

THE IMPACT OF PERCEIVED RISK ON ON-LINE PURCHASE BEHAVIOUR

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Abstract

To avoid risks, consumers tend to be fairly thoughtful decision makers. Research has shown that consumers perceive risks associated with purchasing online and as a result online purchasing has not yet reached the numbers that were projected. In order for e-commerce to live up to its full potential, online retailers should gain an understanding of which perceived risks online purchasing consumers are most concerned with. This study aimed to assess the impact of perceived risk on online buying behaviour. Personal interview surveys were conducted in an emerging market whereby 200 respondents that have access to the internet were interviewed in selected malls with regards to their perceived risks when buying online. The results showed that perceived risk does have an impact on online buying behaviour, and that consumers that have not bought online in the past are likely not to do so in the future. The results show that characteristics of emerging markets are sufficiently distinct from developed markets in that consumers in developed markets seem to be more conservative when buying online. Marketers should therefore develop alternative marketing programs when communicating to these markets in an attempt to persuade consumers to buy online.

Keywords: Online Buying Behaviour, Perceived Risk, Financial Risk, Functional Risk, Social Risk, Psychological Risk, Physical Risk, Time Risk

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1 Introduction

In principle, the exchange theory assumes that individuals attempt to maximise their rewards and minimise their losses (Homans, 1958; Dahlström, 1966; Burns, 1973). Bagozzi (1975) noted that exchange is a central concept in marketing in that marketers and consumers interact to maximise rewards and minimise losses (Emerson, 1976; Bagozzi, 1974). In an endeavour to maximise their benefits, marketers offer consumers a variety of alternatives (Kotler and Keller, 2008). Consumers, thus, have more than one course of behaviour open to them, and the various marketing offerings available to them allow consumers to make choices based on logical considerations (Nicholson, 1998). However, consumers want to avoid loss (Nicholson, 1998). Any willingness to pursue opportunities that have a reasonable likelihood of producing losses would acquire consumers to take risks (Morris and Kuratko, 2002). In other words, by taking risks consumers face the possibility of jeopardising their rewards and significantly increasing the possibility of losses.

Anything new involves risk, or some likelihood that actual results will differ from expectations. Almost all kinds of shopping activities, be it traditional retail stores, catalogue, mail order, TV shopping, and online shopping, involve an element of risk, owing to the uncertainty in the purchasing decision. Online shopping, in particular, has managed

to reshape consumers' shopping habits and has caused drastic changes to the distribution channel. This change is a direct result of the rapid advances in technology (Lin and Yu, 2006). Even though the rapid advances of the Internet have revolutionised the way business is done, the Internet as a place of business has not quite lived up to expectations (Prabhaker, 2000). Because consumers try to avoid losses, perceived risk (i.e. the nature and amount of risk perceived by consumers in contemplating purchases) could assist in explaining consumers' online behaviour (Mitchell, 1999). This study assesses consumers' online buying behaviour with specific focus on the perceived risks consumers associate with online shopping.

2 Online purchasing in Southern Africa

Thirty four percent of the world's population are using the internet; that is 2.4 billion people out of almost seven billion people (Miniwatts, 2012). Compared with the expansion of internet users, the number of online shoppers has, at first, increased at a lower rate (Chen and He, 2003; US Census bureau, 2003 as cited in Jarvelainen and Puhakainen, 2004), but has increased drastically during the last two years, to 85% of users now shopping online (Nielson, 2014). The initial slow growth of online shopping would suggest that possibly worldwide consumers perceived the introduction of online purchasing as something of

a threat (Lin and Yu, 2006). If that was the case, one could assume that adoption to on-line shopping would specifically be slow in emerging markets, as consumers in emerging markets are unlikely to respond to marketing programs transplanted from developed markets (Dawar and Chattopadhyay, 2002).

