BRAND EQUITY IN AN ONLINE WORLD

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Abstract

Brand Equity is not only important in traditional marketing strategies but has a significant role to play in the online marketplace. Results of an experimental study on the airline industry show the continued salience of brand name. Purchasing airline tickets online was found to be associated with greater value for money. The research also showed that consumers associate discounting with purchasing airline tickets online and do not find offline discounting to be as creditable. In fact, they were found to be less inclined to purchase cheaper tickets offline than more expensive tickets online. Thus companies need carefully consider discounting when they have both online and offline channels of distribution.
INTRODUCTION

Brand equity (name) has always been an imperative concept in marketing and in the last decade its importance has received much attention in the literature (Keller, 1998; Aaker, 1996; Gronhaug, Hem and Lines, 2002; Brymer, 2004). The crowded and competitive nature of toady’s marketplace which has resulted from globalization, the advent of the internet and online shopping means that businesses do not just compete against local, national and physical competitors, but with other organisations (including virtual competitors) from around the world (Chang and Samuel, 2004). Consumers therefore, can search for information about products and services via the internet and are exposed to a variety of comparable brands. Apart from being exposed to many brands the consumer is likely to become increasingly price sensitive. Those reasons have highlighted the need for businesses to have a well-defined and recognizable brand name (Chang and Samuel 2004). In Australia managers have recognized that need by spending approximately $9.3 billion in 2003 to promote their brands (Catalano, 2004). That suggests that managers have identified the need to enhance the strength of their brands in the minds of the consumer in order to survive in such a marketplace (Aaker, 1996; Keller, 1998). Due to the nature of today’s marketplace the role of brand equity (name), distribution (online/offline) and price can be expected to become more prominent in the future. This prominence will feature in how consumers evaluate and choose products and services.

It is the purpose of this study is to investigate the importance of brand name, with respect to price in both the online/offline contexts.

To allow for this investigation the focus of this study is to determine:

1. The importance of brand name in the online and offline marketing environment.
2. The significance of brand name on evaluation and choice.
3. The significance of distribution (online/offline) on evaluation and choice.
4. The significance of price on evaluation and choice.

These issues are interrelated. It is argued that consumers will not only use brand name in their decision making, but so to distribution (online/offline) and price. Varying degrees of importance will be placed
upon each cue, which will provide an interesting insight into identifying what cue has the most significant effect on the evaluation and choice decisions by the consumer.

**LITERATURE REVIEW**

Numerous studies in the area of marketing have identified the presence of many cues which affect consumers in their decision-making process. Consumers not only use intrinsic cues such as physical attributes to evaluate products and services but also employ extrinsic cues in the form of brand name, distribution (online/offline) and price. Research has shown that brand name, when used as an information cue, significantly affects the evaluation and choice decisions of the consumer (Dodds, Monroe and Grewal, 1991; Laroche, Kim and Zhou, 1996; Brucks, Zeithaml, and Naylor, 2000; Olson, 1977). Brand name has been viewed to influence quality judgment, price evaluation, value interpretation, and purchase probability. Brand name, however, is not the only cue used by the consumer to evaluate products and services. The cues of distribution (online/offline) and price can also impact consumer evaluation and choice decisions. (Stader and Shaw, 1999; White, 1997; Donthu, 1999).

The conceptual structure that forms the framework of this study is shown in Figure 1. The informational cues associated with a brand name, the distribution channels (online/offline), its price and the type of product or service, are the independent variables. Salient consumer evaluation and choice are based upon using that information to determine how the dependent variables in Figure 1, namely perceived quality, price perceptions, perceived value, and purchase probability, affect consumer brand perceptions. The independent variables form the main experimental treatments used in this study.

**INSERT FIGURE 1 HERE**
Brand Name

A brand, as defined by Shimp (2003 p6), is:

“A convenient and appropriate label for describing an object of a concerted marketing effort”.

