation. Although extensive research has been done on this topic in more developed countries, little is known about voluntary simplicity in South Africa, particularly with regard to its application in clothing consumption. Existing empirical findings might also not reflect the contextual realities of the current consumption patterns in South Africa, which underscores the importance of this study in the local context.

METHODOLOGY

A quantitative approach was followed to address the purpose of this study. A structured, self-administered questionnaire was developed and distributed online via Qualtrics. The

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questionnaire included 22 items that measured consumers' engagement in voluntary simplistic clothing consumption practices. These items were patterned after the behavioural index of Leonard-Barton (1981) but was further adapted to specifically tap into clothing consumption practices and to comply with local conditions. A seven-point Likert-scale was used to record responses ranging from "Strongly disagree" to "Strongly agree". The questionnaire was pre-tested to refine question format and wording. The online survey eventually yielded 482 responses from female consumers of which 469 (97.3%) responses were useable and 13 (2.7%) were deemed incomplete and thus discarded.

In terms of sampling it should be noted that obtaining representative data in emerging market contexts such as South Africa is often challenging due to the lack of sampling frames. Matters are further complicated by the diverse composition of the population. For these reasons a non-probable purposive sampling approach was chosen that exclusively focused on female consumers as they are generally more willing to take part in socially responsible initiatives and could possibly act as early adopters of voluntary simplistic clothing consumption practices. They could also be prominent role players in households' overall clothing consumption practices and may encourage fellow household members to adopt more sustainable behaviour in their daily lives. The sample hence only included female consumers of whom the majority were between 21 and 39 (79%), were classified as White (77%) and had some sort of tertiary degree or diploma (79%). Almost half of the respondents (47%) indicated that they earn an approximate income of between R 5 001 (\$370) and R 25 000 (\$1852) per month, while 30% earned "less than R 5 000 (\$370)" and the remaining 23% earned R 25 001 (\$1852) and more. In this regard it should be noted that the concept of voluntary simplicity with accompanying sustainable clothing consumption practices does not always carry the same weight throughout the various income and population groups due to factors such as evolving lifestyles, historical events and cultural differences. The local population groups have evolved substantially in terms of their lifestyles over the last 20 years due to political changes and empowerment (Kaus, 2013). Yet, it must be emphasized that the intention of this study was not to generalise the findings but rather to discover specific areas of interest that warrant further investigation and to create future research agendas.

RESULTS

Initial data analysis involved exploratory factor analysis (EFA) using Principal Axis Factoring and Varimax rotation with Kaiser Normalization. Cross loadings and items that failed to achieve loadings above 0.4 were eliminated. The five-factor solution accounted for 51.70% of the total variance which was deemed acceptable. Consideration must be given to the fact that the concepts that were measured are in fact underlying socio-psychological factors that are intertwined with other aspects such as the larger society and environment – hence in the mind of the consumer such factors are seldom compartmentalised and it is often difficult to draw clear distinctions between the constructs. Nevertheless, five factors were identified and subsequently labelled as follows: (1) ethical clothing, relating to the notion of purchasing clothing that is either eco-friendly or locally sourced (2) clothing longevity, relating to the concepts of reusing and/ or recycling clothing in an eco-friendly manner, (3) reduced clothing consumption, relating to repairing or

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repurposing clothing, (4) unique handcrafted clothing, relating to novelty, handcrafted clothing as opposed to mass-produced clothing, and lastly (5) need-based clothing consumption, relating to reducing the amount of clothing they buy, use or throw away and only purchasing clothing when it is needed. These five factors strongly resemble the five “R” approach, namely recycle, repair, reuse, reduce and refuse that has been discussed in the theory above. The means ranged from 4.623 to 6.473, indicating a generally positive response in terms of female consumers’ engagement in sustainable clothing practices. Clothing longevity had the highest mean, indicating the female consumers’ strong association with reusing and recycling clothes by donating it to charities and/ or friends/ family as well as reusing it for more than one season.