For example, Africa yields seven per cent of the world's total internet usage (Miniwatts, 2012), with only 20.9 per cent of Southern Africa's population having access to the Internet (SAARF, 2013). Of current internet users in Southern Africa, 10 per cent make use of the internet for internet banking (SAARF, 2014) and only six per cent utilise the internet for making bookings (SAARF, 2013). The majority of current internet users are using it as a search engine for information (SAARF, 2013). In Southern Africa, online retailers currently represent less than one per cent of the country's R500 billion retail market (Holmes, 2014). This small percentage is an indication that online shopping is still in its infancy in Southern Africa. This conclusion can be explained in terms of Hofstede's cultural typology. According to this typology, uncertainty avoidance is the degree of risk aversion in a society (Keegan and Green, 2005). Countries that score low in uncertainty avoidance typically favour taking risks, trying new ways of accomplishing goals, and using novel approaches. Societies that score high on uncertainty avoidance, however, tend to put greater emphasis on the traditional methods of accomplishing goals, are unlikely to take on high risks, and are generally considered to be averse to ambiguity (Keegan and Green, 2005). Southern Africa's uncertainty avoidance score is relatively high, with a total of almost 60 (Hofstede, 2008). Therefore, it could be concluded that consumers in Southern Africa are typically unlikely to take on unnecessary risks. With that in mind, one could possibly describe consumers in Southern Africa as conservative, in that they are less willing to try new things (McKinsey Africa Consumer Insights Center, 2012). Based on this contention it can be inferred that it is possibly the risks associated with online purchasing that are inhibiting the growth in online shopping in Southern Africa.

In a study conducted by PwC (2013), Brazil and South Africa were identified as the countries with online users that are the most worried about the security of their personal data. Of those Brazilian online users who do not currently shop online, 60% named personal data security concerns as the main reason for not wanting to shop online, while in South Africa 61% of the respondents identified it as the main reason that they do not shop online.

As a marketer using the internet, it is important to understand how consumers make decisions within the online purchase environment, while the ability of e-retailers to grow their markets is dependent on a thorough understanding of present-day online

behaviour (Hannah and Lybecker, 2010). According to Prabhaker (2000), online commerce will only thrive with an expansion of consumer confidence and consumer acceptance. By understanding consumers' perception of risks, marketers can instil confidence and acceptance of online commerce amongst consumers.

3 Perceived risk

Research has shown that online shopping poses something of a threat to consumers. Numerous sources highlight the fact that consumers continue to perceive that using the internet for purchasing is risky (e.g. Bourlakis et al., 2008; Drennan et al., 2006; Ha and Coghill, 2008; Kuhlmeier and Knight, 2005; McCole et al., 2010; Bianchi and Andrews, 2012). It seems that the uncertainty associated with online shopping makes it a risky endeavour for consumers. Risk refers to the likelihood that actual results will differ from expectations (Smith, 1996 as cited in Kelman, 2003; Sayers, Gouldby, Simm, Meadowcroft and Hall, 2002). Mitchell (1999) proposes that because consumers are more often motivated to avoid losses than to maximise utility in purchasing, perceived risk is powerful in explaining consumers' behaviour (Mitchell, 1999). Perceived risk refers to the nature and amount of risk perceived by a consumer in contemplating a particular purchase decision (Cox and Rich, 1964). Bauer (1960) introduced the concept of perceived risk to marketing literature (Dowling and Staelin, 1994). His work was expanded upon in a risk-taking and information-handling in consumer behaviour by Cox (1967). This early work was then followed by several conceptual models of consumer risk-perception and information-handling.

According to Liao, Lin and Lui (2010) people are usually more inclined to avoid mistakes rather than maximize utility when engaging in risky decision-making. In addition, consumers are generally apprehensive when they cannot be sure that purchases will allow them to realise their buying goals. Perceived risk can therefore be considered a function of the uncertainty about the potential outcomes of a behaviour and the possible unpleasantness of these outcomes (Forsythe and Shi, 2003). The amount of risk perceived by the consumer is a function of two main factors, namely, the amount at stake in the purchase decision, and the individual's feeling of subjective certainty that he/she will "win" or "lose" all or some of the amount at stake (Cox and Rich, 1964).

Different types of perceived risk exist within overall perceived risk. Many different types of perceived risks exist. Perceived risk can be grouped into six main categories of risk, namely, functional, physical, financial, time, psychological, and social risk. Overall risk can thus include any of the above-mentioned six types of risk, and it can be concluded

that perceived risk is a multi-dimensional construct. It was Roselius (1971) who first identified time risk as a sixth type of perceived risk. Schiffman and Kanuk (2004) have identified six types of perceived risk, namely, financial, functional, social, psychological, physical, and time risk.

- *Functional risk*, also referred to as *performance risk*, is defined as the uncertainty and the consequence of a product not functioning at some expected level (Shimp and Bearden, 1982, Horton 1976). Product performance risk may result from a poor product choice owing to the shopper's inability to accurately judge the quality of the product.