A brand name is an important extrinsic cue for consumers for a variety of reasons. The first is that a brand name helps the consumer identify the source or maker of a product or service (Keller, 1998; Cobb-Walgren, Ruble, and Donthu, 1995). That is important particularly if the consumer finds something wrong with the item purchased and needs to assign responsibility, or to seek compensation. Another reason is that a brand name can act as a risk reducer (Keller, 1998), which allows the consumer to purchase an item they are familiar and comfortable with and to be at ease with their decision. The third reason why brand name is important is that if a consumer recognizes a brand, then they will not have to engage in a complex decision making process when making a purchase decision (Keller, 1998; Cobb-Walgren, Ruble, and Donthu, 1995). The reduction of decision making effort then enables consumers to lower search costs, in terms of time and effort, when considering which product to purchase. The most significant reason why brand name is important relates to it acting as a signal of quality (Dodds, Monroe, Grewal, 1991; Richardson and Dick, 1994). The price consumers are willing are also influenced by brand name (Dodds, Monroe and Grewal, 1991; Olson, 1977).

Based on what consumers know about a brand can highlight their perceptions of quality. Therefore, the extent to which consumers realize the benefits from purchasing a particular brand, and derive satisfaction from its consumption, will also influence the likelihood of purchase (Keller, 1998).

The importance of brand has also been addressed in the literature of brand equity. Keller (1998 p50) considers brand equity as being the situation,

“where the consumer has a high level of awareness and familiarity with a brand, and holds some strong, favourable and unique brand associations in memory”.

Brand equity therefore, is an explanation of the importance of brands in the marketplace and develops because of consumers’ awareness and familiarity (Aaker, 1991; Beil, 1992; Keller, 1998; Cobb-Walgren, Ruble, and Donthu, 1995). The more well known a brand the more likely it is to be stored in the consumers evoked set ((Nedungadi, 1990; Shimp, 2003). This is because positive product or service associations with the brand (image and reputation) are more likely to develop when a brand
becomes well known to the consumer. The relationship of familiarity, brand image and brand reputation is illustrated in Figure 2.

Past research has also shown that as the familiarity with the brand increases, consumers are less likely to use other cues for evaluation and choice (Olson (1977; Monroe and Krishna 1985; Laroche, Kim and Zhou, 1996; and Richardson and Dick 1994). However, that does not mean a brand name is the only cue used by consumers to evaluate a product or service. In fact other informational cues, such as distribution and price, will also have an impact upon consumer evaluation and choice decisions. For this research, brand name has been hypothesised as influencing consumer evaluation and choice, thereby leading to the first hypothesis:

\[ H1: \text{Brand name will have a significant positive main effect on consumers' evaluation and choice.} \]

**Online and Offline Distribution**

The way that a product or service is distributed can impact upon brand equity (Stader and Shaw, 1997; Keller, 1998). In the current marketing environment organizations have the choice of distributing their goods or services by traditional retail outlets, or by adopting the increasing use of e-commerce (Kiang, Raghu and Shang, 2000; Donthu, 1999). Consumers are then presented with an option to either shop at the retail store, or to engage the growing wave of online shopping (Spiller and Lohse, 1998; Stader and Shaw, 1997; Underhill, 1999). From a global perspective, Greenspan (2002) found that internet usage between 2001 and 2002 had increased from 31% to 34%, with 15% of those users making a purchase online. The total amount of money spent online during that period was approximately $17.5 billion, with the purchase of travel, such as airline bookings, growing 46% to $7.8 billion. It was noted that 11% of global online shoppers made travel bookings via the internet, which tends to reinforce the growing trend of online shopping.
Despite the increased online shopping and spending, some consumers remain hesitant to adopt this distribution (Stader and Shaw, 1997; Spiller and Lohse, 1998; McQuitty and Peterson, 2000). That hesitancy may be occurring because consumers relate to the positives associated with traditional retail distribution. Consumers that choose to shop online do it for the wide selection of products or services available at the click of the mouse, for the convenience of shopping from the comfort of their own homes, and the abundance of information available, such as price. The availability of price information enables consumers to become more price-sensitive when searching for similar products or services (Underhill, 1999; Chang and Samuel 2004; Donthu, 1999). Consumers who do not shop online, but choose to shop in the traditional way, see that form of shopping as beneficial because they can physically evaluate and trial the product or service, gain immediate gratification from what they have purchased, can engage in the social interaction of shopping with friends, and to avoid the security issues of online shopping (McQuitty and Peterson, 2000; Miyazaki and Fernandez, 2001). All of the positive factors associated with each type of distribution suggest the underlying motives as to why consumers prefer to shop online or to visit the actual store (Underhill, 1999; Stader and Shaw, 1997).

