Measuring consumers' affective attitudes to debt and savings in South Africa using self-assessment manikins

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ABSTRACT

It has been widely reported that South African households are burdened by excessively high levels of debt and, at times, negative savings rates. Debt and savings directly impact, not only on the lives of consumers, but also on key sectors such as the retail sector including consumers' readiness to buy on credit or to save for future purchases. Attitudes towards debts and savings play a major role in determining behaviour that could address the problems associated with high debt levels and negative savings rates. The question arises as to whether an analysis of consumer attitudes to debt and savings, particularly from an emotional or affective perspective, can provide insight that might be useful in changing debt and savings behaviour amongst South African consumers. This article reports on a study that measured the emotional valence of South African consumers' attitudes towards debt and savings, using Self-Assessment Manikins (SAM) in an online survey of 886 respondents. A generally positive emotional valence to savings and a generally negative emotional valence to debt were found, pointing towards extraneous drivers rather than attitudinal drivers of indebtedness.

Keywords: emotion, attitudes, valence, self-assessment manikins, savings, debt

This article is about debt and savings, and the affective attitude South African consumers have towards their debt and savings. The article was distilled from research within the retail banking sector to determine attitiudes to savings and debt. It begins by examining the role of debt and savings from the context of both the consumer and the economy as a whole. The focus then turns to debt and savings in a South African context, highlighting the debilitating consequences of high levels of debt and negative savings. Given these consequences, the argument is proffered that understanding individual consumer attitudes to debt and savings, especially from an emotional perspective, could help retail banks to develop actions to help consumers better manage their debt and increase savings, which, in turn, would address national growth imperatives. To achieve this the self-assessment manikin is employed in a survey of 886 respondents in an attempt to distill affective attitudes towards debt and savings.

DEBT AND SAVINGS IN SOUTH AFRICA

The discussion below first examines debt in South Africa, followed by savings.

Debt in South Africa

The 2007-2010 United States (US) subprime mortgage crises evolved into a financial calamity that negatively affected many economies in the world (Duca 2013), including South Africa. It was afterwards widely referred to as the "global financial crisis" (Mishkin 2010:1). At the beginning of the financial crisis, South Africa experienced a significant increase in its household debt-to-income ratio, reaching 86.4% (Trading Economics 2017). This has subsequently

decreased to approximately 74.4% in 2016, which remains high, but is somewhat lower than most other developed countries with household debt-to-income ratios often over 100% (Trading Economics 2017). The household debt-to-GDP (gross domestic product) ratio is 35.3%, which is also quite low when compared with nations such as Switzerland (128.2%), Australia (123.1%), the United Kingdom (87.6%), and China (43.2%) (Trading Economics 2017). The reality is that most developed nations have a household debt to GDP ratio higher than South Africa. The drop in household debt in South Africa (from 86.4% in 2008 to 74.4% in 2016) can arguably be ascribed to the timeous introduction of the National Credit Act in 2008 which contributed to putting the brake on debt in a restrictive global climate at the time.

However, if one turns away from the national accounts, a different picture appears. A recent report compiled by the National Credit Regulator in South Africa highlighted the fact that there were R1.66 trillion outstanding consumer credit in 2016 (an increase of 2.3% from 2015) and 23.9 million active credit consumers. Furthermore, 75% of South African consumers owed approximately 75% of their salaries to creditors, 20.2 million had impaired accounts[1] (59.4% of the adult population[2]), and 86% of consumers borrowed money in 2013/14 (People's Assembly 2016). Makhafola (2016) confirms this negative debt environment in reporting that "South Africans [are] drowning in debt". However, Statistics South Africa (StatsSA) (2016) ask the question whether indebted South Africans are showing resilience, by pointing to the declining debt-to-income ratio referred to in the previous paragraph. StatsSA also point to the decline in summons issued in respect of debt, as well as the decline in defaulting debtors, even though the value of the bad debt had increased by 7.2% from 2014 to 2015 (StatsSA 2016).

Although the country's overall level of household debt appears to have been decreasing, consumers are still failing to save (Henderson 2017). This is of concern for South Africa, especially in the context of the low economic growth environment where consumers are overstretched and unable to meet their commitments without savings and investments ([Ssebagala 2016] – savings in South Africa will be examined in more detail later in this section). Slowing growth rates for South Africa will, in addition, put further strain on South African households, arguably encouraging the uptake of further debt.

It is well documented that household debt in South Africa has increased rapidly due to, amongst other factors, credit uptake, household borrowing, unsecured loans and interest rate hikes. (Meniago, Mukuddem-Petersen, & Mongale 2013; Mutezo, 2014). In addition, the need for instant gratification and materialism, a trend evident globally, has also burdened local consumers thereby pressuring them to increase their debt levels. It should also be borne in mind that the use of debt presents the consumer with the opportunity to consume now with the view that the income earned at a later stage will be sufficient to settle the outstanding debts and interest payments

The annual 2016 Finscope survey, incorporating an analysis of financial services in South Africa which is supported by many of the larger financial institutions in the country, revealed that 47% of South African adults were borrowing from various sources "to supplement their limited resources" (Finscope 2016:9). The reasons provided for borrowing were to pay for food and for emergencies (47%), for transportation (11%), for housing investments (11%), to pay for bills (9%) and for education (9%). In contrast, the reasons for not borrowing were that respondents did not want to have debt (39%), they did not have a job (29%), they could not afford to borrow (20%), and the interest charged on borrowing was too high (12%) (Finscope 2016:9).

Savings in South Africa

As far as household savings are concerned, statistics from the Organisation for Economic Co-operation and Development (OECD) reveal that South Africa's consumer savings are in the negative and amongst the worst in the world (OECD 2016). This view is supported by a recent study by MyTreasury which highlights the fact that the South African household savings rate comes last when ranked against G20 countries (MyTreasury 2018). Orthofer (2016:1) elaborates on this fact by pointing out that South

African household savings rates have been declining steadily over the past five decades "to almost nothing today". The author points out that "household savings rates have been in 'negative territory for almost a decade"

1. An impaired account is different from an impaired credit record, referred to earlier in the paragraph.

2. Own calculation using StatsSA data - https://www.statssa.gov.za/publications/P0302/P03022015.pdf

(Orthofer 2016:1). This view is supported by the MyTreasury report which puts South Africa's savings rate at close to zero (MyTreasury 2018). The implication is that households and individuals are living on credit (or at least that the debt that they have is cancelling out any savings they might make) and are thus unable to fund new investment, translating into a tense time for households and individuals.

