Dublin Business School

An Investigation of the influence of customer perceived-value, company brand equity and loyalty/rewards programs of OEM (Original Equipment Manufacturer) inkjet supplies on consumer buying behaviour to promote purchasing of OEM supplies.

Dissertation submitted in part fulfilment of the requirements for the degree of Master of Arts in Marketing from Liverpool John Moores University.

Kaustubh Bhate

M.A Marketing 2012
**Declaration**

I, Kaustubh Bhat, declare that no portion of the work referred to in this dissertation has been submitted in support of an application for another degree or qualification of this or any other university or other institute of learning. Further, all of the work in this dissertation is entirely my own, unless referenced in the text as a specific source and included in the bibliography.
Acknowledgments

I would like to thank my research supervisor Dr. Gary Bernie who provided timely and excellent feedback to my research work. In addition, I would like to express my immense gratitude to my parents who strongly encouraged me to pursue a post graduate degree in Marketing. I would also like to thank my wife without whose support this work would not have been possible. Finally I would also like to acknowledge all the individuals and colleagues with whom I interacted and shared their knowledge and expertise.
Abstract

The printer supplies industry has adopted the practice of cell phone and razor blade sellers: Charge low prices for initial equipment, then make money from ongoing fees for additional needed components. Vendors sell consumer printers at cost, or even sometimes at a 20 percent loss but on the flip side, earn a 60 percent gross margin on ink jet and toner cartridges. Independent sellers of replacement ink, sell products of two basic types: Replacement cartridges and Refilling. The leading seller of inkjet printers is Hewlett-Packard but Canon and Epson are also important sellers. Some manufacturers combine the printhead and the reservoir, so that the user replaces the printhead and the ink at the same time. Others sell ink tanks separately from the printhead.

Over the past several years environmental concerns have begun to shape consumer purchasing behaviour towards OEM inkjet supplies. The Refill industry has highlighted the fact that refilled or remanufactured inkjet supplies reduce the number of cartridges going to landfill sites thereby appealing to the environmentally conscious consumer. This competition in the Aftermarket is of critical importance to OEMs as it directly affects their profit margins. This study will focus on indentifying whether customer perceived value, company brand equity and loyalty programs of OEM inkjet supplies will positively influence consumer behaviour towards buying original ink supplies rather than refilled supplies or continuous inkjet supply systems.(CISS). OEM supplies cannot compete with aftermarket suppliers on price and hence there is an increased focus by these companies on providing a total customer experience with OEM supplies so that consumers get value for their money.

The study finds that keeping customers satisfied and maintaining easy to purchase and easy to install attributes of inkjet supplies OEM by emphasising the convenience factor will add value and influence purchase decisions of consumers. Only 60% of respondents felt that OEM supplies give consistent print quality, this attribute needs to be improved by OEM suppliers so that more customers appreciate it. Just emphasising lifestyle benefits while maintaining high price of OEM supplies does not provide value the customer is looking for and therefore may not succeed in affecting consumer purchase decision. Brand attributes of OEM supplies such as reliability and hassle free operation will influence consumers to buy OEM supplies but that may not be enough to convince consumers to buy OEM supplies over non-OEM supplies.
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Chapter 1 - Introduction

1.1 Dissertation Working Title:
Investigation of the influence of customer perceived-value, company brand equity and loyalty/rewards programs of OEM (Original Equipment Manufacturer) inkjet supplies on consumer buying behaviour to promote purchasing of OEM supplies.

1.2 Research Problem area:
The printer supplies industry has adopted the practice of cell phone and razor blade sellers: Charge low prices for initial equipment, then make money from ongoing fees for additional needed components. Vendors sell consumer printers at cost, or even sometimes at a 20 percent loss but on the flip side, earn a 60 percent gross margin on ink jet and toner cartridges. Still, consumers grouse about the "give away the razor and sell the blades" business model and hence, the birth of a market for recyclers to refill used cartridges, or sell cartridge clones at half the price of the brand-name items.

Robert Hall (1997) states that replacement ink constitutes an aftermarket, because consumers first make primary purchases of printers. Because printers sell at retail for $100 to $500, purchasers are locked in to an important extent. The owner of a particular brand and model of printer is limited to using replacement ink products compatible with that printer. The leading seller of inkjet printers is Hewlett-Packard but Canon and Epson are also important sellers. Some manufacturers combine the printhead and the reservoir, so that the user replaces the printhead and the ink at the same time. Others sell ink tanks separately from the printhead.

Independent sellers of replacement ink, sell products of two basic types:
1. Replacement cartridges. When the cartridge contains only ink and not the electronic printhead, it is usually straightforward for an aftermarket seller to produce a compatible tank and ink supply. Because the printheads contain technology protected by patents that have not so far been challenged, sellers of replacement cartridges for HP printers and others containing integrated printheads purchase printheads from the printer manufacturer and adapt them to accept replaceable ink tanks. The independent replacement ink product is a kit containing one printhead cartridge from the printer manufacturer and several replacement tanks.

2. Refilling. The second replacement ink product provides a method for refilling the original cartridge, produced by the printer manufacturer, with new ink from an independent producer. The consumer may purchase a kit that permits refilling at home, or may mail in a spent
cartridge for refilling at the independent seller’s factory. The Continuous Ink supply system (CISS) falls in this category and is the dominant product in this category. Continuous Ink Supply Systems (CISS) are aftermarket kits for Inkjet printers that feed ink to a special cartridge in the printer via tubes connected to external ink supply tanks. The simplicity of the system is that the cartridge never runs dry or needs to be constantly replaced when the ink runs out. Instead ink can simply be added to the ink supply tanks as they run low. The plastic external ink supply tanks that make part of the Continuous Ink Supply System sit alongside the printer. Each ink supply tank is filled with the correct colour ink as to the specifications of the printer manufacture. Continuous Ink Supply Systems save the user substantial amounts of money in replacement cartridges, which on top of cost, are discarded while still holding ink and are bad for the environment. Bottled ink is not only more economical but all ink is eventually used and friendlier to the environment. Another advantage of the Continuous Ink Supply System, is that the cartridge is always full, delivering even colour every time that remains consistent regardless of the size of the print run.

On the flip side, some printer manufacturers explicitly state that use of third-party inks and/or aftermarket continuous ink systems will void their product warranty. Many consumer grade printers are designed with close-fitting and sometimes fully enclosing shrouds over the print carriage. It may be difficult or impossible to install a CISS kit because there is no room to install the flexible tubing that must flex and bend as the printhead moves back and forth. Jamming may occur if the tubing droops into the path of the printhead and is crushed underneath the printhead or between the printhead and cover. Typically any modifications to a product's intended design purpose, such as using the product with an aftermarket CISS, will void all manufacturer warranties against defects and fitness for use. In addition, even some good printers fitted with quality CISS and running premium ink can be unreliable, if not used enough. Infrequent users may find continuous ink to be more trouble than its worth and an unsuitable printer or one with wrong CISS setup is a recipe for disappointment.

Over the past several years environmental concerns have begun to shape consumer purchasing behaviour towards OEM inkjet supplies. The Refill industry has highlighted the fact that refilled or remanufactured inkjet supplies reduce the number of cartridges going to landfill sites thereby appealing to the environmentally conscious consumer. This competition in the Aftermarket is of critical importance to OEMs as it directly affects their profit margins. This study will focus on indentifying whether customer perceived value, company brand equity and loyalty programs of OEM inkjet supplies will positively influence consumer
behaviour towards buying original ink supplies rather than refilled supplies or continuous inkjet supply systems. (CISS)

According to Kawasaki-Zwirko (2010) the remanufacturing and refilling industries have gained some market share in the desktop inkjet cartridge industry in recent years as a result of persistent recessionary trends and increasingly “green” messages from aftermarketers, both of which have gained the attention of some consumers. Nonetheless, in the already crowded supplies market, intense competition among domestic and international cartridge manufacturers and resellers will continue to put pressure on profits in the industry. OEM supplies cannot compete with aftermarket suppliers on price and hence there is an increased focus by these companies on providing a total customer experience with OEM supplies so that consumers get value for their money.

The research by Kawasaki-Zwirko (2010) further shows that despite the challenges that aftermarket firms face, worldwide compatible/remanufactured desktop inkjet cartridge shipments are expected to experience the highest growth within the current five-year forecast period, a compound annual growth rate (CAGR) of 4.9 percent. Refill inkjet cartridges are expected to experience a 3.6 percent CAGR within the same period. Meanwhile, OEM desktop inkjet cartridge shipments are expected to experience the lowest growth rate, at 3.3 percent, albeit from a far larger base. This is illustrated below in Figure 1.
1.3 Research Question:
Can customer perceived value, brand equity and loyalty programs of OEM inkjet supplies influence consumer buying behaviour to promote purchasing of OEM supplies?

1.4 Research Objectives:
The economic downturn has provided aftermarket cartridge manufacturers with an opportunity to expand and grow their businesses—more users are now mindful of the high costs of printing and thus more willing to try inexpensive aftermarket alternatives. Many companies, large and small, have benefited from this opportunity. OEMs like HP have now accelerated their efforts to maintain market share. Initiatives such as lowering prices, increasing empty core prices, patent litigation, SKU (stock keeping unit) proliferation, costly and increasing complexity of smart chips and expensive OEM marketing campaigns against use of third-party supplies, continuous inkjet supply systems in particular, are all part of the strategy to win in the aftermarket.
This study will attempt to find out how value-added features on products, company brand equity and loyalty programs can be leveraged to increase product sales. To address this goal the main research objectives of this study have been formulated as listed below:

1) What customer perceived value-added features, if any, of inkjet supplies can affect consumers’ purchase decisions of OEM products?
2) Does emphasising lifestyle benefit over price affect consumer purchase decision of OEM inkjet supplies?
3) What OEM brand attributes, if any, are sufficient to influence consumer decision in purchasing OEM supplies over non-OEM supplies?
4) Would a loyalty/rewards program promote consumer purchasing behaviour of OEM supplies over non-OEM supplies?
5) Will higher intervention rates for, and, questionable reliability of, non-OEM supplies deter consumers from buying these products?

1.5 Research Contribution
This research will help the Marketing and Customer Experience Organisations in HP to understand the impact of strategies such as loyalty programs, value-added features on products and emphasising company brand equity; on product sales in the aftermarket. This research will generate vital knowledge by combining these “marketing mix” features into the study and conducting primary research of their influence on consumer buying behaviour. The findings from this dissertation will be used to influence some of the Go-to-Market strategies that HP is currently pursuing in the inkjet business.

1.6 Terms of Reference
The term OEM refers to Original Equipment Manufacturers, like HP, of inkjet supplies. The term non-OEM refers to non- Original Equipment Manufacturers like refillers, remanufacturers and continuous inkjet supply system vendors. The term customer value refers to not only technical features on inkjet products but also lifestyle features such as ease of use, ease of ordering or quick customer support. The term loyalty programs or loyalty schemes or reward programs refer to initiatives that are aimed at rewarding customers who buy original OEM inkjet supplies. The term LPTC refers to Liffey Park Technology Campus, in County Kildare. The term CISS refers to continuous inkjet supply systems.
Chapter 2 - Literature Review

The objective of this study is to find out how value-added features on products, company brand equity and loyalty programs can be leveraged to increase product sales in the context of OEM inkjet supplies. To achieve this objective, the study focuses on key issues such as: what drives customer-perceived value in inkjet supplies, do lifestyle benefits such as ease of ordering and intervention-free usage affect customer decisions to buy OEM supplies, what attributes of OEM brands influence customer purchase decisions and finally whether loyalty/rewards programs can be used by OEM inkjet suppliers to promote sales of their products.