Van den Poel and Leunis (1999) examined the perceptions consumers have towards online and the traditional (retail) distribution and found that consumers perceive that there is more risk (especially perceived functional and financial risk) associated with shopping online. A major means of reducing perceived risk is to purchase an established brand (Jacoby and Kaplan, 1972; Settle and Alreck 1989). This is likely to be more important in an online environment where consumer do not have many other cues (especially intrinsic) with which to evaluate product and services. Thus the next set of hypotheses of the study were:

**H2**: Distribution (online/offline) will have a significant main effect on evaluation and choice.

**H3**: There will be a significant interaction between brand name and distribution on evaluation and choice.
Price

Price has traditionally been conceptualized as the sacrifice made by the consumer in order to obtain a product or service (Zeithaml, 1988). In the absence of other cues such as brand name and product information, consumers tend to use price as a major determinant of product evaluation. Monroe (1973), for example found that a higher price elicits a higher perceived product or service quality. It appears that the use of price, while an important decision making criteria for consumers is dependent on brand name (Olson 1977; Monroe and Krishnan 1984; Dodds, Monroe and Grewal, 1991 and Keller, 1998). Research by Dodds, Monroe and Grewal (1991), for example found that brands which are higher in price are perceived by the consumer to be of higher quality, thus higher priced brands it is suggested have higher levels of brand equity (Yoo, Donthu, Lee, 2000). Although it is also possible that low priced brands may have high levels of brand equity because they are perceived as providing greater value to the consumer.

By using price as an evaluative mechanism, consumers may combine their perceptions of both quality and price to arrive at an assessment of perceived value for a product or service (Dodds, Monroe and Grewal, 1991; Keller, 1998). The assessment of perceived value is a significant factor which influences the evaluation and choice decisions of the consumer, and indicates that price will have a significant effect on evaluation and choice decisions. A generalization from these studies is that price is rarely an accurate or most important cue used by consumers to evaluate quality.

It should be noted consumers desire to pay a lower price whenever they can for their product or service choice. Apart from buying a familiar brand for its perceived quality, value is also sought by the consumer in that brand being available at a cheaper price (Blattberg and Neslin, 1990; Grewal, Krishnan, Baker, Borin, 1998 and Zeithaml, 1988).

The means of distribution and price can also impact on brand choice and evaluation. The role of price is significant in the online arena because when consumers shop online they often do so to find a cheaper price for comparable items (Underhill, 1999). This is indicative of the global airline industry where deregulation has allowed for increased competition on the basis of price. A consequence of that price competition results in consumers becoming more value conscious when purchasing airline tickets, particularly when consumers use the internet to search, and pay for, the best available travel deals. White (1997) found that consumers believed that the total price paid should be reduced because
there was no physical store. Typically, consumers who shop online do so to find a cheaper price for a product or service. Overall, it may be that price is not the only cue used to evaluate quality or value or influence consumer choices. Rao and Monroe (1988) and (1989), for example, suggest that price has a moderate effect on perceptions of quality, and is used in the presence of other cues such as brand name and distribution. From a brand equity perspective, it is important to understand the price perceptions consumers have for a brand. By knowing those perceptions, quality and value inferences about the brand can be represented in consumer evaluation and choice decisions. All of the above arguments provide the basis for the final hypotheses of this study.

\textit{H4: Price will have a significant main effect on evaluation and choice.}

\textit{H5: There will be a significant interaction between price and brand name on evaluation and choice.}

\textit{H6: There will be a significant interaction between price and distribution on evaluation and choice.}

\textit{H7: There will be a 3-way interaction between price, brand name and distribution on evaluation and choice.}
METHOD

Participants
A sample consisting of 160 undergraduate students enrolled at the Major University campus was invited to take part in the study. The use of a student sample was appropriate given that since they are frequent users of the internet (ABS 2000). Recent research by Biswas and Biswas (2004, p 34) also advocate the use of student samples, since they reflect closely the typical internet user.

Meta analysis studies in marketing have also revealed no significant differences in effect sizes between student and non-student samples (Sawyer and Ball 1981; Peterson and Albaum and Beltramini 1985 and Liefeld 1993).

