Buying cars online: The adoption of the Web for high-involvement, high-cost purchases

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Abstract
This research explores the adoption of the Web throughout the buying process within high-value, high-involvement product categories (the car sector). Diffusion of innovations (Rogers, 1983) and innovation resistance Ram and Sheth (1989) theories are utilised and found to be useful. The research is exploratory, based on eight qualitative, semi-structured individual interviews with potential car buyers. Findings indicate that there is resistance to adopting online car purchase overall, but relative advantage is recognised at the early, information seeking stages. Consumers use the Web to improve the balance of power between themselves and car salespeople. Innovation resistance during later stages, result from the need for personal experience of the product prior to purchase, ie test driving, as well as the uncertainty regarding after-sales support. Further resistance comes from a reluctance to give up the social aspects of car buying and a perceived inability to negotiate with websites. It is suggested that organisations operating in these markets should focus Web activities on information provision, or opt for a hybrid strategy using both online and offline channels.

THE UK CONSUMER E-COMMERCE MARKET

Significant disparities exist in projections for e-commerce in the UK. Forrester Research (cited in NUA, 2000a) predicts that European business-to-consumer e-business retail sales will reach US$167.44 billion by 2005. This figure is approximately three times larger than Jupiter Communications’ (2000a) prediction that Western European online expenditure will reach £64.4 billion by 2005. These differences in forecasts demonstrate the difficulties in predicting consumer adoption of e-commerce. What is clear is that the conversion from an online comparison-shopper to online buyer is relatively low. Even though a majority of the UK Internet users (86 per cent) have used the Internet for comparison shopping, only 30 per cent of the users have bought or ordered something online (Forrester Research, 2000).

‘Many e-commerce ventures have seen their market valuations fall as investors have lost faith in the attractiveness of the market. As a result, there have been a number of high-profile dot.com closures including those of Boo.com, Dressmart.com, Clickmango.com and Boxman.com (BBC, 2000; FT.com, 2000; Simmons, 2000). These failures are often linked to the current bias of online purchases towards low-ticket products or services.
According to the Boston Consulting Group, the average US online purchaser conducted 10 transactions and spent US$460 (approximately £317) online over a 12-month period resulting in an average transaction of US$46. In the UK, online consumers spent, on average, only £140 online in 1999 (Jupiter Communications, 2000b). The bias towards low-ticket items often forces companies to operate at low margins in an effort to reach high enough volumes needed to turn the company into profit. It is therefore of interest to understand why consumers do not generally purchase high-value, high-involvement products online.

The car market is a good example of a high-ticket sector that has invested strongly in the Internet, resulting in both disintermediation and reintermediation of the value system (Benjamin and Wigand, 1995; Janssen and Sol, 2000). Manufacturers, such as Vauxhall and Ford, have begun to sell directly to consumers, bypassing the traditional dealer networks, (disintermediation). Reintermediation, on the other hand, has resulted in new types of intermediaries. ‘Aggregators’, such as Autobytel.co.uk, aggregate purchase information and guide online buyers to traditional dealers and ‘Full-service’ merchants, such as Jamjar.com sell a variety of makes and also handle the fulfilment by delivering the car to the consumer.

Traditional dealerships are also using the Internet, although their sites are geared towards information provision rather than direct selling. Finally, ‘classifieds’ services, have transferred online, eg www.autotrader.com.

The continuing role for all these players is uncertain, as there are conflicting forecasts about the development of the online car market. NUA (2000b) cites Jupiter Communications research suggesting that online new car sales in the US will grow from 17,000 units in 1999 to 1.3 million units worth US$33 billion by 2004 representing 8 per cent of the total new car sales. Furthermore, online consumer research is expected to influence additional sales of 3.8 million units worth US$95 billion or 22 per cent of the total category sales. However, the Economist Intelligence Unit (cited in NUA, 2000b) are more cautious arguing that ‘the Internet is unlikely to become a full-blown sales channel for cars’. In the UK, Mintel (2000a: 94) shares this view and states that ‘persuading consumers to buy cars over the Internet will be an uphill battle’. Mintel (2000b) states that only 5 per cent of the adults would consider buying a car over the Internet.

**Online Shopping as an Innovation**

An understanding of how and when the Web might be used in the buying process may be improved if we consider the factors that are encouraging and/or discouraging adoption throughout the buying process. Diffusion theory may provide a framework for this analysis.