The negative savings rate evident from the statistics outlined above mean that South Africans are spending more than they are earning, resulting in dissaving. Prinsloo (2002:73) points out that "Generally speaking, an inverse relationship can be expected between increase in the utilisation of consumer credit [i.e. debt] and the saving of private households [i.e. savings] over time". In other words, the less consumers save, the more they may be inclined to take on debt, especially in a case such as South Africa where consumers are in already in negative or zero territory with their savings.

The Association for Savings and Investments in South Africa (ASISA– [2016]) points out that the problem is especially pertinent to the lower income brackets of which there is a substantial number in South Africa. The question of inequality in income is reflected in the Gini coefficient which indicates that South Africa is one of the most unequal societies in the world with a coefficient of 0.66. With an unemployment rate of 27.3% (World Bank 2017) and the percentage of population living below the poverty line standing at 54% (Grant 2015), it is not surprising that South Africans are not in a position to save and need to turn to debt to survive. Furthermore, South Africa's low savings levels have been identified as an important constraint for investment, both locally and internationally (Eyraud, 2009: 11).

The annual Finscope report (2016:8) revealed that by far the largest percentage of adult consumers were not saving any of their disposable income (63%). The main reasons provided for not having a formalised form of saving, were that they respondents had no job (38%), never thought about it (28%), have no spare money to save (22%), and found saving too expensive (13%) (Finscope 2016:8).

Although the report by the National Credit Regulator, mentioned earlier, 'paints a bleak picture', the national figures combined with the findings from the survey by Finscope (as well as the view of StatsSA) together suggest that debt behaviour in South Africa is not as bad as one might expect in a country with high unemployment and low growth. With 53% of adult respondents not borrowing (according to the Finscope survey), this is surely a good thing. On the savings side, however, South Africa is not doing nearly as well. In fact, consumers are not saving at all – they are dissaving. This is a worrisome situation. From a national perspective, there is clearly a need to change savings behaviour in South Africa. Reducing or limiting debt uptake would also be a good national imperative within reason (as some debt is arguably necessary to 'lubricate' consumer lifestyles in the modern era). These shortcomings must have an impact on the individual consumer psyche. If one has no savings to turn to in order to offset hard times or unexpected expenses, or one has to face the daily burden of debt, this may arguably influence the psyche, attitudes and emotions of consumers negatively. A negative psyche has its own negative implications for the individual and for the nation as a whole.

ATTITUDES AND BEHAVIOURS

In the above discussion that provided a context to this study, the need to change behaviour has been emphasised. In this section, the discussion turns to the role of attitudes and their influence on behaviour, and more specifically the affective part of attitude as a key driver of behaviour. The literature on attitudes, their link to behaviour and their measurement, is multifacited and broad. The discussion below strives to capture only the essence of this literature to support (a) the link between attitudes and behaviour, (b) the measurement of attitudes, and (c) the role of emotion (representing the affective component of attitudes) in attitude measurement.

The link between attitudes and behaviour

In this section, the focus turns to the role of attitudes in influencing behavioural change. The argument being that, if one wishes to change behaviour, understanding attitudes and their affective drivers makes sense. An attitude can be defined as a favourable or unfavourable evaluation (cognition), emotion (affective) or action (behavioural) towards something or someone (i.e. an object or stimulus of some kind) (Boone & Kurtz 2004; Asiegbu, Powei & Iruka 2012).[3]

This definition relates to the ABC model of attitudes often mentioned in the literature (ref]

As far as the link between attitude and behaviour is concerned, the academic literature is replete with articles that examine the link between attitudes and behaviour. A search on Scopus alone,[4] reveals some 149 000 articles containing these two keywords. Within this research, there has been considerable debate over the years as to whether attitudes influence behaviour or not. Although there has been a general belief that attitudes directly influence behaviour, early authors such as LaPierre (1934), Wicker (1969) and Mostyn (1978) have highlighted attitude¬-behaviour inconsistency. Subsequently, however, a meta-analysis of 88 previous studies that examined the attitudinal drivers of behaviour, undertaken by Kraus (1995), suggested that "attitudes significantly and substantially predict behavior". The debate has continued and today one might cautiously argue, based on the extant research, that a link between attitude and behaviour does indeed exist, but that this link is confounded by many variables such as external factors (e.g. demographics, personal traits), behavioural control, behavioural intention, normative beliefs, and whether the attitude is implicit or explicit (Bohner & Schwarz 2001, Pease & Flood 2008; Sniehotta, Presseau & Araújo-Soares 2015, Crano & Prislin 2008:10; Bohner & Dickel 2011; Barnes 2013:8–9; Murima 2013; Myers 2013; Kiriakidis 2015:40; Maio & Haddock 2015:67–100). Even environmental factors such as temperature have been argued to impact on bodily states and thereby on attitudes (Bohner & Dickel 2011:411).

Measuring attitudes

Attitude measurement is a vexing problem and it would be an arduous exercise to summarise the extensive literature that exists on this topic. Thurstone and Chave (1929) were amongst the first researchers to publish on the topic of attitude measurement. This was followed by a stream of research around this topic in the 1960s and 1970s with authors such as Fishbein (1967), Likert 1967 and Allport 1967 all grappling with the challenge, more or less at the same time. In 2005, Krosnick, Judd and Wittenbrink, and more recently in 2015, Maio and Haddock have written chapters on attitude measurement and together these chapters provide a comprehensive discussion of this topic (Krosnick, Judd & Wittenbrink 2005; Maio & Haddock 2015).

In summary, these various authors have highlighted to a greater or lesser degree both explicit and implicit measures of attitude. In the case of explicit attitude measurement, Likert's summated 5-point and 7-point rating scales have been used extensively in the social, psychological and business literature, but other explicit or direct measures of attitude include Thurstone's 'equal-appearing intervals' (or differential) scale, favorability items, semantic-differential bipolar scales, agree-disagree items and the feelings thermometer (Krosnick, Judd & Wittenbrink 2005:21–63; Sammut 2013:54; Maio & Haddock 2015:10–16). As far as implicit or indirect measures of attitude are concerned, these include the Implicit Association Test (Greenwald, McGhee & Schwarz 1998) and evaluative priming (Fazio 1995), as well as brain-computer interface or physiological methods such as electromyographic activity, galvanic skin response, positron emission tomography and functional magnetic resonance imagery (Krosnick, Judd & Wittenbrink 2005:21–63; Maio & Haddock 2015:22).