The literature review chapter is broken down into three key areas that are the focus of this research viz. Customer Perceived Value, Brand Equity and Loyalty Programs. Each subsection of this chapter is dedicated to these topics and provides a critical review of the existing literature in these areas in the context applicable to Inkjet supplies.

2.1 Customer Perceived Value

Zeithaml (1988) noted four types of consumer definitions of value: low price (focus on sacrifice); whatever the consumer wanted in a product or service (focus on benefits); the quality obtained for the price paid (trade-off between one sacrifice component and one benefit component); and total benefits obtained for total sacrifice incurred (all relevant components considered). However Treacy and Wiersima (1995) see customer value as the sum of benefits received minus the costs incurred by the customer in acquiring a product or service. They argue that components of customer value include low price, speedy response, premium service, and high quality. On the same lines, Lapierrie (2000) identified thirteen value-based drivers based on in-depth analysis of interviews in the IT, Distribution and entertainment industry. Ten of these were identified as benefits viz. alternative solutions, product quality, product customization, responsiveness, flexibility, reliability, technical competence, supplier's image, trust and solidarity with customers. Three value-based drivers were identified as sacrifices and included price, time/effort/energy and conflict. The key findings of this research were that value-drivers are product, service and relationship related and that relationship value drivers can act as key differentiators. These findings are applicable to the current dissertation as elements such as loyalty programs and product features can be used to create a strong relationship with OEM inkjet customers.
On the other hand researchers such as Huber et al. (2001) suggest that to evaluate the “perceived customer value” of a product, the costs of obtaining the perceived benefits are usually the major concern of buyers, since consumers may apply principles of costs-benefits to evaluate a purchase. They propose that the relevant costs of a purchase considered by consumers include the following: monetary costs; time costs; search costs; learning costs; emotional costs; and, cognitive and physical effort coupled with financial, social, and psychological risks. They further suggest that consumers encounter risks when they face the uncertainty or potential negative consequences of consumer activities. Similarly, Monroe (1991) defines customer-perceived value as the ratio of perceived benefits to perceived sacrifice. Establishing what value the customer is actually seeking from the firm’s offering is a starting point for being able to deliver the correct value-providing benefits. On the other hand, according to Christopher et al. (1991) the aim must always be to identify what a customer is trying to do with the firm’s offering at a particular time and place. Firms can then draw conclusions about what is valued and why, which subsequently will help them to deliver an offer that conforms to the customer’s own value chain.

Ravald and Gronroos (1996) take a slightly different view and propose that a company can add value to an offering by reducing the customer-perceived sacrifice. This approach forces the company to look at things from the customer’s perspective. In order to be able to reduce the customer-perceived sacrifice, the company needs a thorough understanding of the customer’s value chain. Reducing the sacrifice or effort the customer has to undertake in order to purchase a product on an episode level involves activities like lowering the actual price and increasing the convenience of the purchase. One of the drawbacks of this research paper however, is that it only presents ideas. To get an in-depth understanding of customer-perceived value in a relationship marketing setting one needs to study customers’ perceptions of value empirically on an episode level as well as on a relationship level.

Trasorras et.al (2009), however made an observation that customer satisfaction was the dominant consideration over value when assessing customers’ intentions to repurchase. Value, although important, contributed less to the customers’ decision than did satisfaction. Yet when combined with loyalty, although still subordinate to loyalty, value played a larger role than satisfactions in influencing customers’ repurchase decisions. Thus a sharp focus on creating value and enhancing loyalty is an effective marketing strategy. Satisfied customers have been known to defect so firms should seek to highly satisfy (delight) customers.
Although customer satisfaction has been used as a means of achieving the business goals of most firms, the assumption that satisfied customers will make repeated purchases and tell others about their satisfying experiences may no longer hold in highly competitive markets. The study by L.M Tam (2004) shows that perceived value has relatively speaking, a greater influence on post-purchase behaviour than customer satisfaction. The study also provides evidence that the relationship between quality and price should be not underestimated in an initial purchase. One of the drawbacks of this study was that it was carried out in the restaurant industry and its wide spread application is therefore questionable. Berry and Yadav (1996) further support the above findings by suggesting that service firms should capture and communicate value to customers in their pricing strategy. The study highlights the importance of identifying the aspects of a service which customers value most, and then making efforts in those areas to influence customer perceptions of value.

Philstrom (2008) examines differences between information and entertainment mobile content service users in how their value perceptions influence intentions to repurchase, intentions to spread positive word of mouth, and willingness to pay a price premium. The study analyzed the direct effects of four value dimensions: monetary, convenience, emotional, and social value and found that they all have a positive effect on repurchase intentions, word of mouth, and willingness to purchase. Companies can thus attract new customers by emphasizing the perceived value dimensions that are considered important by current customers, and thereby promote self-selection of the service provider based on similar customer perceived value. A drawback of this study was that it was carried out in the mobile phone market. A further drawback was that repurchase behaviour was measured with self-reported intentions. This finding argues for future studies to consider explicitly analyzing the role of context-specific conditions and their influence on perceived value derived from service use in other industries. On a positive note, the results of this study were also supported by Novak et.al (2003) who found that emotional value has an essential role in technology-related service use situations.

Gross (1997) has called for a replacement of the satisfaction construct by the value construct as a better predictor of outcome variables in business markets. He argues that customer perceived value should be the critical dimension in business marketing. However, Eggert (2002) suggests that satisfaction and value are complementary, yet distinct constructs. Both constructs aim at different directions. Customer satisfaction measures how well a supplier is
doing with his/her present market offering, as perceived by existing customers. The customer value construct, in turn, points at future directions. Its strategic orientation aims at assessing how value can be created for customers and by which means a supplier’s market offering can best meet customers’ requirements. This study proved that customer perceived value and customer satisfaction can be conceptualized and measured as two distinct yet complementary constructs even though strong interactions between the two concepts do exist. This study however did not investigate other closely related constructs such as trust and commitment. In addition, the project was conducted in a single country and results from different countries are not available to allow for cross-country validation. Callarisa-Fiol et.al (2009) take a different approach to research in this area and results of their empirical study show that perceived value and satisfaction are antecedents of customer loyalty. More specifically, perceived value is identified as the key variable in the formation of satisfaction and of customer loyalty. For the maintenance of long-term relationships it is therefore fundamental to pay attention to perceived value and its different components.

Finally, another line of study by Pine and Gilmore’s (1999) argues that value added usually comes from product, service and experience. The former adds less and the latter adds more. Experience can offer higher value because it is personal and memorable. However, there is scarce evidence to prove the well-accepted concept of ‘an experience as a higher value economic offering’. A study carried out by Yu et.al (2009) shows that experience is not always a major contributor, compared with product and service, to a customer’s perceived value. Instead, it depends on the segmentation of customers. In addition, the determinants of perceived value are different between higher frequent customers and lower frequent customers. The former one’s value is mainly determined by contextual experience. However, for the customers with lower consumption frequency, they still value product quality more than service and contextual experience. A drawback of this study is that the experience investigated is contextual experience only. There might be many other kinds of experiences, such as participation, control, familiarity and hedonic experiences which can contribute to the value perceptions. Also consumers may not look for memorable experiences in all situations.

To conclude literature review on Customer Perceived value, it is important to note that factors such as price, quality, satisfaction and loyalty have influence on value and this justifies taking an in-depth look at brand equity and loyalty to help understand the dynamics of these constructs with an integrated approach.
2.2 Brand Equity

Myers (2003) highlighted the importance of measuring and managing brand equity and proposed a method that divided brand equity into tangible and intangible components. The tangible components capture the impact of brand building activities on consumers’ attribute perceptions and the intangible components capture brand associations unrelated to the product. This study found that the brands consumers believe offer superior value are the brands they choose most often. For low involvement products, the study found that differentiation through attributes and brand equity is important part of the choice process and if price is the only distinguishing factor then respondents will make a choice based on brand differences. While this study was carried out on soft drinks the findings would also be applicable to other low involvement products such as inkjet supplies. One limitation of this study is that a convenience sampling strategy consisting of students was used and the overall sample was not the primary target of chosen brands for this study. Aaker (1991, 1996) separates brand equity in four dimensions: loyalty, awareness, perceived quality and associations. However according to Anselmsson et.al (2007), uniqueness is also an important strength of brand equity. Brand equity as a price premium can be operationalised by offering a unique proposition to the consumer. The study also found that consumers believed well-known brands stand for security or trust, and expressed scepticism against unknown brands.

Ruparelia et.al (2010) identified key attributes that lead to brand trust and their relative importance. Their model used- privacy, brand name, word of mouth, information, returns policy, country of origin, website design, past experiences, advertising and testimonials and security –as attributes contributing to brand trust. The results of their research showed that security risk, privacy, word of mouth and returns policy had no statistically significant relationship with brand trust. Familiar brand name, better website design and navigation, higher information quality, country of origin and positive past experience showed a correlation with brand trust. However a drawback of this research is that convenience sampling of students was used to conduct this study and so the findings may not be representative of the population and the findings may be difficult to generalise. Netemeyer et al. (2004) presented a model containing four core or primary facets of consumer-based brand equity: perceived quality, perceived value for cost and brand uniqueness, which would influence purchase intention and behaviour through the mediation of a fourth construct, the willingness to pay a price premium. Their results indicated that the best predictors of future
behaviour were perceived quality of the brand, which could not be distinguished from perceived value for cost, and brand uniqueness, whose influence on purchase behaviour was found to be mediated by the willingness to pay a price premium. Another line of research has cast doubts about the relevance of uniqueness or distinctiveness in predicting consumers’ preferences. Romaniuk, Ehrenberg and Sharp (2004) investigated whether consumers’ considered the brand that they purchased as different, distinct, original or unique. Their results showed that only 10% of consumers associated the brand they bought with any one of the adjectives, 50% of consumers did not associate the purchased brand with any of the adjectives, and these percentages varied little from one brand to the other. The authors concluded that differences in brand performance seem to be related to their levels of salience or awareness rather than based upon brand differentiation. Taken together, these studies suggest that, although there is no clear agreement concerning the dimensions of brand equity, most existing models seem to agree that at least brand quality and brand awareness should be included.

Baldinger and Rubinson (1996) found that ingoing attitudes toward a brand had a dramatic effect on a brand's ability to either convert low loyals to high, or to retain high loyals over time and the convergence of attitudes and behaviour has predictive characteristics, because approximately two-thirds of brands either increased their market share from year to year when their ingoing mix of attitudinal to behavioural loyalty was positive, or decreased in share when their attitudinal profile was less loyal than their behavioural profile. The assertion by some researchers (e.g., Ehrenberg, 1990) that the primary determinant of a brand's health will be related to its ability to gain penetration, rather than develop a stable group of retained real loyals, is therefore dangerous, especially for market leaders or even strong #2 brands, seeking additional growth. It leads marketers to continue to deemphasize advertising and image-building in order to move funds toward sales promotion.

According to Wernerfelt (1988) when consumers are uncertain about brands and the market is characterized by asymmetric information Brand credibility can serve as a signal of product position. The credibility of a brand has been shown to be higher for brands with higher marketing mix consistency over time and higher brand investments (Erdem and Swait 1998). Credibility affects consumer choices through perceived risk, information costs saved, and perceived quality in most categories, even those with only moderate levels of uncertainty. This result is found to hold at the individual respondent level, indicating that it is brand
credibility differences that are driving consumer behaviour. On the other hand Broniarczyk et al. (2003) found that brands commonly use trivial attribute strategies as a means to lure consumers away from competitors. A low equity brand was able to gain choice share when it differentiated itself from its closest competitor by sharing the trivial attribute with a higher equity context brand. The results for high equity brands were less conclusive but generally showed that a high equity brand was able to gain choice share when it differentiated itself from both its closest competitor and a lower equity context brand by uniquely offering a trivial attribute.

