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**THE RELATIONSHIP BETWEEN REGULATORY FOCUS AND ONLINE
SHOPPING – PERCEIVED RISK, AFFECT, AND CONSUMERS’ RESPONSE TO
ONLINE MARKETING**

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ABSTRACT

Regulatory Focus Theory (RTF) has demonstrated that individuals can be distinguished on the basis of two independent structures of strategic inclination and orientation in the pursuit of goals: promotion focus – which emphasises the presence of positive outcomes while minimising errors of omission, versus prevention focus – which favours the absence of negative outcomes and minimising errors of commission. Yet no research, thus far, has explicitly considered the potential link between consumers' regulatory focus (RF), perceived risk, affect, and their response to online marketing (ROM) in the various dimensions of online shopping (OS). This paper fills this gap. By linking regulatory focus with online consumer shopping behaviour we empirically test a number of hypotheses to predict how consumers with different foci perceive risk on the Internet, the consequence of this perception on their affect, and their overall response behaviour to online marketing. Our findings provide confirmatory evidence that RF is a powerful predictor of behaviour in OS.

Keywords: Internet marketing, online shopping, perceived risk, regulatory focus, RFT, response to online marketing, e-commerce.

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INTRODUCTION

The study of online consumer behaviour has received significant attention in recent times, since organisations discovered that they could reach markets in innovative and unprecedented ways. The growth of the Internet as a consumer medium continues to outpace the level of research effort needed to fully understand its characteristics (Jayawardhena et al., 2007). As a result many firms are still unclear about what factors shape consumers' behaviour online (Constantinides, 2004). Initial research has centred, primarily, on contributions emanating from generic theories of innovation acceptance and diffusion such as Davis et al.'s (1989) Technology Acceptance Model, Rogers' (1995) Innovation Diffusion Theory and the Unified Theory of Acceptance and Use of Technology (UTAUT) (Venkatesh et al., 2003). For applications of these theories in online shopping (OS) behaviour see examples in Chen et al. (2001), Ha and Stoel (2008). While these theories, predominantly, take a technology adoption approach, their use of consumer-centred psychological variables has acted to increase our understanding of the dynamic nature of consumers in e-business scenarios. Especially with respect to adoption and usage motivation, we now know that psychological constructs like perception and attitude significantly influence why and how consumers shop online, as well as their evaluation of OS (Lu et al., 2011; Vijayasarathy, 2004). We also know that the effects of cognitive, conative and affective features differ by consumer (Dholakia et al., 2006; Dennis et al., 2009; Wolfinbarger and Gilly, 2001), as a result of which OS differences can be examined from the perspective of psychological trait theories (Jayawardhena, 2004) and thus provide the basis for establishing consumer typologies in the online domain (Carla and Carlos, 2006). Other bases classifying online shoppers have been geodemographics (Sen et al., 1998), medium familiarity (Modahl, 2000) and environmental cognition (Brown et al., 2003; Rohm and Swaminathan, 2004).

While the level of incipient research thus far is appreciable, with respect to psycho-cognitive and personality trait influences in OS, there are, as yet, many important variables that have not been clearly assessed (Bosnjak et al., 2007; Jayawardhena et al., 2007), especially within a theoretical context (Forsythe and Shi, 2003). As a result, Taylor and Strutton (2010) have recently re-echoed the call for a focus shift from Web site to Web consumer.

Indeed, the number of studies utilising personality and trait constructs in the study of OS has witnessed an increase in recent times. For example, Bosnjak et al. (2007) employed the 'Big Five' personality variables, namely neuroticism, conscientiousness, extraversion, openness, and agreeableness (Mowen, 2000) and trait hierarchies (elemental, compound, situational, and surface traits) to evaluate online purchase intentions. They found that the relationship between the constructs of neuroticism, openness to experiences, and agreeableness had small, but significant influences on the willingness to buy online. Using structural equation modelling as their analysis tool, Tsao and Chang (2010) were not only able to show that personality traits are influential in how consumers shop online, but were also able to demonstrate that neuroticism, extraversion and openness to experience were positively related to hedonic shopping motivations while agreeableness was positively related to utilitarian motivations. Finally, Sahney et al. (2010) proposed the constructs of extroversion/introversion, risk-taking, pleasure-seeking and technology-savvy as potential personality and trait influencers of online buying intention and behaviour. They found that these constructs significantly predicted consumers e-ticket reservation behaviour in an Indian context.

It is therefore surprising that despite a well-established behavioural prediction trait in extant literature, one factor that has hardly been examined for its effect on online consumer behaviour is a consumer's regulatory focus (Higgins et al., 1997). The surprise arises because

as early as 1997, Higgins identified the effects of regulatory focus (RF) as an underlying self-regulatory trait on personality and behaviour and proposed the Regulatory Focus Theory (RFT), with subsequent research (Brockner et al., 2004; Bryant and Dunford, 2008), demonstrating that individuals can be distinguished according to two independent structures of strategic inclination and orientation in the pursuit of goals: the promotion focus – which emphasises the presence of positive outcomes while minimising errors of omission, versus the prevention focus – which favours the absence of negative outcomes and the minimising of errors of commission (Haws et al., 2010). Previously in consumer behaviour research, RF has been found to have far reaching consequences on perceived risk and related aspects of cognitive behaviour such as decision-making and evaluation (Forster et al., 2003; Zhou and Pham, 2004), repurchase decisions (Louro et al., 2005) and response to persuasion and advertising (Chernev, 2004; Pham and Avnet, 2004). These factors may also be important in consumers' participation in online shopping (OS).

Consider perceived risk. Current research is almost unanimous that this factor has far reaching consequences on consumers' willingness to adopt and use the Internet for shopping transactions, as well as their actual usage of this medium (Chang et al., 2007). Yet no research, at present, has explicitly considered the potential antecedent relationship between regulatory focus (RF) and perceived risk in the three key dimensions of online shopping namely, adoption motivation, actual usage behaviour and attribute evaluation. Similarly, although existing research suggests that affect might be an important factor in online shopping (see Im et al., 2010), the relationship previously established between affect and regulatory focus (for example, Malmivuori, 2006), has not been specifically clarified in the context of online consumer behaviour.