- *Physical risk* refers to the probability that a product purchased may result in personal injury (Chen and He, 2003). Schiffman and Kanuk, (2004) define physical risk as the risk to self and others that the product may pose. Physical risk has also been defined as the potential threat to an individual's safety, physical health, and well-being (Lu, Hsu, and Hsu, 2005).

- *Financial risk* is defined as the probability of monetary loss associated with buying a product (Horton, 1976). Jacoby and Kaplan (1972) define financial risk as the chance that one will lose money from the trial of an unfamiliar brand. Financial risk is also defined as the probability that the product will not be worth the financial price (Schiffman and Kanuk, 2004) and would have been available more cheaply somewhere else (Lu et al., 2005). Furthermore, financial risk involves the uncertainty of not receiving the product at all, even after paying for it (Biswas and Biswas, 2004), as well as the possibility that one's credit-card information may be misused (Forsythe and Shi, 2003).

- *Social risk* reflects the disappointment in the individual by friends and family in case of a poor product or service choice (Ueltschy et al., 2004). Social risk is also defined by Peter and Tarpey (1975) and Jacoby and Kaplan (1972) as the likelihood of the purchase resulting in others thinking of the consumer less favourably. Lu et al., (2005), however, describe social risk as being concerned with an individual's ego and the effect that a purchase will have on the opinions of reference groups. The overlap between Schiffman and Kanuk's (2004) definition of psychological risk and Lu et al.'s (2005) definition of social risk should be noted, since both refer to the effect of risk on ego. Ego is an internal state of self-image control (Schiffman and Kanuk, 2004). The viewpoint of Schiffman and Kanuk (2004) is that ego is a definition of psychological risk and was accepted for the purpose of this study.

- *Psychological risk* reflects an individual's disappointment in oneself in case of a poor product or service choice (Ueltschy et al., 2004). Psychological risk is also defined as the chances of the specific purchase being inconsistent with the personal or self-image of the consumer (Chen and He, 2003, Peter and Tarpey, 1975 and Jacoby and Kaplan, 1972).

Schiffman and Kanuk (2004) define psychological risk as the risk that a poor product choice will bruise the consumer's ego. Thus, it can be concluded that psychological risk relates to the consumer's internal and personal assessment of disappointment.

- *Time risk* results when a passage of time reduces the ability of the product to satisfy wants, such as when a product rapidly becomes obsolete (Ross, 1975). Time risk also refers to the probability that a purchase results in loss of time to buy or retain the product (Chen and He, 2003). In more simple terms, time risk refers to the possibility that a purchase will take too long or waste too much time. Furthermore, time risk relates to the time and effort lost in returning or exchanging the product, and any technological problems such as a slow website server (Hassan et al., 2006). Roselius (1971) described this time risk as the time, convenience, and effort wasted in getting a product adjusted, repaired, or replaced.

Overall perceived risk is therefore a function of performance, physical, financial, social, psychological, and time risk and can thus be described as a multi-dimensional construct. Each of these risk types appears to be linked to what Cox describes as the consequence component of perceived risk. These types of risk have been used to measure overall perceived risk in several previous studies (Ueltschy et al., 2004, Pires, Stanton, and Eckford, n.d., Lu et al., 2005, Chen and Dubinsky, 2003, Biswas and Biswas, 2004, Forsythe and Shi, 2003, and Chen and He, 2003).

Findings have suggested that perceived risk is powerful in explaining consumers' behaviour. As stated, consumer behaviour can be considered as an instance of risk-taking, based on the fact that any action of consumers will produce consequences which they cannot anticipate with anything approximating certainty, and at least some of which are likely to be unpleasant (Bauer 1960 as cited in Laroche, Bergeron and Goutaland, 2003). Specifically in emerging markets; if perceived risk is powerful in explaining customer behaviour, consumers' reluctance to purchase online could be a direct result of perceived risk. From the above discussion, the following hypothesis is postulated:

Hypothesis 1: Consumers' willingness to purchase online is dependent on their perception of risk associated with online buying

Explaining human behaviour in all its complexity is a difficult task (Ajzen, 1991). Social psychologists have attempted to influence people's attitudes to elicit corresponding behaviours for decades (Glasman and Albarracín, 2006). In their endeavours to understand consumer behaviour researchers concurred that past behaviour might predict future behaviour. According to Ouellette and Wood (1998) past behavior may contribute to intentions and have direct effects on intentions. Ajzen (1991) stated that intentions to perform behaviours of different kinds can be predicted with high accuracy

from attitudes toward the behavior. Intentions represent consumers' motivation in the sense of their conscious plan or decision to exert effort to enact the behaviour. Intentions and behaviour are held to be strongly related when measured at the same level of specificity in relation to the action, target, context, and time frame (Fishbein and Ajzen, 1975 in Conner and Armitage, 1998).

