

FOSTERING PURCHASE INTENTIONS TOWARDS ONLINE RETAILER WEBSITES IN AN EMERGING MARKET – AN S-O-R PERSPECTIVE

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ABSTRACT

The study proposes a model for fostering customers' purchase intentions from online retailer websites in an emerging market context through the application of the S-O-R framework. The research design is descriptive and cross-sectional. Through the purposive sampling technique, interviewer-administered questionnaires were fielded to respondents who completed a fictional buying task online. The results confirm the validity of the S-O-R framework to better understand how purchase intentions can be fostered through effective website design. The findings also prove the importance of visual appeal and perceived usability in affecting consumers' purchase intentions via website trust and flow, as well as the importance of flow in affecting website trust and consumers' purchase intentions. The study contributes to an understanding of S-O-R framework application in an online context in an emerging market, and provides online retailers with a model to cultivate purchases from their websites through compelling online experiences and effective website design.

Keywords S-O-R framework, emerging market, perceived usability, visual appeal, flow, website trust, purchase intentions

Paper type Research paper

1. INTRODUCTION

E-commerce has changed the retail landscape for consumers and retailers. Consumers are offered better shopping convenience and customised offerings, whereas retailers are awarded opportunities for greater consumer reach and interaction. Furthermore, e-commerce growth has been more prevalent in emerging markets than developed countries because of increased penetration of information and communication technology, changing consumer lifestyles, and a rising number of Internet-savvy consumers (Effective Measure 2017; Narang and Trevidi 2016, 50). South Africa offers lucrative growth opportunities for retailers since e-commerce revenue was estimated to reach US\$3 131 million in 2017, with a projected growth rate of 13.7% per annum (Euromonitor 2017; MarketLine 2016; Statistica 2017). Considering this, online retailers' focus has shifted from encouraging South African consumers to adopt e-commerce channels to motivating their purchases through these channels. Panel discussions between retailers, academics and other e-commerce industry players at the Third Annual eCommerce MoneyAfrica Confex in 2017 centred on how e-commerce websites in emerging markets should be designed to offer compelling online experiences that will drive online purchases (Fastmoving 2017).

Flow has been identified as an important construct in the understanding and development of compelling online experiences (Ding et al. 2010). When consumers experience flow, they absorb themselves into an activity to the extent that their current actions transit flawlessly into one another and time becomes distorted (Csikszentmihalyi 1975, 36; Novak, Hoffman and Yung 2000). Since flow is positively associated with desired outcomes in e-commerce, such as website trust and repurchase intentions, scholars have investigated possible antecedents thereof (Hausman and Siekpe 2009). The effect of online servicescape factors on flow have been examined, as these can be controlled through effective website design (Gao and Bai 2014, 653; Hausman and Siekpe 2009, 1; Ong et al. 2012, 277). Although studies of flow in e-commerce are promising, these are underdeveloped due to a lack of consensus on possible antecedents (Bilgihan et al. 2014, 51; Esteban-Millat et al. 2014, 371). Moreover, the

antecedents of flow and its role in the fostering of purchase intentions in emerging markets have received limited attention and warrant further investigation.

Despite calls for empirical evidence of e-commerce development in emerging markets, research in this area remains scant (Akhlq and Ahmed 2015, 635; Kshetri 2007). While technological imperative models, such as TAM, provide insight into the acceptance of e-commerce in emerging markets, they are restricted to the initial adoption of such technology and offer limited understanding into the creation of flow through effective website design and resultant purchase intentions (Hong, Thong and Tam 2006). This study argues that the aforementioned process (website design, flow and purchase intentions) is sequential in nature and will be better understood by applying the stimulus-organism-response (S-O-R) framework. This model is considered more comprehensive in explaining the cognitive and affective states elicited from consumers, and the subsequent behaviour from their interaction with a shopping environment (Buxbaum 2016, 8; Mehrabian and Russell 1974; Vieira 2013, 1421). However, to date no studies have used the S-O-R framework to empirically test the creation of flow through website design and subsequent purchase intentions from online retailer websites in emerging markets. In addition, emerging markets have unique characteristics, such as market heterogeneity, a chronic shortage of resources, unbranded competition, and inadequate infrastructure (Sheth 2011, 166; Wang, He and Barnes 2017, 458). Subsequently, emerging markets differ radically from industrialised countries, which necessitates the rethinking of existing marketing perspectives and practices that were developed in industrialised countries (Sheth 2011, 166).

The objective of this study is to address the above-mentioned lacunas by proposing a model for fostering purchase intentions from online retailer websites in an emerging market through the application of the S-O-R framework. The study makes a number of contributions for e-commerce scholars and practitioners. First, the applicability of the S-O-R framework is tested in explaining the development of purchase intentions from online retailer websites in an

emerging market. To achieve this, the embeddedness of constructs into components of the S-O-R framework to propose a valid and reliable parsimonious conceptual model is argued. These constructs include visual appeal and perceived usability (stimulus component), flow and website trust (organism component), and purchase intentions (response component). Second, because visual appeal and perceived usability can be controlled through effective website design (Bilgihan et al. 2014, 51; Casaló, Flavián and Guinalíu 2010, 249; Esteban-Millat et al. 2014, 371), its influence on flow and website trust is investigated – key constructs that are positively associated with online purchases (Bilgihan et al. 2014, 51; Flavián, Guinalíu and Gurrea 2006, 501). Third, to examine the sequential nature of this study's model embedded into the S-O-R framework, various indirect effects are tested via mediation analyses. Fourth, the robustness of the parsimonious model is assessed by comparing it across two different online retailers: Amazon, an international e-commerce pioneer; and Takealot, a South African online retailer with a similar business model to that of Amazon. The comparison is warranted because firm-specific capabilities have been shown to affect organisational performance in emerging markets (Hermelo and Vassolo 2012, 263). Lastly, the parsimonious model is tested to see if it will yield different results across two confounding variables that affect consumers' online decision-making, namely gender and prior online experience (Al-Qeisi et al. 2014, 2282; Lian and Yen 2014, 133; Yoon and Occeña 2015). As a result, the study not only contributes theoretically to scholars' understanding of S-O-R framework application in emerging markets, but also provides online retailers in emerging markets with a model to enable them to foster purchases from their websites through compelling online experiences and effective website design.

The next sections provide an overview of the study's theoretical framework and hypotheses development. Thereafter, the research method and results are presented and discussed. The paper concludes with the study's contributions and limitations, and offers directions for future research.

2. THEORETICAL FRAMEWORK

2.1. The S-O-R and online servicescape frameworks

The S-O-R framework comprises three components: a stimulus, an organism, and a response (Mehrabian and Russell 1974). Sequential in nature, these components explain how perceived stimuli in an environment (stimulus) evoke cognitive or affective states in an individual (organism), which in turn elicits a behavioural response from that individual (response) (Donovan and Rositer 1982; Mehrabian and Russell 1974). The prominent emergence of e-commerce has further marked the extension of the S-O-R framework into online research settings to improve the understanding of consumers' reaction to, and subsequent behaviour in, online store environments (Eroglu, Machleit, and Davis 2001, 177; Kim and Lennon 2013, 33; Koo and Ju 2010, 377; Mosteller, Donthu and Eroglu 2014, 2486).