Therefore, our knowledge of the OS consumer is limited in these respects and this paper addresses two important questions. Firstly, to what extent, if at all, does a consumer's RF affect their use of Internet shopping in the specific behaviour of their response to online marketing? Secondly, given that both perceived risk and affect responses have been acknowledged as having an effect on Internet shopping outcomes, to what extent are perceived risk and affect in online shopping influenced by a consumer's regulatory focus? Those studies that have introduced the concept of RF to online shopping and gaming, including its potential influence on perceived risk (van Noort, 2009; van Noort et al., 2008; Zhang et al., 2010), have taken the view of RF as a situational variable, whereas the current research is particularly interested in the alternative conceptualisation of RF as an enduring personality trait (Ha and Stoel, 2008). Furthermore, previous studies addressed the dimension of adoption motivation but did not fully evaluate the holistic effect of RF on online shopping by capturing other key conative and affective dimensions (for example actual usage behaviour and consumers' perceptual evaluation of OS attributes). To our knowledge, no research presently integrates RF as the basis upon which perceived risk, affect, and ultimately, response to marketing, may be evaluated in the OS domain.

To address this gap, this study utilises the regulatory focus of online shoppers to propose specific hypotheses that consumers' use of the Internet for shopping, including their motivation, usage behaviour and evaluation, is influenced by their regulatory focus trait. On the basis of these hypotheses, we then assess the influence of regulatory focus on specific variables within the online shopping medium. These variables, frequently identified in the literature as having important influences on online shopping outcomes, are perceived risk, affect, and response to online marketing. Specifically, we assess how perceived risk and affect in online shopping are affected by the consumer's RF, and as a critical outcome, how these

effects in turn impact upon the consumer's response toward online marketing. We begin with a review of relevant literature and in turn proceed to derive a number of propositions arising from findings in extant literature, which help set the stage for the discussion of the empirical study and its findings.

In general, knowing why and how different consumer segments use the Internet and which attributes influence them the most may provide researchers and practitioners with valuable insights into what factors inform consumer choices online. Consistent with this reasoning, this research is relevant and timely as it provides a new perspective for understanding differences in consumers' online risk perception, avoidance, loyalty and dependency (Tsai and Huang, 2009), their need for control (Wolfenbarger and Gilly, 2001), their use of third-party reassurances (Williams and Grimes, 2010), and their affect (i.e. feelings and emotions) toward the medium (Bosnjak et al., 2007; Isen et al., 1991). Furthermore, as an emergent field, the study of Internet and consumer behaviour has benefited from the utilisation of concepts and frameworks from traditional psychology and other marketing domains (Jayawardhena et al., 2007). This study continues this tradition and extends knowledge in this area by integrating regulatory focus as an important psychological concept into the representation of consumers' online shopping.

1. RESEARCH PROPOSITIONS

a) Regulatory Focus

Higgins' (1997) theory of regulatory focus states that different psychological profiles exist in individuals which have a direct effect on how they approach goals and objectives: some individuals have a higher need for attainment of positive outcomes, thereby directing their attention to the maximisation of gains; other people have a higher need for protection against the occurrence of unpleasant states and the avoidance of negative consequences, thereby

directing their attention to the minimisation of losses. To illustrate, an individual who is promotion focused would, according to RFT, be more receptive to messages that are positively framed (gains/non-gains) as against those that are negatively framed (losses/non-losses), whereas an individual that is prevention focused would be more affected by messages that are negatively framed than to those that are positively framed; this effect has been observed most prominently in advertising and extends to consumer behaviour situations where a promotion focused person's decision to purchase would be highly influenced by hedonic attributes of the object (product or service) as opposed to a prevention focused person's predominant consideration of the performance and reliability (i.e. utilitarian attributes) of the object (Werth and Forster, 2007).

RF can represent an enduring personality feature - the dispositional or chronic view of RF (Higgins et al., 1997). It can also be determined by the situation, whereby it may be influenced by the environment, the decision making process or the magnitude of the consequences of the decision to be made (Forster et al., 1998). However, while it is an assumption of RFT that all individuals can be classified as chronically belonging to one focus or the other, it is not clear to what extent situationally induced RF affects pre-existing dispositions: does the situation simply reinforce the chronic trait or are situational influences strong enough to completely moderate the enduring trait focus? For example does online shopping, by its acknowledged risky nature (see van Noort, 2009), induce a prevention focus irrespective of shoppers natural predispositions? Or does online shopping, due to its very nature, reinforce promotion focus or prevention focus depending on the consumer's chronic disposition? In this research, we do not attempt to resolve these conceptions as it would be beyond our scope to do so, but instead we are primarily interested in RF effects of the chronic type.

Nevertheless, whether chronic or situationally induced, the RF orientation of an individual at any one time has consequences for key behavioural determinants like information processing, motivation and decision making (Werth and Foerster, 2007), and this influences what aspects of a message or presentation an individual specifically seeks out or pays attention to and retains.

Various studies showing the effects of “regulatory fit”, that is a match between the individual’s regulatory state and the message frame and/or environmental heuristics, on product evaluation and motivation have been conducted. In both Aaker and Lee (2001) and Evans and Petty (2003) it was found that people with a chronic promotion orientation are more strongly persuaded by promotion-oriented information, while people with a prevention orientation were more strongly convinced by prevention-oriented information. Werth and Foerster (2007) and Wang and Lee (2006) also illustrated these effects on product valuation and purchasing decisions, while Camacho et al. (2003) found that chronic promotion individuals were more likely to be willing to pay a higher price for an experimental product than were prevention focused individuals.