Another concept, Brandability, can be interpreted as how much branding influences consumer behaviour and, consequently, brand performance in a product category. Oliveira-Castro et al. (2008) carried out a study to examine if the relations between consumer-based brand equity and measures of brand performance are dependent upon the product category. The results suggested that the measure of brand equity varied considerably across brands, indicating that they differed with respect to how consumers evaluated them, how well known they were and their level of quality. The study showed that it is not necessarily true that consumers will buy a brand they think highly of. According to Keller (1993), there are two aspects to brand equity--from the viewpoints of the firm and the consumer. The firm-related side of brand equity emphasizes such brand-related outcomes as relative price and market share, whereas customer-based brand equity appears to hinge at its core on psychological associations with the brand. Brands with high market share tend to have high levels of repeat purchase among their users (Ehrenberg, Barnard, and Scriven 1997). However, the role that brand trust and brand affect play in the creation of brand loyalty as a determinant of brand equity outcomes has not been explicitly considered. In the latter connection, Chaudhari et al. (2001) suggest that brand trust and brand affect are separate constructs that combine to determine two different types of brand loyalty--purchase loyalty and attitudinal loyalty--which in turn influence market share and relative price. Their results show that brand trust and brand affect were each directly related to both purchase and attitudinal loyalty and they were indirectly related to market share and relative price. Specifically, brand trust and brand affect contributed to both purchase loyalty and attitudinal loyalty, which in turn contributed significantly to market share and relative price, respectively. From this, it follows that brand loyalty may be viewed as a link in the chain of effects that indirectly connects brand trust and brand affect with the market performance aspects of brand equity. One of the drawbacks of
this study was that it did not examine such personal factors as product involvement, variety seeking, impulsiveness, and so forth.

2.3 Loyalty Programs

The aim of loyalty programs is to create a win-win situation for the initiating company and its customers. The customers receive monetary and non-monetary benefits for proven loyalty, which is supposed to increase their satisfaction and their inclination to engage in further loyal customer behaviour (Sharp and Sharp, 1997). These supposed benefits for both market partners result only when customers find participation in the program to be rewarding and have no negative experiences. There is, however, evidence to indicate that this is not always the case. (Strauss et al 2005) Common customer perception is that firms do not keep their promises because they do not provide a sufficient supply of the products advertised as rewards, so that customers are turned away or put off. The rewards can only be obtained with some difficulty or not at all because the required number of loyalty points is very high, because rewards are associated with a disproportionately high purchase volume or because accumulated points expire after a certain period of time. The promised rewards can sometimes prove to be of little value; and provisions for privacy protection are violated. Strauss et.al (2005) consequently proposed that highly frustrating incidents tend to lead to protest behaviour and avoidance behaviour among qualified participants of loyalty programs.

O’ Malley (1998) stated that Loyalty programmes are developed for a variety of reasons including to reward loyal customers, to generate information, to manipulate consumer behaviour, and as a defensive measure to combat a competing scheme. Although Loyalty Schemes (LSs) may create an initial point of differentiation between brands, they are difficult to sustain as a prime reason for purchase, because fundamentally it is difficult to increase brand loyalty above the market norms with an easy-to-replicate ‘add on’ like a customer loyalty programme (Dowling and Uncles, 1997). LSs are expensive to establish and, other than the initial gathering of data, are likely to take two to three years to generate a return (Hochman, 1992). Organisations have bought into LSs because they have accepted the economics of customer retention i.e. loyal customers are more profitable; cost less to serve; are less price-sensitive and; generate positive word of mouth. However, Dowling and Uncles (1997) cast serious doubts on these assumptions. Their research suggests that a 100 per cent loyalty is difficult, if not impossible to achieve, and that polygamous loyalty is far more common. Although sustainable loyalty is implicitly suggested as the aim of most schemes,
the characteristics of the scheme, and of many markets, inhibit its ultimate realisation (Dick and Basu, 1994).

Schneider and Bowen (1999) observe that, generally, most customers range from being moderately dissatisfied to moderately satisfied, which means that customers are essentially ambivalent in their loyalty to a particular business. They predict that these customers would likely defect in the presence of even a modest motivator, such as, getting a better price, or finding a more convenient store location. On a similar note Reichheld (1994) states that customers who describe themselves as satisfied are not necessarily loyal. He reports that 60-80 percent of defecting customers reported that they had been “satisfied” or “very satisfied” on the last satisfaction survey prior to their defection. Reichheld and Sasser (1990) report that Xerox found that its completely satisfied customers were six times more likely to repurchase a Xerox product or service than its merely satisfied customers. Customers are loyal to a company as long as it offers them superior value compared to its competitors.

Shukla (2009), using the context of the young adults market, looks into how contextual factors vis-a-vis loyalty and switching impact consumer purchase intentions. The study found that brand loyalty is affected by a number of independent choice variables and the factors that are most influential include product image as well packaging. The strength of the brand name is an important factor in creating loyalty to products. Advertising as an influencer of brand loyalty was ranked very low by respondents. It was also found that products with added features or improvements influences brand loyalty within the young adult segment. Factors such as past usage, expectations and convenience were not significant contributors and that contradicts the findings by Wood (2004). In-store promotion was found to be the most important factor affecting brand switching. A drawback of this research, however, is that it focused on single segment-of young adults.

Gift promotions play an important role in the marketing mix. Montaner et.al (2011) found that the nature of promoted product i.e. its degree of utilitarianism or hedonism does not affect the evaluation of product offer and purchase intentions. In high quality brands perceived fit between the promoted product and gift has a positive influence on value perceptions whereas in medium equity brands the overall evaluation of promotion does not depend on the perceived fit. In such cases the hedonistic nature of gift is more favourable than utilitarian nature. Since HP’s brand equity would be considered to be high in the inkjet
supplies category and so the findings of this study would be important when considering the rewards to loyal customers. The experimental nature of the study constrained the number of products, gifts and brands that could be included. Thus, in order to generalise the results, further research needs to be conducted to the extent to which the relations analysed may occur in other products and brands and gift categories.

Furinto et.al (2009) found that program utility perception is higher when monetary rewards are offered to contractual relationship customers instead of to non-contractual relationship customers. There are no significant differences in program utility perception between contractual relationship and non-contractual relationship customers when a loyalty program is designed to offer special treatment rewards. However this research has a couple of drawbacks. Firstly, this research uses convenience sampling, which may imply that the result are not generalizable to the whole population and secondly, this research uses several financial assumptions and figures that require future validation and empirical testing. Taking a different view, Omar et.al (2008) conceptualized program perceived value as the customer’s overall assessment of the loyalty programs towards all the relevant benefits and rewards incurred by the program’s members. Research revealed that customers are less likely to switch if they better understand the actual economics, time, and energy-saving value of staying in a relationship. Similarly, O’Malley and Tynan (2000) document that, if the consumers do not perceive value in building relationships with a firm, then they might only engage in a relationship to the extent that a better option is not available elsewhere.

Loyalty programs enhance value proposition offerings in an effort to preserve active customer status and increase customer lifetime value. Loyalty programs not only play an instrumental role to help build customer commitment but they also demonstrate a firm's commitment because such programs are often costly for firms to create and manage (Liu, 2007). Loyalty programs work to more expeditiously build and preserve stronger customer relationships with the sponsoring firm than would result without these programs. Hence, this study's framework recognizes that relationship commitment is vital to the creation and preservation of marketing relationships (Morgan and Hunt, 1994). However Lacey (1984) found that loyalty program membership had limited impact on the linkages between relationship commitment and six key relational outcomes viz. personal referrals, sharing personal information, engaging in firm-sponsored marketing research activities, providing complaint feedback, being more open to firm promotions and increasing purchasing
activities. The findings from this study lend support to the argument that loyalty programs drive loyal behaviours in relation to the program, and not toward the sponsoring firm.

According to Ehrenberg (1988) early adopters of loyalty programs are also heavier purchasers, and so a loyalty program is not likely to significantly increase their purchases. Liu (2007) found that late adopters are lighter purchasers and may change their purchasing behaviour more than heavy buyers do. Consumers who started with low usage levels changed their behaviour as much as or more than moderate and heavy buyers. This contradicts the commonly held belief that light buyers are less-than-ideal targets for loyalty programs and that they will not perceive much value in the program (Dowling and Uncles 1997). However Meyer-Waarden et.al (2009) showed that loyalty programs had no positive effects on late adopters’ repeat purchases, nor did it make them more loyal to the store. Rather, the most visible change occurred in the 6 months after customers joined the program, apparently through a short-term point pressure mechanism. The principal motivation for customers’ loyalty is the rewards. If customers do not receive sufficient rewards for loyalty, there is no rewarded behaviour effect and the small changes in repeat purchase behaviour drop back to the baseline 6 months after a customer’s enrolment (Taylor and Neslin 2005). So once customers earn gratification, they lose their principal purchase motivation and switch back to their habitual stores.

Loyalty programs provide value to consumers in two stages. In the first stage, program points are issued to consumers at the time of purchase. Although these points have no practical value until they are redeemed, Hsee et al. (2003), show that they have important psychological meaning to consumers. The psychological benefit increases the transaction utility of a purchase (Thaler 1985) and, subsequently, the overall value perception of doing business with the firm. Psychologically, giving free rewards to customers shows the firm’s appreciation and personal recognition of its customers. This sense of being important can enhance consumers’ overall sense of well-being and deepen their relationship with the firm (Bitner, 1995). However, Bissell (1996) argues that the only way loyalty programs can be effective for consumer packaged goods is by increasing customer involvement. Such involvement can be created by communicating to customers (through advertising and packaging) in a way that shows an understanding and appreciation for that customer's personal needs and lifestyle. Because it is convenient for customers to switch brands, developing high exit barriers needs to be accomplished through an emotional or hedonic link
with the product that is created either through advertising or through nonmonetary promotions (Chandon, Wansink, and Laurent, 2000). Customers who are not willing to put forth the effort to begin a relationship with a new brand, therefore, will remain with—and perhaps loyal to—the existing brand. Wansink (2003) made two key findings. Firstly, moderate reward programs and high reward programs were equally effective at generating incremental purchase intentions. Furthermore, even the low reward programs were effective at generating incremental purchase intentions from both light users and from heavy users. This is in contrast with conventional beliefs that the high reward program would be most effective at generating incremental sales and that the low reward program would have little impact on most consumers. Secondly, in contrast to the beliefs of the managers, the high reward program appears to be the least cost-effective program compared to low reward and medium reward programs. However it is not clear what specific elements of the programs appear to impact behaviour the most. Further research could determine, for example, which benefits (free prizes or coupons) best motivated heavy users to increase (or perhaps decrease) their purchases.

2.4 Conclusion
From the above literature review it is evident that customer perceived value, brand equity and loyalty programs have clear interaction amongst them and they all have an influence on customer buying behaviour.

From a customer perceived value perspective this study will focus on the value proposition of OEM inkjet supplies for the customer and identify which of factors such as low price, added benefits, service delivered, the overall experience provided to the customer and customer satisfaction enhance customer value perception. The study will also try to understand the value drivers for customers to be able to keep an eye on the phenomenon of value migration.

From a brand equity perspective the study will investigate which of the six main components loyalty, awareness, perceived quality, associations, brand credibility and uniqueness have the most influence on consumer behaviour. However it is also noted that consumers do not always purchase products that they have a high regard for so the findings need to be looked at in the context of the study. Finally the study will also look at how loyal customers can be rewarded through a Loyalty/Rewards program that can help retain loyal customers who are more profitable for firms than acquiring new customers. Loyalty programs also add commitment to the relationship between customers and firms and increases customer
involvement which is key to maintaining a strong relationship between the two parties. This element will also be investigated as part of the current study.