Furthermore, the five-factor solution with 16 remaining items was validated by means of confirmatory factor analysis (CFA). The λ coefficients of indicator variables ranged from 0.545 to 0.825. The average variance extracted (AVE) was calculated on every factor, indicating adequate convergence on majority of the factors except for the factor relating to clothing longevity (CL), which is just below the acceptable threshold of 0.5. The measurement model fit indices were as follows: CMIN/DF = 2.531, GFI = 0.942, AGFI = 0.915, RMSEA = 0.057, NFI = 0.915 and CFI = 0.946. In summary, all the fit indices reached the acceptable thresholds and came close to being deemed excellent. The sample size of this research study (N = 469) presented a good model fit, but further ongoing analysis and modifications could ensure that the model obtains excellent thresholds on all the required fit indices.

CONCLUSION

Based on the findings of this study, it would seem that local female consumers are already quite involved in some sustainable clothing practices. This could be due to their inclination toward pro-actively saving the environment for future generations or perhaps assisting fellow citizens, who do not have the means to acquire basic needs such as clothing, with unwanted garments rather than disposing of it to landfill. Furthermore, sustainable options might have been implemented by these consumers due to external events that have forced them to live sparingly with their possessions and resources e.g. the current unstable economic state of South Africa as well as the ongoing water crisis which forced many South Africans to re-think their current way of living and implement plans to live simply to preserve resources (BusinessTech, 2018). Whether the reasons for taking part in sustainable clothing consumption were personal and self-determined or due to external factors is not entirely clear and warrants further investigation. An important factor that came to the fore includes the notion to prolong clothing items’ lifespans and in so doing to create less waste.

In conclusion, this study addresses an important theoretical gap in existing literature and creates a basis for further empirical research, especially in terms of voluntary simplistic clothing consumption practices in emerging markets such as South Africa. Empirical evidence gained through research of this nature, could assist in developing effective policies to facilitate the transition to more sustainable and voluntary simplistic consumption patterns. Insight gathered from this study, could for example be added to

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strategies such as the National Strategy for Sustainable Development and Action Plan (NSSD) and the South African Green Economy strategy in terms of sustainable clothing practices. Furthermore, government institutions could benefit by making use of the research to sway businesses and consumers to act more sustainably through legislation, regulations and standards including product standards relating to recyclability, trading standards such as sustainable consumption patterns, and marketing standards such as encouraging pro-environmental behaviour. Marketers could also benefit by fully comprehending the degree to which local female consumers engage in voluntary simplistic clothing consumption practices in order to develop effective campaigns that promote social responsibility and sustainability. In various countries sustainable products still have an insignificant market share, and the same seems to be true for South Africa. Empirical evidence is thus needed to create strategies to improve these products' market share.

In terms of future research, effort should be made to recruit more representative samples including both genders and specified ethnic groups, age groups and geographic locations, which will enable further insight and provide the opportunity to compare the various demographic categories. Future research could also be conducted in other developing countries to compare whether the outcomes regarding voluntary simplistic clothing consumption practices in South Africa correspond to other emerging contexts and hence allow for more insight into such markets.

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ADDENDUM H: CONFERENCE PROCEEDINGS – GRIM 2019

GRIM (Garden Route Interface Meeting)

GRIM 2019

3rd Garden Route Interface Meeting (GRIM)

**Science and management co-learning to
navigate social-ecological issues**

17-19 September 2019

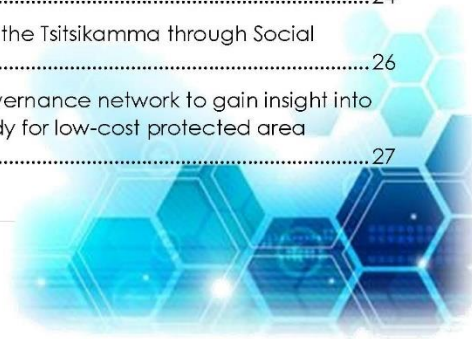
Pine Lake Marina, Sedgefield, South Africa

