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

Hanri Taljaard *[ID] **and Nadine Sonnenberg**[ID]

Department of Consumer and Food Sciences, Faculty of Natural and Agricultural Sciences, University of Pretoria, Private Bag X20, Hatfield, Pretoria 0002, Gauteng, South Africa
* Correspondence: hanri.taljaard@up.ac.za; Tel.: +27-420-4310

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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].
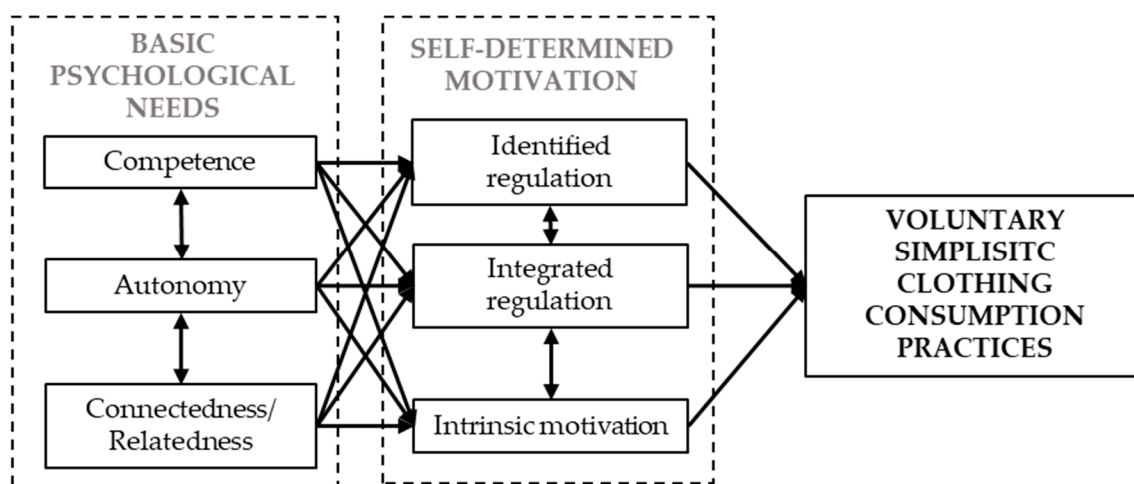

Figure 1. Proposed conceptual model.

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 ≥ 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		0.738		
	BPN_7	I am able to live more sustainable.		0.809	0.735	0.593	0.813
	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		0.795		
	BPN_9	I decide what practices I take part in.		0.853	0.816	0.658	0.853
	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		0.832		
	BPN_8	I feel close to people who support sustainable clothing initiatives.		0.914	0.909	0.784	0.916
	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		0.726		
	SDM_9	It is a reasonable thing to do.		0.784	0.745	0.548	0.784
	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		0.839		
	SDM_8	It has become a fundamental part of who I am.		0.889	0.858	0.728	0.889
	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		0.769		
	SDM_4	I find it rewarding to improve the quality of the environment.		0.820	0.758	0.605	0.821
	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		0.743		
	VSC_19	I shop at stores that promote "Proudly South African" clothing.		0.856	0.722	0.602	0.809
	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 (X^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).
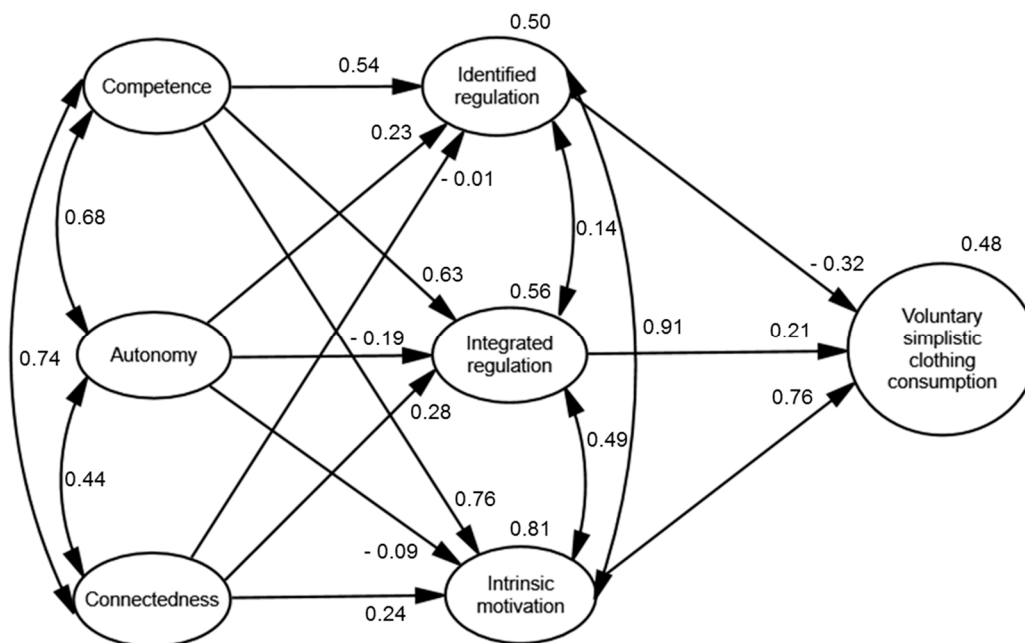

Figure 2. First order structural equation model (SEM) with standardized path coefficients and multiple squared correlations (R2) for dependent variables in the top right corners.

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 ≥ 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 (R2) 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 Unites 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.

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