Notwithstanding these measures of attitude, it is important to reiterate that attitudes have three core components, namely an affective (or emotional) component, a behavioural (or conative) component and a cognitive (or thinking) component (Fazio & Olzon 2003; Mauss & Robinson 2009; McLeod 2014). These three components of attitude are commonly referred to as the ABC model of attitudes (McLeod 2011). However, as far as the measures of attitude referred to in the above paragraph are concerned, they are argued to measure the broader concept of 'attitude', rather than the specific 'components of attitude' (namely affect, behaviour and cognition). While it may be posited that the broader concept of attitude by implication incorporates the specific components of affect, behaviour and cognition, the reality is, that by moving away from the specific to the broad, certain valuable insight is lost. For this reason, this study attempts to focus on the affective (or emotional) component of attitude measurement. This perspective is discussed in more detail in the section below.

3. The literature contains many definitions of attitude, as reported by authors such as Schwarz and Bohner (2001), Argyriou and Melewar (2011) and Asiegbu, Powei and Iruka (2012). The definition provided here was selected because of its comfortable match with the ABC model of attitudes discussed later in the section.

4. As of December 6 2018.

Emotional measures of consumers' attitudes

Merhabian and Russell (1974) proposed three emotional dimensions to describe human attitudes or perceptions of the world around them, namely pleasure, arousal and dominance. These emotional constructs have been widely adopted in the academic literature on emotion, and Bakker, Van der Voordt, Vink and de Boon (2014:2) provide an extensive list of researchers that have adopted these three constructs in their research over the past four decades (although Bakker et al specifically emphasise that pleasure and arousal are more commonly the focus of the documented research, and dominance to a lesser extent, the reason being that dominance consistently correlates significantly with arousal).

As far as actually measuring emotion is concerned, Desmet (2012), in a chapter on measuring emotions, identifies both non-verbal and verbal approaches to measuring emotion. Non-verbal approaches include either 'expressive' measures captured using facial expression recognition systems/software such as the Facial Action Coding System (Ekman & Friesen 1978), the Maximally Discriminative Facial Moving Coding System (Izard 1979), the Facial Expression Analysis Tool (Kaiser and Wehrle 2001), and Affectiva (www.affectiva.com) (Desmet 2012). Facial muscle activity measured using facial electromyographic activity (EMG) is another expressive, non-verbal method (Desmet 2012). Physiological measures include using methods that measure changes in the autonomous and peripheral nervous systems reflected in responses from measuring brain waves, heart rates, blood pressure, pupillometry, skin temperature and galvanic skin responses (Desmet 2012).

Verbal, or more cognitive approaches, according to Desmet (2012:4), include a range of self-reporting instruments involving rating scales that are useful in that they "can be used to measure any set of emotions, and can be used to measure mixed emotions". Their primary drawback is that they generally require a common understanding of the descriptors used to label the emotions. For this reason, a number of graphic rating scales have been developed using pictograms or visual pictures to represent emotional responses. One of the most common of these is the self-assessment manikins (SAM). SAM is not the only non-verbal graphic rating scale available. The Product Emotion Measurement Instrument (Desmet 2012), the International Affective Picture System (Verschuere, Crombez, Koster 2001), the Nencki Affective Picture System (Riegel, Moslehi, Michałowski, Zurawski, Horvat, Wypych, Jednoróg & Marchewka 2017) and the Affective Slider are examples of other, similar instruments. SAM, however, appears quite effective in measuring emotional state and was designed to capture the constructs of 'pleasure', 'arousal' and 'dominance' (Morris 1995).

DISTILLING A RESEARCH QUESTION FROM THE LITERATURE REVIEW

Although debt and savings arguably have an important economic role to play in the national economy, particularly in the case of South Africa, they also impact on the psyche, attitude and ultimate behaviour of household consumers (Picoult 2009:16). A negative or positive psyche influences consumer confidence, which in turn impacts on consumer attitudes to buying and investment, and willingness to purchase on debt. In the case of debt, Kuchar (2014), in a magazine article on the effects of debt, highlights emotional issues such as anger, frustration, regret, depression, anxiety, resentment, denial, stress, shame, and embarrassment as affecting the individual and these, in turn, are likely to impact on the effectiveness and productivity (i.e. the behaviour) of the individual in society. It is argued that positive savings are likely to have the opposite effect, namely resulting in positive emotions.

Turning to the question of savings, the Aviva Consumer Attitudes Survey (CAS – [Aviva 2014]), undertaken across Europe and surveying some 11 000 people annually, highlighted the continued anxiety of respondents about insufficient savings for retirement (a similar finding compared with Aviva's 2004-08 CAS findings), although the most recent findings appear to have been influenced to some extent by the effects of the 2008-09 financial crisis. The survey also highlighted that as much as a third of respondents do not have a savings product, that respondents expect to work past the usual retirement age, that respondents are taking a more short-term approach to savings, that they prefer cash savings to longer-term investments and that respondents generally felt vulnerable, lacked confidence and felt stressed (Aviva 2014).

As far as the academic literature on the 'attitudes [of 'consumers'/'households'/'individuals'] to debt and savings'[5], is concerned, the literature appears limited. A search on academic bibliographies such as Ebscohost, Proquest, Scopus and Web of Science, revealed no articles focused on this topic (i.e. "attitude(s) to debt and saving(s)"). Google Scholar, using the preceding keywords and phrases, uncovered a handful of articles but in each instance the question of 'attitudes to debt and savings' was discussed only peripherally in the identified article and was not the focus of the study in question.

This is not to say that the literature does not deal with attitudes to debt and savings, but appears to do so as two separate topics; namely 'attitudes to debt' and 'attitudes to savings'. Numerous authors have written about one or other of these two topics, and the two topics are often viewed from different perspectives. For example, research on attitudes to saving has been pursued from perspectives as diverse as death anxiety (Zaeleskiewicz, Gasiorowska & Kesebir 2013), personality differences (Kirkcaldy, Furnham & Martin 1998), the pension sector (Hardcastle 2012), tax reform (St John & Familton 2011), behavioural economics and human motivation (Loewenstein 2007), non-working women (Velankar, Garud, Singh & Chauhan 2014), and the youth (Tiboh 2015). At the same time research on attitudes to debt have similarly been written from diverse perspectives such as personality factors (Norvilitas, Merwin, Osberg, Roehling, Young, & Kamas, 2006), the youth (Angulo-Ruiz & Pergelova 2015), locus of control (Britt, Cumbie & Bell 2013), national consumer debt (Ironfield-Smith, Keasey, Summers, Duxbury, & Hudson, 2005), and materialism and status (Yeniaras 2016). Most of these articles have been written within the context of a particular country.[6]

However, while much of this research strives to quantify the attitudes in question using attitudinal scales of measurement, no research could be found focusing on measuring consumer attitudes to debt and/or savings from an emotional perspective. This apparent information gap leads to the research question for this study. Given the above literature review, the research question that can be distilled is: Whether the affective (or emotional[7]) component of consumer's attitudes to debt and savings can be measured in such a way as to inform future interventions to changing debt and savings behaviour in South Africa?