In conclusion, the purpose of this study is to focus on the interaction of customer perceived value, brand equity and loyalty programs with consumer buying behaviour and determining how each of the factors can be used to promote consumer buying of OEM Inkjet supplies. There is clearly a gap in research to have an integrated approach to understanding the effect of these 3 main factors on consumer buying behaviour and this study will explore this area of research.
Chapter 3 - Research Methodology

3.1 Introduction
The purpose of this research is to find out what variables most affect consumers’ purchase decision of inkjet supplies. The main research objectives of this study have been formulated as listed below:

1) What customer value-added features, if any, of inkjet supplies can affect consumers’ purchase decisions of OEM products?
2) Does emphasising lifestyle benefit over price affect consumer purchase decision of OEM inkjet supplies?
3) What HP brand attributes, if any, are sufficient to influence consumer decision in purchasing OEM HP supplies over non-OEM supplies?
4) Would a loyalty/rewards program promote consumer purchasing behaviour of OEM supplies over non-OEM supplies?
5) Will higher intervention rates for, and, questionable reliability of, non-OEM supplies deter consumers from buying these products?

To achieve these objectives, the study focuses on key issues such as-- what drives customer-perceived value in inkjet supplies, do lifestyle benefits such as ease of ordering and intervention-free usage affect customer decisions to buy OEM supplies, what attributes of OEM brands influence customer purchase decisions and finally whether loyalty/rewards programs can be used by OEM inkjet suppliers to promote sales of their products.

3.2 Research Philosophy
Saunders et al. (2007) classified research into six stages and labelled the model which presented them as ‘the research onion’. Saunders et.al (2007) divided the research to include: philosophies, approaches, strategies, choices, time horizons, techniques and procedures.

The research philosophy depends on the way one thinks about the development of knowledge. (Saunders et al. 2007). This study will adopt a Positivist view.

In its broadest sense, positivism refers to the theory of knowledge which asserts the pursuit of causal explanation by way of inductive generalization and that the only kind of sound knowledge available is that of science grounded on observation (Heidtman. 2000). From Wittgenstein, the positivists developed both their famous "verifiability principle" (only statements that can be shown conclusively Xo be true or false are "cognitively meaningful")
and the belief that the objective of philosophical inquiry should be the "critique of language" or "meaning analysis." (Hunt.1991) The core of the positivist doctrine in the social sciences constitutes three related principles:— the ontological tenet of phenomenalism (knowledge can be founded on experience alone); — the methodological tenet of the unity of the scientific method (procedures of natural science are directly applicable to the social world with the goal of establishing invariant laws or law like generalizations about social phenomena); — the axiological tenet of neutrality (refuses to grant normative statements the status of knowledge and maintains a rigid separation between facts and values) (Giedymin. 1976). Positivists believe that reality is stable and can be observed and described from an objective viewpoint, i.e. without interfering with the phenomena being studied. They contend that phenomena should be isolated and that observations should be repeatable. This often involves manipulation of reality with variations in only a single independent variable so as to identify regularities in, and to form relationships between, some of the constituent elements of the social world. Predictions can be made on the basis of the previously observed and explained realities and their inter-relationships. Positivism has also had a particularly successful association with the physical and natural sciences.

There is however a long standing debate about the appropriateness of the natural sciences model for the study of society, but, since the account that is offered of that model tends to have a largely positivist overtones, it would seem that it is positivism that is the focus of attention rather than other accounts of scientific practice. Ozanne and Hudson (1989) claim that a "basic assumption" of positivism is that "real causes exist." Anderson (1989), asserts that "perhaps the most damaging implication for positivistic psychology is Wittgensteinian acausalism." Positivistic research is discredited because, "on a Wittgensteinian construal, there can be no question of invoking a memory as a cause of behavior". However according to Hunt (1991) it is historically false that research guided by a positivistic philosophy would seek causal explanations or linkages or assume that real causes or a single causal reality exists. Any research guided by positivism would necessarily avoid both the assumption of causality and the search for "real causes."

Positivism emphasizes knowledge of the observability. Market characteristics, such as segmentation, competitor behaviour, a certain type of consumer product-specific buying behaviour, and so on are all observable and so despite some of the drawbacks; this research will adopt a Positivist approach.
3.3 Research Approach

The research approach indicates whether the use of theory is explicit within the research design. (Saunders et al. 2000). This enables the researcher to take a more informed decision on the research design, support the researcher in the decision-making process as to what will work and what not, and adapt the research design to cater for constraints.

According to Kjeldal (2002) Induction is defined as: "a process whereby from sensible singulars, perceived by the senses, one arrives at universal concepts and principles held by the intellect. Thus, from the sense experience of even a single yellow tulip, the intellect grasps that it is a special kind, a kind found in every single tulip. The person proves not only that he sees the tulip but also that he knows what kind of thing the tulip is by the following. He is able to point out all the others of the same kind. If the individual did not know the essence or “whatness” existing in each tulip, he could not group them together." Saunders et al. (2000) state that the inductive approach emphasises: gaining access to understanding of meaning humans attach to events, a close understanding of the research context, the collection of qualitative data, a flexible structure to permit changes of research emphasis as the research progresses and a realisation that the researcher is part of the research process.

Deduction, by contrast, is defined as: "the human process of going from one thing to another, i.e., of moving from the known to the unknown. Utilising what he knows, the human being is able to move to what he doesn't see directly. In other words, the rational person by means of what he already knows is able to go beyond his immediate perception and solve very obscure problems. This is the nature of the reasoning process: to go from the known to the unknown." (Spangler, 1986) Deductive approach emphasizes scientific principles, the need to explain casual relationship between variables, the collection of quantitative data, the application of controls to ensure validity of data, researcher independence of what is being researched and the necessity to select samples of sufficient size in order to generalize conclusions.

One major problem with the inductive method is the notion that data can be decoupled from theory. Induction assumes that there exist data that are not theory laden (Saether 1998). Deduction, on the other hand, implies that theories without facts are possible. Popper’s (1963) writings have been very influential in this respect, with his proposal that we should ‘guess’ about a theory and then see whether it can be falsified. Popper’s proposal easily leads to speculation and weak links to the empirical investigation (Saether 1998).

One usual way of combining induction and deduction in one research project is to do two, separate studies in the project: the first is essentially qualitative and the second is essentially quantitative that searches for statistical generalisation of the propositions developed in the
first study. According to Grafton et al. (2011), the rationale for pursuing such a method rests largely on the premise that the weaknesses in each individual method will be compensated by the counter-balancing strengths of the other (Jick, 1979). The advantages to mixed methods research rest on the development of a research strategy that is effective in exploiting the advantages of quantitative and qualitative methods, while neutralising the “costs” or “risks” associated with each method. The benefits of complementary research strategies within a single study can generally be categorised as allowing researchers to: extend findings beyond those observable using a single method; identify empirical contradictions that might otherwise be missed (Denzin, 1978); and observe convergence in findings from different strands of the research, thereby building confidence in the research (Denzin, 1978). Central amongst the rationales advanced in support of the use of mixed methods research is the enhanced credibility and validity of research findings and the reduced potential that research results reflect a unique method artefact.

The base of this thesis is existing theory, but it also aims to generate new ideas and concepts based on empirical data gathered and therefore it uses a mixture of the two approaches. The use of focus groups will provide access to understanding the meaning humans attach to events. The use of Quantitative method will provide empirical data to support any theories that are developed from this study.

3.4 Research Strategy

The decision of which strategy to use can be guided by the form of research question, the degree of control needed of behavioural events and if the focus is on current or historical events. The different choices of strategies available are; experiment, survey, case-study, grounded theory, ethnography and action research (Saunders et al, 2007).

Experiments are commonly used in natural sciences and psychology, and are characterized by for example the introduction of planned changes on the variables in the experiment, and control of the other variables (Saunders et al, 2007). Surveys allow for the gathering of large quantities of data from a population in an economically efficient way. Saunders et al (2007) also describe this method as having the advantage of that the analysis of the data will allow for easy comparison between the respondents. A case study is especially useful for gaining rich and detailed data (Saunders et al, 2007). They also state that case-studies are particularly good to use when asking how, what and why questions.

Grounded theory is based on that a data collection is performed without the previous construction of a theoretical framework (Saunders et al, 2000). The initially gathered data is
then used to make predictions that then are tested in the later stages of the data collection (Saunders et al, 2000). The purpose of ethnography is defined by Saunders et al (2000) in the following way; “The purpose is to interpret the social world the research subjects inhabit in the same way in which they interpret it”. They also state that ethnography is not commonly used in business research. Action research is however dedicated to researching the management of change, and the researcher often must participate in the setting where the change occurs. (Saunders et al, 2000).

At first, action research, grounded theory, ethnography and experiments were discarded from the planning because of the mismatch between these methods and the purpose of research. After this, the search for a method with a match between the purpose of research and the characteristics of the method started. Figure 2 below, lists the different criteria for the use of a Survey.

<table>
<thead>
<tr>
<th>Strategy</th>
<th>Form of research question</th>
<th>Requires control of behavioural events?</th>
<th>Focuses on contemporary events?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Survey</td>
<td>Who, what, where, how many, how much?</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Figure 2: Criteria for use of Survey.

As can be seen in the table, a match between the research questions and theory is leading towards the use of a survey. An example of this is Research Question 1: “Can customer value-added features on inkjet supplies affect consumers’ purchase decisions of OEM products?” The meaning of the question can be reformulated to “What are the customer value-added features of inkjet supplies that can affect purchase decision?” To fulfil the purpose of this thesis and the research questions, there is no need of any control over the behavioural events. Any form of control might in fact distort the results acquired. The research in this thesis will also concentrate on current events to be able to get results that are relevant today.

Curtis et.al (2009) regard survey as an important and extensively used non-experimental quantitative research design tool. Studies using surveys as investigations where self-report data are collected from samples for the purpose of describing properties of populations. Surveys are most often carried out to collect information on opinions, attitudes, facts, practices or some other characteristics of the sample. According to Knapp (1998) a basic
function of survey research is description, although he also sees the survey as appropriate for explanation, comparison and prediction of responses. As well as collecting the particular information required, surveys frequently ask for other information such as demographic details of subjects, which may be necessary for interpreting results (Knapp 1998). Surveys can be used as part of a cross-sectional study, where the subjects are studied at a particular point in time, or a longitudinal study, which follows them over an extended period of time. They are also useful for obtaining data regarding the prevalence, distribution and interrelationship of variables. Schutt (2006) contends that the popularity of the survey is due to three reasons: versatility, as information can be collected on almost any topic or social issue.; efficiency, as large amounts of information related to numerous variables can be collected at relatively low cost and, depending on the people involved, quite quickly; generalisability, since surveys lend themselves to probability sampling of large populations, results can be generalised and surveys may be the only means of obtaining a representative picture.

3.5. Research Choice
Quantitative and qualitative research approaches differ in terms of how data are collected and analyzed. Quantitative research requires the reduction of phenomena to numerical values in order to carry out statistical analysis. By contrast, qualitative research involves collection of data in a non-numerical form, i.e. texts, pictures, videos, etc. However, quantitative and qualitative approaches also differ—particularly—in regard to the aims of scientific investigation as well as the underlying paradigms and meta-theoretical assumptions. According to quantitative approaches, psychological and social phenomena have an objective reality. The relationships between these phenomena are investigated in terms of generalizable causal effects, which in turn allow prediction. By contrast, qualitative approaches consider reality as socially and psychologically constructed. The aim of scientific investigation is to understand the behaviour and the culture of humans and their groups “from the point of view of those being studied” (Bryman 1988). An attempt is usually made to understand a small number of participants’ own frames of reference or worldviews, rather than trying to test hypotheses on a large sample.

