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CONSUMER SAVVY: CONCEPTUALISATION AND MEASUREMENT

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Abstract
The notion of savvy consumers increasingly appears in the e-marketing and e-management literatures, usually in discussions about the importance of consumer-centricity. A synthesis of the literature identifies six broad characteristics of these savvy consumers: they are enabled by *competencies* in relation to technological sophistication, interpersonal networking, online networking and marketing/advertising literacy, and they are *empowered* by consumer self-efficacy and by their expectations of firms. This understanding of consumers is formalised by developing a SAVVY scale. Standard scale development procedures are applied using a sample from an online panel of consumers. As part of the process of validating the new scale comparisons are made with related, established scales – focusing on measures of consumer advantage (persuasion knowledge and market mavens) and consumer disadvantage (confusion arising from over-choice and vulnerability at the shopping interface). Our findings show the value of formal, empirically-grounded measures of consumer savvy, something that has been absent from many previous commentaries on the characteristics of savvy new consumers.

Keywords
Consumer-centricity, consumer savvy, savvy consumers, e-marketing, scale development

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INTRODUCTION

Consumer-centricity is the focus of much recent comment in e-marketing and e-management (Dupuy 2004, Lawer and Knox 2004, Mitchell 2004, Prahalad and Ramaswamy 2004, Szmigan 2003, Uncles 2006, Urban 2004, Vargo and Lusch 2004). Underlying this focus is the observation that the behaviour and mindset of consumers has shifted, with many consumers now much better informed, connected, capable and empowered than in the past. These consumers are seen as having what the ancient Greeks described as *metis*, or "local knowledge, commonsense, cunning, practical skills, know-how" (McMillan 2002, p153).

The origin of this change in the mindsets of consumers is a set of "new literacies", particularly "digital literacy" (Lankshear and Knobel 2006). These literacies are not just "new" in a technical sense but they also reflect a new "ethos". They are new in their emphasis on "relations of collaboration, participation, dispersion and distributed expertise" (Lankshear and Knobel 2006, p27). Some researchers observe that consumers who have grown up in cyberspace are "natives" to the mindset required by these new literacies, while (generally) older consumers are "immigrants" or "newcomers" (Lankshear and Knobel 2006).

A related theme is the enhanced consumer connectivity that is enabled by the technologically-networked world. Connectivity facilitates not only the access of consumers to nodes of information that were previously inaccessible, but also enhances consumer-to-consumer horizontal communication (Iacobucci 1998). Word-of-mouth has long been recognised as a powerful force in marketing communications, particularly in relation to the adoption of new

innovations. With enabling technologies this is being taken to new levels of sophistication. Online connectivity is now facilitating the development of networks that arise from informal relations between people and thus enhancing the "small world" phenomena (Morlacchi et al. 2005). These small world networks exist where individuals are only a few steps away from each other (either in terms of space, behaviour or beliefs), but who previously would not have been connected with one another or who would have found communication with each other very difficult (Wilkinson 2006). An important outcome of this increased horizontal communication is the existence of new forms of community, turning McLuhan and Fiore's (1968) abstract notion of a "global village" into a reality. This has seen the creation of "new kinds of 'spaces and places' for sociality and culture" (Lievrouw and Livingston 2004, p9). These borderless virtual communities offer consumers the promise of communing with large numbers of like-minded individuals who share specialised interests (Burnett 2000). Frequently these communities are established by and involve consumers without the inclusion of any organisation; a situation which can be seen as disconcerting from a corporate perspective, particularly if a network of dissatisfied consumers becomes activated (Day and Montgomery 1999, Szmigin 2003).

As well as facilitating closeness and the formation of collectives between geographically-dispersed individuals, networks also facilitate links between individuals that are "far away" in some sense (i.e., different in space, behaviour or beliefs) (Wilkinson 2006). While, these "long-reach" links are often weak, they can be important sources of new information and ideas, as shown by Granovetter's (1973) work on the "strength of weak ties". Potentially, the growing number of weak ties available to an individual consumer means that a wide range of new ideas and information is available to individuals in the network. However, consumers may require a certain degree of competency in order to take advantage of a long-reach link. Thus, an important

determinant of the ability of consumers to harness the opportunities available in an increasingly connected world is their interpersonal and online network competency.

Another increasingly prevalent theme about new consumers is their supposed desire for greater engagement with the firm. Empowered by access to information, but time-poor, consumers are driven by value, not just in terms of the product but in terms of the interaction with the organisation. As such, they seek value-for-time, value-for-attention and value-for-access to their personal information (Lawer and Knox 2004). In addition to these new forms of value-seeking, consumers are seen as confident "prosumers" (Toffler 1980, Saren 2006) such that they have the desire to not only control the interaction between themselves and providers, but to actively engage in production through co-creation (Prahalad and Ramaswamy 2004, Vargo and Lusch 2004).

The previously mentioned concept of *metis* consists of a "wide array of practical skills and acquired intelligence in responding to a constantly changing natural and human environment" (Scott 1998, in McMillan 2002, p153). A more contemporary term that applies to the competency of consumers across the array of practical skills and knowledge to respond to a constantly changing, networked environment is "consumer savvy". At present, there is no agreed conceptualisation of the competencies that savvy consumers exhibit to make the best of their interactions with organisations in a technologically-connected world. Nor has there been much empirical appraisal of these consumers. There are some exceptions (e.g., case studies by Harker and Egan 2004), but these do not offer formal, empirically-grounded measures of the characteristics of savvy consumers. It is the purpose of this paper to address this issue.

The rest of the paper is organised as follows. From a synthesis of the e-marketing and e-management literatures savvy consumers are seen as having six broad characteristics which enable them to interact effectively with organisations (next section). This set of characteristics is the basis for developing a formal consumer savvy scale: SAVVY (the following two sections). After initial validation we compare our scale with other established measures of consumer competency and vulnerability (the penultimate section). Finally, we describe ways in which the scale can be further validated and applied to understand differences between consumers in terms of their savvy scores (final section).

CONCEPTUALISATION

A synthesis of the e-marketing and e-management literatures shows that "consumer savvy" encompasses areas of *competency* (technological sophistication, interpersonal network competency, online network competency and marketing /advertising literacy) and aspects of *empowerment* (self-efficacy and expectations of firms) (Figure 1). These six characteristics of savvy consumers (SCs) are now described in turn.