RESEARCH METHODOLOGY

This study adopted a quantitative approach involving an online survey to elicit attitudinal measures towards debt and savings using non-verbal SAMs in order to address the abovementioned research question. It should be noted that the research complies with the ethical standards as set by the BMR. The research method is outlined below in terms of the following: population and sample, measuring instrument, data collection procedure analyses.

Population and sample

The population for the online survey consisted of 4 654 adults (18 years and older) recruited by a research institution within a South African university. Eight hundred and eighty-six (886) panel members participated in the survey realising a 19% response rate. The demographic characteristics of the sample are reflected in Figure 1 on the next page.

5. *The phrase "attitude to(wards) debt and savings" was used flexibly to include plurals and to switch 'savings' with 'debt' in the phrase. In addition, the adjectives 'household'/'consumer'/'personal'/'individual' were included and excluded as part of the search phrase of to cast the search as wide as possible. Finally, 'emotion(s) toward(s)' and 'view(s) of' were used in addition to 'attitude to(wards)'. All of the findings for these various searches have shaped the discussion above.*

6. *While there are also several commercial studies that have examined the debt and savings behaviour of consumers (Europe [Le Blanc, Porpiglia, Teppa, Zhu and Ziegelmeyer 2016], China and the USA [Yao, Wang, Weagley and Liao 2011], Germany [Boersch-Supan 2002]; South Africa [Finscope 2016]; India [Prusty 2011]), none of these studies examined the emotional or attitudinal drivers of debt and savings.*

7. *The authors recognise the fact that affect and emotion are not exactly the same thing. As with so many terms in this field there is also no clear and agreed-upon definition. Nevertheless, affect and emotion are closely related as discussed by Panksepp (2000) and Shouse (2005), with the latter suggesting that affect is a sub-conscious state and emotion is a conscious display of the sub-conscious affect state.*

FIGURE 1:

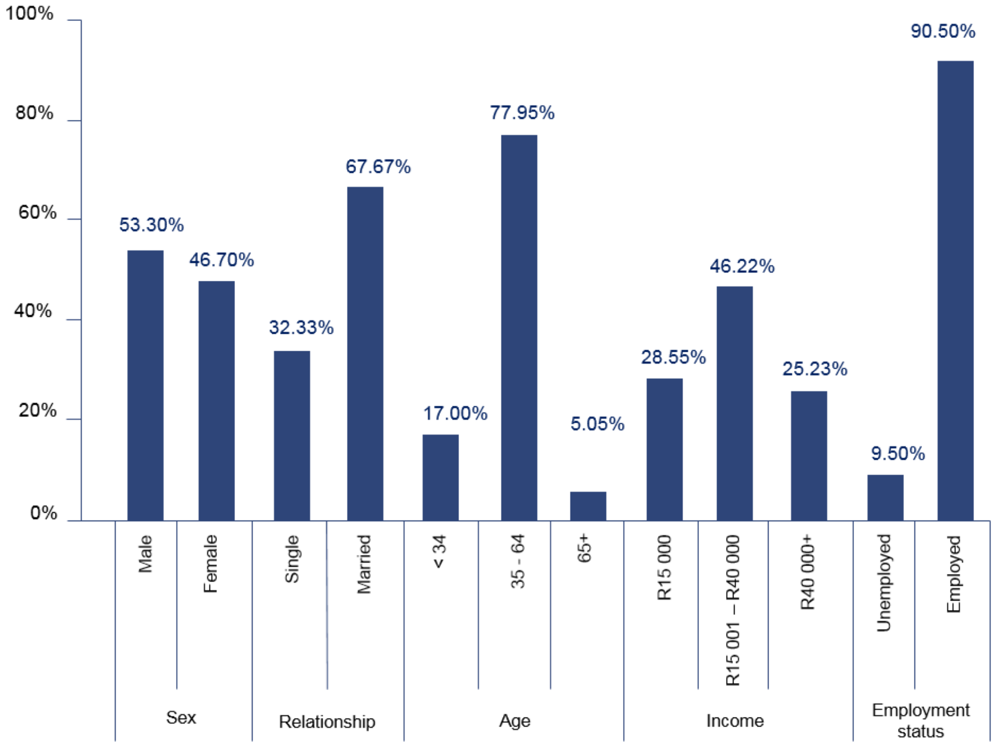


Figure 1 reflects that the realised sample can be described as mostly married, employed, male and between 35 and 64. It needs to be noted that for the purposes of this research the relationship status, age, income and employment status variables have been grouped into larger categories for parsimonious reasons and to simplify the analyses reflected in the findings.

Data collection and analysis

The data for this study was collected by means of an online survey whereby affective reactions to three sets of the self-assessment manikins were measured. The SAM scale is a proprietary measure of emotional response developed by Bradley and Lang (1994) that has been used worldwide in both qualitative and quantitative market research over the past 25 years in over 30 countries. As discussed earlier in the article, SAM is a pictorial or graphic rating instrument to obtain the self-assessed ratings of the primary emotions experienced by respondents with reference to the dimensions of affective valence (or pleasure), arousal and dominance. The instrument can be administered in a paper-based or electronic format, and is relatively simple and cost-effective to implement. Due to the non-verbal design, which requires no literacy, the instrument is usable regardless of the age, educational or cultural background of the respondents. The non-verbal SAM emotional response measure enables researchers to understand and assess emotional connections, motivators, needs and barriers that factor into the market environment. This instrument aims to provide a measure of a respondent's immediate reaction, undiluted by cognitive rationalisation. The respondent is requested to rate his/her immediate emotions, without deliberation, on a nine-point rating scale, which is depicted by static human-like manikins. The immediate emotive response is an important factor that aids in understanding attitudes, preferences and behaviour. It needs to be emphasised that respondents are requested to make instant decisions on the scale and not to deliberate on their responses.