According to Gelo et.al (2008), Quantitative approaches tend to explain, i.e. to verify if observed phenomena and their systematic relationships confirm the prediction made by a theory. Qualitative approaches, in turn, tend to comprehend, i.e. aspire to reconstruct the personal perspectives, experiences and understandings of the individual actors. Thus, while
quantitative approaches are usually deductive and theory-driven (i.e. they observe specific phenomena on the base of specific theories of reference), qualitative ones are inductive and data-driven (i.e. they start from the observation of phenomena in order to build up theories about those phenomena). In quantitative approaches, hypotheses are deductively derived from the theory and have then to be falsified through empirical investigation (confirmatory study). In qualitative approaches, however, the development of hypothesis is part of the research process itself, whose aim is to develop an adequate theory according to the observations that have been made (exploratory study).

Ghauri and Grönhaug (2005) write about the main characteristics of quantitative and qualitative research. For qualitative research these are; data is mostly collected using conversation, and unstructured and semi-structured interviews. For quantitative research, the corresponding are: structured observations, interviews and surveys, and attitude scaling.

According to Kelle (2006) a sequential qualitative-quantitative design study helps to identify core issues and to develop theoretical concepts and hypotheses, which can be further examined in a subsequent quantitative study that is carried out with the goal to find out whether concepts relevant in a comparable small number of cases describe and explain social phenomena in a greater domain accordingly. Such a design helps to overcome two remarkable limitations of mono-method research: the limited transferability of findings from qualitative small n research as well as the initially mentioned hazards of the heuristics of commonsense knowledge, which represent a crucial problem for quantitative research -the lack of sociocultural ‘local’ knowledge that seduces researchers to apply concepts that fail to grasp the most relevant phenomena in the investigated field. By starting the research process with a qualitative study, researchers may obtain access to local knowledge that helps them to develop those theoretical concepts and hypotheses most suited for their domain and to construct standardized research instruments later on that cover relevant phenomena by meaningful and relevant items.

This thesis uses a pluralistic method and consists of a qualitative study followed by a quantitative study. Qualitative study is required in order to get in depth information of what customers think and how they behave and the findings from this study will be used to formulate a questionnaire that will then be used in the quantitative study. Quantitative study provides several different views on the questions and decreases the factor of different people thinking differently.
3.6 Time Horizon
This research was carried out at Liffey Park Technology Campus, in Leixlip, in the first two of weeks of December 2011.
Individual interviews were carried out first followed by development of a questionnaire to be administered via email during this same period. Quantitative Survey Respondents had a window of 2 weeks to respond to this survey.

3.7 Data collection Method
This thesis aims at finding out people’s attitudes and intentions, and Ghauri and Grönhaug (2005) write that only primary data can provide answers to such questions. Individual depth interviews were chosen to gather primary qualitative data from selected respondents. In-depth interviews are useful when one wants detailed information about a person’s thoughts and behaviours or wants to explore new issues in depth. Interviews are often used to provide context to other data (such as outcome data), offering a more complete picture of what happened in a program and why. In-depth interviews should be used in place of focus groups if the potential participants may not be included or comfortable talking openly in a group, or when you want to distinguish individual (as opposed to group) opinions about the program. They are often used to refine questions for future surveys of a particular group. In-depth interviews which will be conducted amongst a sample of the population and a prior list of questions will be generated to ask participants and get their opinions. The proceedings of these discussions will be captured and used to create a questionnaire for the quantitative study. The plan is to conduct three in-depth interviews before doing the Survey questionnaire. There is also a need to collect quantitative data from private citizens by using the Survey method. The decision to use a survey was based on the advantages and disadvantages of a survey, as displayed in Figure 3 below:

<table>
<thead>
<tr>
<th>Weaknesses</th>
<th>Strengths</th>
</tr>
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<tr>
<td>Collection often requires a long time.</td>
<td>Useful for questions with long answers</td>
</tr>
<tr>
<td>There is often low frequency of answers</td>
<td>Low cost</td>
</tr>
<tr>
<td>The answering situation is uncontrollable, you can not be sure of who has actually answered</td>
<td>No interviewer effect.</td>
</tr>
<tr>
<td>If a clarification is needed, it is hard to do a follow-up</td>
<td>Sensitive and private questions can be asked since anonymity can be guaranteed.</td>
</tr>
</tbody>
</table>

Figure 3: Strengths and Weaknesses of Survey Method.
As seen in the above table, there are both positive and negative characteristics but two of the more important negative characteristics of a send out survey will be less important in this work; namely the low frequency of answers and the long time. This will be offset because of the use of an electronic variation of the survey. Thus, the time will be shorter because of no need to wait for the post, and the frequency will not matter as much since the potential participants are many. Besides this difference between an ordinary survey, and a web-based survey, the other characteristics are seen as applicable. Web-based surveys are characterized by fast responses, low cost, the ability to target a very geographically spread group, and that with the help of software, it is easy to process the data gathered.

3.7.1 Secondary Data Collection

According to HP Ink-refiller Profiling Research-July 2010 non-OEM ink users represent a range of demographics, income levels and segment typologies. They tend to be savvy shoppers seeking concrete evidence for the choices they make (when it comes to ink). These consumers are driven to use non-OEM ink for a variety of reasons: they are struggling financially, they have been directly impacted by the economy and have been forced to uphold a strict budget, they exhibit longstanding frugal behaviour, they are high volume printers with multiple family members using the device, they are upset about the cost of ink and finally many also cite concerns about the environment and support “green” initiatives. Regardless of what drives their refill usage, they are willing to put up with some hassles and risks for a lower price. Even if they have negative experiences, or question quality or yield, many stick with refill. The cost delta between refill and HP original is so great, that consumers are willing to sacrifice (potential) quality for the significant cost savings. However a repeated experience with leaking will force these consumers to switch back to original HP ink.

According to Consumer Rapid Summary report of 2010, customers who buy ink online are more likely to buy OEM inks. The most important factors influencing this decision are compatibility with the printer, price and reliability of the cartridge. HP-brand ink buyers consider print quality significantly more important compared to other aftermarket inks. Satisfaction levels with the cartridge’s reliability, printer compatibility, quality of print and number of pages printed among those who purchased store or bargain-brand ink is significantly less compared to those who purchased HP-brand ink. Buyers see value and wide
selection as top benefits of purchasing OEM ink but are also more certain of what they’re getting when buying OEM ink.

According to recent research from Supplies-Watch of Socratic Technologies, the perception amongst consumers is that the gap is narrowing between perceived OEM technology and aftermarket inks. The main factors influencing switching from HP ink to non-HP ink are price, quality and recommendations. This has affected both high and low usage customers.

This secondary data provides an insight that is available today into the mindset of inkjet users and some of the key factors that are driving consumers from OEM ink supplies to non-OEM supplies. It is also a good starting point to begin primary research and frame questions for qualitative interviews.

3.7.2 Primary Qualitative Data Collection

According to Boyce (2006), the primary advantage of in-depth interviews is that they provide much more detailed information than what is available through other data collection methods, such as surveys. They also may provide a more relaxed atmosphere in which to collect information—people may feel more comfortable having a conversation with you about their program as opposed to filling out a survey. However, there are a few limitations and pitfalls that need to be noted. In-depth interviews are prone to bias because staff might want to “prove” that a program is working. Responses from community members and program participants could also be biased due to their stake in the program or for a number of other reasons. Interviews can be a time-intensive evaluation activity because of the time it takes to conduct interviews, transcribe them, and analyze the results. To provide the most detailed and rich data from an interviewee, the interviewer must make that person comfortable and appear interested in what they are saying. When in-depth interviews are conducted, generalizations about the results are usually not able to be made because small samples are chosen and random sampling methods are not used. In-depth interviews however, provide valuable information for programs, particularly when supplementing other methods of data collection.

Each of the interviews of this dissertation was composed of three stages, which are discussed in the following sections. There were two types of questions, namely open-ended questions and closed-ended questions, with the former one being dominant in the interview (see Appendix ). Open-ended questions were preferred since they allowed the interviewees to
answer as little or as much as they could, leaving more room for them to think of the issue (Breakwell, 2006). In the first stage, the main theme of the interview was introduced with the provision of general ideas about what the interviewees were expected to answer. The approximate length of the interview, 30 minutes, was mentioned. The issues relating to confidentiality and record permission were already mentioned at the time when the appointment was made, but they were still repeated here. After the introduction, the interviews began with some general questions regarding consumer spending habits on inkjet supplies. As suggested by Smith and Eatough (2006), a successful interview incorporates both general and specific questions which will move between each other fairly seamlessly.

The interviews were conducted in places such as common areas in LPTC where the interviewees felt comfortable to answer the questions. Interviews lasted for approximately 25 to 30 minutes, depending on the interviewees’ familiarity to the questions and their willingness to provide more fruitful responses. The responses were recorded with the use of computer with the approval from the interviewees so as to facilitate the subsequent analysis. The interviews were then transcribed.

3.7.3 Primary Quantitative Data Collection

As mentioned in section 3.7 the survey method was identified to collect quantitative data for this study. A survey is any activity that collects information in an organised and methodical manner about characteristics of interest from some or all units of a population using well-defined concepts, methods and procedures, and compiles such information into a useful summary form. A survey usually begins with the need for information where no data – or insufficient data – exist. The Survey method was chosen for collecting primary quantitative data because it is relatively inexpensive, can be easily publicized by email and can be easily analysed through available statistical softwares.

Although the information from individual in-depth interviews provided useful insights into consumer behaviour with regards to customer experience with those systems, the understanding of factors affecting consumer's perception of value that can affect purchase decision, consumers’ participation in Loyalty programs and brand attributes most valued by customers remained deficient. Due to these reasons, it was decided to organize an online survey. A convenience sampling method was used to obtain the survey participants. The link to the survey was sent by email to potential participants. The email contained a brief description of the survey and a link to a website questionnaire. The survey comprised of a
wide variety of questions with respect to how customers perceived their current print experience and what they valued the most. In addition the survey also contained questions covering factors that could influence customer participation in loyalty programs, purchase of non-OEM vs. OEM supplies and role of brand in inkjet supplies consumption. The findings from the Qualitative Research in-depth interviews were analysed to put together the questionnaire for Quantitative Research. The participants interviewed in the Qualitative Research process had good exposure to using OEM and non-OEM inkjet supplies and therefore their views were taken into account when framing questions for the Quantitative research.

3.7.3.1 Questionnaire Design Process for Quantitative Research
The quantitative survey was administered to a sample of around 200 participants at LPTC. Participants had two weeks to complete the online survey. The data collected from this survey was then analysed to uncover the findings. The approach taken in designing the survey questions is described in the ten steps listed below.

1) **Questionnaire importance:**
This questionnaire is the main means of collecting quantitative primary data. It enables quantitative data to be collected in a standardized way so that the data are internally consistent and coherent for analysis.

2) **Information needed:**
This questionnaire is designed to gather basic information about the respondent’s opinions towards OEM and non-OEM inkjet supplies from the perspective of perceived value, brand equity and loyalty programs. Each of these factors has individual constructs that combine to influence customers’ behaviours and this study tries to understand this influence. In addition to basic information, the questionnaire also gathers classification information of respondents based on their usage of ink supplies, demographic information and economic information.