From the above discussion one can therefore conclude that, if consumers' willingness to purchase online is dependent on their perception of risk associated with online buying; consumers that were reluctant to buy online in the past will be reluctant to buy online in the future. Therefore, the following hypothesis is postulated:

Hypothesis 2: Consumers' intention to purchase online can be predicted by their past online buying behaviour.

4 Research method

Personal interviews were conducted amongst shoppers in an emerging market. Data were collected by fieldworkers who personally interacted with shoppers in various shopping malls to complete questionnaires.

4.1 Research participants

The target population of the study was consumers who had access to the internet and who were located across South Africa. South Africa has been identified as a promising emerging market in Africa (South African Consulate General, 2012). More specifically, the cities of Johannesburg and Tshwane (Pretoria) were chosen as the primary sampling units. Johannesburg and Tshwane were chosen since these cities are known to be the most multi-cultural and industrialised cities in South Africa (Statistics South Africa, 2001). A number of shopping malls in the Johannesburg and Pretoria area were chosen for conducting the research. A list of all the possible malls which permitted the collection of data was drawn up and then the selected shopping malls were chosen by means of the judgement sampling technique. For the purpose of this study, shopping malls expected to be patronised by (relatively) high income consumers (\$800 and higher) were chosen as the secondary sampling units as they were expected to have access to the internet. The sample respondents were finally selected by means of the convenience sampling technique.

The purpose of this study was to assess the impact of perceived risks on online buying behaviour, and not to provide a profile of online consumers. For this reason, no sampling quotas in terms of age or gender were specified. The sample consisted of a total of 200 respondents. In terms of gender, the total sample consisted of 92 (46%) males and 108 (54%) females, with most respondents (32%) being 25 to 34

years old. Only 10% of the respondents were 24 years and younger, and 30.5% were 50 years and older. The total number of respondents (n=200) had access to the internet at work or at home. The number of respondents who had bought a product or service online previously was 48.5% (n=97) of the total sample, and the number of respondents who had not bought a product or service online previously was 51.5% (n=103). Of those respondents who had purchased a product or service online before, 51 were female and 46 were male. Half of the respondents indicated that they had an intention to purchase online.

4.2 Measuring instruments

A questionnaire consisting of various sections was developed. In section A demographic information of respondents was collected; in section B previous online purchasing experience was gauged. Section C was designed to provide an indication on respondents' perception of perceived risks. It contained 26 items to measure respondents' perception of risks associated with online buying. A five-point Likert-type response scale, which ranged from strongly disagree (1) to strongly agree (5), was used. Careful attention was given to the layout of the questionnaire, to control for any order bias. The questionnaire was pilot-tested on two different occasions among a total of 55 respondents and revised where required.

4.3 Research procedure

The primary data collected in this study were collected over a period of two weeks, during weekdays and on weekends. The questionnaires were completed at seven different shopping malls in Johannesburg and Tshwane that allowed survey research. Fieldworkers approached consumers walking in the mall, and requested a few minutes of their time to conduct an interview. The questionnaire took six to eight minutes to complete. After the collection of data, 20% of the completed questionnaires were back-checked as a means of quality control.

5 Results

5.1 Dimensionality analysis

The construct validity of the questionnaire was assessed using Exploratory Factor Analysis (EFA). Principal-Axis Factoring, using Direct Oblim rotation was used. Factors that had eigenvalues >1 were considered to be indicative of the number of meaningful factors. An item was selected if it had a loading of ≥ 0.35 on the appropriate factor and was deemed to cross-load if the loadings differed by ≤ 0.25 . Items that did not comply with the inclusion criteria were deleted. The EFA was repeated until no

‘problematic’ items remained on any factor and a ‘clean’ factor structure was obtained. Internal consistency was assessed by means of Cronbach Alpha coefficients.