Online shopping is a recent development and therefore represents an innovation to be adopted or rejected. Rogers (1995: 11) defines innovation as ‘an idea, practice, or object that is perceived as new by an individual’. Even though this subjective definition allows for flexibility, it has been criticised by Gatignon and Roberts (1991: 321–2) who argue that ‘there are considerable difficulties in operationalising this definition’ as it relies on each individual’s perception.

Robertson (1971, cited in Hoyer and MacInnis, 1997: 472) proposed an innovation continuum, see Figure 1, where innovations can be classified according to their effect on the existing consumption patterns.

The discontinuous innovation creates dramatic changes in behaviour and requires new skills to be utilised. Discontinuous innovations are ‘so new that we have never known anything like it before’ (Hoyer and MacInnis, 1997: 473) and are rare (Cox and Spickett-
Jones, 2000). The World Wide Web is a good example, as it has had a significant effect on behaviour and requires individuals to learn a new set of skills.

At the other extreme, continuous innovations have only a limited effect on consumption patterns and they would be used similarly to the existing products or services. So an example would be software upgrades where there are perhaps new functions to learn, but use remains similar.

A dynamically continuous innovation is one that has a prominent effect on consumption patterns by modifying existing concepts and behaviour. Assuming that a consumer has previously adopted the WWW, it is this category within which the majority of online shopping can be placed. This can be justified, as online shopping is as an advanced form of traditional home shopping requiring some changes in behavioural patterns – in particular machine-interactivity such as searches and online forms (Hoffman and Novak, 1996). This also illustrates that diffusion is a complex process often involving ‘contingent’ (previous) adoptions and ‘re-inventions’ (new uses for an adopted technology) (Rogers, 1995).

**Adoption and Innovation Resistance**
The final phase in the adoption of an innovation is that of ‘routinisation’ (Rogers, 1995), which occurs when ‘the innovation has become incorporated to the regular activities of the [adopter]’ (p. 399). Due to the novelty of online car buying and the length of the purchase cycles for cars, it is unlikely that this innovation is routine for many people. At this stage, therefore, focus must be on initial trial-adoptions.

Traditional diffusion theory (Rogers, 1995) suggests that the characteristics of an innovation are important determinants of the rate of the adoption. Rogers (1995) proposed that innovations should be evaluated against five attributes: (1) relative advantage, (2) compatibility, (3) complexity, (4) trialability, and (5) observability.

However, Rogers (1995) also warns that diffusion literature may be subjected to ‘pro-innovation bias’, were researchers assume that an innovation should be diffused. This is further emphasised by Szimigin and Foxall (1998: 459) who state that ‘consumers’ resistance to innovations has received relatively little marketing attention’ and O’Connor et al. (1990), who suggest understanding resistance is critical to the success of an innovation. The consideration of innovation resistance theory, conceptualised by Ram and Sheth (1989), may therefore provide a balance to the conceptual framework of diffusion. According to Ram and Sheth (1989: 6) innovation resistance can be defined as:
‘The resistance offered by consumers to an innovation, either because it poses potential changes from a satisfactory status quo or because it conflicts with their belief structure’.

Innovation resistance consists of both functional and psychological elements. Functional barriers are more likely to emerge if consumers perceive significant changes from adopting the innovation, whereas psychological barriers are ‘often created through conflict with customers’ prior beliefs’ (Ram and Sheth, 1989: 7). These two constructs can be used to further categorise the barriers that ‘paralyse [consumers’] desire to adopt innovations’ (Ram and Sheth, 1989: 7), see Figure 2.

Even though Gatignon and Robertson (1989: 47) claim that ‘rejection is not the mirror image of adoption, but a different form of behaviour’, it may be argued that there is consistency in the two approaches. Both may inform our understanding of online buying.

Relative Advantage and Value Barrier
Relative advantage is positively related to adoption and represents ‘the degree to which an innovation is being perceived as better than the idea it supersedes’ (Rogers, 1995: 212). Often this may be a price advantage and is therefore consistent with the value barrier of innovation resistance theory which represents the perceived performance-to-price value of the innovation compared with the product or service it substitutes (Ram and Sheth, 1989).