The sample size of 160 was derived from the eight treatment groups, which each contain approximately 20 students. Lipsey (1990) suggests that having 20 or more respondents in each treatment group is desirable for statistical analysis. The sample consisted of 43% Males, and had a mean age of 22. The sample was found to on average purchased one airline ticket a year, and spent on average $375.00 (AUS) a year on online purchases. It was not that unusual for respondents to have flown on the airline route between Perth and Singapore, which is addressed in this study, doing so on average about once per year. Note that additional analysis of those who had never flown between Perth and Singapore or purchased an airline ticket online or not, as subject factors, showed that the level of product experience did not influence the results.

Design
A “between subject experimental design” was used for this study which consisted of eight treatment groups, 2 for brand name (well known and unknown), 2 for distribution (online and offline), and 2 for price (high and low). The first experimental treatment was selected as the result of a pilot study of 74 students and consisted of two level brand manipulations. Virgin Blue (mean of brand knowledge=2.87, scored from 1 know nothing about to 5, know every thing about) was used as the well known brand and Air Paradise as the unknown brand (mean brand knowledge=1.40, t=8.35, p<.01). Pilot research also found that Virgin Blue was perceived as having higher service quality (mean of service quality=3.41, scored 1 (poor) to 5 (excellent) when compared to Air Paradise (mean of service quality=2.91, t=2.26, p<.05). Respondents in the pilot study also preferred to travel with Virgin Blue
(mean of purchase intent=52.72%) than *Air Paradise* (mean of purchase intent=23.14%, t=3.78, p<.01).

The second experimental treatment was the distribution mode the brand could be purchased, which were online or offline. The third experimental treatment was price, which consisted of two levels – a high price ($400) and a low price ($300). Table 1 illustrates the experimental design. All the experimental treatments dealt with the Perth to Singapore route and the prices used reflected high and low prices that were found on the internet.

**INSERT TABLE 1 HERE**

**Measurement**

As the result of reading a randomly assigned experimental treatment, each respondent was asked to evaluate the airline offer. This included their price perceptions, perceived quality, value and purchase intent. Price Perception was measured by asking each respondent to express the price they would be willing to for each brand. This procedure of measuring price perceptions is similar to the technique used by Kulwani and Chi (1994). Respondents were also asked whether they considered the actual price of the airfare as cheap or expensive on a Likert scale of five scale values – One (1) being “Very Cheap” to Five (5) being “Very Expensive”. This measurement of price is comparable to Tung-Zong and Wildt (1994). Perceived quality was measured by asking respondents to provide an overall score of quality. A Likert scale of five scale values – One (1) being “Very Poor Quality” to Five (5) being “Very Good Quality” – was used. This technique is similar to that used by Dodds, Monroe and Grewal (1991) price/quality study and Grewal, Krishnan, Baker, Borin (1998).

Perceived value was measured using a Likert scale of five scale values – One (1) being “Very Poor Value for Money” to Five (5) being “Excellent Value for Money” – This was used to identify the respondents overall perception of value. This approach is similar to that used by Dodds, Monroe and Grewal (1991) and Tung-Zong and Wildt (1994). Purchase probability was measured by asking respondents to state a percentage probability (0-100%) of purchasing the brand. Respondents were asked to write down the percentage probability in the space provided. This technique is comparable to that used by Morwitz and Schmittlein (1992). Measurements of respondents’ use of the Internet, amount purchased online (including airline tickets) how often they flew between Singapore and Perth and general demographic information was also collected.
Procedure

The study was piloted successfully with a (convenience) sample of thirty participants. The surveys distributed in the main research study were structured, one-page (double-sided) in length.

The eight treatment groups, each of approximately 20 participants, were asked to complete a questionnaire. Each person was randomly assigned on the eight experimental treatments. Each respondent was presented with the questionnaire, which contained a covering letter to explain its purpose. The presentation of the questionnaire was standardized for all participants from the eight treatment groups, except for the rotation of brand name (well known and unknown), distribution (online and offline) and price (high and low). Once the respondents had read the cover letter and understood what was required of them, they could then begin the questionnaire that should take them no more than five minutes to complete. Guidelines endorsed by the Research Ethics Committee of the local University were followed when conducting the questionnaire. At the end of the questionnaire respondents were asked to write down their opinion of its purpose.