5.2 Perceived risk

The KMO (Kaiser-Meyer-Olkin) measure of sampling adequacy for this EFA was .884, and Bartlett’s test of sphericity was significant ($p < 0.000$). The closer the KMO score is to 1.00, the more appropriate the data are, and where the significance level is < 0.05 , the data are appropriate for being subjected to an exploratory factor analysis. Based on these two indices it was concluded that the data were appropriately scaled for factor analysis.

Considering the inclusion criteria, two items that measured financial risk, and two items measuring time risk were removed after the first round. After the second round, one item measuring physical risk, and the remaining two items that measured financial risk were removed. In the third round one item measuring physical risk was also removed. The fourth round of EFA was accepted as the final factor ‘clean’ structure. All the remaining items allocated to the subscales loaded satisfactory. After studying the items it was decided to label the factors: Personal risk (i.e. the remaining items of physical risk loaded with psychological risk), Social risk and Performance risk (i.e. the remaining items of time risk loaded with performance risk). The financial risk dimension had thus fallen away, and the two items that measured

time risk were thus deleted (as depicted in Table 1). The Cronbach Alpha co-efficients for the EFA derived scale were found to be satisfactory. They were calculated as follows: performance risk (=0.882), social risk (=0.884) and personal risk (=0.851).

5.3 Impact of perceived risk on online buying behaviour

Direct logistic regression was performed to assess the impact of perceived risk on online buying behaviour. The model contained three independent variables (Personal risk, Social risk and Performance risk). The full model containing all predictors was statistically significant ($3, N=200$) = 31.304, thereby rejecting the null hypothesis ($p < 0.000$). By rejecting the null hypothesis one can conclude that the model was able to distinguish between respondents who reported and did not report that they have not purchased online before. The model as a whole explained between 14.5% (Cox and Snell R square) and 19.3% (Nagelkerke R squared) of the variance in no online purchases, and correctly classified 65.5% of cases. As shown in Table 2, only one of the independent variables made a unique statistically significant contribution to the model, namely Performance risk. The variable recorded an odds ratio of 2.096; which indicates that respondents that experienced performance risk were twice as likely not to purchase online, than someone that would purchase online.

Table 1. Exploratory factor analysis results (risk types)

	Personal	Performance	Social
PSYCH2	0.862	-0.038	-0.052
PSYCH4	0.661	-0.020	-0.058
PSYCH3	0.640	0.013	-0.208
PSYCH1	0.604	-0.049	-0.271
PHYS4	0.597	0.033	-0.114
PHYS2	0.498	0.136	0.010
PERF5	-0.099	0.764	-0.074
PERF2	-0.010	0.764	-0.045
PERF1	-0.063	0.743	-0.049
PERF4	-0.166	0.728	-0.171
TIME1	0.133	0.709	0.018
PERF3	0.012	0.688	0.027
TIME2	0.244	0.602	0.150
TIME3	0.209	0.489	0.149
SOC1	0.041	0.064	-0.850
SOC2	0.134	0.086	-0.791
SOC3	0.260	0.021	-0.671
SOC4	0.240	-0.020	-0.464
Cronbach alpha	0.851	0.882	0.884

Table 2. Logistic regression predicting likelihood of buying online

	B	S.E.	Wald	df	p	Odds ratio	95% C.I. for odds ratio	
							Lower	Upper
Personal risk	0.141	0.250	0.319	1	0.572	1.152	0.705	1.882
Performance risk	0.740	0.180	16.849	1	0.000	2.096	1.472	2.985
Social risk	0.263	0.216	1.484	1	0.223	1.301	0.852	1.988
Constant	-2.937	0.604	23.686	1	0.000	0.053		

5.4 Impact of past online buying behaviour on intention to purchase online

Simple linear regression was performed to assess whether past online buying behaviour would predict future online behaviour. Future online buying behaviour was assessed by measuring intention to purchase on a five point scale (Cronbach Alpha=0.84). Preliminary analyses were conducted to

ensure no violation of the assumptions of normality, linearity, multicollinearity and homoscedasticity. The total variance explained by the model as a whole was 6.1%, $F(1,198)=13.823$, $p<0.05$. In the model "Bought online" was statistically significant ($\beta = 0.255$, $p<0.05$); therefore 6% of future online buying behaviour can be explained by past online buying behaviour.