3) **Framing of questions:**
Each question listed in the questionnaire has been deemed necessary. All the basic information questions go towards gathering data on the five main objectives of this study. Ambiguous wording, leading questions, implicit assumptions and implicit alternatives have been avoided and questions are asked in a logical order. The theoretical justification for each of the questions is described in the next three subsections. The opening five questions introduce the topic of inkjet printing and attempt to gain the confidence and cooperation of respondents. In order to balance responses for OEM and non-OEM supplies the questionnaire
is broken down into two parts i.e. questions6-17 for OEM supplies and questions18-29 for non-OEM supplies. Demographic and economic information is gathered at the end. There is a brief introduction for each of the sections to help the respondents understand the nature of questions to follow.

4) **Ability of respondents to answer questions:**
Respondents are given a brief overview of what constitutes OEM and non-OEM inkjet supplies to help understand what the survey is about and then asked to choose the correct option that best expresses their opinion for questions that follow.

5) **Willingness of respondents to answer questions:**
While most individuals are willing to participate in a survey, this sense of cooperation may vanish if the questions require too much effort to answer. Demographic and economic information about respondents is collected at the end of the survey after a relationship has been established and the respondent has become involved in the process. Sensitive information around income and age is obtained in the form of response categories rather than asking for specific figures.

6) **Structure of questions:**
Overall there are 3 types of questions in this survey: questions which can be answered as simple yes or no an e.g. of this is question1- “Do you own a inkjet printer”, statements to which participants have five options of replying-strongly agree, somewhat agree, neutral, somewhat disagree and strongly agree, an e.g. of this is question7-“OEM Inkjet supplies are easy to purchase” and finally there are statements which have specific options for the participants to choose from an e.g. of this is question5-“ How many pages do you print per month on your inkjet printer”.

7) **Type of scales used:**
Many questions, particularly those measuring attitudes and lifestyles, are worded as statements to which respondents indicate their agreement or disagreement using Likert scales. (Malhotra 2010) Questions7-14, questions19-26 and question28-29 are all worded as simple statements and respondents are asked to indicate their degree of agreement by checking one of five response categories. The end-points of a Likert scale are typically strongly agree and strongly disagree. The respondents are asked to indicate their degree of agreement by checking one of five response categories. Likert scale is preferred in this questionnaire because it is easy to construct and administer this scale and easy for the respondents to understand and therefore suitable for online surveys. Precaution has been taken to construct short statements for Likert-scale questions so that respondents can easily understand them.
For all such questions a balanced scale is used so that number of favourable and non-favourable categories is equal. Since a neutral or indifferent response is possible to the above mentioned “Likert-scale-questions” the middle category of “neutral” is included in all such questions. With such an implementation of the Likert scale, respondents are forced to express their opinions because a “no opinion” option is not provided. In such cases it is noted that respondents without an opinion may mark the middle scale position.

8) *Wording of questions:*

In order to balance responses for OEM and non-OEM supplies the questionnaire is broken down into two parts i.e. questions8-17 for OEM supplies and questions18-29 for non-OEM supplies. When switching between the two topics, brief transitional sentences have been used to help respondents switch their train of thought; for example, “The following questions are for respondents who have used non-OEM inkjet supplies.” Questions in both sections are worded similarly to avoid bias. For e.g. question7-“OEM inkjet supplies are easy to purchase” and question28-“Non-OEM supplies can be easily purchased online” are similarly worded with identical response options for participants. By creating two separate sections, the questionnaire tries to control any bias introduced by the positive or negative nature of statements about OEM or non-OEM supplies. For e.g. question8 “OEM inkjet supplies give consistent Print Quality from 1st page over the life of the supply” and question24 “You get consistent print quality from 1st page after installing non-OEM supplies” attempt to negate any bias due to wording by being included separately in the sections of OEM supplies and non-OEM supplies of the questionnaire respectively. Question16 “Which of the following rewards would you prefer as part of a Loyalty Program” is a structured question with three options for respondents to convey their opinion.

9) *Order of Questions:*

The opening seven questions introduce the topic of inkjet printing and attempt to gain the confidence and cooperation of respondents. These questions are simple and easy to answer with a simple Yes or No option. Questions1-3 aim to introduce the respondent to the topic of inkjet printing and questions 4-5 aim to profile the respondents based on their ink usage pattern. Candidates are then given a brief overview of what constitutes OEM and non-OEM inkjet supplies and asked to choose the correct option that best expresses their opinion for questions that follow. Questions6-17 then gather basic information about the respondents’ attitudes towards inkjet supplies and questions18-29 gather basic information about the respondent’s attitudes about non-OEM supplies. The initial questions are simply worded with
gradual introduction of specific questions later in the survey, e.g. question-8 “OEM inkjet supplies give consistent Print Quality over the life of the supply”.

10) Pretesting questionnaire:

Pretesting refers to testing the questionnaire on a small sample of respondents to identify and eliminate potential problems. As a general rule, a questionnaire should not be used in the field study without extensive pretesting. All aspects of the questionnaire, including question content, wording, sequence, form and layout, question difficulty, and instructions, should be tested. In addition, pretesting should be conducted with a subset of the respondent group. This survey was pre-tested on three respondents who were similar to target respondents in terms of their background characteristics, familiarity with the topic, and attitudes and behaviours of interest.

After pre-testing the questionnaire with three respondents the following changes were made:

The original Quantitative questionnaire had 40 questions. However after pre-testing the questionnaire with three respondents the number of questions was reduced to 32. The following changes were made: The wording for question 8 was changed and it was made a structured question with three specific choices rather than a multiple choice question. This was done based on feedback from respondents that the original question was leading towards a particular answer. It was also decided to break the questionnaire about inkjet supplies into two separate sections each focussing on OEM and non-OEM supplies. Questions 14-26 were moved to the non-OEM ink supplies section. Question 10 was changed from “OEM inkjet supplies are easy to order” to “OEM inkjet supplies are easy to purchase” to make the wording identical to similar question for non-OEM supplies. The wording for question 11 was changed to “OEM inkjet supplies give consistent Print Quality from 1st page over the life of the supply” and a similar question was also added to the non-OEM supplies section. Question 24 and 32 were removed. The wording for question 30 was changed from “You are happy with the print quality of you OEM inkjet supply” to “You are satisfied with the print quality of you OEM inkjet supply” Questions 34, 35 and 36 were removed and replaced with a single structured question “Which of the following rewards would you prefer as part of a Loyalty Program” that had three options for respondents. Questions 9 and 21 were also removed as the information collected from these questions was deemed to be captured by other questions.
3.8 Population and Sample Selection

As stated previously, this thesis will focus on understanding the factors that affect the purchase decisions of inkjet supplies of consumers and what impact loyalty programs and brand equity can have on this decision. This study will also find out whether the unreliable performance of non-OEM inkjet supplies deters customers from buying them. Thus the population of interest is consumers who own inkjet printers and those who buy inkjet supplies for home or office use.

The HP-Marketing Group in LPTC has a large database of people, from other businesses within the campus, to use for internal market research studies. This database also includes details such as printers owned by people, buying habits of inkjet supplies, employment background and printing habits. This availability of data makes it easier to choose candidates for in-depth interviews as it is now possible to target the precise individuals who have significant knowledge about using non-OEM systems as well as have experience using OEM supplies. LPTC also provides adequate infrastructure, setting and environment to facilitate interviews and conduct surveys. This ready availability of information and convenience justifies carrying out the Qualitative interviews and Quantitative surveys in LPTC. The research population is therefore people who own inkjet printers or buy inkjet supplies for home or office use and those who work at LPTC. The size of this population is around 250.

An initial study was carried out to understand the types of customers who are likely to buy non-OEM systems. An engineer and a non-engineer (non-technical) who had not used non-OEM supplies before, but who regularly bought inkjet supplies and owned printers at home, were asked to install it in printer. Both were not able to successfully complete this task over a period of 30 minutes that was provided. However the technical person made much more progress than the non-technical person in installing the system. It was therefore concluded that the most likely users of non-OEM systems would be people who have a technical background and who own printers at home or regularly buy ink supplies. These people would be more comfortable with using non-OEM supplies and may also repurchase such systems. Therefore this category of users would be familiar with non-OEM and OEM supplies and can provide firsthand insights into consumer behaviour and factors affecting the same. Based on this, it was then decided to choose three people with technical background who have experience of using non-OEM systems, for the individual in-depth interviews. The participants were chosen based on the following criteria: Technically-advanced participants, currently own a printer at home, responsible for purchasing cartridges, buy cartridges online.
and have purchased non-OEM systems in the past. Each individual interview lasted about 30 minutes during which participants were quizzed about their habits for buying inkjet supplies, their impression of non-OEM systems, perceived value of HP supplies and their opinions about loyalty programs for OEM inkjet supplies. All the chosen participants were advanced users i.e. used HP printers and supplies on a regular basis and familiar with the “print-system”. The questions asked during this process and their responses are included in Appendix.

The questionnaire for the survey was administered to about 200 people from the population. Sampling without replacement was used in sample selection. The people used in individual in-depth interviews were not used in the survey sample population. In probability sampling, sampling units are selected by chance. Therefore it is possible to determine the precision of the sampling estimates of the characteristics of interest. Confidence intervals, which contain the population value with a given level of certainty, can also be calculated. This permits the researcher to make inferences or projections about the target population from which the sample was derived. For these reasons, probabilistic sampling method was used for this study. A Systematic Sampling method was used to choose a sample of population for individual in-depth interview study as well as for the Survey. The main advantage of using systematic sampling over simple random sampling is its simplicity. It allows the researcher to add a degree of system or process into the random selection of subjects. Another advantage of systematic random sampling is the assurance that the population will be evenly sampled.

3.9 Ethical issues

As this study required the participation of human respondents, specifically professionals working at Liffey Park Technology Campus, certain ethical issues will be addressed. The consideration of these ethical issues is necessary for the purpose of ensuring the privacy of the participants. Among the significant ethical issues that were considered in the research process included consent and confidentiality. In order to secure the consent of the selected participants, the researcher relayed all important details of the study, including its aim and purpose. By explaining these important details, the respondents were able to understand the importance of their role in the completion of the research. The respondents were also advised that they could withdraw from the study even during the process. With this, the participants were not forced to participate in the research. The confidentiality of the participants was also ensured by not disclosing their names or personal information in the research. Only relevant details that helped in answering the research questions were included.
3.10 Limitation of Research
This research has some unavoidable limitations. Since the entire research was carried out in the Liffey Park Technology Campus area, the research is biased geographically and also targets a certain type of population. The research was conducted only on a small size of population. Therefore to generalise the results for larger groups, the study would need to involve more participants. Furthermore, to remove the geographical bias future research could be carried out in different countries. Another aspect of this research is that it focuses on consumer segment however the research may also be extended to business users to see how the two segments differ. Finally this study focussed on non-OEM systems as primary third party supplies in the after-market. But future research can also include counterfeit supplies to see how they fare against HP supplies.
Chapter 4 - Data Analysis and Findings

4.1 Introduction

This chapter aims at presenting and discussing findings obtained from the interviews concerning the effect of perceived value, brand equity and loyalty programs on the consumer buying behaviour of OEM inkjet supplies. As mentioned in Chapter 3, section 3.8, participants in the Qualitative analysis had technical background and worked at LPTC in Leixlip, Ireland. Each interview was transcribed for the purpose of analysis in this chapter.

As far as the analysis of Qualitative in-depth interviews is concerned, it will be based on the most pertinent quotes, which reveal the viewpoints of the respondents in the Qualitative analysis. According to Easterby-Smith et al. (2002), qualitative researchers need to communicate the findings in an honest and systematic manner, disseminating the richness of the findings and hence the experience of the researchers. In addition, the analysis should be open to verification as far as possible so that the others are free to repeat what has been done and check the conclusions. The chapter has three sections in which the effect of perceived-value, brand equity and loyalty programs on the respondents and their opinions about these factors vis-a-vis OEM inkjet supplies and non-OEM inkjet supplies are presented and discussed.