Compatibility and Usage, Tradition and Image Barriers
Compatibility, which is positively related to adoption, refers to the degree ‘to which an innovation is perceived as consistent with the existing values, past experiences, and needs of potential adopters’ (Rogers, 1993: 224). An example of compatibility with previously introduced ideas is evident in an investigation by Balabanis and Vassileiou (1999) that indicates that consumers with experience from other modes of home-shopping are more likely candidates for online shopping. This can be seen to lower the usage barrier, which refers to a situation where an innovation is not compatible with existing workflows, patterns, or habits (Ram and Sheth, 1989).

The significance of the construct of habit is also recognised by O’Connor et al. (1990) as they argue that decision-making tends to be based on known solutions and past successes and that humans tend ‘to typically avoid change by favouring the current situation’ (p. 82). Furthermore, according to Ellen, Bearden and Sharma (1991), the satisfaction with current performance encourages repetition of that behaviour and thus increases the resistance to adopt an innovation. This is supported by Ram (1987) who argues that resisting

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**Figure 2:** Typology of innovation resistance
*Source: Authors, adapted from Ram and Sheth (1989: 7–9)*
the change that disturbs person’s equilibrium should be seen as a normal response of consumers. It is also consistent with Roger’s (1983) suggestion that innovators are a small minority of the population. The majority do not exhibit a strong desire to adopt the latest technology. It is further argued that the usage barrier increases the more the innovation is discontinuous by its nature (Ram and Sheth, 1989). This might be important to the high-ticket online buying as for example an online car purchase is inclined to be more discontinuous than an online book purchase as consumers are already more likely to be exposed to buying books through mail order.

The tradition barrier emanates in situations where an innovation necessitates a cultural change for the customer, or in other words requires a customer to deviate from established traditions (Ram and Sheth, 1989).

Furthermore, consumers’ prior beliefs can create a situation of incompatibility, thus leading to a second psychological barrier, the image barrier. This is based on an argument that innovations acquire a certain identity from their origins; be it the product class, industry, or the country of origin (Ram and Sheth, 1989). If any of these associations are negative, the customer is more likely to resist the adoption of the innovation.

**Complexity and Self-efficacy**

Complexity, defined by Rogers (1983: 230) as ‘the degree, which an innovation is perceived as relatively difficult to understand and use’, is negatively related to adoption. This can be seen to be directly linked with the construct of self-efficacy or ‘individual’s perceived ability to use the innovation successfully’, which Ellen et al. (1991: 299) identified as the most significant source of resistance to adoption of technological innovations. It needs to be recognised that this construct represents individual’s own judgments on his or her performance capability.

**Trialability and Risk Barrier**

Trialability is positively related to adoption and represents ‘the degree to which an innovation may be experimented with on a limited basis’ Rogers’ (1995: 245). Rogers (1995) has recognised that trial is one of the ways of reducing uncertainty related to innovations. Moreover, Ram and Sheth (1989) argue that to some extent all innovations represent uncertainty, which can lead to consumers postponing the adoption of the innovation until they can learn more about it. This uncertainty can create perceived risk, defined as ‘the extent to which the consumer is uncertain about the consequences of an action’ (Hoyer and MacInnis, 1997: 45).

It can be argued that the above is linked to the credibility component of the trust or in other words to the consumers’ belief that the organisation is capable of delivering its offering effectively and reliably (Doney and Cannon, 1995). Furthermore, the perceived risk related to security issues could also be higher in high-ticket purchases as the monetary transactions are larger.

**Observability**

It has also been noted (Liz and Almeida, 1997) that e-commerce services suffer from social distance or in other words consumers not being able to see others using the service and/or not being able to take part in the social act of using the service. This can be linked to Rogers’ (1995) fifth attribute, observability, which is positively related to adoption and refers to ‘the degree to which the results of an innovation are visible to others’ (p. 244).

The significance of reference groups might also be emphasised in high-ticket purchases as it has been argued that consumers are likelier to use reference groups in the purchase process in high-involvement decision making (Hoyer and MacInnis, 1997).

As a result of the transience and
intangibility of online services, many Internet companies embarked on heavy advertising campaigns in order to establish marketplace presence and build a brand and in this respect observability might also be linked to image and therefore relate to possible image barriers.

A summary of these comparisons is given in Table 1.