The stimuli component of the S-O-R framework is normally associated with different physical cues in a store's environment. Store environments are described using Bitner's (1992, 65-67) servicescape framework, and since it proves useful in delineating store environments and the e-commerce platform replaces the physical store where customer-retailer interactions occur, it has been widely adopted to study online shopping environments – often referred to as the cyberscape, e-servicescape or online servicescape (Harris and Goode 2010, 231; Hopkins et al. 2009, 28; Williams and Dargel 2004, 310). The online servicescape involves the online environmental cues or stimuli (related to website features and design) present during the online shopping experience (Harris and Goode 2010, 231; Hopkins et al. 2009, 28).

Although the online servicescape comprises several dimensions and sub-dimensions (Harris and Goode 2010, 232), this study focuses only on visual appeal and perceived usability for numerous reasons. First, both visual appeal and perceived usability play a dominant role in online customers' evaluation of websites and subsequent decision-making (Cai and Xu 2011, 163; Casaló et al. 2010, 249; Cyr, Head and Ivanov 2006, 951; Flavián et al. 2006). A website's visual appeal is important in creating customers' first impressions of an online retailer

(Lindgaard et al. 2011). These first impressions entice customers to browse the website and make inferences on the online retailers' trustworthiness via halo effects, thus influencing customers' purchase intentions (Bonnardel, Piolat and Le Bigot 2004, 269; Jiang et al. 2016, 229; Lindgaard et al. 2011; Skulmowski et al. 2016, 386). Likewise, perceived usability denotes customers' judgement of efficient and effective design, thus allowing consumers to browse a retailer's website and reinforce their first impressions thereof (Flavián et al. 2006, 2; Harris and Goode 2010, 241). The second reason for concentrating on visual appeal and perceived usability relates to the manageability of these constructs through effective user interface design. Although a website's trustworthiness can be enhanced through affiliation with accredited third parties – for example PayPal, Payfast and iPay – or by obtaining a secure socket layer (SSL) certificate to encrypt shared consumer data, these do not address the complex issue of user interface design, which can be difficult to get right in the eyes of consumers (Fastmoving 2017). Therefore, this paper aims to provide a parsimonious model to explain how purchase intentions can be fostered from online retailers' websites in an emerging market.

The organism component in the S-O-R framework focuses on the conversion of perceived environmental stimuli into meaningful information, resulting in a changed cognitive or emotional state (Loureiro and Ribeiro 2011; Mehrabian and Russell 1974). Cognitive states represent consumers' mental processes involving the gaining, processing and retrieval of information, whereas affective states refer to emotions (positive and negative) felt during interaction with environmental stimuli (Eroglu et al. 2001, 181; Islam and Rahman 2017). Since cognition includes consumers' understanding, attitudes and beliefs (Eroglu et al. 2001, 181), and trust is traditionally conceptualised as consumers' positive beliefs about an organisation, and its products and services (Ganesan 1994), it can be argued that website trust is representative of consumers' cognitive state. Similarly, because flow refers to a holistic experience felt by consumers when immersed in a particular activity, such as browsing a

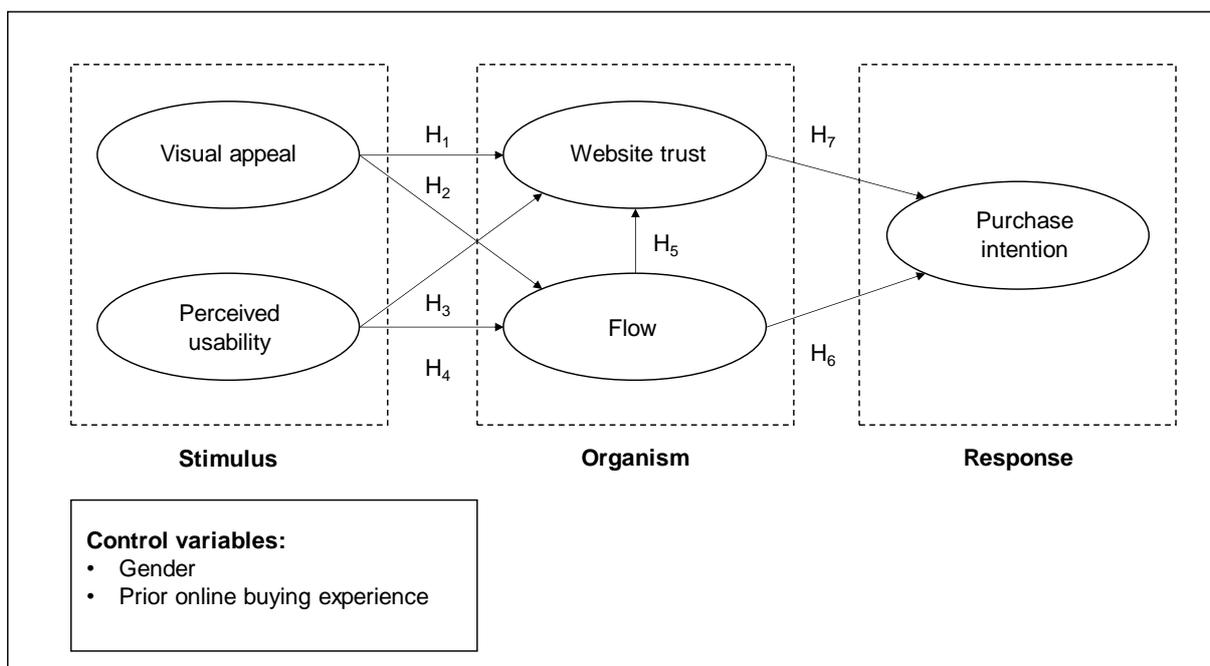
website (Csikszentmihalyi 1975 Gao and Bai 2014, 654), it can be said that flow is indicative of cognitive and affective states.

Lastly, the response component in the S-O-R framework refers to the external reaction elicited from consumers in the form of approach or avoidance behaviour (Donovan and Rositer 1982; Vieira 2013, 1420). Whereas approach behaviour denotes a favourable reaction, avoidance behaviour is the opposite response (Bitner 1992; Eroglu et al. 2001; Mehrabian and Russell 1974). Therefore, it can be argued that purchase intentions reflect approach behaviour, and subsequently form the response component in the S-O-R framework.

3. MODEL DEVELOPMENT

This section presents a review of literature that supports the hypotheses formulated for the study as depicted in Figure 1.