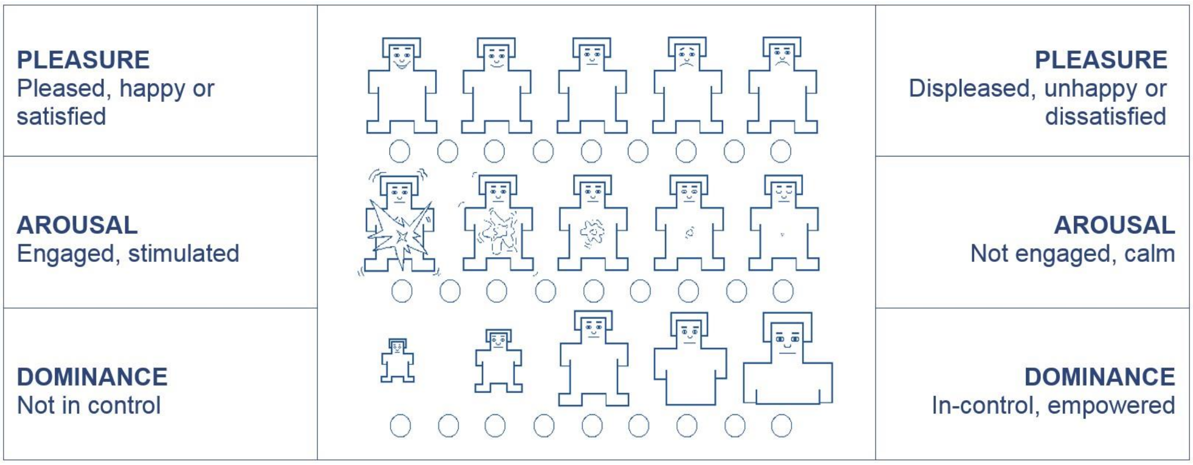
In accordance with the SAM, each emotion consists of three dimensions measured within a three-factor complex of pleasure, arousal and dominance (PAD), namely;

- Pleasure (appeal) - measures like or dislike, in other words, level of appeal elicited from the product or experience, ranging from extremely unpleasant to extremely pleasant. This is the only true positive or negative dimension;
- Arousal (engagement) - measures the level of involvement or excitement elicited from the product or experience, ranging from calm to excited; and

- Dominance (control; empowerment) - measures the level of empowerment or control elicited from the product or experience, which varies from a feeling of being in control of the situation to that of being controlled.

Figure 2 illustrates the SAM model consisting of the following manikin nine-point rating scale, which was translated into a questionnaire.For purposes of this study, the SAM was used for eliciting respondents' feelings based on attitudinal reactions towards savings and debt'. Data were collected, captured electronically and cleaned into a meaningful and useable format. The IBM Statistical Package for the Social Sciences (SPSS) version 24 software programme was used during the analysis.

FIGURE 2:



6. FINDINGS

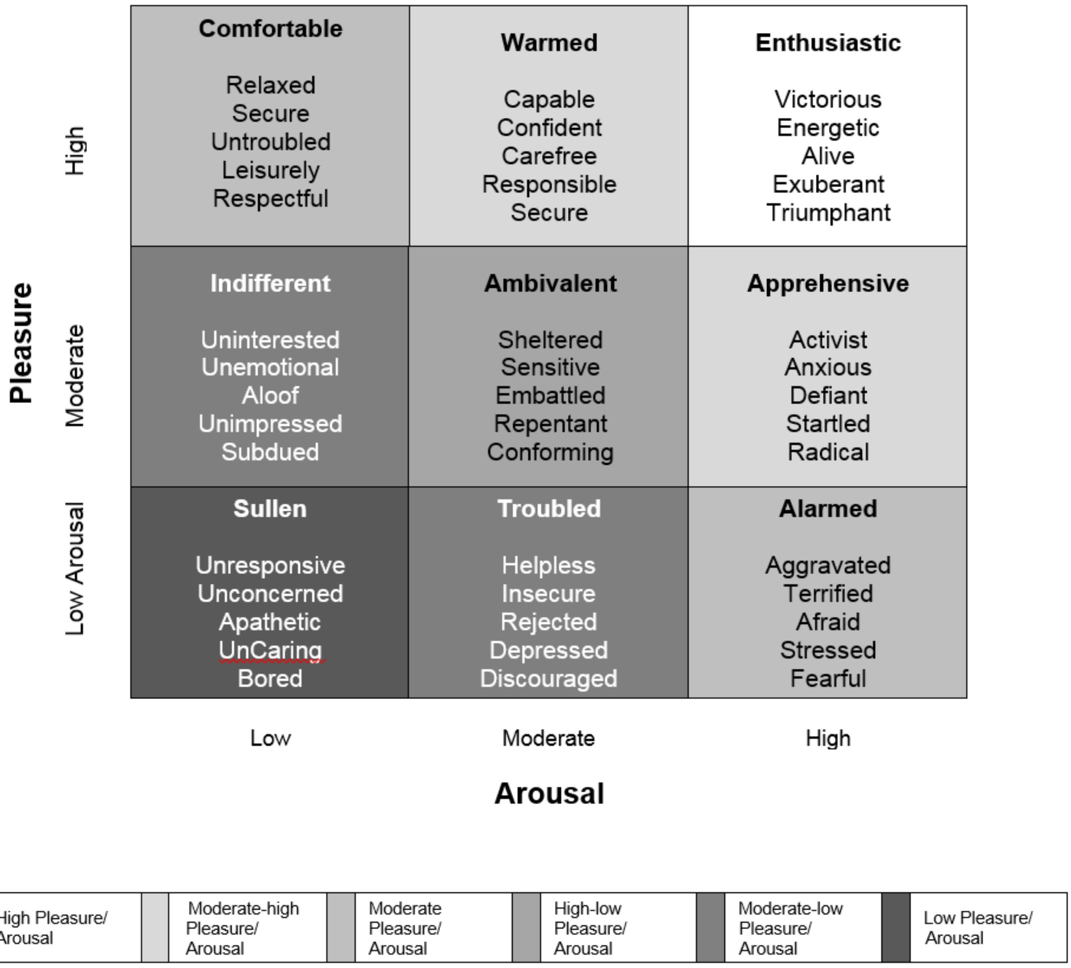
The study investigated respondents' attitudes to debt and savings. As mentioned previously, the research methodology included both survey and experimental research making it possible to analyse behavioural reactions to debt and savings at both sub-conscious (feeling) and conscious (thinking) levels. Findings from these measures are presented and discussed in the following sections.