Finally, in addition to the above findings some researchers suggest that the effects of RF on behaviour and motivation are moderated by experience. This is captured in the concept of regulatory focus pride (Louro et al., 2005) which describes the situation where outcomes arising from behaviours that fit one’s regulatory focus are reinforced and repeated (Venkatesh, 2003). However, Miyazaki and Fernandez (2001) and Van Noort et al. (2008) found that level of experience did not materially alter the relationship between regulatory focus, perceived risk and overall OS behaviour. The possibility of motive switching and mode (see Choi and Rifon, 2002), as well as psychological reversal (Walters et al., 1982) must also be considered. These factors can potentially create inconsistency in behaviour

relative to an individual's RF, thereby moderating the online shopping motive-versus-outcome hypothesis. However, one shortcoming is that their influence on RF is not fully understood. Additionally, the model assumes that individuals' use of online shopping is out of choice but not necessity, and that, as mentioned earlier, situational or circumstantial effects do not significantly impact on the chronic manifestation of RF. Nevertheless, our point here is that inconsistency in OS behaviour arising from these assumptions is likely to only represent temporal incongruity (see Hendrix and Martin, Jr., 1981) and, in the general context of OS, the discriminating influence of RFT should hold true.

b) Regulatory Focus and Internet Perceived Risk

To empirically test the different relationships between RF and online shopping we examine the specific relationship between RF and perceived risk and its consequences on consumers' behaviour online. In order to assess behaviour online, we utilise the surrogate variable of consumer response to online marketing, based on its relative importance to marketing, as discussed further below. Perceived risk on the other hand is an interesting surrogate for the characteristics-evaluation feature for two important reasons: (i) even though its effects on consumer behaviour online are as yet poorly researched (Forsyth and Shi, 2003; Tan, 1999), it has been frequently identified as principal in shoppers' reluctance to fully participate in OS (Glover and Benbasat, 2010; Kiang et al., 2000; Tan, 1999); and further, (ii) existing research indicates that consumers perceive a contextually higher level of risk when engaged in Internet shopping than when shopping in other channels (Kim et al., 2009; Poon, 2008).

Risk has been defined as the extent to which uncertainty abounds about whether potentially significant and/or disappointing outcomes of decisions will be realised (Sitkin and Pablo, 1992). Following from this convention, Sitkin and Pablo (1992) define perceived risk as the assessment of the risk inherent in a situation. Although grounded in the field of traditional

psychology, the perceived risk concept has been defined extensively in consumer behaviour (for example as far back as Cox and Rich, 1964).

In addition, the nature of perceived risk in consumer behaviour has been reiterated by Akaah and Korgaonkar (1988) who examined it in mail order shopping, and Forsyth and Shi (2003) who studied its effect in the context of Internet shopping. These studies generally confirmed earlier findings that perceived risk is related to other consumer behaviour concepts, for example cognitive style (Cox, 1967b) and self-esteem (Schaninger, 1976). Jacoby and Kaplan (1972) identified five categories of risk perceived by consumers as financial, performance, psychological, physical and social, while Roselius (1971) proposed time as an additional category.

According to Mitchell (1998), consumers are constantly faced with completely new experiences upon which a risk assessment will be made. This difficulty in accurately estimating risk means that consumer assessment is usually made on the basis of subjective impressions. This provides an important distinction between objective and subjective risk, specifically because the latter constitutes what is known as perceived risk. Thus any measurement of perceived risk in consumer behaviour must take into account the limitation that it is subjectively construed (Peter and Ryan, 1976). Recognising the similarity of perceived risk to other subjective behavioural constructs that are best accessed via consumers' multi-faceted responses, consumer researchers have increasingly employed the use of multiple indicator items to measure perceived risk (for example Mitchell, 1999; Stone and Gronhaug, 1993). Mitchell (1998) points out that the advantages of this approach include the possibility to test for reliability and validity, and the elimination of the need to brief respondents about what perceived risk means to the researcher.

In general, while home shopping can often involve remote transactions and purchasing characterised by elevated levels of perceived risk (Lumpkin and Dunn, 1990), the Internet as a shopping channel has been shown to particularly raise consumers' levels of perceived risk when contemplating buying decisions (Donthu and Garcia, 1999; Youn and Lee, 2009). This heightened awareness of risk can be in response to concerns about lack of product verification, service reliability, privacy and safety of financial information.

However, research findings about the effects of perceived risk on OS behaviour have been contradictory. Six studies found a negative impact on intention and actual online purchasing behaviour, but three others failed to find any significant effects, warranting the recommendation that online risk perception be further investigated (Chang et al., 2004). While van Noort et al. (2008) and Youn and Lee (2009) provide persuasive evidence of the extent of perceived risk in online shopping and the antecedent influence of the RF trait, the existence of contradictory conclusions warrants further investigation and empirical assessment of these relationships. On the basis of this, we propose to test the impact of perceived risk on online shopping in relation to the consumer's RF. Hence, we propose that:

P1a: Regulatory focus affects the level of perceived risk in online shopping.

Extant research (for example Herzstein et al., 2007) suggests specifically that prevention focused individuals are more likely to perceive elevated levels of risk (for example in purchase of new products) than promotion focused individuals, while Aaker and Lee (2004) showed that prevention and promotion focus responses to perception of risk are also affected by framing factors. However, this assertion remains to be tested and validated in online consumer shopping behaviour and how consumers perceive online shopping attributes like advertising and risk. Hence, in order to empirically test this assertion, we propose that:

P1b: Prevention focused shoppers will perceive a higher risk of shopping online than promotion focused shoppers.

c) Consumer Response to Online Marketing

It has been estimated that Internet marketing in the form of advertising alone will remain the fastest growing marketing medium, with a projected 18 per cent global growth to £37 billion in 2011 (Gill, 2008). Such phenomenal growth may be attributable to the Internet's potential to increase buyers' access to information and choice, as well as retailer opportunities (Varadarajan and Yadav, 2002). For example, this may be why a slowing down of economic activity as evidenced on the UK high street has nonetheless been countered by an increase in retail patronage online, accompanied by increases in marketing and advertising spend (Dennis et al., 2009). Therefore, understanding the mechanisms of online marketing has become a priority to both practitioners and researchers (Kiang et al., 2000), because many stakeholders still do not sufficiently understand the needs and behaviour of the online consumer.

Existing approaches to the evaluation of how consumers respond to online marketing have generally employed traditional tools associated with marketing, and although it has been acknowledged that this approach is appropriate (Kiang et al., 2000), it has also been argued that the Internet represents an idiosyncrasy which effect on consumers and marketing must be uniquely examined (Liang and Lai, 2002). Walsh (2010) states that although the Internet exhibits greater usage and greater usage depth, it has at the same time witnessed more negative attitudes toward advertising and marketing communication in comparison to other media. The reasons for this paradox may range from consumers' utilisation of coping mechanisms toward information overload, to the relatively low cost associated with switching, avoidance and evasive behaviour in Internet shopping.