<INSERT FIGURE 1 HERE>

Technological sophistication (**TS**) is a core component of all descriptions of SCs (Day and Montgomery 1999, Uncles 2006, Urban 2004, Wind and Mahajan 2002, Zwick and Dholakia 2004). This sophistication is evident in high rates of adoption of new and increasingly complex technologies, from mobile phones to internet applications. It is also evident in the ability of consumers to handle multiple technologies through media multi-tasking (e.g., seamlessly moving between computer, TV and iPod). Many of these new technologies are user-directed (e.g.,

navigating around web-sites), demanding that consumers quickly acquire procedural knowledge to gain full benefit from the technology (Page and Uncles 2004). Consumer's Technology Readiness – measured through a combination of enablers and inhibitors – determines their responsiveness to new technologies (Parasuraman 2000). Research based on the Technology Acceptance Model (TAM) has found that consumers are adept problem-solvers and will readily adopt a new technology which has high perceived usefulness, even if its usefulness is at the expense of perceived user-friendliness (Davis et al. 1989, Venkatesh and Davis 2000).

Based on the SC's ability to adopt *and* use new technologies, they employ technology to improve the effectiveness of their consumption. For example, to source product information and make comparisons online, to obtain real-time product/service updates, to maintain connections with organisations and consumer communities, to link into their social networks, and to exert control over information flows. Thus technological sophistication is a mental enabler which enhances consumers' interaction with the firm and their interaction with the marketplace in general. By reducing information asymmetry, and thus increasing the bargaining power of consumers, technological sophistication can lead to improved consumption outcomes and allow consumers to derive greater benefit from their interactions with firms (McMillan 2002). By empowering consumers in the electronically-connected marketplace, technological sophistication allows consumers to be more engaged, informed, and active players in the online marketplace.

Network competency is a core component of the SC's skill set. In referring to network competency, the current study encompasses both interpersonal connections by consumers and their use of information technology to access vast online networks. Previous studies have tended to focus on one or the other; for example, Savolainen's (2002) definition of network competence

refers to use of IT by consumers to search for information but does not consider offline network competency. East et al.'s (2005) comprehensive study of recommendation effects focuses on interpersonal-word-of-mouth, but does not specifically consider the impact of online connectivity. Both these types of network competency are briefly reviewed.

Interpersonal network competency (**NW**) refers to the general ability of consumers to harness a network of useful personal contacts in relation to buying products/services and engaging in markets. We know that personal information sources are valuable, for instance recommendation can have more impact on brand choice than advertising (East et al. 2005) and such sources are often seen as more credible than non-personal sources (Feick and Price 1987). In assessing intangible services, consumers ask friends and people they see as credible sources to judge both experience and credence attributes of products (Herr et al. 1991), and they do the later even though it raises the problem of trusting another consumer even when that other consumer does not have the ability to make a proper assessment of credence attributes (Mittal 2004).

Online network competency (**NO**) is a separate construct which focuses attention on the intersection of consumers' competency in their use of interpersonal connections and their use of information technology to access others through the "mega-net" (the network of networks) (Iacobucci 1988). Typical is the way consumers (and marketers, for that matter) are harnessing the benefits of word-of-web: consumers by making use of product information from experts and each other (Dellarocas 2003); marketers through use of buzz or viral marketing campaigns (Phelps et al. 2004). Consumer network competency results in at least three key advantages to the consumer: (a) they are able to tap into the collective knowledge of other consumers and thus have easier access to information which enables more informed choice, (b) by connecting to a wider

world through the mega-net, consumers encounter new ideas and perspectives which may subsequently influence their mental state and behaviours, and (c) by joining with others to form collectives, consumers may have greater influence in the marketplace, for example through blogging, online chat-rooms and consumer forums such as *Which.co.uk* and *NotGoodEnough.org*. Along with technological sophistication, network competency reduces information asymmetry which has traditionally been biased towards the firm (Mitchell 2004).

Marketing literacy (**ML**) refers to the fact that consumers are familiar with the ideas, objectives and methods of marketing and advertising. This is demonstrated when they apply marketing terminology in their day-to-day lives, when they comprehend "marketing-speak" in films/TV shows, and when they prove themselves adept at decoding advertising (Brown 2004, Harker and Egan 2004). A further sign of literacy is their sophisticated approach-avoidance stance towards marketing and advertising: they are often sceptical of the ploys used by marketers, but nevertheless confident of their ability to evaluate and form judgments about the claims made (Harker and Egan 2004). Furthermore, some consumers work in marketing-related employment and the on-going popularity of marketing studies at college/university level attests to the widespread interest in, and understanding of, marketing mechanisms. Whereas traditionally consumers may have been viewed as victims of "the media/marketing machine", they now show signs of being "positively ruthless" in their response to marketing (Mackay 2002, p35). This is illustrated in their willingness to harness technology to exert greater control over their consumption of media, such as by downloading radio segments, TV episodes and full length movies via the internet, to be played on a portable device at their leisure. Or in their sometimes subversive use of online sites such *mySpace* and *YouTube* to access and comment on marketing-related material.

Consumer self-efficacy (**CF**) refers to the consumer's self-assessment of his/her ability to perform behaviours related to consumption (building on Bandura 1977). This characteristic is said to be more prevalent today because of the democratisation of information. Access to real-time information through the web, and other connective technologies, gives consumers both individual and collective bargaining power. As a result, consumers are seen to be increasingly demanding, assertive and taking control in their dealings with organisations (Szmigin 2003, Wind and Mahajan 2002). Furthermore, the concept of consumer co-creation (Prahalad and Ramaswamy 2004), where the consumer actively co-creates value with the organisation, implicitly relies on the notion of consumer self-efficacy.

Consumer expectations (**EX**) refers to the expectations that consumers have of information flows between the firm and the consumer. SCs are said to have enhanced expectations of the organisation in that they expect on-going dialogue with and support from the firm; in other words, they demand "deep engagement" (Prahalad and Ramaswamy 2004). This includes requiring the organisation to open up its operations to the scrutiny of consumers (Urban 2004). Consumers have always expected organisations to be responsive to their requests although they have often resigned themselves to being disappointed (Fournier, Dobscha and Mick 1999). However, consumers now have greater ability to enforce their expectations through ready access to information (about firms, products, markets) and through the ease of forming collectives with likeminded consumers. Additionally, with regards to their own personal information, SCs increasingly understand the value of this information, and are aware that there is a vast amount of their personal information stored on company databases (Mitchell 2004). As part of the free flow

of information between firms and consumers, they expect organisations to store and use consumer records in responsible and constructive ways (Wind and Mahajan 2002).

Having introduced the component characteristics of SCs, the next section details the method used in developing a scale of consumer savvy.

METHOD

The preceding review reveals a considerable amount of conjecture but little formal measurement of the SC concept. Even some of the most thoughtful and heavily cited papers in this area are purely conceptual and do not explain how to identify savvy consumers nor how to measure their characteristics (this is true, for instance, of Prahalad and Ramaswamy 2004, Urban 2004 and Vargo and Lusch 2004). To address this issue we present a new scale, SAVVY, developed using standard psychometric procedures.