Table 3. Simple linear regression predicting future buying behaviour

Predictor	Model Summary		Anova		Coefficients		
	R	R ²	Adjusted R ²	F (df)	B	Beta	t
Dependant variable: Intention to buy online							
	0.225	0.065	0.061	13.823* (1)			
Constant					3.959		37.722*
Bought online					0.544	0.255	3.718*

6 Discussion

The empirical results of this study revealed that the respondents' perceived three types of risks when shopping online, namely, personal risk, social risk and performance risk, as opposed to the expected six types of perceived risks. It is not certain why the respondents viewed fewer risks, or viewed the risks as overlapping. It is suggested that perhaps a reason for this "downsizing" in perceived risk is due to a current global and local consumer behaviour trend.

The above suggestion for the simplification of perceived risk could possibly be explained in terms of the theory of heuristics. It is already known that perceived risk has an influence on a consumer's decision-making (Schiffman and Kanuk, 2004). It has been suggested that consumers make use of judgemental heuristics as a means of simplifying the decision process (Jordan and Kaas, 2002). Judgemental heuristics are shortened, often by sub-optimal information processing strategies, so-called "mental shortcuts" which are used systematically, but often unconsciously, to simplify decision-making (Jordan and Kaas, 2002). It is therefore suggested that in this study, it is possible that owing to busy lifestyles of the respondents, the respondents took "mental shortcuts" when assessing the perceived risks

associated with purchasing online. Thus, the perceived risks were simplified in their minds, from six types of risk to three.

The empirical results of this study also revealed that consumers' reluctance to shop online could be attributed to perceived risk. Anything new involves risk, or some likelihood that actual results will differ from expectations. The results revealed that the respondents do not shop online because they experience personal, performance as well as social risk with regard to online buying. In fact, the results showed that consumers who specifically experienced performance risk were twice as likely not to purchase online, than someone that would purchase online. A key factor that characterises emerging markets is the low income levels of consumers (Dawar and Chattopadhyay, 2002). It would seem that as consumers in emerging markets have lower levels of income; their perceived risk might possibly be higher as they have more to lose in circumstances that are unfamiliar. The results revealed that consumers that were reluctant to purchase online in the past will also be reluctant to purchase online in the future. In other words, respondents' perception of risk associated with online purchases not only explained their reluctance to purchase online in the past, but also explains their reluctance to purchase online in the future.

7 Conclusion

Consumers tend to be fairly thoughtful decision makers, and therefore tend to avoid risk. In order for e-commerce to live up to its full potential, online retailers need to understand that consumers perceive online purchasing as something of a threat, as was revealed in this study. In spite of the many retail opportunities the Internet offers, growth of online purchasing will remain slow in emerging markets if marketers do not succeed to change the perception of risks associated with online purchasing. Online commerce in emerging markets will only thrive if marketers manage to expand consumer confidence and acceptance with regards to online purchasing. This conclusion is supported by Dawar and Chattopadhyay (2002) who states that marketers should develop alternative marketing programs for emerging markets, specifically in endeavours to persuade consumers to buy online.

In this study consumers' online buying behaviour, with specific focus on the perceived risks consumers associate with online shopping were assessed. Specifically, the impact of perceived risk on online buying behaviour, and the impact of past online buying behaviour on future online buying behaviour were assessed. The results of the study revealed that personal, performance and social risk have an impact on online buying behaviour, and that past online buying behaviour impacted on future online buying behaviour. One can conclude that changing customers' perceptions about perceived risks associated with online buying, and instilling confidence and acceptance about online commerce amongst consumers remain a challenge to marketers.