Figure 1: Conceptual model



3.1. Hypotheses development

Visual appeal refers to a website's appearance, in terms of the use of colour, imagery, shapes and font type, and whether consumers find it attractive or not (Cai and Xu 2011, 161; Cyr et al. 2006, 951). People tend to get judged on their appearance as it is the first thing observed upon meeting someone (Vaughan and Hogg 2014, 538). Similarly, because a website's appearance is often the first stimuli consumers encounter when visiting a website, it is crucial in forming first impressions and influences a customer's decision to continue browsing or not (Bonnardel et al. 2011, 69; Cai and Xu 2011, 161). Moreover, positive associations exist between the perceived attractiveness of a person and the favourable traits, such as honesty and trustworthiness, others judge that person to have (Langlois et al. 2000). Likewise, such spill-over effects exist in a website's perceived visual appeal and the assessments consumers make of its trustworthiness. Lindgaard et al. (2011, 3) explain that visually appealing websites tend to present information in an attractive manner, which improves consumers' processing and perceived credibility thereof. Therefore, websites that are regarded as visually appealing enhance consumers' perception of effectiveness, reliability and trustworthiness (Bilgihan et al. 2014, 67). From this, the following hypothesis is considered:

H₁: Visual appeal directly and positively influences online consumers' website trust.

Flow is often expressed as consumers' cognitive and affective judgements of their online experiences, and has also been described as a holistic experience that individuals feel when they act with total involvement and become deeply immersed in an activity (Csikszentmihalyi 1975; Gao and Bai 2014, 654). In the e-commerce, this refers to website-browsing where consumers experience sensory stimuli – including colour, graphics, layout and design – that should allow for a flawless transition from one web page to another, which in turn support the creation of the online experience (Rose et al. 2012, 312). Stimuli that are alluring (visually appealing) may entice consumers to continue browsing a website, which facilitate greater

consumer involvement and create a memorable online experience (Gao and Bai 2014; Rose et al. 2012, 312). Hence:

H₂: Visual appeal directly and positively influences the state of flow experienced by consumers on online retailers' websites.

Perceived usability relates to the level of effort required by consumers to use or navigate a particular website (Casaló et al. 2010, 249; Seckler et al. 2015, 41). A website's navigation is affected by its structural design – for example, menus, buttons, banners, prompts and links that serve as navigational aids – which facilitates the consumer's browsing (Seckler et al. 2015, 41). Consumers tend to hold favourable perceptions of a website's usability when its structural design is efficient and effective, simplifies browsing, and enables the completion of online shopping goals in a timely manner (Flavián et al. 2006, 2; Harris and Goode 2010, 241). When the structural design of a website facilitates the completion of online shopping goals without error, it evokes a sense of confidence in consumers regarding the website's competence (Casaló et al. 2010, 252; Flavián et al. 2006, 4). Such confidence is elicited because good structural design allows for greater understanding of content and navigational tasks, which reduces consumers' perceived online risk (Casaló et al. 2010, 252). Given that website trust refers to the overall positive impressions consumers have of an online retailer's website, accompanied by a willingness to accept greater levels online risks associated with e-commerce (Bart et al. 2005, 1; Lu, Fan and Zhou 2016, 228), it can be argued that:

H₃: Perceived usability directly and positively influences online consumers' website trust.

Increased perceived utilitarian functionality of websites generate improved opportunities for flow-creation in online environments. Such opportunities arise from the seamless navigation that perceived usability allows for across different webpages, which may facilitate greater interactivity between consumers and online environments (Gao and Bai 2014, 657; Skadberg

and Kimmel 2004, 410). Greater interactivity may induce a state of telepresence during which the consumer becomes immersed in website-browsing to the extent that their attention is completely focused, and the lines between the real and virtual environment become blurred (Gao and Bai 2014, 657; Novak et al. 2000, 26). Hence:

H₄: Perceived usability directly and positively influences the state of flow experienced by consumers on online retailers' websites.

The ability of flow to influence website trust rests on site stickiness and heuristics resulting from the affect-cognition link. Concerning site stickiness, it is argued that flow results when consumers spend more time browsing a website (site stickiness). When consumers reach a state of flow they tend to experience a surge of positive feelings, such as pleasure and joy (Csikszentmihalyi 1975; Novak et al. 2000, 24; Rose et al. 2012, 310). To continue experiencing these positive feelings, consumers spend more time browsing the website (Bilgihan 2016, 106). The longer consumers browse, the more familiar they become with the online retailer and the goods and services on offer, which in turn inculcates trust (Gulati and Sytch 2008, 165). Involving heuristics as a result of the affect-cognition link, consumers normally form an impression of a website's trustworthiness based on the flow experienced (Rose et al. 2012, 312). In other words, the affect-cognition link posits a connection between consumers' affective states and their judgements on their environment (Dunn and Schweitzer 2005, 737; Vaughan and Hogg 2014, 657). Positive affective states elicit more favourable consumer judgements of a situation or an environment. Therefore, the more positive feelings consumers experience during a state of flow, the more likely they are to make favourable judgements about a website's trustworthiness (Bilgihan 2016, 106; Bilgihan et al. 2014, 60). Hence, it is hypothesised that:

H₅: Flow experienced directly and positively influences online consumers' website trust.

Building on the affect-cognition link, purchase intentions can be regarded as an extension of a pleasurable flow experience (Hausman and Siekpe 2009, 8). When consumers experience a state of flow, it may induce favourable affective states, resulting in behavioural repertoires like purchase intentions (Bilgihan et al. 2014, 60; Novak et al. 2000; Ozkara, Ozmen and Kim, 2017:124). Since consumers experience increased concentration during flow, their comprehension of online retail information – such as order placement and payment – and goods and services on offer may improve. A better understanding of presented information results in greater consumer confidence in an online environment, and so more likelihood of purchasing from an online retailer's website (Ozkara et al. 2017, 125). Therefore:

H₆: Flow experienced directly and positively influences online consumers' purchase intentions.

Purchase intentions reflect consumers' inclination to buy products from an e-commerce platform (Lu et al. 2016, 229). According to the theory of planned behaviour, consumers' behavioural intentions influence their actual behaviour, particularly when they make rational decisions based on presented information (Ajzen 1991; Corbitt, Thanasankit and Yi 2003, 206; Pavlou and Fygenson 2006, 115). In e-commerce, purchase decisions are normally based on website trust, since it emulates a cognitive assessment of a website's credibility and competence in facilitating online transactions (Eroglu et al. 2001, 181; Harris and Goode 2010, 242; Kim and Peterson 2017, 52). Therefore, website trust reduces the perceived risk associated with the faceless and intangible nature of e-commerce, and increases consumers' purchase intentions (Corbitt et al. 2003, 206; Flavián and Guinalú 2006, 501). Unsurprisingly, website trust is a precursor in the formation of purchase intentions in e-commerce (Kim and Peterson 2017, 52; Ponte, Carvajal-Trujillo and Escobar-Rodríguez 2015, 286). Thus, it is hypothesised that:

H₇: Website trust directly and positively influences online consumers' purchase intentions.