Book of Abstracts



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The move towards voluntary simplistic clothing consumption practices to improve human well-being and quality of life

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Globally, biodiversity has declined by 60% (World Wide Fund, 2018), while emerging markets, such as South Africa, face ever-increasing populations and consumption that affect the environment and society alike. The clothing industry is a culprit of many environmental and social issues. Clothing is often purchased, worn, washed and disposed of in an unsustainable manner. Yet, recent campaigns have led to a growing awareness of the impact of this industry and concurrently, consumers' willingness to adopt more sustainable clothing practices e.g. recycling, repairing, reusing and reducing consumption. Consumers may also refuse to purchase clothing that poses threats to the environment and the larger community. These practises relate to the five "R's" and the notion of voluntary simplicity i.e. a personal choice to become inwardly rich by living a simple life because it contributes to stronger communities and reduces ecological harm. With the above in mind, this study aimed to explore female consumers' participation in voluntary simplistic clothing consumption practices by means of an online survey (generated and administered via Qualtrics software).

Data analysis included initial descriptive statistics, followed by inferential analysis to gain deeper insight into the topic of investigation. The analysis revealed that many female consumers engage in voluntary simplistic clothing behaviour such as recycling, repairing, reusing and reducing possibly due to pro-environmental and pro-social motives. On the other hand, existing economic circumstances may force many people to re-think their current lifestyles and implement plans to preserve resources (BusinessTech, 2018). The results however show that few would go to the extent of "refusing" clothing that is detrimental to the environment or the larger community. Hence, there is scope for more sustainable engagement and voluntary simplistic consumption.



In striving towards a green economy, (as specified in the South African Green Economy Strategy and the National Strategy for Sustainable Development and Action Plan), government and other relevant stakeholders could develop policies and enable interventions to build sustainable communities that embrace voluntary simplistic practices. Ultimately, such behaviour not only benefits the local economy and environment, but it also contributes to human well-being and a better quality of life for all.

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ADDENDUM I: THREE FACTOR K-MEANS CLUSTER ANALYSIS

THREE FACTOR K-MEANS CLUSTER ANALYSIS

Once the two-cluster solution was analysed by means of k-means cluster analysis, a three-cluster solution was executed to further explore the data at hand. The results were summarised in **Table 1** which presented the following conclusions: Cluster one contained 125 cases (26.7%), grouping together all the female consumers who indicated varying levels of engagement in the five factors that formed part of VS CCP. Cluster two contained 122 cases (26.0%) grouping together all the female consumers who indicated lower levels of engagement in the five factors relating to VS CCP and lastly cluster three contained 222 cases (47.3%), grouping together the female consumers that have quite a high involvement in VS CCP. It is worth mentioning that “Need-based Clothing Consumption” did not follow the general pattern as mentioned above, and was not as prominent in cluster three (higher involvement in VS CCP), but rather presented higher significance in cluster one, that represented the varying or partial degrees of engagement in VS CCP.

**TABLE 1: DISTRIBUTIONS AND MEANS OF THE K-MEANS CLUSTER ANALYSIS
(3 CLUSTERS)**

Number of cases in each cluster and final cluster centres				
	Cluster 1	Cluster 2	Cluster 3	Entire sample
	Partial VS	Partial to non- VS	Voluntary simplifiers (VS)	
N	125	122	222	469 (Missing = 0)
%	26.7	26.0	47.3	100
Means (Cluster centres) (Response options ranged from 1 (-) to 7 (+))				
Ethical clothing	4.337	3.701	5.291	4.443
Clothing longevity	6.539	6.033	6.677	6.416
Repurposed CC	4.992	3.626	5.776	4.798
Unique handcraft	4.140	4.643	6.070	4.951
Need-based CC	5.676	3.742	5.660	5.026

In terms of sample distribution, cluster three, the higher involved females, still made up the biggest cluster (N = 222; 47.3%), while cluster one, the partially involved females (N = 125; 26.7%), and cluster two, the lower involved females (N = 122; 26.0%), were equal in size (see **Figure 1**). These proportions are thus similar to the two-cluster solution in which the females with the higher levels

of engagement in VSCCP formed the bigger portion of the overall sample, indicating the that more or less half of the female consumers that took part in this study are already quite involved in aspects of VSCCP; however, some practices (such as “Need-based Clothing Consumption”) presented interesting result and could be ascribed to personal lifestyles, external factors such as economic conditions or just a lack of knowledge regarding VSCCP. Further detail regarding this will be discussed below.