Previously, research has shown that the quantity of information and choice available to the consumer in the Internet environment can be overwhelming (Shankar et al., 2006), as the Internet is still a relatively new and sometimes disorientating place (Choi and Rifon, 2002). For example, consumers in the virtual environment are constantly presented with a variety of marketing messages, including various forms of advertising (Zeff and Aronson, 1999). The consequence of this is that consumers are forced to be selective in the number of messages upon which to act positively while ignoring or taking evasive action to avoid many others (Choi and Rifon, 2002). In general, we refer to this behaviour as response to online marketing (ROM). Response to online marketing in the context of this study refers to a consumer's action and attention upon encountering an online marketing event, which may take the form of clicking on an advert, visiting a web retailer as a result of an email offer, accepting a cross-selling recommendation and so on. While Walsh (2010) has now demonstrated the relationship between locus of control and ad avoidance behaviour on the Internet, it is as yet not clear what role regulatory focus may play in the same circumstances. Based on this reasoning, we propose that goal orientation associated with the shopper's RF will influence their response to online marketing. Hence:

P2a: Regulatory focus orientation influences a shopper's response to online marketing.

Specifically, promotion focused consumers have been shown to be more adventurous, variety-seeking and risk prone (Friedman and Forster, 2001) On the other hand, prevention focused consumers are known to be biased toward self-control, achievement of predetermined goals and to exhibit distrust behaviour toward online marketing (Kirmani and Zhu, 2007) Therefore, we propose that:

P2b: Promotion focused shoppers are more likely than prevention focused shoppers to exhibit positive response to online marketing.

d) Perceived Risk and consumer ROM

The effects of perceived risk in Internet shopping are particularly insidious on consumer response to marketing stimuli, given that consumers oftentimes adopt extreme and severe risk reduction mechanism, for instance by applying techniques of filtering (Rieh, 2002), minimal usage, avoidance (Kiang et al., 2000) and preventive self-regulation (van Noort, 2009). While it is not possible to entirely eliminate perceived risk because consumers cannot always be certain about the achievement of their purchasing goals (Tan, 1999), it is important that marketers seek to reduce the effects of this factor by understanding how much weight different types of consumers attach to it. However, it has been said that risk perception and risk tolerance differ among individuals according to various characteristics, including those of a socio-psychological nature (Assael, 1992). These perceptual differences are consequential upon the behaviour of individuals (Chang et al., 2004). Therefore, it follows that one way of predicting how consumers feel about and whether they will respond to the online marketing effort is to estimate their level of perceived risk. Furthermore, because we have already illustrated how Internet perceived risk might be related to regulatory focus, we can further suggest that the relationship between regulatory focus and ROM is mediated by perceived risk. Hence we make the following proposals:

P3a: The level of perceived Internet risk is negatively related to a shopper's response to online marketing.

P3b: A shopper's level of perceived Internet risk partially mediates the relationship between regulatory focus and response to online marketing

e) The Role of Affect

The effect of perceived risk on consumers has been shown to relate to their liking or dislike for a product, medium, or overall attribute (Cox and Rich, 1964). Consumers who perceive a high risk in a situation of context or product/service purchase may react emotionally toward the product or service. Because consumer activity on the Internet is associated with elevated levels of risk (see above), consumers' emotions and feelings (affect) toward this medium, and its attributes, may be influenced by the level of the risk they perceive during any purchase activity. In this paper, we conceptualise affect in line with Cohen (1990) as relating to attitude, but encompassing mood, emotion, and feeling. Since risk perception can influence overall affect toward a medium or situation, we propose with respect to OS that:

P4a: The level of perceived Internet risk is related to a shopper's affect toward online marketing.

Since we also know that affect and behaviour are positively related (Isen et al., 1991; Isen et al., 1988; Isen and Means, 1983), we expect this relationship to be evident in the domain of online shopping consumer behaviour, as well. For example, in students' learning of mathematics, Malmivouri (2006) found that pre-task affect in the form of feelings and emotions toward the subject significantly impacted upon the learners' performance. In relation to online shopping behaviour, it is reasonable to expect that consumers' feelings and emotions toward the medium would influence their behaviour, which would include how they respond or react to marketing content. There is support for this assertion in the form of research conclusions reached by Moore and Harris (1996) that affect intensity determined how consumers responded to advertisement content. We can therefore propose the following:

P4b: Affect toward Internet shopping is related to a shopper's ROM.

However, not only does affect directly influence ROM. As a result, it becomes theoretically persuasive to argue that there exists an added consequence in which the relationship between

regulatory focus and ROM is partially mediated by affect. In fact, Friedman and Forster (2001) demonstrated that promotion focused individuals enjoy (that is, like) a degree of risk and perform better in tasks that contain an element of risk.

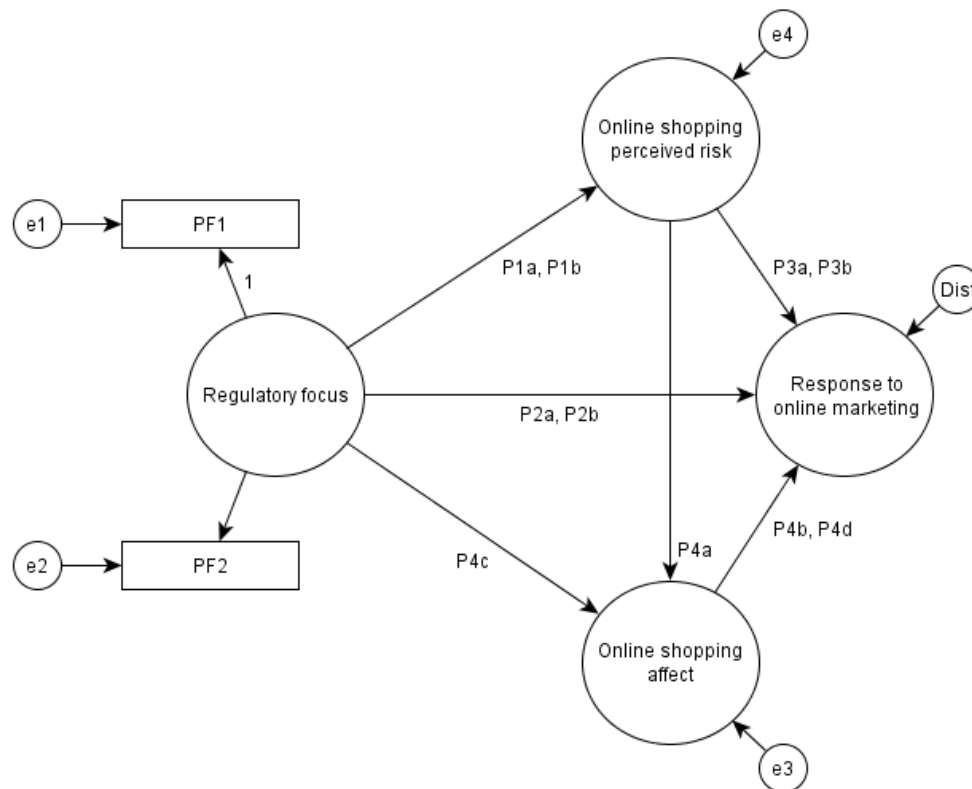
Consequently, we can extend this finding to the Internet shopping scenario and argue that (i) the value a consumer places on various Internet attributes is antecedent to their affect to this shopping medium, and (ii) affect is in turn influenced by the consumer's regulatory focus. This line of thought is logical since we are aware of the relationship between self-regulatory processes and affect (Malmivuori, 2006). We therefore propose that:

P4c: Affect toward online marketing is related to a shopper's regulatory focus; and

P4d: The relationship between regulatory focus and ROM is partially mediated by affect.

Figure 1 illustrates the proposed linkages, and also shows the error terms for the endogenous variables constrained to 1, to enable model identification. The illustration shows that we treated RF as an unobserved construct accounting for the two indicator measures of promotion focus (PF1) and prevention focus (PF2), in which PF1 is the referent indicator (as marked by the constraint, 1). PF1 and PF2 are themselves latent variables measured via a number of indicators. However, for the sake of model comprehension, no indicator variables factors are shown here, and the interested reader is encouraged to contact the authors for detailed model specifications.

Figure 1. Relationship between regulatory focus and response to online marketing, showing the intermediating effects of perceived risk and affect.



Note: error terms are denoted by “e” for predictors and “Dist” for the criterion variable.

2. METHODOLOGY

A sample of 2500 household addresses was selected from the UK population following a multi-stage stratification scheme based on the official 2001 Supergroup classifications (ONS, 2011). The 2001 Supergroup classification is used to group together geographic areas according to key characteristics common to the population in that grouping. These groupings are called clusters, and are derived using census data (see example in appendix ii). Target areas were selected from each supergroup to reflect the collection of geodemographic characteristics across the UK, using an automatic randoming scheme. Household addresses in these areas formed the frame. A letter was addressed to selected householders via surface

mail inviting recipients to complete an online survey. To encourage participation and increase response rates, entry into a £250 prize draw was offered as a reward. 305 useful responses were received via completed online questionnaires from respondents who had used the Internet for shopping within the previous three months. A review of the responses showed no systemic non-response, as a result of which no targeted follow-up was deemed necessary.

Participants provided self reported measures of RF based on a modified form of the Regulatory Focus Questionnaire (see Higgins, 2000, 2002) in which RF statements were framed in promotive and preventive scales. Other items measuring the model constructs are similar to, and modifications of, items developed in previous research (for example Childers et al., 2001; Forsythe et al., 2006) as detailed in appendix ii. These were also checked for face and interpretative validity by a panel of experts and a sample of non-experts. A 5-point Likert scale was considered adequate and suitable for the research design, and was appropriately employed.

3. RESULTS

a) Descriptive Summary

328 responses were received via the online survey system, however due to incomplete and inconsistent data, only 305 responses were utilised for the final analysis, yielding an effective response rate of 18%. This rate is consistent with other studies of a similar nature, for example Som and Lee (2012). Approximately 58% of respondents were female and 42% male. Most respondents had used online shopping for longer than 5 years (44.4%) or between 3 and 5 years (30.3%) and had shopped as recently as within the previous three weeks (53.5%), About 6.3% of respondents stated that they had first used the Internet to shop only within the previous year, and 10.6% that they had not shopped on the Internet for over one month. For a detailed description of demographics, see appendix iii.

b) Preliminary checks and measures

We first checked the validity and internal consistency reliability (ICR) of our measures through an alpha factoring using Promax with Kaiser Normalisation, following from which items with poor loading were culled, consistent with common criteria (example Fornell and Larcker, 1981). Rather than model individual indicator variables, we first used confirmatory factor analysis to relate items to their constructs and then followed a conventional regression-style technique to extract convergent and well-loading components (that is, with $> .40$ extraction - higher than as recommended by Hooper et al., 2008) onto their respective factors, treating the latent variable as though it were directly observed (Arbuckle, 2008). This approach is a modification on the SEM assessment methodology proposed by Skrondal and Laake (2001) and Croon (2002), and has the advantage that it simplifies the estimation of the structural model (Lu et al., 2011). A comparison showed that there was no significant effect or bias on model coefficients as a result of this approach. Indeed, extracting components onto single criterion variables resulted in a slightly more conservative correlation matrix, and Cronbach alpha = .81.

However, we treated the aggregate prevention and promotion scores of RF as two separate second level indicators, constraining the item loading for promotion scale to 1 and estimating prevention focus. The consequence of this is that structurally, we now had a bipolar promotion-prevention scale with points in between (Arbuckle, 2008). Discriminant validity was assessed by comparing the chi-square statistic between a structurally constrained and freely estimated model with the results affirming that each pair of constructs was distinct, since chi-square differences were all significant at $p < .05$ (Bagozzi et al., 1991). Finally, normality of data was assessed. Because we employed structural equation modelling, the important considerations to make were the size of data and whether all exogenous variables

approached normal distribution (Arbuckle, 2008). Our results show that the critical ratio (c.r) for skew on RF and the kurtosis on perceived risk are outside the 1.96 threshold; however these deviations are not a major reason for concern given the sample size (Field, 2005). More significantly, the overall model appeared to be multivariate normal (appendix iv).