Items were developed from a review of the literature, in combination with findings from a previous industry-based study (ADMA 2005, Uncles and Macdonald 2005). In this earlier study, four focus groups were conducted with respondents recruited across a range of age and gender demographics. Also, screening questions were used to make sure respondents were recruited from across a range of consumer activism/passivity and innovativeness dimensions. Based on the literature review and focus group findings, a candidate pool of 95 items was generated across the six SC characteristics. In line with standard practice, there was a tendency to err on the side of being over-inclusive (DeVellis 2003). This initial item pool was pre-tested with a panel of six subject experts (marketing academics) who were also provided with the construct definitions. As a result, some items were modified and the pool was reduced to 75 items. This item pool was

then pre-tested on a sample of n=223 students. The goal here was to have variance with respect to consumer savvy, but for subjects to be broadly similar in other respects (e.g., the majority of respondents were aged 20-24 years and all had very similar educational attainments). The large number of items precluded running a full EFA, so each of the six SC characteristics was separately analysed using Principle Components factor analysis (Varimax rotation). Three items were eliminated because there was more than 90% agreement amongst respondents. As a result of an iterative series of factor analyses, a further 27 items were eliminated leaving a finalised pool of 45 items (Appendix A).

The finalised item pool was then administered to members of an online panel operated by pureprofile. Respondents were recruited to be representative across the adult population of consumers in terms of age (27% 18-29, 30% 30-39, 24% 40-49, 19% 50-plus) and gender (50% male, 49% female, 1% undeclared). Respondents received a small cash credit (equivalent to £4 or less) via the standard mechanism of the online panel operator. The survey was completed online and subjects answered each savvy item on a 5-point scale (from "strongly agree" to "strongly disagree"). A total of n=636 commenced the survey; of these, 73 did not complete the survey or were eliminated because of dubious response patterns, leaving a total sample of n=563 and resulting in a completion rate of 89%.

RESULTS - SCALE DEVELOPMENT

The finalised item pool was subjected to the widely accepted Churchill (1979) paradigm for new scale development. This meant that two broad statistical techniques needed to be applied, in a series of iterations, until the scale reached a point where it met initial validity and reliability requirements. As part of the "purification" process, items were removed one-by-one, to create a

robust and parsimonious measure. Exploratory Factor Analysis (EFA) is typically employed as a preparatory step in determining the structure of proposed constructs (Gerbing and Anderson 1988). Often the results from EFA do not hold when constructs are put through the more robust Confirmatory Factor Analysis (CFA) test. Therefore, following the deletion of a number of items in the EFA process, the scale was subjected to CFA. Hair et al. (2006, p776) note that "one of the biggest advantages of CFA/SEM is its ability to assess the construct validity of a proposed measurement theory" through checking the convergent and discriminant validity of the scale to be assessed. Prior to analysis, data were screened for possible response sets, outliers and missing values. No missing values were found as the online consumer survey did not allow respondents to proceed without first completing the page they were on.

Exploratory factor analysis (**EFA**) using SPSS 15, was conducted initially on the finalised 45-item pool (see Appendix A). Ten items were eliminated because they did not generate sufficient (more than 8%) distribution at either end of the 5-point agree-disagree scale. Most of these eliminated items related to consumer expectations of the firm. Seven negative valence items from across a variety of constructs did not load as expected, but instead loaded onto a single factor. Consideration was given to these forming a sub-construct of vulnerability, however, subsequent iterations of EFA where items were deleted one-by-one found that these items moved around a great deal and were quickly eliminated. Methodological research (Herche and Engelland 1996) confirms that reverse-polarity items often have a problematic impact on scale unidimensionality, so these findings are not unusual. This left 28 items and these were subjected to more iterations of EFA until all items that loaded below 0.4, or that cross-loaded, were removed. During this process, one item ("For the products and services that interest me, I like to be kept informed anywhere, anytime, including by SMS and email") was re-assigned as it consistently loaded on a

different construct from the one originally assigned. The item was intended to form part of the "Technological Sophistication – Harnessing Technology" sub-dimension, which did not survive the EFA. The item loaded onto the Consumer Expectations construct. As the item refers to preferences of consumers in relation to their interaction with the firm it was considered to pass the face validity test and was allowed to remain as part of the Consumer Expectation construct. The EFA resulted in a model with 8 factors and 26 items.

Confirmatory factor analysis (**CFA**) was conducted using AMOS 7.0 to verify the hypothesised dimensionality of the 8-factor, 26-item scale. Consistent with the current practice in marketing, the CFA model was estimated using maximum likelihood estimation. The CFA model was evaluated using four criteria specified by Netemeyer et al. (2003): (1) model convergence and range of parameter estimates, (2) fit indices, (3) significance of parameter estimates, and (4) standardised residuals and modification indices. Model convergence is determined simply if the CFA model reaches a solution – which it did. Fit indices were evaluated using established thresholds (Hair et al. 2006). The fit indices for the initial model (Table 1) were below acceptable thresholds for a sample size greater than n=250, but they were in range. The significance of parameter estimates was initially checked as a guide to item retention; however, all items were significant. The magnitude of item loadings on their respective factors should range from 0.6 to 0.9 (Bagozzi and Yi 1988). Four items in the initial model loaded at 0.5 or below. Squared-multiple correlations (SMCs) were far below 0.4 (indicating poor reliability) for four items. Thus the model was not deemed to have a good enough fit.

Further purification of the scale was conducted with items deleted one by one in an iterative process of EFA and CFA. After seven iterations (where seven items were dropped), EFA

identified a model with 6 factors and 1y9 items. CFA identified that this model has good fit (Table 1): the CFI measure of incremental fit was above the threshold of 0.92, and the standardised root-mean residual (SRMR) badness-of-fit measure was below the cut-off of 0.08 (Hair et al. 2006).

<INSERT TABLE 1 HERE>

Discriminant validity was evaluated from the factor patterns and structure coefficients presented in Table 2. Pattern coefficients are the standardised factor loadings and structure coefficients show the influence of each factor on items not hypothesised to comprise that factor. The two highest non-hypothesised structure coefficient values were for NO (Online Network Competency) items loading onto TS at 0.4 and 0.38. While it is not surprising that there would be a correlation between online network competency and technological sophistication, these values are below a threshold of 0.5, and therefore do not invalidate the discriminant validity of the two constructs. Inspection of the structure coefficients for all six constructs shows a clear distinction between the items comprising the respective factors and the remaining items.

Reliability was considered next. Squared multiple correlations (SMCs) are sometimes referred to as "item reliabilities" and are similar to the idea of communality in EFA (Hair et al, 2006). All squared multiple correlations were above 0.4 except for two (Table 3). Given the outcomes of previous stages of this research (including both qualitative and quantitative phases), these SMCs were considered acceptable.