As highlighted previously, this study focuses on fostering purchase intentions from online retailer websites in an emerging market by applying the S-O-R framework. Additionally, the organism component in the S-O-R framework focuses on an individual's cognitive and affective states as a result of their interaction with environmental stimuli, which in turn affects their response (Loureiro and Ribeiro 2011; Mehrabian and Russell 1974). Consequently, the organism component mediates the relationship between the stimuli and response components in the S-O-R framework (Vieira 2013). From the conceptual model presented in Figure 1, two constructs form the organism component: website trust and flow. Numerous studies have confirmed the mediating role of these variables in determining consumers' purchase intentions from online retailer websites (Ha et al. 2016, 213; Hong and Cha 2013, 927; Hsu et al. 2017, 250; Lwin, Wirtz and Stanaland 2016, 919; Pelet, Ettis and Cowart 2017, 115). Hence, it is hypothesised that:

H8_a: Visual appeal has a significant positive indirect effect on consumers' purchase intentions as mediated by website trust.

H8_b: Visual appeal has a significant positive indirect effect on consumers' purchase intentions as mediated by flow experienced.

H8_c: Perceived usability has a significant positive indirect effect on consumers' purchase intentions as mediated by website trust.

H8_d: Perceived usability has a significant positive indirect effect on consumers' purchase intentions as mediated by flow experienced.

The robustness of the model depicted in Figure 1 is tested by comparing two online retailers: Amazon and Takealot. Amazon is a multinational enterprise that operates across numerous continents and offers a wide range of merchandise. Operational since 2001, Amazon not only

holds first-mover advantage in the international e-commerce space, but also has ample experience in operations across international markets (MarketLine 2017). Takealot is a leading South African online retailer that officially launched in 2011 (Takealot 2017). Takealot's competitive advantage is supported by a wide selection across different product categories and the fact that it owns its logistics network, allowing for extensive coverage of the South African market (Euromonitor 2017; MarketLine 2016; Takealot 2017). Since Amazon and Takealot draw their competitive advantages from different resources and capabilities, consumers will differ in their evaluation of these two online retailers. Therefore, it is hypothesised that:

H₉: The relationships between the constructs as depicted in the conceptual model do not exhibit equivalent regression weights across the different online retailer types.

3.2. Control variables: gender and prior online buying experience

Two control variables – namely gender and prior online buying experience – are considered. Gender is a key demographic variable that affects website design evaluation and e-commerce adoption (Lu and Rastrick 2014, 55; Pascual-Miguel, Agudo-Peregrina and Chaparro-Peláez 2015; Venkatesh, Morris and Ackerman 2000). Prior online buying experience affects consumers' evaluation of websites since consumers have greater self-efficacy in an e-commerce environment (Al-Qeisi et al. 2014, 2284; Dai, Hernández, Jiménez and Martín 2010).

4. METHOD

4.1. Research design

The study followed a descriptive research design that was cross-sectional in nature. Data was collected from the target population. Saunders, Lewis and Thornhill (2016, 200) contend that a cross-sectional study allows for the measurement of multiple variables simultaneously, and that such a study is suitable for an array of research studies.

4.2. Target population, sampling and data collection

The target population of the study included people aged 18 to 29 who had access to the Internet via a personal computer, laptop, tablet or any other handheld device. This age cohort was selected as it represents people who exhibit the highest level of Internet usage in South Africa in 2017 (Effective Measure 2017). This cohort is of interest to the researchers as the study focuses on the perceptions of people who use the Internet and shop online. Due to the lack of a sampling frame, purposive sampling – a non-probability sampling technique – was used to select respondents. The Protection of Personal Information Act of 2013 (Republic of South Africa, 2013) limits access to information, making it cumbersome for researchers to obtain client lists from online retailers that could possibly have been used as a sampling frame for the study.

Paper-based interviewer-administered surveys were used to collect data from respondents. This survey method was considered appropriate due to the relative complexity of the survey, as respondents first had to execute a fictional online buying task before the questionnaire could be completed. Trained fieldworkers selected respondents and administered questionnaires to them. Furthermore, fieldworkers were required to randomly administer the scale items to limit response bias. The research project received ethical clearance and minimal risk to respondents was confirmed. In total, 165 questionnaires suitable for analysis were collected. Of these, 85 respondents performed the fictional online buying task on Amazon, while 80 respondents completed the task on Takealot.

4.3. Questionnaire design

A closed-ended structured questionnaire was designed. The questionnaire had a preamble introducing prospective respondents to the study and explaining their rights. Screening questions were included to ensure qualifying respondents took part in the study. The first section of the questionnaire determined respondents' demographic profile, the second section

determined their online Internet usage habits, and the third section determined respondents' perceptions in a scenario, called a vignette study (Atzmüller and Steiner 2010, 128). In the vignette presented to the respondents, they were instructed to pretend that they wanted to buy a new smartphone as a birthday gift for a close friend from any one of South Africa's two largest online retailers, Amazon or Takealot (Effective Measure 2017). The smartphone category was selected because it represents one of the largest e-commerce market segments in South Africa (Statistica 2017). Exhibit 1 presents the imaginary online buying task from the questionnaire.

Exhibit 1: The imaginary online buying task

Please access the Internet via your PC, laptop, tablet or any other device. Pretend that you want to buy a new smartphone as a birthday gift for a close friend from (interviewer check online retailer website rotation). Because you are not sure which smartphone to buy, you decide to spend a few minutes browsing the website. After you have selected the smartphone, add the selected option to your shopping basket, check out and head to the payment/shipping detail page(s), but do not complete the transaction.

After finishing the imaginary online buying task, respondents were asked to complete scaled items measuring the study's constructs. The researchers used a seven-point unlabelled Likert-type scale – where 1 represents 'strongly disagree' and 7 represents 'strongly agree' – to measure the study's constructs. Table 1 illustrates the scale items measuring the study's constructs as well as the sources from which these scale items were adapted.

Table 1: Scale items used to measure study's constructs

Construct and items		Source
Usability (USE)		Adapted from Harris and Goode (2010, 241-242)
USE1	This website is user-friendly.	
USE2	This website has a good keyword search facility.	
USE3	This website has useful navigational aids.	
USE4	It's easy to navigate through this website.	
Visual appeal (VA)		
VA1	This website is visually attractive.	
VA2	This website uses visually appealing graphics.	
VA3	This display of products is attractive.	
VA4	I like the way this website looks.	
Flow (FLOW)		Adapted from Gao and Bai (2014) and Novak et al. (2000)
FLOW1	When using this website, my attention was completely focused on the activity.	
FLOW2	When using this website, I felt a lot of pleasure.	
FLOW3	When using this website, my concentration on the navigation experience was so intense that I paid little attention to my surroundings.	
FLOW4	When using this website, my sense of time became distorted.	
Website trust (WT)		Adapted from Flavián et al. (2006, 10)
WT1	I have confidence in the promises that this website makes.	
WT2	This website has the necessary abilities needed to fulfil its promises.	
WT3	This website has the necessary resources to successfully carry out its activities.	
Purchase intention (PI)		Adapted from Gao and Bai (2014)
PI1	I am willing to buy products from this website.	
PI2	The likelihood of me purchasing products from this website is high.	
PI3	The probability that I would consider buying through this website is high.	
PI4	I intend to purchase through the website in the future.	
PI5	I consider the website my first choice when buying products from online retailers.	