c) Model assesment for fit

The model as specified showed good fit ($X^2 = 3.757$, $df = 2$, $p = .153$, $X^2/df < 2$, Standardized RMR = .0233), indicating that the relationships modelled were generally acceptable, and that further assessments were appropriate. Hooper et al. (2008) provide guidance on reporting absolute and incremental fit indices. Accordingly, we reproduce here a summary of the main fit measures (Table 1) which show that the model (i) compares favourably against the null model in terms of goodness of fit for baseline comparison ($\Delta_1 = .986$), (ii) cannot be disconfirmed (PCLOSE > .05) and (iii) demonstrates closeness of fit (RMSEA = .05). Although some parsimony indices only provide partial support for our model (that is, relative to the independence model), we point to the RMSEA which in itself takes account of the number of parameters and therefore corrects for parsimony. On these bases, we accept that the conceptualised model closely fits the data. To provide additional support, we examined nested alternatives to our model and although the results showed better fit parsimony-wise, other important parameters like Chi-Squared became problematic, thereby discouraging a more constrained alternative model; furthermore, some alternatives were not theoretically justified.

d) Model Estimates

The model coefficients and standardised regression estimates are presented in Tables 2 and 3. The estimates are highlighted below in two parts, commencing with a summary of the main effects and concluding with a summary of the mediation effects.

Main Effects

Proposition 1a and 1b – RF versus Perceived OS Risk: the relationship between RF and perceived OS risk is significant at $p = .05$, $r = -.55$. The negative direction means that the further RF moves from prevention to promotion, the lower the perceived OS risk. Therefore both P1a and P1b are supported.

Proposition 2a and 2b RF versus ROM: the relationship between RF and ROM is strongly upheld, given $p \leq .05$ and $r = .82$. The results also show an exact relationship between RF and ROM. Specifically, as RF moves from prevention to promotion focus, response behaviour to online marketing becomes more positive, and vice versa. P2a and P2b are supported.

Proposition 3a – Perceived OS Risk versus ROM: the relationship between perceived OS risk and ROM was not significant ($p = .27$) and was not found to be negatively directed ($r = .12$). On the basis of this result, P3a can be rejected.

Proposition 4a – Perceived OS Risk versus Affect: the relationship between perceived risk and affect toward online marketing was found to be weak ($p = .072$), although in a negative direction as construed ($r = -.15$). While there might exist a negative relationship between perceived risk and affect, on the basis of this result, P4a can be rejected.

INSERT TABLE 1 HERE

Proposition 4b – Affect versus ROM: we found strong support for the relationship between affect and ROM ($p = .006$) and also confirmed that this relationship is indeed positive ($r = .17$). The more positive the consumers' emotions and feelings toward online shopping, the more likely they are to exhibit positive ROM.

Proposition 4c - RF versus Affect: the relationship between RF and affect is supported ($p = .046$) and shows a medium positive effect ($r = .21$). The level of affect toward online marketing differs according to the consumer's RF. Promotion focus consumers are more likely than prevention focus consumers to display positive affect to online marketing.

INSERT TABLE 2 HERE

INSERT TABLE 3 HERE

Multiple R: In sum, the model as fitted can predict approximately 67% of the criterion variable "response to online marketing". The model explains perceived risk by about 30% and explains affect by about 10% (Table 4).

INSERT TABLE 4 HERE

Mediation Effects

To analyse the mediation effects in this research's structural model, it is wise to first draw a distinction between mediation and moderation, in order that the reader might be made clear about the presence and impact of mediation in this model. According to Sauer and Dick (1993), a literature base has developed regarding the difference between mediator and moderator variables, and the conclusions in this body of literature can be applied to structural equation models. For a more thorough development of the distinctions between moderation and mediation, the interested reader can refer to Baron and Kenny (1986) who define a mediator variable as "any variable which accounts for the relationship between the predictor and the criterion" (p. 1176). Therefore, if $Y=f(X)$ and $Z=g(Y)$, but $Z=f(X)$, then Y mediates the effect of variable X on variable Z. On the other hand, they define a moderator as any variable that affects the direction and/or strength of the relationship between an independent and

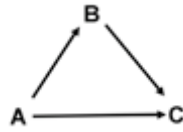
criterion variable. That is, if $Z=f(X)$ and W is a moderator variable, then for different values of W , “the form and/or strength and/or sign of the $Z=f(X)$ relationship may vary depending upon the value of W .” Finally, Baron and Kenny (1986) refer to the situation where a variable may act as both a mediator and a moderator (so called hybrid variables), thereby producing either a “mediated-moderation” or “moderated-mediation” effect.

Although it is possible to statistically evaluate whether a variable is functioning as a mediator, a moderator, or a hybrid, Sauer and Dick (1993) state that the overriding concern should be whether the theory being tested supports a moderator or mediator role for the variable in question. In other words, the theory should be used to define the functional form of the model, as in the case of this paper. Once it has been decided that a mediation effect exists, the verification of this effect in itself is simple and involves checking for a number of conditions. Based on Holmbeck (1997) and McKinnon et al. (2002), the relationships in the example model below (figure 2) show that the effect of A on C is accounted for by B , but B can only be considered a mediator variable if the following conditions are met:

- a) A is significantly associated with C
- b) A is significantly associated with B
- c) B is significantly associated with C (after controlling for A)
- d) the impact of A on C is significantly less after controlling for B

To test these conditions, two models must be specified. The first model should contain no constraints on the parameters, while in the second model, the path between A and C should be constrained to zero. Using chi-squared differences, the fit of the two models can be compared, and if there is no significant difference between the two models, then a mediation effect exists.

Figure 2. A mediation relationship between three variables (source: Holmbeck, 1997).



In line with the above discussion, the research model was subjected to two analyses on the basis of (i) a 0-constraint relationship between RF and ROM, and (ii) a non-constrained relationship between RF and ROM. All other relationships were freely estimated. The results of the chi-square comparison show that the difference between the two models is not significant ($\chi^2=2.88$, $df=2$, $p=.11$). The conclusion is that **P3b** and **P4d** are supported: perceived OS risk and affect jointly mediate the relationship between RF and ROM.

5. DISCUSSION

This paper set out with one clear objective. To illuminate the the relationship between regulatory focus and consumers' online shopping behaviour, based on conceptual derivations from the literature and through specified relationship propositions. In order to achieve this we set out to determine the existence and nature of the relationships amongst regulatory focus, perceived OS risk, affect and response to online marketing.. As such, the base model was discussed, a number of testable propositions were made and a structural equation model was constructed and estimated using survey data.