<INSERT TABLE 2 HERE>

<INSERT TABLE 3 HERE>

Average variance extracted (AVE) and composite construct reliability and were evaluated using the method advocated by Hair et al (2006) (Table 4). AVE is a summary indicator of convergence and is the average squared factor loading for each construct. Scores for AVE were 0.5 or above for all except Consumer Expectations which was just below this threshold (0.49). Values of 0.5 or above suggest that the variance due to measurement error is smaller than the variance captured by the construct (Hair et al, 2006). Composite construct reliability is often used in conjunction with SEM models as Cronbach alpha can underestimate reliability (Hair et al 2006). All composite reliability scores exceeded the threshold of 0.7. Cronbach alpha reliabilities for five of the constructs – TS, NO, ML, CF and EX – were 0.75, 0.88, 0.77, 0.74 and 0.74, respectively. A cut-off threshold of 0.7 is generally considered acceptable (Hair et al. 2006). As only two items were included in the final NW construct, correlation (not Cronbach alpha) is the appropriate measure; this was acceptable at 0.55. The overall Cronbach alpha for the SAVVY scale is 0.87, demonstrating excellent internal consistency for the items in the scale. Comparison of the items with the construct definitions showed that the items retained face validity while appearing to sample different aspects of the construct meaning.

<INSERT TABLE 4 HERE>

Model structure. The final 19-item SAVVY scale, with 6 latent constructs, is depicted in Figure 2. Items are detailed in Appendix A. All standardised regression weights were 0.6 or above, and all were significant ($p<.05$). The following observations can be made about the individual latent constructs in the model:

<INSERT FIGURE 2 HERE>

TS relates to comfort and leadership in adopting new technologies, and comprises three items which were adapted from the innovativeness component of Parasuraman's (2000) Technology Readiness scale. Specifically, the three items are: "first among my friends to acquire new technology", "source of advice for new technology" and "can figure out high-tech products without help from others".

NW relates to interpersonal connectedness and includes two items: "always know someone to call for product information" and "have a useful network of contacts for information on latest innovations".

NO relates to consumer competency in: interacting with others online to search for product information; calling for assistance in making product choices; and the hedonic value of sharing product opinions with other consumers online. The five items refer to "checking online consumer forums for latest product information", "posting online queries to seek opinions of others about products", "seeking out online communities for help", "enjoyment of sharing opinions with others in an online forum" and "having best contacts who I've never met face-to-face".

ML relates to the ability to decipher the techniques of advertising and to interpret the underlying messages of advertising, without being "taken in" by exaggerated claims. The three items capture "identifying the persuasive techniques used in advertising", "cutting through to the truth behind over-claiming in advertising" and perceived "familiarity with marketing jargon".

CF relates to consumers' self-efficacy in providing feedback to the organisation, including asserting themselves to complain. It includes confidence in "complaining about failure to meet expectations", "telling organisations my expectations" and "working with organisations to get what I want". These are all important components in building a deeper relationship with the organisation, and mandatory for any process of co-creation to occur.

EX relates to consumers' expectation of how the organisation should interact with them. It includes the following expectations: "making use of my personal information to give me better service", "keeping me informed of further offers" and "keeping me informed anywhere and anytime".

Nomological validity. Having established convergent and discriminant validity, and described the model structure, we turned our attention to demonstrating the nomological validity of the SAVVY scale. Nomological validity can be confirmed by demonstrating relationships with external constructs that support the theoretical framework (Hair et al 2006). Previous research has indicated that Persuasion Knowledge (PK) is a measure of consumer advantage, such that consumers who have high PK are less easily manipulated by marketing messages (Bearden et al. 2001). The Market Maven (MM) concept is also a measure of consumer competency, such that consumers who are Mavens are generally active and well-informed as indicated by their role as a source of product and market information for other consumers (Feick and Price 1987). See Appendix B for item lists and scale reliabilities from analysis of a sub-set of our respondents. An examination of the items in Appendices A and B demonstrates that there is little overlap between these constructs and the SAVVY scale. Nevertheless, it was hypothesised that although they are

not measured the same way, there would be some correlation between SAVVY and each of these constructs as they all measure aspects of consumer competency. This is borne out by correlation analysis (see Table 5); both constructs are highly significantly correlated with the overall SAVVY measure and in the expected direction.

It was also important to distinguish the SAVVY construct from measures of consumer vulnerability, so once again two existing scales - Consumer Vulnerability to Over-Choice (VO) (Sproles and Kendall 1986) and Vulnerability to Marketplace Interfaces (VI) (Bearden et al. 2001) – were used. As before, item lists and scale reliabilities are shown in Appendix B. It was hypothesised that there would be a negative correlation between SAVVY and each of the vulnerability constructs. Correlation analysis (see Table 5) found that both constructs were correlated with SAVVY in the opposite direction (which is consistent with expectations). However, only Vulnerable to Over-Choice was significant (and negatively) correlated with SAVVY. Vulnerable to Marketplace Interfaces was not significantly correlated with SAVVY, implying that vulnerability in a shopping situation is not related to our concept of the savvy, empowered, active consumer.

To further validate the scale a total SAVVY score was calculated for each respondent. Using these scores respondents were grouped into high and low categories with respect to savviness. The total SAVVY score was based on the sum of means for the six sub-constructs, with the result expressed out of a maximum of 30 (mean = 15.75, standard deviation = 3.17). Respondents scoring more than +/-0.25 of a standard deviation from the mean were deemed to be high or low, respectively, in terms of savviness (39% were high savvy consumers, 41% low savvy consumers, and 20% neither high nor low). This classification was compared across the scales of consumer

advantage and disadvantage just discussed. Firstly we undertook a comparison with the existing consumer advantage scales of PK and MM. Based on t-tests, significant differences were obtained between high and low savvy respondents on both these measures and in the expected direction (Table 5). Secondly we compared high-low savvy respondents and measures of consumer vulnerability, specifically VI and VO. Once again significant differences were found and in the expected direction (Table 5).

These comparisons with existing, established measures of consumer advantage and vulnerability lend weight to the assertion that consumers high in overall SAVVY are advantaged in the marketplace and that those who are low in overall SAVVY are more vulnerable. These two sets of analyses provide additional confirmation of the construct validity of the newly developed 19-item SAVVY scale.

CONCLUSIONS

Our study demonstrates the development and validation of a formal SAVVY scale. We conclude by commenting on some of the implications of having such a scale.

From a *consumer perspective*, the benefits of embodying some or all of the six savvy consumer characteristics include: having a better understanding of product markets, being able to extract value from interactions with organisations, and having greater input into marketing processes such as production, distribution, communication and delivery (points noted, if not demonstrated, by other commentators). Importantly, however, consumers will vary in their receptiveness and adaptiveness to the information age. Even those consumers who are savvy will not be equally

demanding, active and empowered – something that is only too apparent when the scale is used to distinguish low and high scoring respondents.