4.4. Data analysis

The software programmes SPSS 24 and AMOS 24 were used for data analysis. A confirmatory factor analysis (CFA) was conducted to assess the psychometric properties of:

- 1) the overall model;
- 2) the model considering the responses from those who executed the fictional online gift-buying task on the Amazon website (Amazon model); and
- 3) the responses from those who executed the fictional online gift-buying task on the Takealot website (Takealot model).

Thereafter, three structural models (the overall, Amazon, and Takealot models) were empirically assessed by considering the fit indices of their respective full latent models. The

hypotheses formulated for the study (H_1 to H_7) guided the model specification phase of the structural model. To assess the sequential nature of the structural models embedded in the S-O-R framework (H_{8a} to H_{8d}), mediation analyses according to the bootstrapping resampling procedures were conducted using the PROCESS macro for SPSS (Hayes 2013, 419). Statistical significance of the indirect effects was based on the 95% bias-corrected interval of each total, direct and indirect effect (Zhao, Lynch and Chen 2010, 202). A multi-group analysis was further performed to test H_9 and the Z-score approach (critical ratios) was used to determine whether significant differences exist in the hypothesised relationships between the study's constructs across the models (Gaskin 2011; Wang et al. 2014, 236). Prior to conducting a comparison of the structural paths across the different models, configurable and metric invariance were also considered (Hair et al. 2014a, 249). Gender and prior online buying experience were included as control variables in the models.

5. RESULTS

5.1. Sample profile and online patronage habits

Table 2 provides an overview of the sample profile and online patronage habits of respondents in the overall sample, as well as for the Amazon and Takealot sample respectively.

From Table 2, it can be determined that respondents who answered based on Amazon's website (Amazon sample), and those who answered on Takealot's website (Takealot sample) represent 51.5% and 48.5% of the overall sample, respectively. The majority of respondents were female in both the Amazon (60%) and Takealot (82.5%) samples. In terms of age, the majority of respondents in the Amazon (69.4%) and Takealot (81.3%) sample were aged between 18 and 24 years old. Regarding the highest level of education, most of the respondents in the Amazon sample had completed a degree (58.8%), whereas the majority of respondents in the Takealot sample had completed Matric/Grade 12 (57.5%). Respondents in the Amazon sample (81.2%) and Takealot sample (87.5%) accessed the Internet every day, largely using a laptop to do so. Lastly, most of the respondents in the Amazon sample (52.9%)

had purchased from an online retailer's website previously, whereas the majority of respondents in the Takealot sample (73.8%) had never purchased online before.

Table 2: Sample profile and online patronage habits

Response categories	Overall sample		Amazon sample		Takealot sample	
	N	%	N	%	N	%
	165	100.0	85	51.5	80	48.5
Gender						
Male	48	29.1	34	40.0	14	17.5
Female	117	70.9	51	60.0	66	82.5
Age						
18-24	124	75.2	59	69.4	65	81.3
25-29	41	24.8	26	30.6	15	18.8
Highest level of education						
High school not completed	3	1.8	1	1.2	2	2.6
Matric/Grade 12 completed	71	43.0	25	29.4	46	57.5
Diploma completed	4	2.4	6	7	1	1.3
Degree completed	81	49.0	50	58.8	28	35.0
Postgraduate degree completed	6	3.6	3	3.5	3	3.8
How often Internet is accessed						
Every day	139	84.2	69	81.2	70	87.5
Not every day, but more than once a week	20	12.1	12	14.1	8	10.0
Once a week	3	1.8	3	3.5	1	1.3
Less than once a week, but more than once a month	1	.6	1	1.2	1	1.3
Once a month	2	1.2	69	81.2	70	87.5
Device from which Internet is accessed most often						
Personal computer	46	27.9	18	21.2	28	35.0
Laptop	69	41.8	38	44.7	31	38.8
Mobile device (such as a smartphone)	39	23.6	20	23.5	19	23.8
Tablet	10	6.1	9	10.6	2	2.5
Prior online purchase experience						
Yes	66	40.0	45	52.9	21	26.3
No	99	60.0	40	47.1	59	73.8

5.2. Construct reliability and validity

CFAs were used to assess the psychometric properties of the measurement models. For convergent validity, various model fit indices, the standardised item loadings (SW), the construct reliability (CR) and average variance extracted (AVE) for each construct were examined (Hair et al. 2014b, 618). Table 3 shows the fit indices for the measurement models.

Table 3: CFA fit statistics

Fit indices		Overall model	Amazon model	Takealot model
Chi-square		299.969	230.083	251.142
<i>p</i>		0.000	0.000	0.000
<i>df</i>		160	160	160
χ^2/df	< 3	1.875	1.438	1.570
CFI	> 0.9	0.956	0.949	0.949
IFI	> 0.9	0.956	0.949	0.949
TLI	> 0.9	0.948	0.938	0.939
RMSEA	< 0.08	0.073	0.072	0.085

From Table 3, it can be seen that the measurement models display acceptable fit across various incremental and absolute fit statistics (Hair et al. 2014b, 578). Table 4 depicts the SW, CR, and AVE for each of the constructs included in the measurement models.

Table 4: Construct reliability and convergent validity of the measurement models

Constructs	Items	Overall model			Amazon model			Takealot model		
		SW*	CR	AVE	SW*	CR	AVE	SW*	CR	AVE
USE	USE1	0.865	0.945	0.811	0.820	0.920	0.742	0.884	0.948	0.821
	USE2	0.917			0.806			0.960		
	USE3	0.923			0.895			0.921		
	USE4	0.895			0.920			0.856		
VA	VA1	0.941	0.945	0.810	0.949	0.926	0.758	0.931	0.952	0.833
	VA2	0.917			0.916			0.913		
	VA3	0.895			0.822			0.934		
	VA4	0.844			0.785			0.872		
FLOW	FLOW1	0.680	0.870	0.628	0.538	0.839	0.573	0.816	0.909	0.715
	FLOW2	0.873			0.893			0.868		
	FLOW3	0.802			0.717			0.882		
	FLOW4	0.803			0.832			0.813		
WT	WT1	0.772	0.902	0.754	0.628	0.854	0.667	0.809	0.910	0.773
	WT2	0.916			0.893			0.901		
	WT3	0.910			0.899			0.923		
PI	PI1	0.829	0.940	0.759	0.803	0.935	0.744	0.850	0.947	0.780
	PI2	0.908			0.942			0.878		
	PI3	0.943			0.962			0.931		
	PI4	0.879			0.871			0.889		
	PI5	0.789			0.711			0.867		

Note: *all loadings statistically significant at $p < 0.001$

The results from Table 4 indicate that all the SW values are statistically significant at $p < 0.001$, and above the recommended value of 0.5 (Hair et al. 2014b, 618). Furthermore, the results indicate CR values greater than 0.7 and AVE values greater than 0.5 for all constructs. It can

be concluded that sufficient evidence exists for construct reliability and convergent validity for the overall, Amazon, and Takealot models (Hair et al. 2014b, 618, 619).