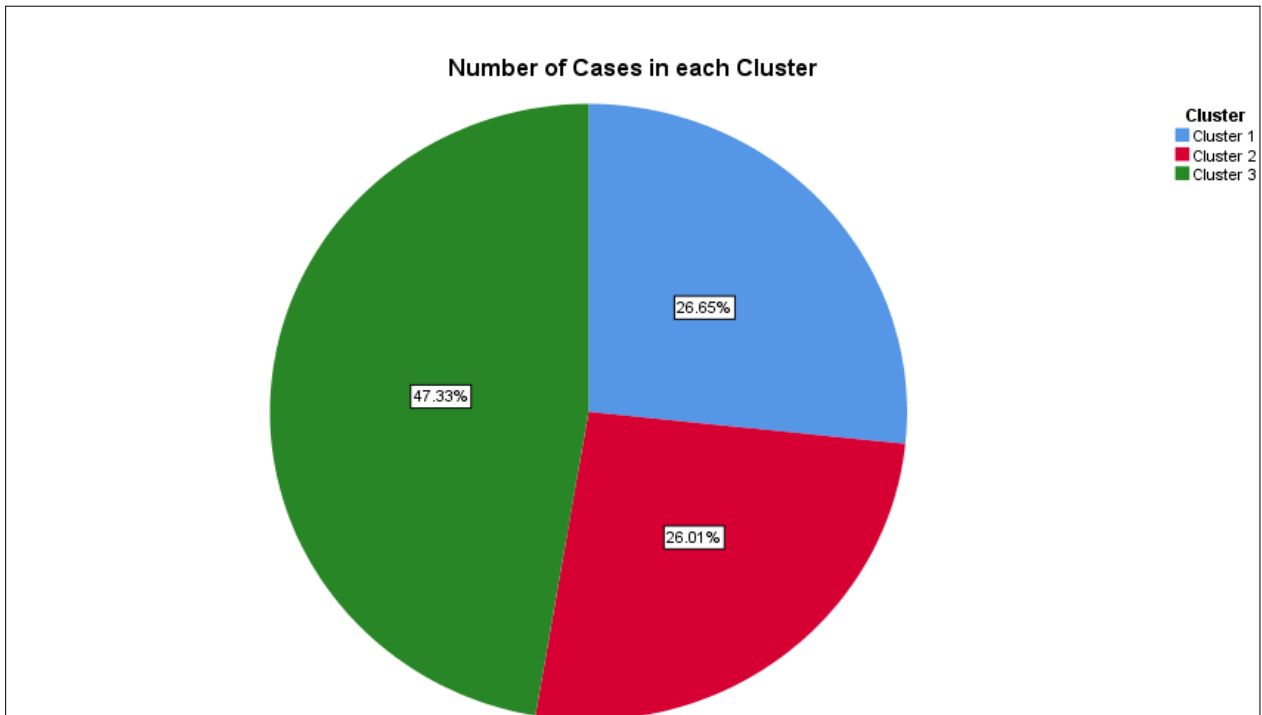


FIGURE 1: PIE CHART OF THE NUMBER OF CASES IN EVERY CLUSTER BASED ON THE LEVEL OF ENAGEGEMENT IN VSCCP (3 CLUSTERS)

Figure 2 presents a clear visual representation of the clusters as well as the factors (i.e. ethical clothing, clothing longevity, repurposed clothing consumption, unique handcrafted clothing and need-based clothing consumption) and their significance in every cluster. The results of the k-means cluster analysis are quite similar to the two-step (3 cluster) analysis in the sense that three groups or clusters ranging from lower to high levels of engagement in VSCCP were identified and described. Once again, “Clothing Longevity (CL)” was the most prominent factor of VSCCP across the board; however, the least prominent factor differed in every cluster and will be discussed in further detail below.