4.2 Qualitative Research Findings

For actual transcript of qualitative interviews please refer to Appendices, II, III and IV.

4.2.1 Effect of Customer Perceived Value

From a customer perceived value perspective this study focuses on the value proposition of OEM inkjet supplies for the customer and identify which of factors such as low price (Zeithaml (1988)), added benefits (Treacy and Wiersima (1995)), service delivered, the overall experience provided to the customer (Pine and Gilmore’s (1999)), customer satisfaction (Trasorras et.al (2009)), enhance customer value perception (Philstrom (2008)).

In accordance with the above goals, the three participants in the qualitative interviews were asked four questions pertaining to customer perceived value.
Question 1. Are you satisfied by current OEM ink supplies?

Summary: Good print quality featured in two of the three responses. This indicates that customers perceive good quality as a benefit driven value driver as proposed by Lapierre (2000). The main reason for dissatisfaction with OEM inkjet supplies was high cost. This finding is in agreement with Huber (2001) who suggests that to evaluate the “perceived customer value” of a product, the costs of obtaining the perceived benefits are usually the major concern of buyers, since consumers may apply principles of costs-benefits to evaluate a purchase.

Question 2. What values/benefits do you associate with OEM supplies?

Summary: Ease of ordering, hassle free working, good print quality and reliability were the values attributed to OEM supplies. These three attributes are again part of the benefits Lapierrie (2000) consumers associate with value. However good print quality and reliability are also part of experience consumers derive from a product (Pine and Gilmore, 1999) and therefore by providing these attributes to customers, value can be added to products.

Question 3. How convenient is it to buy OEM supplies vs. non-OEM supplies?

Summary: OEM supplies were easy to order online or could be easily purchase at any retail stores. Rivald and Gronroos (1996) propose that a company can add value to an offering by reducing the customer-perceived sacrifice. By making it more convenient to buy OEM supplies, companies are reducing the perceived-sacrifice associated with the product. To buy non-OEM supplies, online research had to be undertaken which was time consuming thus reducing the ratio of perceived benefit to perceived sacrifice. (Monroe 1991)

Question 4. What would be the main driver for buying non-OEM supplies?

Summary: Low cost was the overwhelming primary driver for purchasing non-OEM supplies. Customers were willing to make a trade-off with lower print quality in order to save money thus suggesting that costs of obtaining the perceived benefits are usually the major concern of buyers. (Huber 2001) This also suggests that OEM supplies are not able to reduce the customer perceived-sacrifice by offering the associated benefits at current prices.
Overall Perceived Value summary:

![Perceived Value Summary Table](image)

Figure 4: Perceived Value Summary Table.

The above table summarizes the findings from the four qualitative interview questions about Perceived Value that were asked to the respondents. Respondents were not satisfied with OEM supplies due to high cost while good print quality and reliability of OEM supplies satisfied one respondent. The values and benefits associated with OEM supplies included easy to order, consistent print quality, reliability and no intervention. All respondents felt that it was easier to buy OEM supplies than non-OEM supplies. Low cost of non-OEM supplies and their good value for money were the main drivers for buying those products. Based on this data, additional questions (6, 7, 8, 9, 10, 13, 14 and 19, 20, 21, 22, 23, 24, 25, 26 and 28 from Appendix IV) were generated for the quantitative survey to get more insight about Perceived Value.

### 4.2.2 Effect of Brand Equity

From a brand equity perspective the study investigated six main components trust, user experience (Ruparelia, 2010)), perceived quality (Aaker 1991), product warranty (Wernerfelt 1988)) and uniqueness (Romaniuk, Ehrenberg and Sharp 2004)) because they have the most influence on consumer behaviour. However it is also noted that consumers do not always purchase products that they have a high regard for so the findings need to be looked at in the context of the study. Based on these learnings from the Literature Review chapter candidates were asked five questions about brand equity.

**Question 1. How important is product warranty to you?**

**Summary:. Warranty gives credibility to a brand. According to Wernerfelt (1988) when consumers are uncertain about brands, Brand-credibility can serve as a signal of product**
position. The findings from the qualitative study show that a Warranty is considered to be important by two out of the three participants.

**Question 2.** What has been your experience of using OEM supplies?

**Summary:** All three candidates did not have any problems with OEM supplies. For low involvement products, the study by Myers (2003) found that differentiation through attributes and brand equity is important part of the choice process. Trouble-free operation, good print quality and hassle-free use are all attributes of OEM supplies that help differentiate the product against non-OEM supplies. These positive experiences that customers have with OEM supplies also drive brand trust (Ruparelia 2010).

**Question 3.** What unique features would you attribute to OEM supplies over non-OEM supplies?

**Summary:** OEM supplies work intervention-free, are highly reliable, work hassle-free, are readily available in shops, give consistent print quality and give an out-of-ink indication. These are the unique features that customers associate with OEM supplies and according to (Anselmsson et.al 2007), can strengthen Brand equity. These features also form the intangible components of brand equity as consumers associate these qualities with OEM supplies. (Myers, 2003) Non-OEM supplies, on the other hand, require monitoring of print quality, CISS systems can take up to an hour to install, no guarantee that the supplies will work, require tubing adjustment and there is a danger of getting ink on hands. Thus if consumers believe that OEM supplies offer superior value to non-OEM supplies then they are more likely to purchase OEM supplies. (Myers, 2003).

**Question 4.** Would you trust OEM and consider it to be more reliable than CISS/non-OEM supplies?

**Summary:** All candidates believe that OEM supplies are more trustworthy and reliable than non-OEM supplies. This finding is in line with the findings of Myers (2003), Aaker, (1991, 1996) and Ruparelia (2010). If consumers believe that OEM supplies are more reliable than non-OEM supplies, offer superior value, work trouble-free in printers and are uncertain about non-OEM supplies’ brands then they will make their choice based on brand quality and awareness. (Sharp et. al 2004)
Overall Brand Equity Summary:

<table>
<thead>
<tr>
<th></th>
<th>Importance of Product Warranty</th>
<th>Experience with OEM supplies</th>
<th>Unique features of OEM supplies over non-OEM supplies</th>
<th>Trust of OEM supplies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respondent 1</td>
<td>Warranty is important.</td>
<td>No problems with OEM supplies and happy with print quality.</td>
<td>OEM supplies don’t need intervention, can be installed easily and give consistent print quality.</td>
<td>OEM supplies are more trustworthy than non-OEM supplies.</td>
</tr>
<tr>
<td>Respondent 2</td>
<td>Warranty is important.</td>
<td>No problems with OEM supplies and happy with print quality and reliability.</td>
<td>OEM supplies are reliable, consistent, work troublefree, give good print quality and are readily available in shops.</td>
<td>OEM supplies are more trustworthy than non-OEM supplies.</td>
</tr>
<tr>
<td>Respondent 3</td>
<td>Warranty is not important.</td>
<td>No problems with OEM supplies hassle-free to use and easy to install and recycle.</td>
<td>OEM supplies give consistent print quality, are 100% reliable and guaranteed to work.</td>
<td>OEM supplies are more trustworthy than non-OEM supplies.</td>
</tr>
</tbody>
</table>

Figure 5: Brand Equity Summary Table.

The above table summarizes the findings from the four qualitative interview questions about Brand equity that were asked to the respondents. Two out of three respondents considered warranty to be important. All respondents had no problems with OEM supplies working in their printers and were happy with print quality, reliability and hassle-free use. The unique features associated with OEM supplies included no intervention, easy installation, consistent print quality and reliability. All respondents felt had more trust for OEM supplies than for non-OEM supplies. Based on this data, additional questions (11 and 12) were generated for the quantitative survey to get more insight about Brand equity.

4.2.3 Effect of Loyalty Programs

This study also looked at how loyal customers can be rewarded through a Loyalty/Rewards program that can help retain loyal customers who are more profitable for firms than acquiring new customers. Loyalty programs also add commitment and differentiation (Dowling and Uncles, 1997) to the relationship between customers and firms and increases customer involvement which is key to maintaining a strong relationship between the two parties. The participants were asked 4 questions as part of studying the effect of Loyalty programs.
Question 1. Would you recommend OEM supplies or CISS/non-OEM supplies? Why?

Summary: According to Shukla (2009), there are contextual factors vis-a-vis loyalty and this question tries to determine whether users of OEM supplies would use the word-of-mouth to recommend OEM or non-OEM supplies. Since two participants agreed to recommend non-OEM supplies based on value for money and trade-offs involved it can be concluded that if customers better understand actual economics, time and energy-saving value they can make a choice to stay in a relationship with OEM supplies and if they do not perceive value in building relationships with a product like OEM supplies, then they might only engage in a relationship to the extent that a better option is not available elsewhere. (Omar 2008 and Tynan 2000).

Question 2. Would you participate in a LS for OEM supplies? Why?

Summary: All candidates were willing to participate in the Loyalty scheme for OEM supplies. Some of the expectations around such a scheme were: rewards had to be achievable, LS should save money, availability of free or discounted supplies, and scheme had to be hassle-free and there were no privacy or security issues. The concerns conveyed by respondents in this study are in line with the theory proposed by Strauss (2005).

Question 3. What rewards would you expect out of a loyalty program?

Summary: The candidates expected the following rewards as part of a Loyalty program: discount on purchase of OEM supplies, accumulate points to use on next printer or computer purchase and reduce cost of printing. Thus by offering these rewards to respondents who participate in Loyalty Program of OEM supplies, program utility perception can be increased. (Furinto 2009). However there is a risk that loyalty programs drive loyal behaviours in relation to the program, and not toward the sponsoring firm. (Lacey 1984).

Question 4. Would you buy non-OEM supplies if OEM companies were to offer a Loyalty program with rewards?

Summary: Two candidates indicated that they would not buy non-OEM supplies if they were participating in a Loyalty program for OEM supplies. One candidate indicated that he would buy non-OEM supplies even if he was in a Loyalty program. This indicates that even though
customers may be satisfied by OEM products they may not necessarily be loyal and few customers may switch to non-OEM supplies. (Reichheld 1994).

**Overall Loyalty Programs summary:**

<table>
<thead>
<tr>
<th>Recommend non-OEM supplies</th>
<th>Participation in Loyalty Schemes</th>
<th>Expected rewards from Loyalty Program</th>
<th>Buy non-OEM supplies if OEM suppliers offer loyalty program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respondent-1</td>
<td>No because process is messy and time consuming.</td>
<td>Yes if rewards were achievable and appropriate.</td>
<td>Receive discount on purchases of OEM supplies and option to accumulate points to use for next printer/computer purchase.</td>
</tr>
<tr>
<td>Respondent-2</td>
<td>Yes because non-OEM supplies are cheap and excellent value for money.</td>
<td>Yes if discounted supplies were available.</td>
<td>Reduce cost of printing.</td>
</tr>
<tr>
<td>Respondent-3</td>
<td>Yes, if trade-off with print quality is acceptable.</td>
<td>Yes if it is hassle free and no privacy or data protection issues.</td>
<td>Reduce cost of printing and option of using points to buy PCs or printers.</td>
</tr>
</tbody>
</table>

Figure 6: Loyalty Programs Summary Table.

The above table summarizes the findings from the four qualitative interview questions about Loyalty Programs that were asked to the respondents. Most respondents recommended use of non-OEM supplies as they are cheap and good value for money. The reasons for not recommending non-OEM supplies were that the process is messy and time consuming. All respondents were willing to participate in Loyalty programs for OEM supplies if rewards were achievable, the system was hassle-free and supplies were discounted. All respondents wanted the Loyalty program to reduce cost of printing and also be able to accumulate points for next printer or computer purchase. Two out of the three respondents indicated that they would not buy non-OEM supplies if participating in a Loyalty Program. Based on this data, additional questions (15, 16, 17, 18 and 29 from Appendix IV) were generated for the quantitative survey to get more insight about effect of Loyalty Programs towards consumer behaviour.