An extension would be to assess the individual and combined effect of the six characteristics on consumers' approach to interaction (including value seeking and control) and outcomes (including trust and satisfaction). This would require explicit testing of the relationship between the scale (which is encapsulated on the left-hand side of Figure 1) and an array of outcome measures (such as those illustrated on the right-hand side of Figure 1).

From a *marketing perspective,* the focus in this study on competencies and empowerment provides a degree of formality in discussions of savvy consumers which, hitherto, has been lacking. The six consumer characteristics presented here offer a distinct and comprehensive definition in terms of the consumer's know-how, cunning and ability to achieve the best outcome from interaction with organisations and the marketplace in the context of dynamic environments.

Various practical marketing management uses can be envisaged. The SAVVY scale could be used to distinguish consumers with different patterns of scores on the six characteristics, to see whether they are differentially sensitive to certain marketing tactics and strategies. A company could use the scale to measure and monitor the "savvy" of their customer base, or to identify distinct segments of consumers that differ in their consumer savvy. This could include identifying the relative sizes of segments and what differentiates them in terms of lifestyle, demographics and purchasing characteristics. Such findings might have implications for the organisation's operations including both its internal and customer-facing procedures.

Finally, from a *public-policy viewpoint*, it would be of value to track savviness in contexts traditionally associated with consumer disadvantage, such as amongst consumers with low income and low educational attainment, in order to better understand its impact across the entire consumer population, now and progressively into the future.

References

ADMA (2005), "Consumer insights 2005: A comprehensive research study on consumer attitudes towards direct marketing and privacy in Australia", Australian Direct Marketing Association, Sydney NSW.

Bandura, Albert (1977), "Self-efficacy: Toward a unifying theory of behavioral change", *Psychological Review*, 84, 191-215.

Bearden, William O., Hardesty, D.M. and Rose, R.L (2001), "Consumer self-confidence: Refinements in conceptualization and measurement", *Journal of Consumer Research*, *28* (June), 121-134.

Brown, Stephen (2004), "O customer, where art thou?" *Business Horizons*, *47* (4), July-August, 61-70.

Burnett, Gary (2000), "Information exchange in virtual communities: a typology" [online] Information Research: An international electronic journal, 5 (4), Available at: http://informationr.net/ir/5-4/paper82.html, [accessed 20 May 2005].

Churchill, Gilbert A. (1979), "A paradigm for developing better measures of marketing constructs", *Journal of Marketing Research*, *16* (Feb), 64-73.

Davis, Fred D., Bagozzi, Richard P. and Warshaw, Paul R. (1989), "User acceptance of computer technology: A comparison of two theoretical models", *Management Science*, *35* (8), August, 982-1003.

Day, George S. and Montgomery, David B. (1999), "Charting new directions for marketing", *Journal of Marketing*, *63* (Special Issue), 3-13.

Dellarocas, Chrysanthos (2003), "The digitization of word of mouth: Promise and challenges of online feedback mechanisms", *Management Science*, *49* (10), 1407-1424.

DeVellis, Robert F. (2003), *Scale development: Theory and applications*, 2nd Edition, Applied Social Research Methods Series, vol 26. Thousand Oaks, CA, Sage.

Dupuy, Francois (2004), *Sharing knowledge: The why and how of organisational change*. Hampshire, UK, Palgrave Macmillan.

East, Robert, Hammond, Kathy, Lomax, Wendy and Robinson, Helen (2005), "What is the effect of a recommendation?", *Marketing Review*, 5 (2), 145-157.

Feick, Lawrence F. and Price, Linda L. (1987), "The market maven: A diffuser of marketplace information", *Journal of Marketing*, 51 (January), 83-97.

Fournier, Susan, Dobscha, Susan and Mick, David Glen (1999), "Preventing the premature death of relationship marketing", *Harvard Business Review*, Jan-Feb, 42-51.

Gerbing, David W and Anderson, James C (1988), "An updated paradigm for scale development incorporating unidimensionality and its assessment", *Journal of Marketing Research*, 25 (May), 186-192.

Granovetter, Mark S. (1973), "The strength of weak ties", *AJS: The American Journal of Sociology*, 78 (6), (May), 1360-1380.

Hair, Joseph F., Black, William C., Babin, Barry J., Anderson, Rolph E. and Tatham, Ronald L. Ronald L. (1998), *Multivariate data analysis,* 6th Edition. New Jersey, USA, Prentice-Hall.

Harker, Michael J., & Egan, John (2004), "Savvy: Customer marketing literacy and relationship marketing". In: *Proceedings of Academy of Marketing Conference 2004, 6-9 July* (Eds.) Davies, B. and Dermody, J., University of Gloucestershire Business School.

Herche, Joel and Engelland, Brian (1996), "Reversed-Polarity Items and Scale Unidimensionality", *Journal of the Academy of Marketing Science*, 24 (4), 366-374.

Herr, Paul M., Kardes, Frank R. and Kim, John (1991), "Effects of word-of-mouth and product-attribute information on persuasion: An accessibility-diagnosticity perspective", *Journal of Consumer Research*, 17, 454-462.

Iacobucci, Dawn (1998), "Interactive marketing and the meganet: Networks of networks", *Journal of Interactive Marketing, 12* (1), Winter, 5-16.

Lankshear, Colin and Knobel, Michele (2006), *New literacies: Everyday practices and classroom learning*. Berkshire, UK, McGraw-Hill.

Lawer, Chris, & Knox, Simon (2004), "Reverse marketing, consumer value networks and the new brand intermediaries". In: *Value Network and ICT Symbiosis: Issues and Applications for Operational Excellence* (Ed.) Chang, Y.S. New York, NY, Kluwer.

Lievrouw, Leah A. and Livingston, Sonia (2004), "The social shaping and consequences of ICTs" in *Handbook of New Media*, Leah A. Lievrouw and Sonia Livingston, eds. London, UK, Sage Publications. pp 1-15.

Mackay, Hugh (1997), *Media Mania*. Sydney, NSW, UNSW Press.

McLuhan, Marshall and Fiore, Quentin (1968), *War and peace in the global village: An inventory of some of the current spastic situations that could be eliminated by more feed forward*. New York, NY, McGraw-Hill.

McMillan, John (2002), *Reinventing the bazaar: A natural history of markets*. New York, NY, W.W. Norton.

Mittal, Banwari (2004), "Lack of attribute searchability: Some thoughts", *Psychology and Marketing*, 21 (6), July, 443-462.

Mitchell, Alan (2004), "The buyer-centric revolution: the rise of reverse direct", *Interactive Marketing, 5* (4), 345-358.

Morlacchi, P., Wilkinson, Ian F. and Young, Louise (2005), "Social networks of researchers in B2B marketing: A case study of the IMP group 1984-1999", *Journal of Business-to-Business Marketing*, 12 (1), 3-34.