Additionally, the two-step, three cluster-solution analysis concluded that one cluster can be classified as voluntary simplifiers to a great extent, but that the other two clusters' results remained vague because both clusters still engage in VSCCP, but the level of engagement differs, classifying most of these female consumers that formed part of these cluster as partial voluntary simplifiers with varying degrees of VSCCP. The k-means, 3-cluster solution analysis also presented a clear cluster of more involved female consumers; however more detail regarding the two other clusters can be deducted from the results and hopefully provide some insight into why female consumers are either partial or non-voluntary simplifiers and which factors they are most likely to perform because of certain reasons.

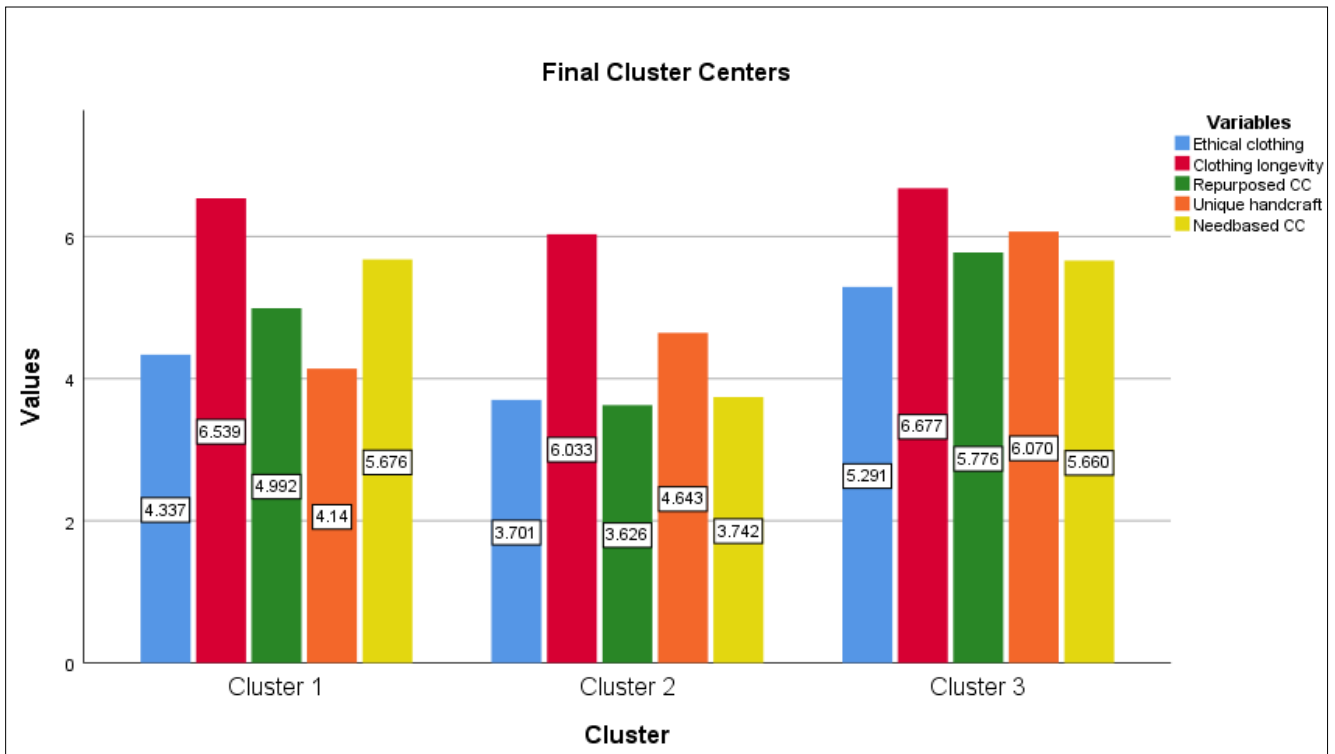


FIGURE 2: BAR CHART OF THE MEAN DISTRIBUTIONS OF THE VSCCP FACTORS (3 CLUSTERS)