In order to minimize demand artefacts, which relate to respondents attempting to guess the purpose of the experiment, Sawyer (1975) and Shimp, Hyatt and Synder (1991) suggest the following. Firstly, before the respondents began the questionnaire, the true nature of the study was concealed despite the explanation in the cover letter. Secondly, at the end of the experiment the respondents were debriefed as to what the true purpose of the study actually was. If the respondents had correctly guessed the purpose of the study this would be recorded when tabulating the results.

RESULTS

The general analytical procedure involved: (1) an evaluation of the measurement properties of the scales and the derivation of descriptive statistics, (2) exploratory data analysis and residual examination, and (3) the specific statistical analysis pertaining to the hypotheses and manipulation checks. Because the experiment involved multiple correlated dependent variables, it was necessary to use MANCOVA for the third component of the statistical analysis. The procedure used was that recommended by Barker and Barker (1984), and Hummel and Sligo (1971). It involved the fitting of
the overall model and conducting an omnibus test followed by full univariate evaluation for the significant results.

The results of the multivariate tests are shown in Table 2. There was support for H1 (i.e. brand name will have a significant positive main effect on consumers’ evaluation and choice), H2 (i.e. distribution (online/offline) will have a significant effect on evaluation and choice), H3 (i.e. there will be a significant interaction between brand name and distribution on evaluation and choice), and H6 (i.e. there will be a significant interaction between price and distribution on evaluation and choice). The multivariate tests showed support for brand name, distribution, the interaction between the two, and the interaction between price and distribution were significant factors in the decision making of respondents. Using Cohen (1977) guidelines, which proposed that in social science $\eta^2$ greater then 0.15 indicated a large effect size, more than 0.06 medium, and above 0.01, a moderate effect size, the level of explained variance across the dependent variables (quality, price, value and purchase probability), was high. The $\eta^2$ values also show the percentage of variance explained by the experimental treatments.

It should be noted that the highest proportion of variance explained was due to brand name of the airline ($\eta^2 = .39$, or that 39% of the variance of the combined evaluations is explained by brand name), by distribution ($\eta^2 = .17$), by brand name of airline x distribution ($\eta^2 = .31$) and price x distribution ($\eta^2 = .15$). This supports the work of Dodds, Monroe, Grewal, (1991) Monroe and Krishna, (1985) Grewal, Krishnan, Baker, Borin, (1998) and Olson (1977) that highlighted the impact of brand name and its inference upon quality, value and purchase probability when used as an extrinsic cue by the consumer.

No significant effect was reported for price, the interaction between price and brand name, as well as the 3-way interaction between price, brand name and distribution on consumer evaluation and choice decisions. Therefore, no support was found for hypotheses 4, 5 and 7. This finding is contradictory to the work of numerous scholars (i.e. Monroe 1973) that has reported the link between price and perceived quality and concluded that a higher price elicits higher quality. In this study the respondents did not use price as an indicator of quality, but used brand name as the dominant cue in their decision
making process. Studies (i.e. Dodds, Monroe and Grewal 1991 and Olson 1977) had also found that brand name influences the price consumers are willing to pay for a product or service. This finding was however unproven in this study.

INSERT TABLE 2 HERE

The univariate results as presented in table 3 showed further support for H1, H2, H3 and H6 (i.e. significant effects for brand name, distribution, the interaction between the two, and the interaction between distribution and price) across the dependent variables. The use of brand name (H1) was found to have a significant effect on all consumer evaluations, accept price and was a major factor in a consumer’s choice of airline, whether tickets were purchased online or not, explaining around 27% of the variance of purchase probability or Eta squared ($\eta^2 = .27$). As shown in table 4, the means of service quality, perceived value and purchase intent were much higher for the well known brand Virgin Blue than the unknown brand, Air Paradise.

INSERT TABLE 3 HERE

The use of an online or offline means of distribution of airline tickets (H2) was found to only effect perceptions of value, as shown in table 4, air-tickets purchased online being were perceived as providing greater value for money than those purchase offline through more traditional means. The interaction between distribution and brand name (H3) was found to have a significant effect on service quality. The nature of this relationship is best explained in the interaction plots which are discussed later in the results. The results also showed a significant interaction between price and distribution (H6), again this is best illustrated in the interaction plot, but it seems that the use of discount strategy is more suited to online distribution.