Discriminant validity was then assessed in accordance with the criterion proposed by Fornell and Larcker (1981). The results for the overall, Amazon, and Takealot models are shown in Tables 5, 6 and 7, respectively.

Table 5: Assessment of discriminant validity in overall model

	WT	VA	USE	FLOW	PI
WT	0.754				
VA	0.271	0.810			
USE	0.498	0.430	0.811		
FLOW	0.368	0.332	0.232	0.628	
PI	0.407	0.397	0.284	0.520	0.759

Note: * AVE on the diagonal and squared correlations below the diagonal

Table 6: Assessment of discriminant validity in Amazon model

	WT	VA	USE	FLOW	PI
WT	0.667				
VA	0.070	0.758			
USE	0.171	0.279	0.742		
FLOW	0.166	0.194	0.100	0.573	
PI	0.237	0.364	0.189	0.469	0.744

Note: * AVE on the diagonal and squared correlations below the diagonal

Table 7: Assessment of discriminant validity in Takealot model

	FLOW	VA	USE	PI	WT
FLOW	0.773				
VA	0.366	0.833			
USE	0.637	0.484	0.821		
PI	0.632	0.489	0.392	0.715	
WT	0.623	0.441	0.394	0.701	0.780

Note: * AVE on the diagonal and squared correlations below the diagonal

From the results, it can be seen that the AVE for each construct exceeds the squared correlations between each pair of constructs in the overall, Amazon and Takealot models, respectively. Discriminate validity is thus confirmed (Fornell and Larcker 1981; Hair et al. 2014b, 620).

5.3. Structural model estimation – testing H₁ to H₇

To test the hypotheses as depicted in Figure 1, structural models were estimated for the overall-, Amazon-, and Takealot- samples and path analyses were conducted. Table 8 shows the fit indices that were calculated for all three structural models.

Table 8: Fit statistics for the structural models

Fit indices		Overall model	Amazon model	Takealot model
Chi-square		308.213	245.014	251.159
<i>p</i>		0.000	0.000	0.000
<i>df</i>		162	162	162
χ^2/df	< 3	1.903	1.512	1.550
CFI	> 0.9	0.954	0.940	0.950
IFI	> 0.9	0.946	0.928	0.941
TLI	> 0.9	0.954	0.938	0.950
RMSEA	< 0.08	0.074	0.078	0.083

The results in Table 8 demonstrate sufficient evidence of model fit for all three structural models. Next, structural weights (β) were calculated for all structural paths in the overall, Amazon, and Takealot models, which are depicted in Table 9.

Table 9: Structural paths

Structural paths			Overall model		Amazon model		Takealot model	
			β	<i>p</i>	β	<i>p</i>	β	<i>p</i>
H ₁	Visual appeal	→ Website trust	-0.073	0.420	-0.056	0.687	0.194	0.084
H ₂	Visual appeal	→ Flow	0.494	0.001	0.423	0.004	0.510	0.001
H ₃	Perceived usability	→ Website trust	0.573	0.001	0.340	0.015	0.577	0.001
H ₄	Perceived usability	→ Flow	0.173	0.074	0.122	0.349	0.273	0.033
H ₅	Flow	→ Website trust	0.370	0.001	0.321	0.029	0.568	0.001
H ₆	Flow	→ Purchase intention	0.705	0.003	0.608	0.019	0.840	0.001
H ₇	Website trust	→ Purchase intention	0.211	0.001	0.242	0.001	0.123	0.251

* statistically significant at *p* < 0.05

** statistically significant at *p* < 0.001

From Table 9, it is evident that only two paths in the overall model are not statistically significant: visual appeal to website trust ($\beta = -0.073$; $p = 0.420$), and perceived usability to flow ($\beta = 0.173$; $p = 0.074$). Similarly, the Amazon model also reveals statistically insignificant results for visual appeal to website trust ($\beta = -0.056$; $p = 0.687$) and perceived usability to flow ($\beta = 0.122$; $p = 0.349$). For the Takealot model, statistically insignificant results are revealed for two paths – visual appeal to website trust ($\beta = 0.194$; $p = 0.084$), and website trust to purchase intention ($\beta = 0.123$; $p = 0.251$). Finally, it appears that two structural paths differ in the Takealot model from those in the Amazon and overall models, namely perceived usability to flow (statistically significant $\beta = 0.273$; $p = 0.033$), and website trust to purchase intention (statistically insignificant $\beta = 0.123$; $p = 0.251$). Based on these results, hypotheses 2, 3, 5 and 6 are supported across all three models; hypothesis 4 is only supported in the Takealot model; and hypothesis 7 is supported in the overall and Amazon models.

5.4. Mediation analysis – testing H8_{a-d}

In this study, 10 000 bootstrapping samples were generated from the original data set for the overall ($N = 165$), Amazon ($N = 85$), and Takealot ($N = 80$) models by random sampling (Shrout and Bolger 2002; Zhao et al. 2010). Table 10 shows the bootstrapping direct, indirect and total effects calculated at a 95% bias-corrected interval of each indirect effect.

The results in Table 10 for the overall model show that the total effect of visual appeal on purchase intention is positive ($B = 0.600$) and statistically significant (the 95% bias-corrected interval is 0.475 to 0.725). Furthermore, the indirect effects exerted by website trust ($B = 0.214$; 95% bias-corrected interval 0.132 to 0.325) and flow ($B = 0.327$; 95% bias-corrected interval 0.236 to 0.438) on purchase intentions are statistically significant, suggesting a mediated effect. However, because the direct effect for both website trust ($B = 0.386$; 95% bias-corrected interval 0.259 to 0.513) and flow ($B = 0.273$; 95% bias-corrected interval 0.164 to 0.382) are statistically significant, it can be concluded that website trust and flow partially mediate the influence of visual appeal on purchase intentions. Likewise, the total effect of

Table 10: Bootstrapping direct and indirect effects at 95% confidence intervals (CI)