**Forms of Innovation Resistance**

According to Szmigin and Foxall (1998), failure to overcome innovation resistance may result in rejection, postponement or opposition. The strongest form of resistance is outright rejection, most often as ‘a result of the new product not offering any worthwhile advantage’ (p. 463). Postponement consists of behaviour where consumers may delay the adoption even though they find an innovation acceptable. This is often caused by situational factors such as the adopter being economically short of resources to acquire the product. The third form of resistance, innovation opposition, can ultimately lead to rejection or to a further information search, which may result in consumer either adopting or rejecting the innovation based on available knowledge.

**Research Approach**

Primary research aims to explore the value of innovation attributes and innovation resistance theory in providing insight into how and why consumers are using the Web to purchase high-value, high-involvement goods.

As the study aims to gain an understanding of attitudinal factors that affect a complex decision-making process, qualitative research methods were employed. Previous research (Maignan and Lukas, 1997) indicates that qualitative methods are useful for revealing the perceived complexity of the Internet by its users and to ‘gain a rich understanding of Internet users’ themselves (p. 347).

Respondents were recruited using a convenience sample from the south of England. In order to ensure that the respondents qualified to the requirements of the study, a method of direct screening was utilised. The respondents had to be Internet users and car owners, aged 18 or over, with experience of online shopping. Ages for the sample ranged from 23–57. Car ownership in conjunction with online shopping experience was considered desirable as this allowed the discussion to focus on the adoption of car buying rather than of online buying in general.

<table>
<thead>
<tr>
<th>Innovation attributes (Rogers, 1995)</th>
<th>Innovation resistance (Ram and Sheth, 1989)</th>
<th>Issues relevant to online buying</th>
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<td>Pricing</td>
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<td>• Prior home-shopping and Web</td>
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<td>• Usage, tradition and Image barrier</td>
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<td>• Image of online companies</td>
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<td>Complexity</td>
<td>Self-efficacy</td>
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<td>Trialability</td>
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<td>Observability</td>
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Source: Authors, adapted from Ram and Sheth (1989); Rogers (1995); Szmigin and Foxall (1998).
Six respondents were recruited from the vicinity of computer retailers and two from non-academic university staff. These approaches were chosen as the number of suitable candidates within the population as a whole was expected to be low and these locations were assumed to be utilised by Web-users. The primary data was collected by conducting eight individual semi-structured interviews of between one and one and a half hours, focusing on the issues identified in Table 1. The value of individual interviews in research, which analyses issues related to innovation resistance, has been recognised by Szmigin and Foxall (1998: 466) who suggest that in-depth interviews reveal latent motivations that may be missed by more ‘superficial’ analysis. As the innovation under study is current and hence more likely to be salient to the respondents, the recall problem of diffusion research is minimised (Rogers, 1995).

**FINDINGS AND DISCUSSION**

The findings suggest reasons why adoption of the Web as a source of information for high-value, high-involvement goods has been relatively high, whereas the conversion to actual purchase has remained low.

There appears to be significant innovation resistance to online car buying, resulting in a rejection of the innovation by many consumers. However, the strength of resistance varies during the course of the buying process and at the early stages online services are perceived to offer relative advantage. During later stages, resistance can be attributed to tradition and usage, which is expressed in the social aspects of the buying process and the need for test-driving during the evaluation stage. Resistance is also pronounced at final stages of the purchase where there are significant risk and image barriers, see Figure 3.

**Relative Advantage and Compatibility**

All respondents expected Web-based companies to offer lower prices and suggested that there would be a strong value barrier if they did not:

‘It surely is wrong if you as a consumer go to the Internet and find prices that are more expensive than those which you can get by calling someone or by visiting someone . . . because you’ve done all the work for finding that information . . .’

The ability to research prices was seen as important. However, respondents’ main use was to gather information at the initial stages of the buying process in order to make product comparisons. Respondents suggested that this was quicker and more convenient than visiting showrooms. This is already identified as a key area for relative advantage in e-commerce by Jarvenpaa and Todd (1997) who suggest that convenience (reduced physical effort and time saved) of online shopping is the most frequently stated reason to shop. It is also likely that this can be partially attributed to compatibility.