Again using Cohen (1977) guidelines for effect size of variance, the data suggested the strongest effect were due to brand name ($\eta^2 = .25$ - dependent service quality, $\eta^2 = 12$ - dependent value, $\eta^2 = .27$ - dependent purchase probability), distribution ($\eta^2 = .11$ - dependent value), brand name and distribution ($\eta^2 = .20$ - dependent service quality), and distribution and price ($\eta^2 = .11$ - dependent value, $\eta^2 = .07$ - dependent purchase probability). The respondents therefore saw brand name as a guide to quality, value and purchase probability. This is consistent with past research (Dodds, Monroe, Grewal, 1991; Monroe and Krishna, 1985; Grewal, Krishnan, Baker, Borin, 1998; Olson, 1977).
respondents also viewed online distribution as an indicator of value. This is in line with the research (Stader and Shaw, 1999; White, 1997; Underhill, 1999) that suggested that consumers see buying online as providing greater value. This partially explains significance of the interaction between distribution and price, whereby discounting online is seen as more creditable than discounting offline. Finally, respondents saw brand name and distribution as a guide to quality. This may because in an online environment consumers have less cues with which to evaluate products and services and so rely more on brand name.

**INSERT TABLE 4 HERE**

The plots for significant interactions between brand name and distribution for service quality, price and distribution for value for money and price and distribution for purchase probability are shown in Figure 3, 4 and 5. The depiction of these plots helps substantiate the findings for the multiple comparison or test of mean score results. Figure 3 shows that for Virgin Blue, brand equity, in terms of service quality is more important when it is offered online as opposed to offline. This indicates the importance of brand equity in online transactions, and may suggest that a more established brand is associated with higher expectations of service in an online environment. Conversely, when offered offline both Virgin Blue and Air Paradise are comparable in terms of service quality. Given the large effect size of this interaction brand equity and distribution ($\eta^2 = .20$), it seems that brand equity plays an important role both directly and in relation to online transactions when consumer evaluate quality.

**INSERT FIGURE 3 HERE**

The interaction between price and distribution for value as shown in figure 4, suggested that respondents tended to associate discounting (in this case a lower fare of $300) as providing value only when it was offered online. No discernable differences in the perception of value are shown in figure 4 between higher ($400) and lower prices ($300) in an offline retail channel. This may suggest respondents associate purchasing online as providing greater value, since it seems to be associated with lower prices (Stader and Shaw 1999 and Underhill1999).

**INSERT FIGURE 3 AND 4 HERE**

The effect of discounting online also has important implications for customer choice. As shown in figure 5, respondents are most likely to purchase a cheaper ticket ($300) online than the same ticket
offline. The cross over as shown in the interaction even shows that respondents are more likely to purchase an expensive ticket ($400) in an offline environment than a cheaper ticket ($300).

It thus seems that respondents only believe discounting online to be creditable and that airline companies should not provide, where ever possible cheaper tickets offline, as they are less likely to be accepted, and so are likely lose market share, with a lower prices. Although it must be remembered that the effect size for this finding is not large ($\eta^2 = .07$), this is an interesting avenue for future research, as it shows the development of consumer behaviour online which differs marketability from that offline. To conclude, table 6 summarises the main findings of the results.

DISCUSSION AND CONCLUSIONS

The results support the importance of brand equity, especially in terms of service quality in an online context. Therefore they importance of brands as shown in studies which have focused purely on its role in traditional consumer behaviour (Dodds, Monroe, Grewal, 1991), Grewal, Krishnan, Baker, Borin, (1998) and Olson (1977) can be applied to that of the Cyber-marketplace.

The use of online distribution was found to influence the perception of value. This is in line with previous research (Stader and Shaw, 1999; White, 1997; Underhill, 1999). The interaction of price and distribution suggested that consumers see the Internet as a creditable avenue for cheaper airline tickets, but are less inclined to accept these same discounts if offered offline. It also confirms the accepted view that consumers expect to pay lower prices when purchasing online (Stader and Shaw, 1999; White, 1997; Underhill, 1999).