Netemeyer, Richard G., Bearden, William O. and Sharma, Subhash (2003), *Scaling procedures: Issues and applications*. California, USA, Sage.

Page, Kelly & Uncles, Mark .D. (2004), "Consumer knowledge of the world wide web: Conceptualization and measurement", *Psychology and Marketing, 21* (8), 573 – 591.

Parasuraman, A. (2000), "Technology readiness index (TRI): A multiple-item scale to measure readiness to embrace new technologies", *Journal of Service Research, 2* (4), 307-320.

Phelps, Joseph E., Lewis Regina, Mobilio Lynne, Perry David and Raman Niranjan (2004), "Viral marketing or electronic word-of-mouth advertising: Examining consumer responses and motivations to pass along email", *Journal of Advertising Research*, 44 (December), 333-348.

Prahalad, C.K. and Ramaswamy, Venkat (2004), "Co-creation experiences: The next practice in value creation", *Journal of Interactive Marketing*, 18 (3) Summer, 5-11.

Saren, Michael (2006), *Marketing graffiti: The view from the street*. Oxford, UK, Butterworth-Heinemann.

Savolainen, Reijo (2002), "Network competence and information seeking on the Internet: From definitions towards a social cognitive model", *Journal of Documentation*, 58 (2), 211-226.

Sproles, George B. and Kendall, Elizabeth L. (1986), "A methodology for profiling consumers' decision making styles", *Journal of Consumer Affairs*, 20 (2) (Winter), 267-279.

Szmigin, Isabelle (2003), *Understanding the consumer*. London, UK, Sage Publications.

Toffler, Alvin, (1980), *The third wave*. London, UK, Collins.

Uncles, Mark D. (2006), "Understanding Retail Customers," in *Retailing in the 21st Century: Current and Future Trends*, edited by Manfred Krafft and Murali Mantrala. Heidelberg, Germany, Springer-Verlag. pp 159-173.

Uncles, Mark D. and Macdonald, Emma (2005), "Discovering the savvy new consumer", *Marketing*, Australia, October, issue 42.

Urban, Glen L. (2004), "The emerging era of customer advocacy", *MIT Sloan Management Review*, 45 (2), Winter, 77-82.

Vargo, Stephan L. and Lusch, Robert F. (2004), "Evolving to a new dominant logic for marketing", *Journal of Marketing*, 69 (January), 1-17.

Venkatesh, V. and Davis, F.D (2000), "A theoretical extension of the technology acceptance model: Four longitudinal field studies", *Management Science*, 46 (2), 186-204.

Wilkinson, Ian (2006), "The evolvability of business and the role of antitrust", *The Antitrust Bulletin*, Spring, 51 (1), 111-141.

Wind, Yoram and Mahajan, Vijay (2002), "Convergence marketing", *Journal of Interactive Marketing*, Spring, 16 (2), 64-79.

Zwick, Detlev and Dholakia, Nikhilesh (2004), "Whose identity is it anyway? Consumer representation in the age of database marketing", *Journal of Macromarketing*, 24 (1), 31-43.

Figure 1: Conceptual Model of "Consumer Savvy"