The results obtained confirm that the likelihood of responding to an online marketing message is positively related to regulatory focus, and also that this likelihood can be predicted by as much as 67% if the other factors in the equation are known and the mediatory effects of perceived risk and affect are included – hence, this provides initial credence to our contention that RF underlies consumer behaviour in the online environment. This is a strong result by

any account, especially because the key predictor of interest to the proposed base classification is regulatory focus, which as expected, turns out to be the main determinant of response to online marketing. In addition, the findings are in accord with our proposition that RF affects general perception of the level of risk associated with shopping online. Knowing a consumers' RF can assist us predict their OS perceived risk by as much as 30%. Affect also can be predicted from knowledge of a shopper's RF, albeit with a lower level of accuracy. This suggests that while promotion focused consumers hold shopping online in greater favour, the gap to prevention focused consumers is not huge, even as the latter clearly perceive a higher risk in this medium. It appears that if consumers consider OS as highly useful, this may reduce the effect that perceived risk has on their likeability of this innovation, irrespective of their RF. This consideration may also help explain why there has been no significant relationship found between perceived risk and affect in OS. Affect, on the other hand, influences response to marketing by a significant ratio, meaning that the more one likes online shopping, the more likely they are to respond to online marketing.

The most unexpected finding was the lack of a significant negative relationship between perceived risk of OS and response to online marketing. While we anticipated that a consumer's risk perception of shopping online will adversely affect their response to online shopping, the present sample does not back this up. This is interesting given the number of previous conclusions that have been reached that perceived risk adversely affects outcomes in OS behaviour. But could it be that some forms of online marketing provide risk relief? For example, while recommendation engines are a form of marketing, consumers who perceive a higher OS risk may come to like and use them frequently, especially where their source is deemed as credible. Similarly, although comparison engines are a form of online marketing, they also provide decision aid utility which may empower the goal-oriented prevention focus

consumer. Perhaps, in this way, we have found a hitherto undocumented role of online marketing as a risk reducing tool. But we also found a significant indirect effect of perceived risk via the affect factor ($r=-.025$, $p=0.041$), suggesting that perceived risk negatively impacts response to marketing only when it impacts on the consumer's overall liking for OS. However, these findings relate to only a single conative factor. It is likely that perceived risk in online shopping affects other behavioural outcomes in ways identified in previous research. Furthermore, the lack of support for our proposition as discussed above may be the result of group differences between genders. The relationship proposed may be insignificant or even in the opposite direction for a particular gender group, while proving accurate for the other. However, the scope of the present paper does not extend to group analysis on the basis of gender.

Implications for Practice and Research

The findings in this study are important to both professional and academic practice. First, they are important for marketing practice because it means that knowing a consumer's RF along with other factors may aid marketers deduce their objective for, and usage of, OS. Effective targeting can then be applied to maximise marketing strategy. Knowing that people with different RF are persuaded differently in their risk perception for shopping online will also help marketers identify the right combination of perceived risk mitigating measures per segment: for example while some may prefer retail sites that are clogged with safety-enhancing cues, and security seals, and third party endorsements, other consumers' would be more attracted by sites that enhance fun and playful interactivity while shopping. It is therefore important that retailers balance their investments in these online features on the basis of the type of consumers that they wish to target, and to customise – where possible – the features that are available to a consumer based on her or his exhibited regulatory focus.

Academically, this is further evidence of the adaptability of RF to consumer behaviour, and its ability to explain consumer behaviour outcomes. For instance, in addition to response to online marketing, our results show that RF has a strong negative relationship with perceived risk of OS. The importance of this finding is that since OS researchers appear to be in accord that perceived risk is one of the most influential impediments to adoption and continued use of OS, this finding helps illuminate an underlying factor affecting OS perceived risk. The inconsequential relationship between perceived OS risk and response to online marketing also warrants further academic attention. While perceived risk has been shown to negatively affect conative processes in marketing and elsewhere, our evidence indicates that some marketing activity can somehow act as a relief agent in the presence of perceived risk, for example an advertisement by a reputable brand appearing on an unfamiliar website may serve as an endorsement of that retailer and thereby reduce the risk perception associated with purchasing from them; however this possibility requires further investigation.

6. LIMITATIONS AND CONCLUSION

These are preliminary indications. Although the study has shown that it is valuable to introduce RF as a basis for classifying and predicting consumer behaviour online, several other aspects of the relationships require examination in order to draw a more complete picture of RF's relationship with consumer shopping online. While one may plausibly claim at this stage that individuals' chronic RF affects their online shopping motivations, behaviour and evaluation (similar to observations in extant research), the limitations of the research are apparent. First, data was obtained via a self-reported questionnaire dependent on the ability of the respondents to recall past behaviour, and this had the potential of discounting the study's reliability. This may be overcome by designing future studies on an experimental basis. Secondly, we did not estimate the potential effects of product type, experience and

demographics on the RF versus shopping outcomes link. It is possible that while RF affects online shopping, this is best understood when considered along with individuals' experience and what type of product is involved; equally, group variables such as gender may prove significant in understanding how RF affects online shopping. In future, it will be useful to extend this research to these areas. Finally, estimations in structural equation modelling (SEM) are asymptotic, and the level of accuracy should be used with caution. It is particularly important to point out that an undecomposed construct like ROM may show different results in SEM if the different components were constructed and modelled independently. Future research should look at the different aspects of ROM such as buying or recommending a product to a friend (positives) and expressing irritation or ignoring an offer (negatives).

Nevertheless, the conclusions of this research may be highly significant to marketing researchers and professionals, especially those concerned with segmentation of consumers in OS domains. For researchers these results will provide further verification of the authenticity of regulatory focus as a basis for theorising on the explanation and classification of consumers online.