Detailed results of the k-means, 3-cluster solution analysis is stipulated below:

Cluster one:

- Cluster one indicated varying levels of engagement in the five factors that form part of VSCCP.
- **“Clothing Longevity (CL)”** had the highest mean (M= 6.539) of all five factors in cluster one, indicating high levels of involvement in donating and passing clothes on to others as well as

wearing clothes for more than one season. Overall, CL seemed to be a prominent factor, and was the most significant factor in every cluster (i.e. 1, 2 and 3).

- **“Need-based Clothing Consumption (NBCC)”** was also quite prominent within this cluster (M = 5.676) and indicated high degrees of involvement in practices relating to only buy clothing when it is needed and rather wearing something that you already own than purchasing new clothes. Across the three clusters, the highest value for NBCC was recorded in cluster one, indicating its significance within this cluster.
- Less prominent, but still worth mentioning, was **“Repurposed clothing Consumption (RCC)”**, that had a mean of 4.992, and indicated moderate levels of involvement in recycling and repairing clothing, or altering it to wear it again.
- All the above-mentioned factors are related to making clothing last longer and only using what is needed. Based on these results it can be assumed that this cluster, that was identified as being partially engaged in VSCCP, might do so to utilise the resources and possessions that they currently have at their disposal, because they are limited by issues such as the unstable economic and political environment in South Africa or by the erratic changes in the state of South Africa’s water and electricity crises. (BusinessTech, 2018a; Donnenfeld *et al.*, 2018). Furthermore, this cluster might also be participating in these VSCCP because it is the easier way to start living a more sustainable life without acquiring specified products related to sustainability or spending resources or gaining knowledge of certain elements regarding other VSCCP. This group might also not feel competent enough to purchase better options as they do not have certainty regarding the options available to them.
- “Ethical Clothing (EC)” was much less prominent (M = 4.337) and “Unique Handcrafted Clothing (UHC)” was the least prominent factor (M = 4.140) in cluster one, indicating low involvement in these components. Both these factors require the acquisition of clothing that have certain attributes and based on the aforementioned assumption, this cluster might not have the means, competence or knowledge to engage in these practices.
- In summary, cluster one can be classified as partial voluntary simplifiers as they seem to be quite engaged in practices relating to reusing, recycling, repurposing and reducing clothing to live a more simplistic lifestyle in terms of their clothing. According to research, partial simplifiers are those consumers who have adopted some forms of voluntary simplicity (McDonald *et al.*, 2006; McGouran & Prothero, 2016). That said, some of the female consumers who form part of this cluster might be “accidental simplifiers”, who may have been forced to become voluntary simplifiers because of factors such as poverty (McDonald *et al.*, 2006; McGouran & Prothero, 2016) and take part in voluntary simplistic practices because of external factors that force them to live a simpler lifestyle (McDonald *et al.*, 2006). Lastly, some

might also be described as “apprentice simplifiers”, who are not necessarily always aware of all the benefits relating to eco-friendly products, but rely on product information to inform and guide them, thus gaining knowledge of more sustainable options and then deciding where to make use of these options (McDonald *et al.*, 2006).