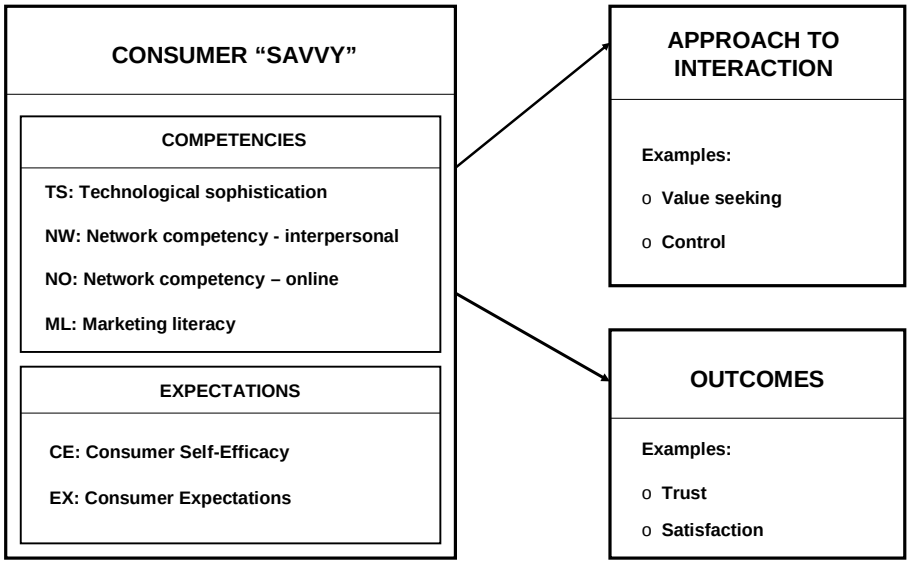

Figure 2: CFA – Six Factor Measurement Model

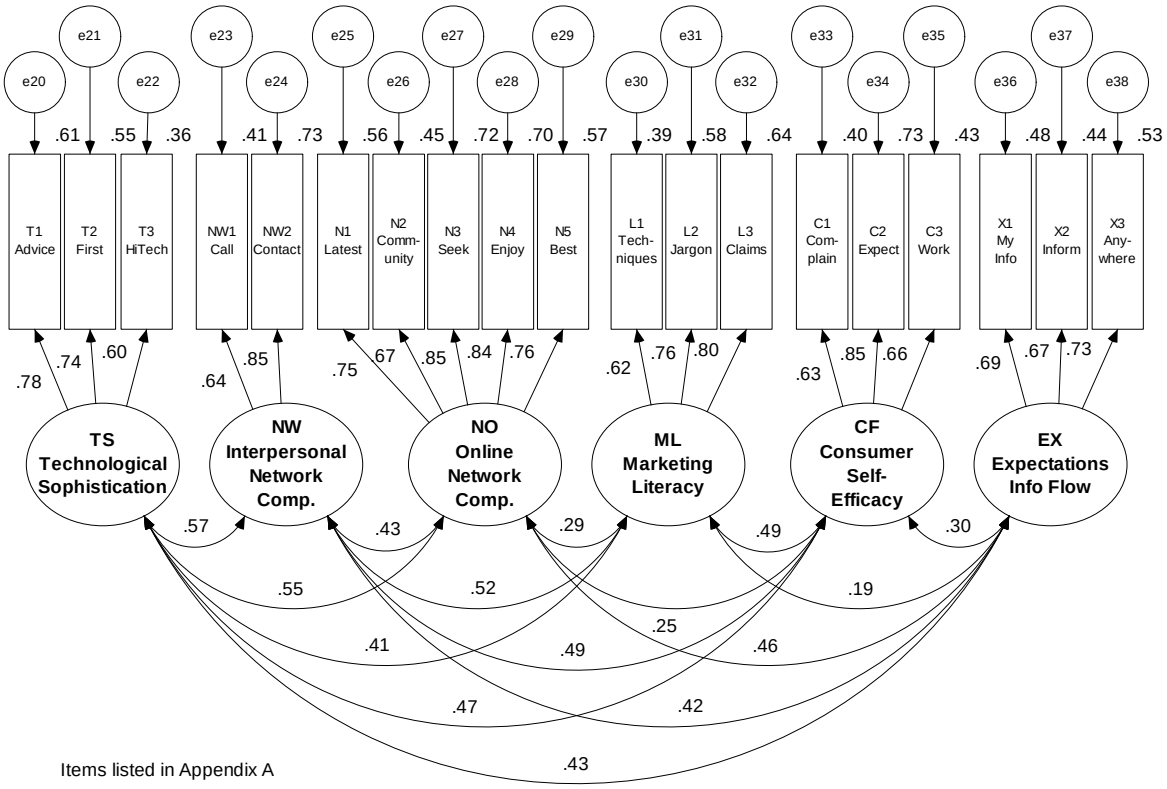

Table 1: CFA Analysis

	χ^2	d.f.	p	χ^2/d.f.	GFI	SRMR	RMSEA (Upper, Lower)	CFI
Initial model: (8 Factors, 27 Items)	739.40	271	.000[a]	2.70	.905	.054	.055 (.051, .060)	.906
Final model: (6 Factors, 19 Items)	393.33	137	.000[a]	2.85	.928	.051	.057 (.051, .064)	.933

a. Significant p-values are to be expected in a model which has a sample size n >250 and a large number of indicators (Hair et al. 2006).

Table 2: Discriminant Validity - Factor Pattern and Structure Coefficients

	TS		NW		NO		ML		CF		EX	
Item	Pattern	Structure	Pattern	Structure	Pattern	Structure	Pattern	Structure	Pattern	Structure	Pattern	Structure
T1	0.78	0.78	0*	0.35	0*	0.33	0*	0.25	0*	0.29	0*	0.26
T2	0.74	0.74	0*	0.32	0*	0.30	0*	0.22	0*	0.26	0*	0.24
T3	0.60	0.60	0*	0.20	0*	0.20	0*	0.15	0*	0.17	0*	0.16
NW1	0*	0.31	0.64	0.85	0*	0.24	0*	0.29	0*	0.27	0*	0.23
NW2	0*	0.32	0.85	0.64	0*	0.23	0*	0.28	0*	0.26	0*	0.23
N1	0*	0.31	0*	0.24	0.75	0.75	0*	0.17	0*	0.14	0*	0.26
N2	0*	0.25	0*	0.20	0.67	0.67	0*	0.13	0*	0.11	0*	0.21
N3	0*	0.40	0*	0.31	0.85	0.85	0*	0.21	0*	0.18	0*	0.33
N4	0*	0.38	0*	0.30	0.84	0.84	0*	0.21	0*	0.18	0*	0.32
N5	0*	0.32	0*	0.24	0.76	0.76	0*	0.17	0*	0.14	0*	0.26
L1	0*	0.16	0*	0.21	0*	0.11	0.62	0.62	0*	0.19	0*	0.07
L2	0*	0.24	0*	0.30	0*	0.17	0.76	0.76	0*	0.29	0*	0.11
L3	0*	0.26	0*	0.34	0*	0.19	0.80	0.80	0*	0.32	0*	0.13
C1	0*	0.19	0*	0.19	0*	0.10	0*	0.19	0.63	0.63	0*	0.12
C2	0*	0.34	0*	0.35	0*	0.18	0*	0.36	0.85	0.85	0*	0.21
C3	0*	0.20	0*	0.21	0*	0.11	0*	0.21	0.66	0.66	0*	0.13
X1	0*	0.21	0*	0.20	0*	0.22	0*	0.09	0*	0.15	0.69	0.69
X2	0*	0.19	0*	0.19	0*	0.20	0*	0.09	0*	0.13	0.67	0.67
X3	0*	0.23	0*	0.23	0*	0.24	0*	0.10	0*	0.16	0.73	0.73

Notes: Tabled values are standardised parameter estimates. Asterisked values are parameters fixed at reported levels to identify the model.

Table 3: Construct Correlation Matrix and Item Reliabilities

	Correlations						Squared Multiple Correlations
	TS	**NW**	**NO**	**ML**	**CF**	**EX**	
TS	**1.00**						
NW	**0.58**	**1.00**					
NO	**0.55**	**0.43**	**1.00**				
ML	**0.41**	**0.52**	**0.29**	**1.00**			
CF	**0.47**	**0.49**	**0.25**	**0.49**	**1.00**		
EX	**0.43**	**0.42**	**0.46**	**0.19**	**0.30**	**1.00**	
T1	**0.78**	0.45	0.43	0.32	0.37	0.34	0.61
T2	**0.74**	0.43	0.41	0.30	0.35	0.32	0.55
T3	**0.60**	0.34	0.33	0.25	0.28	0.26	0.36
NW1	0.49	**0.64**	0.37	0.45	0.42	0.36	0.41
NW2	0.37	**0.85**	0.27	0.33	0.31	0.27	0.73
N1	0.41	0.32	**0.75**	0.22	0.19	0.34	0.57
N2	0.37	0.29	**0.67**	0.20	0.17	0.31	0.45
N3	0.47	0.37	**0.85**	0.25	0.21	0.39	0.72
N4	0.46	0.36	**0.84**	0.25	0.21	0.38	0.70
N5	0.42	0.32	**0.76**	0.22	0.19	0.35	0.57
L1	0.25	0.33	0.18	**0.62**	0.31	0.12	0.39
L2	0.31	0.40	0.22	**0.76**	0.38	0.15	0.58
L3	0.33	0.42	0.24	**0.80**	0.40	0.16	0.64
C1	0.30	0.31	0.16	0.31	**0.63**	0.19	0.40
C2	0.40	0.41	0.21	0.42	**0.85**	0.25	0.73
C3	0.31	0.32	0.16	0.32	**0.66**	0.20	0.43
X1	0.30	0.29	0.32	0.13	0.21	**0.69**	0.48
X2	0.29	0.28	0.30	0.13	0.20	**0.67**	0.45
X3	0.32	0.31	0.33	0.14	0.22	**0.73**	0.53

Table 4: Composite Reliability and Average Variance Extracted for Measurement Model Variables

	Number of Items	Composite Construct Reliability	Average Variance Extracted
TS	3	.75	.50
NW	2	.72	.57
NO	5	.88	.60
ML	3	.77	.53
CF	3	.76	.52
EX	3	.74	.49

Table 5: Comparisons of SAVVY with Other Consumer Measures

Construct	Corr. with SAVVY	Comparison of Low versus High SAVVY respondents						
		Low n=	High n=	t	d.f.	P[d]	Mean diff.	Implication
Consumer Competency Measures								
Persuasion Knowledge	.48[a]	131	142	-7.77	271	.000	-.46	High > Low
Market Maven	.72[a]	37	44	-7.11	79	.000	-.88	High > Low
Consumer Vulnerability Measures								
Vulnerability at Marketplace interfaces	-.09[c]	131	142	2.12	271	.035	.23	Low > High
Vulnerable to confusion from over-choice	-.24[b]	44	37	2.02	79	.048	.32	Low > High

a. Correlation significant at the 99% confidence interval. b. Correlation significant at the 95% confidence interval.
c. Correlation not-significant. d. t-test significant at the 95% confidence level.