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Appendix i **Construct dimensions and their indicative measures.**

Online Shopping Perceived Risk: A consumer's perception of the riskiness of using the Internet for shopping, with measures below adapted from Forsythe et al. (2006) based on previously demonstrated validity and strong factor loading:

- *Shopping online is riskier than going to store*
- *My financial information may not be safe when shopping online*
- *I may not get the product or service I have paid for*
- *The product/service may not be what I expected*
- *I am unable to touch or feel the product*
- *I may be tempted to spend more than I planned to*

Affect towards Online Marketing: A consumer's feeling of likeness or dislike toward online marketing, measured as follows (adapted from Childers et al. 2001):

- *Shopping online is enjoyable*
- *Shopping online is exciting*
- *Shopping online makes me feel good*
- *Shopping online is boring (reverse)*

- *I like the convenience of shopping online*

Response to Online Marketing: A positive or negative reaction from the consumer upon encountering an online marketing event such as email, banner or pop-up ad, measured with the following prevalidated items (see Kelly et al., 2010):

- *When searching for product/service, I usually ignore the sponsored links*
- *I usually click on online banners if they are relevant to me*
- *I usually click through links in emails to visit online retailers*
- *I usually delete marketing emails immediately*

Appendix ii **Example Supergroup cluster summary** (for a detailed description, see www.statistics.gov.uk) (Source: ONS, 2011).

Supergroup 1

The members of this supergroup can be found all across the UK with areas of concentration around the North-East, South Wales and cities within Scotland and the Midlands. The supergroup comprises of 3 groups, 1a (3 subgroups), 1b (2 subgroups) and 1c (3 subgroups). There are 14 wards that have all their output areas classified in this supergroup including Creggan South, Creggan Central, Greystone, East, Ballycolman, Farranshane, and Whiterock in Northern Ireland, Thornley and Wheatley Hill, Edward and Prior in the North-East, Pembroke: Monkton, Gwynfi and Green Lane in Wales and Viewpark in Scotland. Within this supergroup:

The variables with proportions far below the national average are¹

- All Flats
- HE Qualification

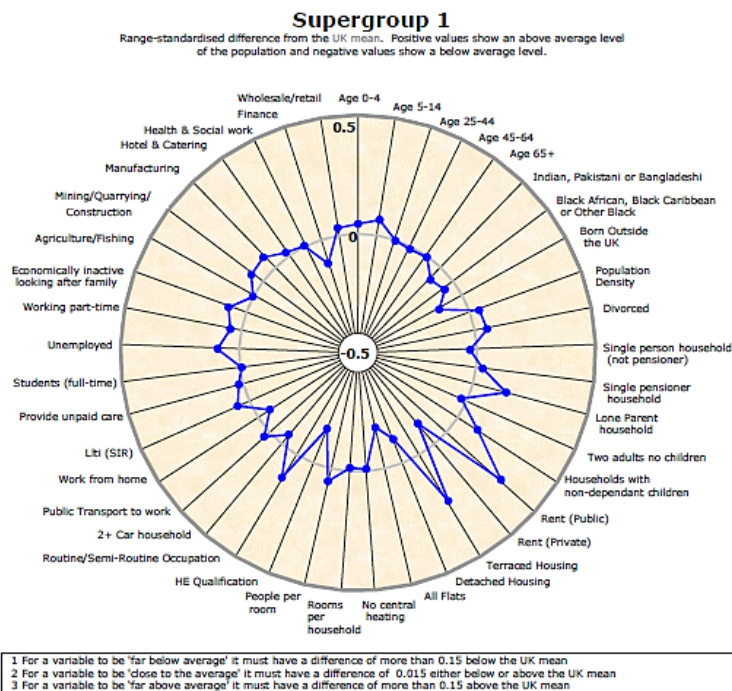
The variables with proportions close to the national average are²

- Age 45-64
- Age 65+

- Agriculture/Fishing employment
- Age 25-44
- Health and Social work employment
- Provide unpaid care

The variables with proportions far above the national average are³

- Terraced Housing
- Rent (Public)



<i>Respondent's age in years</i>	
Less than 18	1.20%
18 – 24	11.15%
25 – 34	35.21%
35 – 44	25.35%
45 – 60	22.56%
Over 60	4.52%
<i>Respondent's occupation</i>	
Student	10.08%
Retired	5.11%
Employed full or part time	63.94%
Homemaker	12.63%
Not employed	5.41%
Other	2.82%
<i>Respondent's level of education</i>	
University and above	25.45%
College	40.35%
High school and below	29.97%
Other	2.82%
<i>Respondent's household income per year</i>	
Less than £18000	8.08%
Between £18000 and £24999	31.83%
Between £25000 and £34999	39.58%
Between £35000 and £44999	10.94%
45000 and above	9.57%

TABLES

Table 1. Model Fit Indices

CMIN					
Model	NPAR	CMIN	DF	P	CMIF
Default model	13	3.757	2	0.153	1.879
Saturated model	15	0	0		
Independence model	5	272.769	10	0	27.277

Parsimony-Adjusted Measures			
Model	PRATIO	PNFI	PCFI
Default model	<u>0.2</u>	0.197	0.199
Saturated model	0	0	0
Independence model	1	0	0

Baseline Comparisons					
Model	NFI	RFI	IFI	TLI	
	Delta1	rho1	Delta2	rho2	CFI
Default model	<u>0.986</u>	0.931	0.994	0.967	0.993
Saturated model	1		1		1
Independence model	0	0	0	0	0

RMSEA				
Model	RMSEA	LO 90	HI 90	PCLOSE
Default model	0.054	0	0.137	0.361
Independence model	0.294	0.264	0.325	0

Table 2. Regression Weights

			Estimate	SE	CR	P
Perceived OS Risk	<---	RF	-1.172	0.23	-5.094	***
OS_Affect	<---	RF	4.316	2.164	1.995	0.046
OS_Affect	<---	Perceived OS Risk	-1.385	0.771	-1.796	0.072

Response to	<---	RF	1.699	0.401	4.233	***
Marketing						
Response to	<---	OS Affect	0.018	0.006	2.733	0.006
Marketing						
Response to	<---	Perceived OS	0.12	0.108	1.106	0.269
Marketing		Risk				

*** indicates a significant relationship

Table 3. Standardised Regression Weights

Relationship			Estimate
Perceived OS. Risk	<---	RF	-.550
OS Affect	<---	RF	.212
OS Affect	<---	Perceived OS Risk	-.145
Response to Marketing	<---	RF	.816
Response to Marketing	<---	OS Affect	.173
Response to Marketing	<---	Perceived OS Risk	.122

Table 4. Squared Multiple Correlation

Factor	Estimate
Perceived OS. Risk	0.303
OS Affect	0.1
Response to Marketing	0.672