Variables	Direct effect [LLCI; HLCI]**	Indirect effect [LLCI; HLCI]**	Total effect [LLCI; HLCI]**	Result
X >> M >> Y*				
Overall model				
VA >> WT >> PI	0.386 [0.259; 0.513]**	0.214 [0.132; 0.325]**	0.600 [0.475; 0.725]**	Complementary mediation
VA >> FLOW >> PI	0.273 [0.164; 0.382]**	0.327 [0.236; 0.438]**	0.600 [0.475; 0.725]**	Complementary mediation
USE >> WT >> PI	0.177 [-0.006; 0.359]	0.389 [0.253; 0.545]**	0.566 [0.413; 0.718]**	Indirect only mediation
USE >> FLOW >> PI	0.223 [0.102; 0.344]**	0.343 [0.243; 0.456]**	0.566 [0.413; 0.718]**	Complementary mediation
Amazon model				
VA >> WT >> PI	0.527 [0.334; 0.720]**	0.123 [0.017; 0.279]**	0.654 [0.445; 0.863]**	Complementary mediation
VA >> FLOW >> PI	0.433 [0.253; 0.613]**	0.221 [0.097; 0.387]**	0.654 [0.445; 0.863]**	Complementary mediation
USE >> WT >> PI	0.3647 [0.083; 0.646]**	0.247 [0.095; 0.477]**	0.611 [0.331; 0.891]**	Complementary mediation
USE >> FLOW >> PI	0.383 [0.156; 0.610]**	0.228 [0.058; 0.441]**	0.611 [0.331; 0.891]**	Complementary mediation
Takealot model				
VA >> WT >> PI	0.285 [0.126; 0.445]**	0.290 [0.148; 0.498]**	0.576 [0.408; 0.743]**	Complementary mediation
VA >> FLOW >> PI	0.112 [-0.191; 0.244]	0.463 [0.323; 0.620]**	0.576 [0.408; 0.743]**	Indirect only mediation
USE >> WT >> PI	0.069 [-0.168; 0.305]	0.523 [0.334; 0.753]**	0.592 [0.397; 0.786]**	Indirect only mediation
USE >> FLOW >> PI	0.126 [-0.012; 0.263]	0.466 [0.341; 0.621]**	0.592 [0.397; 0.786]**	Indirect only mediation

*X = Exogenous variable; M = Mediating variable; Y = Endogenous variable

**LLCI = Lower Level Confidence Interval; HLCI = Higher Level confidence interval

*statistically significant at p < 0.05

**statistically significant at p < 0.001

perceived usability on purchase intentions is positive (B = 0.566) and statistically significant (95% bias-corrected interval 0.413 to 0.718), and the indirect effects of website trust (B = 0.389; 95% bias-corrected interval 0.253 to 0.545) and flow (B = 0.343; 95% bias-corrected interval 0.243 to 0.456) are statistically significant. However, when examining the direct effects, it can be determined that website trust fully mediates the influence of perceived usability on website trust (B = 0.177; 95% bias-corrected interval -0.006 to 0.359), whereas flow (B = 0.223; 95% bias-corrected interval 0.102 to 0.344) partially mediates its influence.

In the Amazon model, complementary mediation is evident in all paths specified, because the total effects of visual appeal and perceived usability on purchase intentions are positive and

statistically significant. Additionally, the direct and indirect effects are positive and statistically significant at the 95% bias-corrected interval. In the Takealot model, three of the specified paths suggest that full mediation occurs. Specifically, flow fully mediates the influence of visual appeal on purchase intentions (the direct effect is statistically insignificant at $B = 0.112$; 95% bias-corrected interval -0.191 to 0.244), website trust fully mediates the influence of perceived usability on purchase intentions (the direct effect is statistically insignificant at $B = 0.069$; 95% bias-corrected interval -0.168 to 0.305), and flow fully mediates the influence of perceived usability on purchase intentions (the direct effect is statistically insignificant at $B = 0.126$; 95% bias-corrected interval -0.012 to 0.2630). Moreover, flow partially mediates the relationship between perceived usability on purchase intentions (direct and indirect effects are both positive and statistically significant). Based on these results, hypotheses δ_{a-d} are supported.

5.5. Multi-group analysis – testing H_9

To compare the structural weights (β) in the Amazon and Takealot models to test hypotheses 9, measurement invariance had to be assessed by ascertaining configural and metric invariance (Hair et al., 2014a, 249). Concerning configural invariance, an unconstrained CFA model displayed satisfactory fit statistics ($\chi^2_{df} = 1.504$, $df = 320$, RMSEA = 0.056, CFI = 0.948, TLI = 0.939, IFI = 0.949), suggesting that the Amazon and Takealot models are equivalent in their factor structure (Gaskin 2011). Regarding metric invariance, the variance for the latent variables was constrained to one, and the measurement weights (factor loadings) were constrained to be equal across the Amazon and Takealot models (Gaskin 2011; Hair et al. 2014a, 249). A Chi-square difference test revealed that the constrained and unconstrained structural model were not statistically significantly different from one another ($\Delta\chi^2_{df} = 23.998$; $\Delta df = 20$; $p > 0.05$), thus confirming metric invariance. The structural paths between the Amazon and Takealot models were subsequently compared by calculating critical ratios or Z-scores (Gaskin 2011; Lleras 2005, 25). Z-scores are statistically significant at the following absolute values: 1.96 = statistically significant at $p < 0.05$; 2.58 = statistically

significant at $p < 0.001$ (Field 2013, 33). Table 11 depicts the results from the multi-group analysis.

Table 11: Results from multi-group analysis

Structural paths			Multi-group analysis				Z-scores	
			Amazon model		Takealot model			
			β	p	β	P		
H ₁	Visual appeal	→	Flow	0.423	0.004	0.510	0.001	0.974
H ₂	Perceived usability	→	Flow	0.122	0.349	0.273	0.033	0.902
H ₃	Visual appeal	→	Website trust	-0.056	0.687	0.194	0.084	-0.958
H ₄	Perceived usability	→	Website trust	0.340	0.015	0.577	0.001	1.973*
H ₅	Flow	→	Website trust	0.321	0.029	0.568	0.001	2.664**
H ₆	Flow	→	Purchase intention	0.608	0.019	0.84	0.001	-0.065
H ₇	Website trust	→	Purchase intention	0.242	0.001	0.123	0.251	2.350**

* statistically significant at $p < 0.05$

** statistically significant at $p < 0.001$

In Table 11, it can be determined that the Amazon and Takealot models differ statistically on three paths: between perceived usability and website trust (Z-score = 1.973); between flow and website trust (Z-score = 2.664); and between website trust and purchase intention (Z-score = 2.350). Specifically, perceived usability exerts a stronger influence on website trust for Takealot buyers ($\beta = 0.577$) than Amazon buyers ($\beta = 0.340$), while flow has a stronger influence on website trust for Takealot buyers ($\beta = 0.568$) than Amazon buyers ($\beta = 0.321$). Lastly, website trust exerts a positive influence on purchase intentions for Amazon buyers ($\beta = 0.242$), whereas the path is statistically insignificant for Takealot buyers ($p = 0.251$). Subsequently, H9 is supported.