Appendix A: Item Pool included in the Savvy Consumer Survey (including items discarded during purification process)

TS Technological Sophistication - Innovative Expertise

T1 Other people come to me for advice on new technologies. *
T2 In general, I am first among my circle of friends to acquire new technology when it appears. *
T3 I can usually figure out new high-tech products and services without help from others. *

- It seems my friends are learning more about the newest technologies than I am. (R)*
- I like engaging with firms via the internet because you are not limited to regular business hours.*
- I often use technology (such as email screening, popup blockers) to control what information I get from companies.

NW Network Competency – Interpersonal

NW1 I always know someone to call if I want to find out about the best product or service.
NW2 I have a useful network of contacts who can give me up-to-date product information on the latest innovations.

- I am better than most people at finding someone to recommend the best products.
- When I want to know more about a seller I will seek advice from an independent source.

NO Network Competency – Online

N1 I often check-out chatrooms and bulletin boards to find out about the latest products that are coming.
N2 I'll often see if there is an online community that can help me when I'm looking for a product recommendation.
N3 I'll often seek the opinions of other customers by posting a query about a product on an online bulletin board or chat room.
N4 I enjoy sharing points of view with online acquaintances via bulletin boards and chatrooms.
N5 My best contacts for new product information often include people online that I've never met face-to-face.

ML Marketing Literacy

L1 When viewing advertising, I can identify the techniques being used to persuade me to buy.
L2 I am familiar with marketing jargon.
L3 I'm really good at cutting through to the truth behind the over-claiming in advertisements.

- I use advertising to find out about the newest products and technologies.
- I make use of advertising to keep informed of the best deals around.

Shopping literacy *(This construct was discarded in the final model)*

- When I am shopping, I can spot a good deal or a bargain.
- I'm good at finding the best price around.
- For non-grocery products, I know when all the sales are on and do most of my shopping then.
- When firms offer a 'gift with purchase' deal I usually find a way to get more than the allocated number of freebies.
- I often try to engage the store keeper in discussion to reduce the price or get something else thrown in.

CF Complaining and specifying self-efficacy

C1 I am confident at complaining to a firm when they don't give me what I expect.
C2 I am confident at telling organisations what I expect from them.
C3 I am confident at working with large companies to get exactly what I want from them.

- As a customer, I am generally confident at letting an organization know when they have displeased me.
- I am not confident making a complaint to a company even when a product is faulty. (R)
- I am confident at deciding which organisations can be trusted with my personal information.
- I am confident in my ability to get exactly what I want from the organisations I deal with.
- I am confident at controlling what information I receive from organisations.

EX Expectations – Information Flow

X1 I expect companies to make use of my personal information to give me better service.
X2 I like a firm I have bought something from to keep me informed of further offers.
X3 For the products and services that interest me I like to be kept informed anywhere, anytime, including by SMS and email.

- I expect on-going dialogue with a firm I'm dealing with.
- I expect the organisations that I buy from to let me know about their plans and processes.
- I expect firms to be honest if a competitor has an offering that better satisfies my needs.
- It is not realistic to expect companies to inform customers about their product weaknesses. (R)
- I cannot expect a company to provide all of the product information that I need. (R)

Expectations – Service *(This construct was discarded in the final model)*

- You should be able to get the same product/service offer no matter whether you buy online, by phone or in person.
- I expect companies that I've dealt with a few times to know what I want without me having to ask.
- I cannot expect a large organisation to care about my specific requests. (R)
- It is not realistic to expect a firm to stay interested in me after I've bought something from them. (R)

Notes: Labels are shown only for items retained in the final SAVVY scale. Bulleted items were included in the pre-test but eliminated during the scale-refinement process. Items marked * are adapted from Parasuraman's (2000) technology readiness index, with permission. The technology readiness index is copyrighted by A. Parasuraman and Rockbridge Associates Inc, 1999, and the scale may be duplicated only with written permission from the authors. All other listed items are the copyright of the current authors, Macdonald and Uncles, and may be used freely for academic purposes, with acknowledgement. Please contact the authors for any proposed commercial usage.

Appendix B : Comparative Measures

Item	Reliability
Persuasion Knowledge (Bearden, Hardesty and Rose 2001)	
PK1 I know when an offer is "too good to be true". (.72) PK2 I can tell when an offer has strings attached. (.82) PK3 I have no trouble understanding the bargaining tactics used by salespersons . (.63) PK4 I know when a marketer is pressuring me to buy . (.74) PK5 I can see through sales gimmicks used to get consumers to buy . (.85) PK6 I can separate fact from fantasy in advertising . (.78)	**.85**
Market Maven Scale (Feick and Price 1987)	
M01 I like introducing new brands and products to my friends. (.84) M02 I like helping people by providing them with information about many kinds of products. (.86) M03 People ask me for information about products, places to shop, or sales. (.89) M04 If someone asked where to get the best buy on several types of products, I could tell him or her where to shop. (.75) M05 My friends think of me as a good source of information when it comes to new products or sales. (.77) M06 Think about a person who has information about a variety of products and likes to share this information with others. This person knows about new products, sales, stores and so one, but does not necessarily feel he or she is an expert on one particular product. How strongly do you agree or disagree that this description fits you? (.46)	**.89**
Vulnerability at Marketplace Interfaces (Bearden, Hardesty and Rose 2001)	
IN1 I am afraid to "ask to speak to the manager" (.89) IN2 I don't like to tell a salesperson something is wrong in the store (.82) IN3 I have a hard time saying no to a salesperson (.82) IN4 I am too timid when problems arise while shopping (.87) IN5 I am hesitant to complain when shopping (.78)	**.91**
Confused from Over-Choice (Sproles and Kendall 1986)	
U01 All the information I get on different products confuses me. (.75) U02 Sometimes it is hard to choose which stores to shop at. (.68) U03 The more I learn about products, the harder it seems to choose the best. (.73) U04 There are so many brands to choose from that I often feel confused. (.81)	**.73**