There are important implications for businesses that compete in today’s marketplace from these results. For companies it highlights the importance of brand name in the marketplace and justifies why so much is spent on promoting brand name. This is particularly important considering that increased competition caused by globalization, rise of the Internet and online shopping means that product and service categories have become more crowded and homogeneous both domestically and internationally. A familiar brand name therefore, allows the consumer to recognize and distinguish a particular product or service from its competitors and this can translate into positive brand equity. In turn the business is presented with the opportunity for financial gain through their brands familiarity
and inference upon quality and value. Companies, particularly airlines need to consider carefully the implications of online distribution, as consumer view it as a discount chain, and conversely expect higher levels of service quality and perhaps therefore trust, from established carriers.

The findings of this study are somewhat limited by the nature of the sample. The use of student samples, it can be argued may not reflect what occurs in the marketplace. However, studies by Grewal, Krishnan, Baker, Borin (1998), Cobb-Walgren, Ruble, Donthu, (1995) and Peterson, Albaum, Beltrami (1985) have demonstrated that results from student samples do not differ greatly from more real world type studies. Another limitation relates to the students’ relative inexperience with buying online. The results showed, however, that this was not a significant factor in influencing the results. Indeed, there was some evidence in the sample that students had purchased online, bought airline tickets online and had flown between Perth and Singapore around once a year.

A final limitation is that the experiment used in the study provided an authentic rather than actual situation. The experiment did not examine consumer judgments in a real world situation, purchasing online or offline which may differ to an artificial context.

Future research could see if these results apply to other product or service categories and examine if these findings are robust enough for those in a more realistic design. It is will also of interest to researcher and managers if the accepted consumer behaviour that in the case offline also occurs online, or that a unique type of consumer behaviour is emerging in cyberspace. Either way there is a continued need for research in this area.
FIGURE 1: CONCEPTUAL FRAMEWORK

Brand Name

Distribution

Price

Product/Service

Perceived Quality

Price Perception

Perceived Value

Purchase

FIGURE 2: TRI-COMPONENT MODEL OF BRAND EQUITY

Brand Familiarity

Brand Image

Brand Reputation
FIGURE 3: INTERACTION BETWEEN BRAND AND DISTRIBUTION FOR SERVICE QUALITY

FIGURE 4: INTERACTION BETWEEN PRICE AND DISTRIBUTION FOR VALUE FOR MONEY
FIGURE 5: INTERACTION BETWEEN PRICE AND DISTRIBUTION FOR PURCHASE PROBABILITY
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<th>Well Known Brand Name</th>
<th>Unknown Brand Name</th>
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### TABLE 2: MANOVA RESULTS

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<th>Hotelling's Trace</th>
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*p<.05, **p<0.01
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<th>Source</th>
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<th>Service Quality F Value</th>
<th>Price Acceptance F Value</th>
<th>Price Willingness F Value</th>
<th>Value F Value</th>
<th>Purchase Probability F Value</th>
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<tr>
<td><strong>Main Effects</strong></td>
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<tr>
<td>Brand Name</td>
<td>1</td>
<td>23.89**</td>
<td>2.86</td>
<td>1.07</td>
<td>9.66**</td>
<td>26.46**</td>
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<tr>
<td>Distribution</td>
<td>1</td>
<td>.21</td>
<td>.17</td>
<td>1.96</td>
<td>.49</td>
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<tr>
<td>Price Level</td>
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<td>1.26</td>
<td>.05</td>
<td>3.00</td>
<td>.23</td>
<td>.26</td>
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<tr>
<td><strong>2 Way Interactions</strong></td>
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<tr>
<td>Brand Name x Distribution</td>
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<td>18.11**</td>
<td>1.14</td>
<td>.04</td>
<td>.49</td>
<td>.00</td>
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<tr>
<td>Brand Name x Price Level</td>
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<td>.18</td>
<td>.37</td>
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<td>Distribution x Price Level</td>
<td>1</td>
<td>1.537</td>
<td>2.447</td>
<td>.73</td>
<td>8.93**</td>
<td>4.99*</td>
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<td><strong>3 Way Interactions</strong></td>
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<tr>
<td>Brand x Distribution x Price Level</td>
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<td>.02</td>
<td>1.58</td>
<td>.78</td>
<td>.36</td>
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*p<.05, **p<.01
### TABLE 4: DESCRIPTIVE STATISTICS