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**Figure 3:** Factors affecting adoption of online services throughout the automotive buying process

*Source: Authors*
(Rogers, 1995), as all respondents were accustomed to using the Internet for other information-orientated tasks. This group of experienced users therefore suggested that there are no self-efficacy barriers.

In addition, a strong driver for the adoption at this stage was the dissatisfaction with existing processes (Ellen et al., 1991) — ie, salesman behaviour. This generated a motivation to avoid the traditional pressure orientated sales situation:

‘I’d probably go first to the Internet and try to find information and create an adequate level of knowledge of the options available. [Car salesmen] tell you anything to get the car sold rather than being objective and truly helpful’.

‘You know that when you go into the showroom, even if you are only looking, that the salesman will put pressure on, you know, ask you what car you have, how much money you have to spend. If you don’t know what you are talking about you can be at a real disadvantage.’

Respondents suggested that Web-based information needs to be ‘better’ than what is available elsewhere, and claimed that many services did not achieve this. This suggests another potential value barrier when the cost of obtaining information is greater that its benefits:

‘At the moment a lot of sites are missing information and do not give you a full picture of all the details that are available from a range of cars’.

One way suggested to improve information was personalisation:

‘what I want is to be able to interactively build the car that meets my needs … and following that after being able to customise the car to my liking, I would have wanted to see the price for that specific model’.

This is supported by Peters (1998) who emphasises the significance of ‘consumer control of content’ (p. 25). In addition, online automotive services are likely to benefit from including an element of human-interaction to the online experience as several respondents referred to a need to ask detailed questions when evaluating a high-involvement product:

‘Some questions the computer just can’t answer. And e-mail is no good because I know how easy it is to ignore that, or you get some automated response. You want to be able to explain the question to a real person and get a real reply. I think a human is more likely to understand you’.

‘I could see this working with new cars: a [online] chat, and you can ask questions through that, from someone sitting there and that person would be unlikely to pressurise you’.

This idea supports Åberg and Shahmehri (2000) who have previously suggested the inclusion of human-interaction to the online buying process. By utilising person-interactivity, an individual is able to experience increased social presence (Perce and Courtright, 1993), emulating a dialogue with a dealer without exposing him or herself to undesired pressure. This can be seen as an example where distance, which Liz and Almeida (1997) suggest is liability for e-commerce, can actually be advantageous.

According to Gupta and Chatterjee (1997) consumers decide whether to conduct acquisitions online or off-line on the basis of, among other things, speed and cost of shipping and delivery. Respondents expressed dissatisfaction with the present delivery times and fulfilment when buying a new car from traditional dealers. Organising delivery of a car bought from the Internet however, was perceived to be even more complex and therefore the relative advantage in this area was seen as difficult to achieve.

Usage and Tradition Barriers
At the evaluation stage, there is a lack of compatibility with existing off-line behaviour. Respondents expressed a strong need to have direct and personal experience of the product. To add to the
complexity of the adoption process for online car buying, it is clear the purchase of a new car is also an adoption of an innovation — albeit a continuous innovation. Consumers therefore place a heavy emphasis on product trialability due to the elevated level of perceived risk originating from the high monetary value of the purchase (Hoyer and MacInnis, 1997):

‘When something is physically important, like a car, you have to sit in it and feel how it is … if it’s comfortable enough, how it drives. It doesn’t work by Internet as far as I can see … they give you a nice kind of interior 360-degree display of the car, which is lovely. But … it’s got nothing on actually sitting in the car and driving it’.

Phau and Poon (2000) argue that the ability to trial online acquisitions is an important factor affecting whether a product or service is suitable to be sold online. For example, demonstration versions of software, trial periods of online newspapers or video/music subscriptions reduce the uncertainty in purchase decision and thus stimulate purchases. Research from PricewaterhouseCoopers (2000) indicates that 41 per cent of online purchasers have wanted to return a product purchased from an online shopping site, but decided it was too complicated a task to go through. In respect of car buying this represents a usage barrier as it is the failure of online services to allow test-drives that represents the barrier.

The need for test-drives alone may not entirely explain rejection, as other complex and relatively high-value, innovative products (such as computers) are sold successfully over the Internet. Respondents also highlighted the social aspect of car purchase. This may differentiate car buying from some other high-value purchases:

‘It would be a sad day when that day comes when you only buy things online, because you’d lose something … when I was young … we spend the whole day just going around and looking at cars’.