6.1 The SAM insights

As suggested in section 3.3 the two-dimensional analysis adopted in this study generated reponses that can be grouped according a 'high' response (the top three responses on the nine-point scale), 'moderate' response (the middle three responses on the nine-point scale), or 'low' response (the bottom three responses on the nine-point scale), on the basis of either the Pleasure or Arousal dimension. The resultant three-by-three matrix forms nine possible clusters as indicated in Figure 3 below. The matrix in Figure 3 can thus be organised as Low Pleasure (1-3) combined with Arousal in various degrees (1-9) to produce the bottom row of emotions, where low Arousal (1-3), moderate Arousal (4-6) and high Arousal (7-9) result in the Sullen, Troubled and Alarmed segments. Alternatively, moderate Pleasure (4-6) can be combined with Arousal in various degrees (1-9) to produce the middle cluster of emotions, where low Arousal (1-3), moderate Arousal (4-6) and high Arousal (7-9) result in the Indifferent, Ambivalent and Apprehensive segments. Lastly, high Pleasure (7-9) can be combined with Arousal in various degrees to produce the top cluster of emotions, where low Arousal (1-3), average Arousal (4-6) and high Arousal (7-9) are classified as the Comfortable, Warmed and Enthusiastic segments. An example of the matrix used in this analysis is displayed in Figure 3 on the next page.

Using the high/moderate/low SAM scales as described above, the specific emotional responses to debt and savings, as solicited by the survey conducted in this study, are discussed in more detail below and the results from the analysis are displayed in table 1 presented at the end of this section. A 'normal' measure of the respondent's response

FIGURE 3



to Pleasure and Arousal was included as a benchmark state, resulting, together with individuals' emotive responses to debt and savings, in the initial three sets of matrices in top-most row of table 1, entitled 'Total'.

In addition, the responses were further segmented according to the demographic variables applied to respondents. These included gender (male or female), relationship status (married or not married), age (34 or younger, 35 to 64, or 65 and older), income (R15000 or less per month, R15001 to R40000 per month, or more than R40000 per month), and employment status (employed or unemployed). Given the subcategories for each of these variables, a further 12 rows were identified besides for the first 'total' row (i.e. 13 rows in total), as depicted in table 1. For each of the 13 rows, there was a matrix of responses depicting individuals' 'normal' states (or how they generally feel), a matrix for individuals' responses to questions about debt and a matrix for individuals' responses to questions about savings. This represented a total of 13 times 3 sets of responses (to normal, debt and savings), representing a total of 39 matrices as present in table 1 that follows.

Each of the nine cells in each matrix represents the percentage of respondents whose responses fell into each particular cell. The cells in each matrix was shaded a slightly lighter or darker colour to depict the various percentages of respondents that had selected the cell in question. Generally, the greater the percentage of respondents selecting a particular option (i.e. cell in the matrix), the darker the colour of the cell. The darkest shaded cell depicted the cell with greatest percentage of responses. The darker shaded areas in table 1 denote a greater concentration of consumers in a particular emotive segment.

It is evident from a cursory inspection of the results that, generally, when consumers indicated how they normally feel (i.e. the 'Normally feel' column in Table 1), a greater proportion of consumers expressed high or moderate pleasure and high or moderate arousal, with most of the high-response cells occurring in the upper right-hand side of each matrix Therefore, these consumers generally feel positive about their current mood state. The BMR's happiness indices (2012 – 2017) confirm the general mood state evident in this study (Joubert & Poalses, 2016). In contrast to this benchmark 'normal' state, Pleasure and Arousal reaction to 'Savings' elicited an even more positive response across all demographic segments. Reactions to 'Debt' were, on the contrary, very different from the reactions to savings with the major proportion of consumers reacting with low Pleasure, and either low or, occasionally, high Arousal.

TABLE 1

			Normally feel			Savings			Debt		
			Low (%)	Moderate (%)	High (%)	Low (%)	Moderate (%)	High (%)	Low (%)	Moderate (%)	High (%)
Total		High	12.7	17.2	35.1	19.8	13.0	41.7	2.1	1.6	5.3
		Moderate	5.0	17.0	3.7	2.9	7.2	2.1	4.6	7.5	3.8
		Low	6.3	1.0	1.1	7.1	2.4	3.8	32.3	15.8	27.1
Sex	Male	High	11.7	15.9	34.5	17.8	12.9	43.3	2.3	2.0	17.8
		Moderate	4.5	17.0	3.9	2.9	5.3	1.2	4.4	7.9	2.9
		Low	8.9	1.7	1.9	9.6	2.0	5.0	30.3	17.8	9.6
	Female	High	13.4	18.3	36.6	22.1	12.4	40.3	1.8	1.2	22.1
		Moderate	5.8	17.4	2.7	2.7	9.4	3.0	4.5	7.3	2.7
		Low	3.4	2.1	0.3	4.5	2.7	2.7	33.9	13.9	4.5
Relationship (Binned)	Single	High	10.6	15.9	35.3	19.3	13.5	45.9	1.0	1.9	2.9
		Moderate	6.3	17.4	4.8	2.9	5.3	1.4	2.4	7.7	4.3
		Low	5.8	1.9	1.9	4.3	2.4	4.8	39.4	13.0	27.4
	Married	High	12.8	17.9	35.3	20.1	12.6	40.0	2.7	1.6	6.2
		Moderate	4.8	17.2	3.0	3.0	8.4	2.3	5.3	7.8	3.9
		Low	6.2	2.1	0.7	8.2	2.1	3.4	29.5	17.2	25.9
Age (Binned)	<34	High	9.2	17.4	33.9	13.8	17.4	49.5	1.9	0.9	1.9
		Moderate	8.3	20.2	3.7	3.7	4.6	1.8	4.6	6.5	6.5
		Low	2.8	3.7	0.9	0.9	2.8	5.5	38.0	18.5	21.3
	35-64	High	12.8	17.2	35.2	21.9	11.1	40.9	2.2	1.8	5.2
		Moderate	4.9	16.8	3.8	2.6	8.3	2.2	4.4	8.0	3.4
		Low	6.7	1.4	1.2	7.7	1.8	3.4	32.7	15.2	27.1
	65+	High	16.1	12.9	45.2	12.5	9.4	37.5	3.2	0.0	16.1
		Moderate	3.2	9.7	0.0	6.3	9.4	0.0	6.5	9.7	3.2
		Low	6.5	6.5	0.0	18.8	3.1	3.1	19.4	16.1	25.8
Income (Binned)	<R15000	High	10.4	14.8	32.2	16.7	15.1	43.0	2.7	2.2	4.4
		Moderate	7.7	15.3	7.1	3.8	6.5	1.1	3.3	6.0	4.4
		Low	8.7	3.3	0.5	4.8	2.2	7.0	36.1	13.1	27.9
	R15001 – R40000	High	12.2	17.9	33.1	20.9	14.1	37.0	2.4	1.3	6.7
		Moderate	4.1	20.6	3.0	1.3	8.8	2.0	5.1	9.1	3.0
		Low	6.1	1.7	1.4	9.4	3.0	3.4	33.3	15.5	23.6
	R40000+	High	14.0	18.3	42.7	21.7	8.1	49.7	1.2	1.8	3.0
		Moderate	4.9	14.0	0.6	5.0	5.6	3.1	4.8	7.3	5.5
		Low	3.0	1.2	1.2	5.0	0.6	1.2	28.5	19.4	28.5
Employment (Binned)	Employed	High	11.3	12.9	38.7	15.9	14.3	39.7	3.2	1.6	12.7
		Moderate	8.1	11.3	4.8	0.0	7.9	1.6	1.6	3.2	4.8
		Low	6.5	4.8	1.6	11.1	3.2	6.3	22.2	14.3	36.5
	Unemployed	High	12.2	17.7	35.1	20.3	12.7	42.3	2.1	1.7	4.3
		Moderate	5.0	17.9	3.4	3.3	7.4	2.1	4.8	8.1	3.9
		Low	6.0	1.7	1.0	6.5	2.1	3.4	34.0	16.0	25.2