References

1. ACNielsen. 2005. *Global consumer attitudes towards online shopping*. [Online] Available: http://www2.acnielsen.com/reports/documents/2005_cc_onlineshopping.pdf [April 2008].
2. Ajzen, I. 1991. The theory of planned behaviour. *Organisational Behaviour and Human Processes*, 50: 179-211.
3. Bagozzi, R.P. 1975. Marketing as exchange. *Journal of Marketing*, 39(4): 32-39.
4. Bagozzi, R.P. 1974. Marketing as an organized behaviour system of exchange. *Journal of Marketing*, 38(4): 77-81.
5. Bianchi, C. and Andrews, L. 2012. Risk, trust, and consumer online purchasing behaviour: a Chilean perspective. *International Marketing Review*, 9(3): 253-276.
6. Boulakias, M., Papagiannidis, S. and Fox, H. 2008. E-consumer behaviour: past, present and future trajectories of an evolving retail revolution. *International Journal of E-Business Research*, 4(3): 64-76.
7. Burns, T. 1973. A Structural Theory of Social Exchange. *Acta Sociologica*, 16(3): 188-208.
8. Chen, Z. and Dubinsky, A.J. 2003. A Conceptual Model of Perceived Customer Value in E-Commerce: A Preliminary Investigation. *Psychology and Marketing*, 20(4): 323-347.
9. Conner, M. and Armitage, C.J. 1998. Extending the theory of planned behaviour: A review and avenues for future research. *Journal of Applied Social Psychology*, 28(15): 1429-1464.
10. Cox, D.F. 1967. *Risk Taking and Information Handling in Consumer Behaviour*. Boston: Harvard University Press.
11. Cox, D.F. "Risk Handling in Consumer Behaviour – An Intensive Study of Two Cases", in Cox, D.F., *Risk Taking and Information Handling in Consumer Behaviour*, Boston: Harvard University Press, 1967, 38-41.
12. Cox, D.F. 1961. "Clues for Advertising Strategists", in Cox, D.F., *Risk Taking and Information Handling in Consumer Behaviour*, Boston: Harvard University Press, 1967, 112-151.
13. Cox, D.F., and Rich, S.U. 1964. Perceived Risk and Consumer Decision Making – The Case of Telephone Shopping. *Journal of Marketing Research*, 1: 32-39.
14. Cunningham, L.F., Gerlach, J.H., Harper, M.D., and Young, C.E. 2005. Perceived Risk and the Consumer buying process: Internet airline reservations. *International Journal of Service Industry Management*, 16(4): 357-372.
15. Dahlström, E. 1966. Exchange, influence and power. *Acta Sociologica*, 9(3/4): 237-284.
16. Dawar, N. and Chattopadhyay, A. 2002. Rethinking marketing programs for emerging markets. *Long Range Planning*, 35: 457-474.
17. Dowling, G. R., and Staelin, R. 1994. A Model of Perceived Risk and Intended Risk-handling Activity. *Journal of Consumer Research*, 21(June): 119-134.
18. Drennan, J., Sullivan Mort, G. and Previte, J. 2006. Privacy, risk perception, and expert online behaviour: an exploratory study of household end-users. *Journal of Organisational and End User Computing*, 18(1): 1-21.
19. Emerson, R.M. 1976. Social exchange theory. *Annual review of Sociology*, 2: 335-362.
20. Forsythe, S.M., and Shi, B. 2003. Consumer patronage and risk perceptions in Internet shopping. *Journal of Business Research*, 56: 867-875.
21. Garbarino, E., and Strahilevitz, M. 2004. Gender differences in the perceived risk of buying online and the effects of receiving a site recommendation. *Journal of Business Research*, 57: 768-775.
22. Glasman, L.R. and Albarracín, D. 2006. Forming attitudes that predict future behaviour: A meta-analysis of attitude-behaviour relation. *Psychological Bulletin*, 132(5): 778-822.
23. Ha, H. and Coghill, K. 2008. Online shoppers in Australia: dealing with problems. *International Journal of Consumer Studies*, 32(1): 5-17.
24. Hannah, B. and Lybecker, K.M. 2010. Determinants of Recent Online Purchasing and the Percentage of Income Spent Online. *International Business Research*, 3(4): 60-71.
25. Holmes, T. 2014. *Big money in hunt for SA e-retail riches: Online shopping is increasing rapidly in South Africa, but financiers need deep pockets* [Online]. Available: <http://www.techcentral.co.za/big-money-in-hunt-for-sa-e-retail-riches/49212/> [2014, July 1].
26. Holton, G.A. 2004. Defining Risk. *Financial Analysis Journal*, 60(6): 19-25.