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<thead>
<tr>
<th></th>
<th>Service Quality</th>
<th>Price Acceptance</th>
<th>Price Willingness</th>
<th>Value</th>
<th>Purchase Probability</th>
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<tbody>
<tr>
<td></td>
<td>Mean (Std. Dev.)</td>
<td>Mean (Std. Dev.)</td>
<td>Mean (Std. Dev.)</td>
<td>Mean (Std. Dev.)</td>
<td>Mean (Std. Dev.)</td>
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<tr>
<td><strong>Brand Name</strong></td>
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</tr>
<tr>
<td>Air Paradise</td>
<td>2.58 (.83)</td>
<td>$495.64 ($146.12)</td>
<td>2.24 (.77)</td>
<td>3.16 (.74)</td>
<td>32.47% (18.15%)</td>
</tr>
<tr>
<td>Virgin Blue</td>
<td>3.63 (0.68)</td>
<td>$544.02 ($178.99)</td>
<td>2.06 (.81)</td>
<td>3.63 (.56)</td>
<td>60.95% (18.24%)</td>
</tr>
<tr>
<td><strong>Distribution</strong></td>
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</tr>
<tr>
<td>Online</td>
<td>3.06 (1.01)</td>
<td>$491.07 ($171.84)</td>
<td>2.25 (.77)</td>
<td>3.46 (.65)</td>
<td>46.64% (23.23%)</td>
</tr>
<tr>
<td>Offline</td>
<td>3.15 (.82)</td>
<td>$549.36 ($152.14)</td>
<td>2.05 (.80)</td>
<td>3.32 (.74)</td>
<td>46.60% (23.09%)</td>
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<tr>
<td><strong>Price Level</strong></td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>Low ($300)</td>
<td>3.13 (.86)</td>
<td>$511.10 ($148.41)</td>
<td>1.98 (.72)</td>
<td>3.46 (.67)</td>
<td>47.07% (21.53%)</td>
</tr>
<tr>
<td>High ($400)</td>
<td>3.07 (.99)</td>
<td>$528.17 ($179.65)</td>
<td>2.33 (.83)</td>
<td>3.33 (.72)</td>
<td>46.18% (24.66%)</td>
</tr>
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### TABLE 6: SUMMARY OF RESULTS OF THE EXPERIMENT.

<table>
<thead>
<tr>
<th>DEPENDENT VARIABLES</th>
<th>HYPOTHESES</th>
<th>SUPPORT</th>
<th>SERVICE QUALITY</th>
<th>PRICE ACCEPTANCE</th>
<th>PRICE WILLINGNESS</th>
<th>VALUE</th>
<th>PURCHASE PROBABILITY</th>
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<tbody>
<tr>
<td></td>
<td>H1: Significant Brand Name Effect</td>
<td>Yes</td>
<td>✓</td>
<td></td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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<tr>
<td></td>
<td>H2: Significant Distribution (Online/Offline) Effect</td>
<td>Yes</td>
<td></td>
<td></td>
<td>✓</td>
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<tr>
<td></td>
<td>H3: Significant Brand X Distribution Effect</td>
<td>Yes</td>
<td></td>
<td>✓</td>
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<tr>
<td></td>
<td>H4: Significant Price Effect</td>
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<td></td>
<td></td>
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<tr>
<td></td>
<td>H5: Significant Price X Brand Name Effect</td>
<td>No</td>
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<tr>
<td></td>
<td>H6: Significant Price X Distribution (Online/Offline) Effect</td>
<td>Yes</td>
<td></td>
<td></td>
<td>✓</td>
<td>✓</td>
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<tr>
<td></td>
<td>H7: Significant Brand Name X Distribution (Online/Offline) X Price Effect</td>
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<td></td>
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</tr>
</tbody>
</table>
REFERENCES


Harvin, R. (2000), In Internet branding, the off-lines have it, *Brandweek*, v41, pp30-31.


Karas, J. (2000), Domain names emerge as key tools for on-line retail marketing. Stores, v82, pp94.