$r_{total/savings}$ = 0.382 (ps0.01); $r_{total/debt}$ = -0.078 (ps0.05); Shaded areas 0-10%, 10.1-25% and 25%+

Note: Although it is difficult to provide the six shades of variance as depicted in figure 3, in Table 1 an attempt has been made to approximately align the shadings in figure 3 to Table1

Table 2 provides an overall emotive valence of the total sample's general feeling and their reactions towards savings and debt. Emotive valence is displayed by the different demographic groups. It is noticeable that the savings valence of 60.4% exceeds the valence to general feeling (54.4%). However, debt elicited a very different reaction with a negative valence of -67.0%. This is indicative of strong negative emotive reactions associated with feelings of stress, fear, helplessness, discouragement and concern.

TABLE 2:

	Normal feeling (%)	Savings (%)	Debt (%)
Total sample	54.4	60.4	-67.0
Male	49.0	55.7	-37.1
Female	59.4	65.2	-29.0
Single	50.7	65.7	-72.1
Married	55.2	58.3	-63.5
<34	48.5	69.6	-71.2
35-65	54.8	60.6	-66.8
65+	58.0	28.1	-45.3
<R15000	44.3	58.1	-66.7
R15001-R40000	52.9	56.9	-64.1
R40000+	65.3	70.8	-69.7
Employed	46.7	50.9	-52.3
Unemployed	54.7	62.1	-68.0

Reflecting on the concept of valence

Valence, originally introduced by Tolman in 1932 by drawing on a translation of the German word Aufforderungscharakter, was used as a synonym of 'charge'. Lewin (1935:77) then used the word in a psychological context to refer to the intrinsic positive or negative character of an emotion towards some event, object, situation or place (Colombetti 2005; Singh 1991:339). Barrett (2006:35), in turn, sees valence as "a basic, invariant building block of emotional life that derives from ... judging whether something is helpful or harmful". Extensively discussed in the literature, valence is seen as "one of the most important scientific concepts at the heart of emotion experience", while Shuman, Sander and Scherer (2013:1) argue that valence captures something essential about affect. Shuman et al (2013) propose that valence has multiple levels, from a macro level to multiple micro-levels that change over time. In comparison with the pleasure-arousal dimensions mentioned earlier, valence is more specifically aligned with the pleasure dimension (i.e. either positive or negative), and valence is often used to described 'pleasure/displeasure' (Barret 2006).

While the definition by Colombetti (2005) provided above indicates that valence is about the positive or negative character of an emotion, the definition does not directly specify any strength associated with the valence, although it can be argued that this is implied. Nevertheless, there are differing views on this and Colombetti's article highlights some of the confusion found in the literature around this concept (Colombetti 2005). Some authors see valence as a single value indicating both the positive or negative nature of an emotion as well as the strength (or extremity) of the positiveness/negativeness (Barrett & Russell 1991:10, Lewin 1951), while other authors, see valence as being only about the positive or negative nature of the emotion, while the strength of the positiveness/negativeness is viewed as another, different construct (Alwitt & Berger 1993; Shook, Fazio & Eiser 2006, Stets & Turner 2008:44). In this study, valence is seen as comprising both constructs, namely the positive or negative nature of the emotion and the strength of the emotion being measured (i.e. to debt and savings in this study). In addition, the authors use valence to describe the positive or negative nature and strength of the emotion associated with consumer attitudes to debt and savings as a whole, and not just the pleasure component of the emotion.

The SAM emotional valence to debt and savings based on demographic factors

Demographics that display a more positive savings valence are female, single, younger, unemployed and higher income. These findings are further explored by a comparison of each demographic by emotional valence in figures 4 to 7 that follow.

Figure 4 shows that more males tend to express negative sentiments towards debt whereas fewer males reacted positively towards savings.

FIGURE 4:

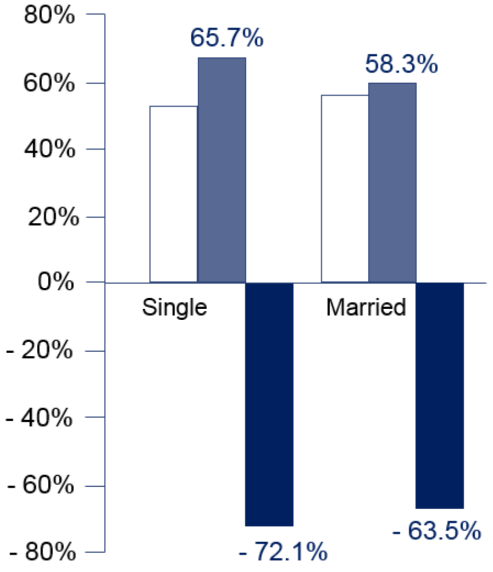


FIGURE 5:

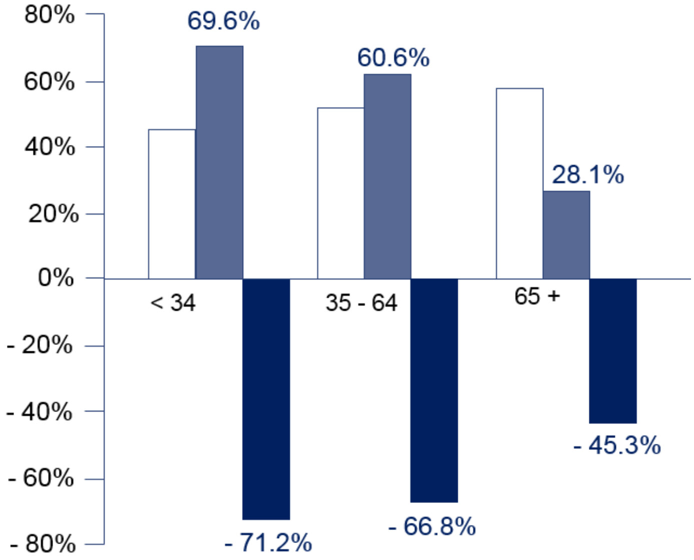


FIGURE 6:

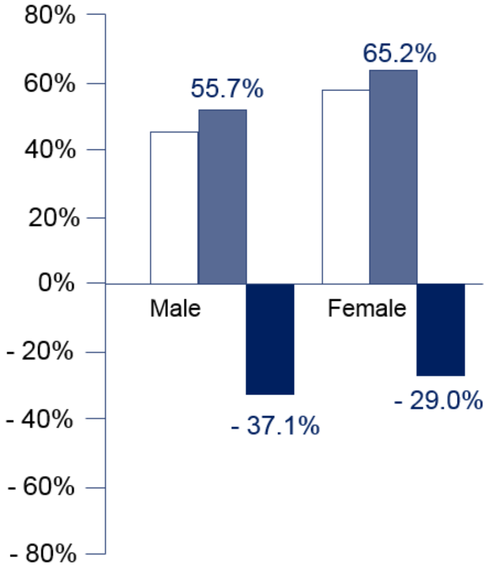


FIGURE 7:

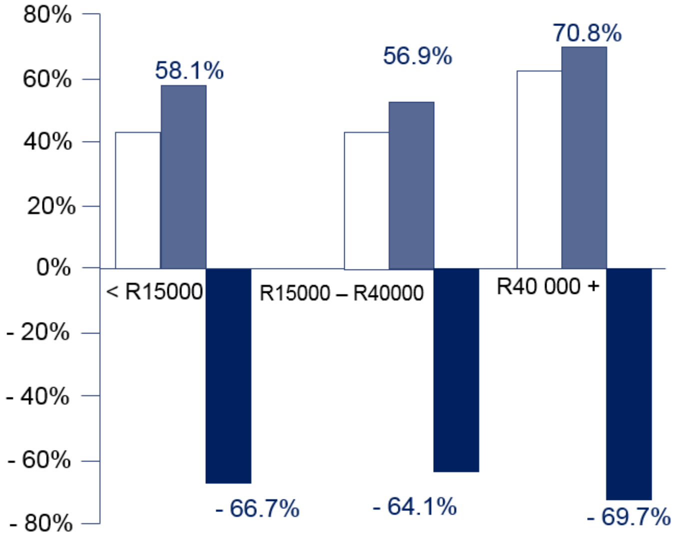


Figure 5 reflects a clear age dynamic with fewer consumers from the older cohorts reacting negatively to debt.

Figure 6 shows that more single consumers reacted negatively to debt and positively to savings. The extent of negativity amongst single consumers is also comparable to the younger age group which suggests that younger, single consumers harbour negative feelings toward debt.

Figure 7 shows insignificant differences between the low and middle-income segments. However, more consumers in the R 40 000 (approximately US$ 2 860 [May 2019]) income-per-month segment reacted negatively to debt and positively toward saving.

DISCUSSION AND CONCLUSION

The SAM measures indicated that more consumers expressed positive attitudes towards the concept of savings compared to the number that expressed a general positive mood state. In contrast, debt resulted in a very different response pattern whereby the major proportion of consumers reacted towards the negative attitudinal SAM segments. These results were substantiated by a negative debt valence and a positive savings valence. The findings support the logic that respondents would ideally prefer to save rather than incur debt.

The reality in South Africa, however, paints a different picture with high levels of debt and negative savings. This apparent contradiction points to extraneous drivers rather than attitudinal drivers of indebtedness. In other words, circumstances rather than choice appear to be driving indebtedness and low savings in South Africa. This places consumers under further pressure as they are forced into a situation that they are not comfortable with and this has been reflected in the near zero consumer confidence index for most of 2016/7 (Bureau for Economic Research [BER] 2018). Consumer confidence, in turn, impacts on business confidence and, not surprisingly, South Africa's economy has been in the doldrums as alluded to at the start of this article.

The behavioural impact which these attitudes have can be partly explained by Prospect Theory. Prospect Theory provides a behavioural model that explains how people decide between alternatives that involve risk and uncertainty by demonstrating that people are loss-averse, and since individuals dislike losses more than an equivalent gain, they are more willing to take risks in order to avoid a loss (Kahneman, 1971; Kahneman, 2011; Barberis 2013). Higher levels of debt could therefore result in more risky financial behaviour exacerbating the debt trap in which many South African consumers find themselves in.

The findings also indicated that there are demographic differences between consumers' emotional valence towards debt and savings. Demographic segments that displayed a more positive savings valence are female, single, younger, unemployed and higher income consumers. Behavioural reactions expressive of attitudes on particularly the SAM instrument revealed that more males tend to express negative sentiments towards debt, whereas fewer males reacted positively towards savings which tends to suggest higher levels of loss aversion among males. In this regard, males are anthropologically regarded as the stronger sex who are stereotypically expected to provide and protect and are therefore more negative to possible losses or increasing debt.

From the research, it is clear that consumer demographics such as age, income, gender and employment status, lifestyle and certain psychological traits influence financial behaviour. Therefore, it is recommended that financial institutions and organisations that deal with debt and savings investigate the demographic and psychographic profile of their clientele continuously to assist in understanding their financial behaviour more fully. Equivalent levels of debt and savings evoke very different attitudinal valence.

An important outcome from this study is that the strength of negative valence to debt is significantly more than their positive valence to savings. Findings suggest that aversion is more intense than attraction, supporting the views purported in Prospect Theory. Additional physiological and neuroscience insights into consumers' emotive reactions to debt and savings could contribute greatly to this novel research, providing further valuable insights. These findings also serve as a useful benchmark for future longitudinal research to measure the changes in valence to savings and debt in South Africa, from year to year.

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