27. Homans, G.C. 1958. Social Behavior as Exchange. *The American Journal of Sociology*, 63(6): 597-606.
28. Jarvelainen, J., and Puhakainen, J. 2004. Distrust of One's Own Web Skills: A Reason for Offline Booking after Online Information Search. *Electronic Markets*, 14 (4): 333-343.
29. Kuhlmeier, D. and Knight, G. 2005. Antecedents to internet-based purchasing: a multinational study. *International Marketing Review*, 22 (4): 460-73.
30. Kelman, I. 2003. Defining Risk. *FloodRiskNet Newsletter*, 2: 6-8.
31. Li, N., and Zhang, P. 2002. Consumer Online Shopping Attitudes and Behaviour: An Assessment of Research. Eighth America's Conference on Information Systems, Syracuse University.
32. Liao, C., Lin, H-N. and Liu, Y-P. 2010. Predicting the Use of Pirated Software: A Contingency Model Integrating Perceived Risk with the Theory of Planned Behavior. *Journal of Business Ethics*, 91(2): 237-252.
33. Lin, C.H., and Yu, S.F. 2006. Consumer Adoption of the Internet as Channel: The Influence of Driving and Inhibiting Factors. *The Journal of American Academy of Business*, 9(2): 112-117.
34. Lu, H.P., Hsu, C.L., and Hsu, H.Y. 2005. An empirical study of the effect of perceived risk upon intention to use online applications. *Information Management and Computer Security*, 13(2): 106-120.
35. McCole, P., Ramsey, E. and Williams, J. 2010. Trust considerations on attitudes towards online purchasing: the moderating effect of privacy and security concerns. *Journal of Business Research*, 63(9/10): 1018-24.
36. Mckinsey Africa Consumer Insights Center. 2012. *Rise of the African consumer*. [Online]. Available: http://www.google.co.za/url?sa=t&rct=j&q=&esrc=s&source=web&cd=3&cad=rja&uact=8&ved=0CCQQFjAC&url=http%3A%2F%2Fwww.mckinsey.com%2F%2Fmedia%2Fmckinsey%2520offices%2Fsouth%2520africa%2Fpdfs%2Frise_of_the_african_consumer-mckinsey_africa_consumer_insights_center_report.asx&ei=ld8GVI-MGYib0QWr_oDQCg&usg=AFQjCNHJbduco9nysOFL2DLqYVZNpm5tDQ&bvm=bv.74115972,d.ZWU [2014, August 30].
37. Miniwatts. 2012. *Miniwatts Marketing Group: Internet users in the world distribution by world regions - 2012* [Online]. Available: <http://www.internetworldstats.com/stats.htm> [2014, July 1].
38. Mitchell, V.W. 1999. Consumer Perceived Risk: Conceptualisations and models. *European Journal of Marketing*, 33(1/2): 163-195.
39. Nicholson, N. 1998. How hardwired is human behaviour? *Harvard Business Review*, 76(4):134-148.
40. Oullette, J.A., and Wood, W. 1998. Habit and Intention in everyday life: The multiple processes by which past behaviour predicts future behaviour. *Psy Association*, 124 (1): 54-74.
41. Prabhaker, P.R. 2000. Who owns the online consumer? *Journal of Consumer Marketing*, 17(2): 158-171.
42. PwC. 2013. *Achieving Total Retail Consumer expectations driving the next retail business model* [Online]. Available: http://www.pwc.com/en_GX/gx/retail-consumer/assets/achieving-total-retail.pdf [2014, July, 1].
43. SAARF *vide* The South African Advertising Research Foundation.
44. Sayers, P.B., Gouldby, B.P., Simm, J.D., Meadowcroft, I., and Hall, J. 2002. Risk, Performance and Uncertainty in Flood and Coastal Defense : A Review. *R&D Technical Report FD2302/TR*. London: Crown Copyright.
45. Smith, A. 2008. *The invisible hand*. Reprinted from *The Wealth of Nations*. 1776. London: Penquin Books.
46. South African Consulate General. 2012. *Why invest in South Africa?* [Online]. Available: <http://www.southafrica-newyork.net/consulate/why%20invest%20in%20south%20africa.html> [2014, August 30].
47. Swinyard, W.R., and Smith, S.M. 2003. Why People (Don't) Shop Online: A Lifestyle Study of the Internet Consumer. *Psychology and Marketing*, 20(7): 567-597.
48. Tan, S.J. 1999. Strategies for reducing consumers' risk aversion in Internet Shopping. *Journal of consumer marketing*, 16 (2): 163-180.
49. The South African Advertising Research Foundation. 2013. Release of Saarf Amps Jan-Dec 2012 data, presentation held at UCT GSB, Cape Town, 10 April 2013.
50. The South African Advertising Research Foundation. 2014. Amps Jan-Dec 2013 [Online]. Available: <http://saarf.co.za/AMPS/presentations-amps.asp> [2014, July 1].
51. Uelstschy, B., Krampf, R.F., and Yannopoulos, P. 2004. A Cross-National Study of Perceived Consumer Risk Towards Online (Internet) Purchasing. *The Multinational Business Review*, 12(2): 59-82.