Cluster two:

- Overall, cluster two indicated the lowest level of engagement in VSCCP; however, some factors stood out and presented higher values in this cluster than in the other clusters, indicating more intricacy behind this lower level cluster than initially anticipated.
- As mentioned before, “**Clothing Longevity (CL)**” was the most prominent factor across the board indicating all female consumers’ involvement in donating or reusing clothing before discarding it. In cluster two, CL had a mean of 6.033, indicating similar conclusions surrounding female consumers VSCCP when it comes to prolonging the lifecycle of their clothing.
- Interestingly enough, “**Unique Handcrafted Clothing (UHC)**” seemed to be quite significant in this cluster ($M = 4.643$) and indicated female consumers’ moderate degrees of engagement in activities linked to purchasing handcrafted garments that have been uniquely crafted, as an alternative to mass-produced clothes.
- The three remaining factors that form part of VSCCP were of less importance and all had means ranging between 3.60 and 3.75, indicating low to moderate levels of involvement in these VSCCP (Response options ranged from 1, being negative to 7, being positive). “Need-based Clothing Consumption (NBCC)” had a mean of 3.742, while “Ethical Clothing (EC)” was also quite insignificant ($M = 3.701$) and lastly, “Repurposed Clothing Consumption (RCC)” was the least significant in this cluster with a mean value of 3.626.
- Taking the previous cluster’s result into consideration, it is evident that cluster two is not as involved in VSCCP as cluster one; however, they can to some extent be deemed partial to non-voluntary simplifiers, as some of them engage in some practices of sustainable clothing consumption. Furthermore, some of the female consumers who form part of this group, might be further classified as “downshifter”, because they choose to make small, inconsistent changes in their lives (Bekin *et al.*, 2005). Another group of female consumer who might form part of this cluster include the consumers who show little interest in VSCCP, because they are indifferent, don’t care, or are unwilling to change their lifestyles at this point in time (Elgin & Mitchell, 1978).
- In contrast to cluster one, where CL, NBCC and RCC were prominent practices, cluster two was more related to activities revolving around wearing good quality clothing for more than

one season (i.e. Clothing Longevity) and acquiring unique handcrafted clothes as opposed to mass-produced clothes (Unique Handcrafted Clothing). Therefore, it can be assumed that cluster two includes female consumers who are not extensively engaged in VSCCP, but are concerned about acquiring and using good quality, classically styled clothing that surpasses one season in terms of durability and fashion trends, and that can ultimately be passed on to someone else. In addition to that, this group of female consumers are also more intent on looking for novelty clothing that is unique and has been thoughtfully handcrafted, as opposed to purchasing and using mass-produced, fast-fashion clothing. In essence, it can be assumed that cluster two's female consumers might not be concerned about activities surrounding consuming less, recycling and repairing clothing, but would rather search for uniquely crafted clothing pieces that withstand the test of time, and can be presented as an investment.

Cluster three:

- As a whole, cluster three indicated high levels of engagement in VSCCP across all factors, with the exception of “Need-based Clothing Consumption (NBCC)” that came out strongly in cluster one.
- “**Clothing Longevity (CL)**” had a very high mean of 6.677, indicating cluster three's high degree of engagement in activities relating to extending the life cycle of clothing by means of donations and exchanges.
- “**Unique Handcrafted Clothing (UHC)**” was also very significant in this cluster, with a mean value of 6.070. With cluster two's results in mind, where CL and UHC were prominent among the female consumers who engage less in VSCCP, cluster three resembles similar conclusions, but only in the higher levels of involvement in VSCCP.
- “Reduced Clothing Consumption (RCC)” was also significant ($M = 5.776$), while “Need-based Clothing Consumption” ($M = 5.660$) and “Ethical Clothing” ($M = 5.291$) had slightly lower means, but were still high in terms of the other clusters mentioned above.
- Overall, the female consumers that make up cluster three can be classified as **voluntary simplifiers to a great extent** as they seem to be quite engaged in all the activities surrounding voluntary simplistic clothing consumption practices. It can be assumed that this group of female consumers have committed themselves to living simpler lifestyles by recycling, reusing, reducing, repurposing and repairing clothing before either purchasing new clothes or discarding of old clothes. Furthermore, this group might have reached the point where they consciously make the decision to purchase eco-friendly clothing options or locally made, handcrafted clothes as an alternative to imported, mass-produced clothing.