The enjoyable, physical process of going round looking at cars with family and friends may be very difficult to duplicate online. Here, respondents are suggesting car buying as a social activity — a ‘day out’.

In addition, several respondents were concerned that they would not be able to negotiate with a website very effectively — a ‘failure’ of machine interactivity:

‘If one would end up buying it online, the price would probably be higher than in a real life purchase … I mean how in the hell can you negotiate anything with a computer?’

Again, this refers to individuals’ expectations of the car buying process — they expect to have to haggle and therefore ‘need’ to feel that they have negotiated the best price. The fixed pricing of many online retailers may violate this expectation, creating a barrier to use.

**Risk and Image Barriers**

Innovation resistance regarding online car buying can also be attributed to the various facets of perceived risk and the issue of trust:

‘I guess I could get the background information from whatever website, but for me the most important thing is the trust to a human … You can’t trust to some software … I mean alone’.

When considering the possibility of purchasing a car from an online merchant the respondents referred indirectly to two key components of trust: the credibility and the benevolence of the merchant (Ganesan, 1994).

Respondents questioned the credibility of many of the new companies in the market. In particular, an image barrier resulting from negative
publicity regarding the sustainability of the ‘dot.com’ companies amplified perceived risk. Overall, legacy companies were considered more trustworthy. One respondent specifically evaluated companies on the basis of whether he had seen the organisation on the Internet prior to making a purchase:

‘I always try to make sure that I’ve seen the firm previously on the Internet . . . I do prefer those [click-and-mortar companies], because then they are a proper company, aren’t they? . . . I think they [established company] have to be wary of their reputation more . . . they have much more to lose than an unknown company’.

This can be seen as encouraging for companies investing in online marketing and supports the findings by Briggs and Hollis (1997) who argue that banner advertising elicits a response from consumers even without the click-through. The importance of having a recognised brand is also emphasised by Jarvenpaa and Todd (1997) who state that consumers are concerned with the reliability and reputation of the online merchants and due to the lack of information are drawn to sites with familiar brand names. This might be pronounced in online car buying and other high-ticket situations, as findings from Balabanis and Vassileiou (1999: 375) indicate that ‘retailers with weak brand names will have a problem to sell through the Internet to highly involved consumers, unlike retailers with strong brands’.

Most respondents also highlighted the importance of recommendations from friends:

‘like with my friends . . . we tend to buy a lot of different things from the Web . . . we all share information about good sites.’

This can be seen to be consistent with Tan’s (1999) conjoint analysis of Singaporean consumers on the Internet, which revealed that the most preferred risk reliever is reference groups.

Respondents also questioned the benevolence (or the belief in the integrity of the future intentions), of the merchant suggesting a risk barrier related to the uncertainty of trouble-free servicing and after sales support:

‘It’s the after-sales, because I know when cars go wrong and people are not too interested in obligations or doing of fair after-sales service then . . . then that is a big problem.’

Respondents were anticipating problems with after-sales support if they bought their cars outside the traditional dealer. It was thought to be ‘offensive’ to the dealership in question if the car was taken to be serviced, or for warranty work, without it being bought from the specific garage:

‘If you’d bought the car from the people they would feel an obligation to you. . . . If they are a good dealership. If you’d bought it from the Internet you’re kind of saying . . . you kind of put your fingers up saying that I’m not going to pay your middleman charge’.

‘You save money on the Internet, then you take it to your local dealer and ask them to do the warranty — it’s rubbing their nose in it.’

Some respondents separated the actual transaction from these factors, suggesting that if these issues (ie, of trust and after-sales arrangements) could be overcome, then the actual order process could take place online:

‘If I could go and test-drive the car normally, kick the tyres and abuse the dealer I guess I could fill that order form online instead of a paper one’.

Finally, respondents expressed concern regarding the method of payment for large online transactions as they normally paid for online purchases by credit cards, which could not be used for items as expensive as a car. A study by Jarvenpaa and Todd (1997) indicates that in the context of e-business consumers perceived personal risk (misuse of credit cards etc.) to be the
most significant of overall risks. However, they conclude that security issues are not stopping people from conducting online shopping. Furnell and Karweni (1999) support this, as their results also indicate that security issues were a significant concern among online shoppers. Here, the barrier goes beyond security. Consumers did not understand how they could actually pay for something as expensive as a car.