5.6. Results of hypothesis testing

Table 12 summarises the results from the hypothesis testing.

Table 12: Summary of hypothesis testing

Hypothesis	Result
Visual appeal directly and positively influences online consumers' website trust (H ₁)	Not supported
Visual appeal directly and positively influences the state of flow experienced by consumers on online retailers' websites (H ₂)	Supported
Perceived usability directly and positively influences online consumers' website trust (H ₃)	Supported
Perceived usability directly and positively influences the state of flow experienced by consumers on online retailers' websites (H ₄)	Not supported
Flow experienced directly and positively influences online consumers' website trust (H ₅)	Supported
Flow experienced directly and positively influences online consumers' purchase intentions (H ₆)	Supported
Website trust directly and positively influences online consumers' purchase intentions (H ₇)	Supported
Visual appeal has a significant positive indirect effect on consumers' purchase intentions as mediated by website trust (H _{8a})	Supported
Visual appeal has a significant positive indirect effect on consumers' purchase intentions as mediated by flow experienced (H _{8b})	Supported
Perceived usability has a significant positive indirect effect on consumers' purchase intentions as mediated by website trust (H _{8c})	Supported
Perceived usability has a significant positive indirect effect on consumers' purchase intentions as mediated by flow experienced (H _{8d})	Supported
The relationships between the constructs as depicted in the conceptual model do not exhibit equivalent regression weights across the different online retailer types(H ₉)	Supported

6. DISCUSSION, IMPLICATIONS AND CONCLUSION

The purpose of this study was to test a model for fostering purchase intentions of customers from online retailer websites in an emerging market through the application of the S-O-R framework. Overall, the results confirm the validity of the S-O-R framework as a fruitful means to better understand how purchase intentions can be fostered from emerging market consumers through effective website design. Contradictory to previous findings (Bilgihan et al. 2014, 67), results show that visual appeal does not directly and positively influence online website trust. However, it does directly and positively influence flow across all three models, thus aligning with previous empirical results (Gao and Bai 2014; Rose et al. 2012, 312). These findings present the notion that the role of a website's visuals is more prominent in its creation of flow emerging market consumers experience from online retailer websites than trust. To improve visual appeal, careful consideration should be given when designing the user interface (the look and feel) of an online retailer's website. This includes the selection of

elements such as aesthetically pleasing graphics and fonts, as well as how information is displayed, and products are arranged for browsing.

Results further indicated that perceived usability directly and positively influences website trust, which is purported by previous studies (Bart et al. 2005, 1; Lu et al. 2016, 228). Considering the importance of website trust, online retailers should review the design of their websites to optimise the browsing experience, as this study found perceived usability (not visual appeal) to influence website trust in this emerging market context. More specifically, online retailers should devote substantial resources to ensure that their websites are perceived as useful. Perceived usability can be improved by ensuring that website navigation is seamless, easy and logical, and that navigational aids work properly. The direct and positive influence that perceived usability exerts on flow can only be supported for the Takealot model. These findings are interesting since they suggest that online retailers should chiefly focus on a website's visual appeal to influence flow, and on its perceived usability to impact website trust. Both visual appeal and perceived usability should culminate to keep the attention and concentration of consumers across the seamless transition from one visually appealing web page to the next.

Flow directly and positively influences website trust and purchase intention across all three models, which is aligned with previous findings (Bilgihan 2016, 106; Bilgihan et al. 2014, 60; Ozkara et al. 2017, 125). The direct and positive influence of website trust on purchase intention (Kim and Peterson 2017, 52; Ponte et al. 2015, 286) could only be confirmed for the overall and Amazon models, and not for the Takealot model. Therefore, the study highlights the importance of flow in fostering website trust and purchase intention in this context. The holistic experience, both cognitive and affective, felt by consumers when immersed in browsing the website (Csikszentmihalyi 1975 Gao and Bai 2014, 654) is critical for the online retailer in designing the website in this emerging market context.

The study also determined whether the organism component (namely website trust and flow), fulfil a mediating role in determining consumers' purchase intentions from online retailer websites (Ha et al. 2016, 213; Hsu et al. 2017, 250; Lwin et al. 2016, 919; Pelet et al. 2017, 115). Results indicate that visual appeal and perceived usability affect consumers' purchase intentions indirectly, albeit differently. Consequently, it can be confirmed that the organism component in the S-O-R framework focuses on an individual's cognitive and affective states as a result of his/her interaction with environmental stimuli, which in turn affects the response (Loureiro and Ribeiro 2011; Mehrabian and Russell 1974).

The hypotheses that the relationships between the constructs as depicted in the conceptual model do not exhibit equivalent regression weights across the different online retailer types can be supported. These results are plausible given that Amazon has been competing in the online environment for much longer than Takealot, and has established a reputation of trustworthiness (Marketline 2017). Considering halo effects, consumers' perceptions of the Amazon website's trustworthiness will subsequently be more favourable, leading to an increase in purchase intentions. However, Takealot still requires time to establish a favourable reputation, which could explain why the source of its trust is rooted in its perceived usability and the flow consumers experience during website usage. Therefore, it can be argued that there are different sources of competitive advantages for Amazon and Takealot.

In conclusion, the results of the study confirm the validity of the S-O-R framework as a theoretical base for understanding how purchase intentions can be fostered from online retailer websites in emerging markets. Such understanding is rooted in the sequential nature of the S-O-R framework, which is confirmed by the results from mediation analyses. It was determined that visual appeal and perceived usability (stimuli) influence customers' purchase intentions (response) via flow and website trust (organism's cognitive and emotional states). This sequential nature is consistent when controlling gender and prior online buying

experience, as well as across the comparison of the study's two online retailers, Amazon and Takealot.

7. LIMITATIONS AND DIRECTIONS FOR FUTURE RESEARCH

Although good arguments were presented in this study, it only focused on visual appeal and perceived usability, whereas future studies could explore other constructs of the online servicescape – such as perceived security, customisation, interactivity, relevance of information etc. – to foster purchase intentions from consumers in emerging markets. Moreover, no distinction was made between the different types of devices that consumers use to access online retailers' websites. Given the emergence of omni-channel retailing (Verhoef, Kannan and Inman 2015, 6), it is worth exploring flow experienced across different consumer touchpoints and the resultant shopping behaviour. Future studies could also investigate possible moderating effects of other variables, including self-efficacy, brand familiarity, and previous encounters with online retailers. Additionally, the vignette focused on a specific buying situation for a particular product category. Subsequent studies could adapt vignettes across different purchase situations and product categories to reflect various levels of consumer involvement (Sanchez-Franco 2009, 247). Lastly, the comparison results of this study is limited to one emerging market (South Africa) and two online retailers. Future studies comparing results across different countries and different types of online retailers could also offer valuable insight.

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