**ANALYSIS AND CONCLUSIONS**

Diffusion theory and innovation resistance provides a useful framework for understanding online buyer behaviour in complex and novel situations. In particular, it helps to explain those stages of the decision-making process when consumers readily employ online services, and those stages which consumers prefer to conduct using traditional channels.

Internet users are quite able to identify and express relative advantage gained through interactivity. In particular those situations where machine-interactive services have benefits and those where person-interactivity is desirable. They are also able to express barriers to the adoption of online services. If these respondents are typical, then this research suggests subtle, but significant changes to the car retail marketplace as a result of use of the Web.

This research confirms the central role of trust in online transactions, highlighted in much previous research. For example, Hoffman, Novak and Peralta (1999) and Ratnasingam (2000), (in the content of B2B transactions), highlight the importance of trust and the role of ‘balance of power’ in relationships. Shultz and Bailey (2000) also highlight that consumers seek to achieve equity in social exchange in an interactive marketplace.

Trust in dealers is key to both the attractiveness of Internet information search and the need to buy from a physical dealer. Consumers see an advantage in Internet search, as they do not trust salespeople to provide impartial advice and want to ‘pre-arm’ themselves with knowledge in order to pre-empt the salesperson’s traditional ‘sales pitch’. Consumers also see advantage in online price comparison, as they do not trust salesmen to volunteer the best price and again, want to enter negotiations pre-armed with price information. Consumers use information search on the Web, partly to overcome what they see as an imbalance of power between them and salesmen.

The Web is not necessarily increasing trust, but its advantage is that consumers can overcome a lack of trust. This is also an example of Web-enabled consumer freedom explored by Venkatesh (1998). Consumers use the Web to avoid the ‘normal’ showroom experience.

It seems slightly ironic then that when it comes to negotiation and payment, consumers do trust the dealers more than machine-interactive websites (although it may be that it is the organisation that is trusted rather than the individual salesperson). This is possibly due to ‘tradition’. Consumers are used to ‘haggling’ for the best price with the dealer and feel uneasy about any online transaction that does not include this ‘ritual’. In addition some buyers may feel that dealers would give better after-sales care if they supplied the car in the first place (or more accurately, that dealer would give worse service to people who did not purchase from them).

Online services therefore have a strong role at the information search stage of the buying process, consistent with other research which highlights the use of the Web as a source of information (for example Korgaonkar and Wolin, 1999; Papacharissi and Rubin, 2000). In order to achieve relative advantage at this stage, the online service might offer at least the same amount of information that is available through other sources, in a manner that
answers individual’s specific questions. This can be achieved by allowing the user to customise the data to meet his or her personal needs as well as providing the possibility for computer-mediated human-interactivity. In the context of the automotive sector, this adds significant value to the customer interaction as traditional dealer interaction is simulated in a pressure free environment. This would suggest that Web-based services that focus on information have an important and evolving role in market (eg, ‘aggregators’, classified sites and manufacturers own sites). It might also suggest a changing role for salespeople with more focus on demonstration and negotiation, rather than information and persuasion.

The two most significant sources of resistance were based on usage and risk barriers arising at the evaluation and the after-sales stages of the buying process and these resulted in rejection of online buying. First, consumers are unwilling to commit themselves to a purchase without direct product experience. Secondly, the uncertainty regarding the availability and quality of servicing and after-sales support was a significant source of perceived risk. Both these issues have significant managerial implications for the online automotive sector and suggest the need for a ‘clicks-and-mortar’ strategy. Internet pure-plays who already have an established relationships with an off-line players would benefit from making associations manifest and guiding consumers to these ‘approved’ dealerships providing the reassurance of a familiar brand. An online service without such links can only hope for opportunistic behaviour from consumers, which not all consumers are comfortable with. It is also likely that manufacturers and their established dealer networks are in a good position to capitalise on this hybrid strategy.

It is acknowledged that due to the exploratory nature of this study and the use of a small non-probability convenience sample, the findings may not be representative of a larger population. It is therefore suggested that future research should utilise larger and more diverse sampling to examine the validity of the findings presented in this study. Furthermore, it would be beneficial to study other high-ticket product categories and their adoption or rejection in online environment.

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