### 4.3 Quantitative Research Findings

An email containing a link to the survey was sent out to around 200 people in LPTC, Leixlip. The researcher expected a turnover rate of 20-25%. 57 participants (28.5%) responded to the
questionnaire, of which 16 (8.5%) were invalid as per the eligibility criteria. Thus 41 (20%) eligible participant responses were gathered, 68.3% of the researcher’s initial target of 60. For a copy of the questionnaire, please see Appendix IV.

4.3.1 Demographic Distribution of respondents.

![Figure 7: Age distribution of respondents.](image)

The age distribution of the respondents shows that the age groups of 26-35 years (42.5%) and 36-45 years (35%) together constitute an overwhelming majority (77%) of the total population of respondents. The above 45 years age group constitutes 25% of the respondents and 5% of respondents are in the age group of 15-25 years. Similarly, as described in the chart below 62.5% of respondents are male and 37.5% of the respondents are female. Finally the question about annual income reveals that 47.5% (20) of respondents had income above 50K Euros, 22.5% (9) respondents had annual income between 25,000-50,000 Euros and 30% (12) of the respondents had annual income less than 25000 Euros.
4.3.2 Behavioural Distribution of respondents

Questions 3-5 gauge the buying behaviour and usage behaviour of the respondents. As can be seen from the table below 66.7% of respondents buy supplies every 6 months, 30.8% of respondents buy supplies every 3 months and 2.6% of respondents buy supplies every month. When asked about how much money they spend on ink supplies annually, 48.7% (19) spend 50-100 Euros, 35.9% spend less than 50 Euros and 17.9% (7) spend more than 100 Euros.

When asked about how many pages respondents print per month, 66.7% (27) print less than 100 pages, 20.5% (8) print between 100-200 pages and 12.8% (5) print more than 200 pages.
4.3.3 Perceived Value of OEM supplies

The first question in this section was about the perception of price of OEM supplies amongst respondents. When asked about what respondents felt about price of OEM ink supplies an overwhelming majority of 87.8% (36) consider them to be expensive. 4.9% (2) respondents felt that OEM supplies were good value for money while 7.3% (3) considered the price to be not important. This suggests that OEM inkjet supplies in their current form do not provide good value for money and the ratio of benefits to sacrifice associated with inkjet supplies is too low. This data is complementary to the finding in the Qualitative interviews which suggests that the main driver for consumers to buy non-OEM supplies is their comparatively low price.

Respondents were then given four statements and they marked them on a five point scale from strongly agree (5) to strongly disagree (1) with neutral (3) as the middle option. The
table below indicates results from other statements pertaining to the Perceived Value section.

Results indicate that over 85% of respondents are satisfied with their OEM ink supplies. Overall average to the satisfaction attribute of OEM supplies got a rating of 4.2 which means that majority agree with the statement. From the qualitative interviews conducted in this study price was the main reason for majority of customers not being satisfied with OEM ink supplies and good print quality and reliability were the reasons for satisfaction with OEM supplies. About 75% of respondents believe that OEM supplies are easy to purchase and more than 92% of respondents believe that OEM supplies are easy to install. The ease-of-purchase attribute got a rating of 4.07 while the easy-to-install attribute got a rating of 4.4. This finding agrees with the information gathered in the qualitative interviews. According to Philstrom (2008) convenience is one of the value dimensions and this finding indicates that consumers clearly see value in the fact that OEM supplies can be easily purchased and easily installed. It can also be suggested that these factors form part of the customer experience and according to Pine and Gilmore (1999) such a positive experience can offer a higher value. Only 60% respondents believe that OEM supplies give consistent print quality and this attribute got a rating of 3.5 indicating that respondents don’t fully agree with this feature of OEM supplies. This suggests that even though the print quality of OEM ink supplies is good it is not consistent and therefore presents an opportunity for OEM suppliers to add value to
this attribute. It is also worth noting that even though customers are aware of the inconsistency of print quality, an overwhelming majority of customers are satisfied with OEM supplies.

Thus it can be concluded that although customers are satisfied they are not happy with the price of OEM ink supplies. Convenience features such as easy to purchase and easy to install can add value to OEM supplies but the consistence of print quality needs to be improved to add further value to these products.

4.3.4 Brand Equity of OEM supplies

In this section respondents were given four statements pertaining to brand equity of OEM supplies and they had to mark their opinion on a five point scale.

90% of consumers felt that OEM supplies are reliable and this attribute got a score of 4.29 indicating that consumers agree with this statement. This suggests that the reliability dimension of Brand equity (Aaker 1991) is strong in the consumers’ mind. Only 26.8% respondents felt that warranty is important when purchasing OEM supplies. This attribute got a rating of 2.85 indicating that consumers don’t really consider warranty to be an important factor when buying inkjet supplies. This finding indicates that warranty cannot be used as uniqueness feature (Anselmsson, 2007) by OEM suppliers to enhance Brand equity or for
brand differentiation. (Sharp 2004). Only 46.3% of respondents trust OEM brands of ink supplies and this attribute had a rating of 3.24. Thus Brand credibility (Wernerfelt 1988) for OEM supplies is low indicating that consumers may perceive OEM supplies as too expensive which is what this study has found through the question of price of OEM ink supplies. Finally more than 80% respondents consider OEM supplies to work trouble-free in printers and this attribute got a rating of 3.97 indicating that the majority somewhat agree with this statement. This again indicates that such good experiences can be used to build brand trust which is in accordance with the findings of Ruparelia (2010).

Thus, overall, the Brand Equity of OEM supplies can be enhanced through reliability and experiences such as trouble-free operation but brand trust is low and needs to be built up through a fairer pricing policy.

4.3.5 Influence of Loyalty Program of OEM supplies

Under this section candidates were asked three questions about Loyalty Programs. When respondents were asked whether they would participate in a Loyalty program 56% (23) said yes while 45% (18) said no. This indicates that a significant number of respondents do not perceive any value in building relationship with OEM ink suppliers.

![Figure 14: Participation of respondents in Loyalty programs](image)

When consumers were asked what rewards they would prefer as part of Loyalty programs 65% wanted discounted inkjet supplies, 29% wanted to get free inkjet supplies after certain number of purchases and 5% wanted to accumulate points and receive discounts on future computer or printer purchase. This again provides evidence that consumers perceive the cost of OEM supplies to be high and are looking for ways to reduce the cost of printing through cheaper supplies.
Finally when consumers were asked whether they would continue to purchase non-OEM when participating in a Loyalty program of OEM inkjet supplies, 56.1% said yes while 43.9% said no. Loyalty programs therefore don’t seem to influence a majority of consumers when it comes to buying non-OEM supplies. This suggests that consumers who do not perceive value in building relationships with OEM ink suppliers might only engage in a relationship to the extent that a better option is not available elsewhere. (O’Malley and Tynan 2000)

The next 12 questions get response from participants about their views on non-OEM supplies.
4.3.6 Non-OEM supplies: Benefits and Issues,

73.2% of respondents had used non-OEM inkjet supplies and 26.8% of respondents had not used non-OEM supplies indicating that a large majority of the respondents had experience of using non-OEM supplies.

Respondents were then given three statements regarding issues faced when using non-OEM supplies and they marked them on a five point scale from strongly agree (5) to strongly disagree (1) with neutral (3) as the middle option. The table below indicates results from these statements.

![Figure 17: Respondent’s use of Non-OEM supplies.](image)

![Figure 18: Response to questions about issues with non-OEM supplies.](image)
26% of respondents felt that installation of non-OEM supplies was a messy process while 22% disagreed with this statement. More than 51% respondents were neutral on this issue indicating that this may not be a relevant attribute for non-OEM supplies. Thus highlighting this issue may not necessarily help OEM suppliers. About 24% respondents disagreed with the statement that it could take up to 45 minutes for CISS installation and here again 56% of respondents were neutral indicating that this may not be a relevant factor or that respondents may not be familiar with CISS systems compared to refilled and remanufactured supplies. 39% respondents indicated that they were comfortable with getting ink on hands when installing non-OEM supplies while 32% disagreed with the statement and again about 29% of respondents were neutral. All these three attributes: Messy installation process (3.02), 45 minutes of installation process (2.8) and getting ink on hands (2.97), scored low on the rating scale indicating that consumers do not have any strong issues or dislikes with these attributes. Thus highlighting these issues to reflect the comparative benefits of OEM supplies may not be helpful.

4.3.7 Non-OEM supplies Perceived Value

In this section respondents were given four statements pertaining to the Perceived value of non-OEM supplies and asked to indicate their preferences. The results are listed in the table below.

Figure 19: Response to questions about Perceived value of non-OEM supplies.

65% of respondents considered non-OEM supplies to be easily purchasable while 12.2% disagreed. This attribute scored a rating of 3.85. About 44% of respondents felt that non-OEM supplies gave consistent print quality while about 26% disagreed and this attribute scored a rating of 3.17 indicating that there wasn’t a decisive support to this statement. 39%
respondents were satisfied with print quality of non-OEM ink supplies while 22% were not satisfied; about 40% respondents were neutral indicating that perhaps print quality was not important to them and thus this attribute got a rating of 3.19. 56% agreed that non-OEM supplies could be easily selected while 17% somewhat disagreed and 26.8% were neutral. Ease of selection got a rating of 3.65. Overall, only the ease of purchase and ease of selection attributes scored a little higher while satisfaction and consistence did not score well. This indicates that even though respondents are not completely satisfied with non-OEM supplies they are still purchasing them due to their low price and ease of purchase and ease of selection attribute. The value construct thus dominates the satisfaction construct and this finding for non-OEM supplies is contrary to what was found for OEM supplies where satisfaction construct dominated over the value construct.

4.3.8 Non-OEM supplies –Brand Equity

There was one question about brand equity of non-OEM supplies. Respondents were given a statement about non-OEM supplies always working in printers and asked to indicate their preferences. 43% respondents agreed with the statement while 31% did not agree with the statement giving it a score of 3.22 and indicating that respondents have concerns about operation of non-OEM supplies in printers.

![Figure 20: Response to question whether non-OEM supplies work in printers.](image)

4.3.9 Non-OEM supplies- Loyalty influence

In this section respondents were asked three questions pertaining to Loyalty of non-OEM supplies. Respondent’s opinion was sought on the statement that they would purchase non-OEM supplies in future. 53% respondents said that they would repurchase non-OEM supplies in future while 24.4% respondents said that they would not repurchase non-OEM supplies.
giving it a rating of 3.43 indicating that respondents did not have a strong loyalty towards non-OEM supplies. Respondents were also asked if they considered non-OEM supplies to be good value for money. 49% agreed that non-OEM supplies are good value for money while 20% disagreed but interestingly 31% were neutral giving this attribute a rating of 3.53 again indicating that respondents may be trading off print quality and other benefits for cheaper price of non-OEM supplies but continuing to buy non-OEM supplies because of the low price or perceived low level of sacrifice associated with them.

Figure 21: Response to questions about repurchase and value of non-OEM supplies.

The last question in this section asked respondents whether they would recommend non-OEM supplies to others. Here the respondents were evenly split with 51.3% saying they would recommend non-OEM supplies to others while 48.7% said they would recommend non-OEM supplies.

Figure 22: Response to question about recommendation of non-OEM supplies.

In summary, neither value nor intent to repurchase scored highly for non-OEM supplies but still over half the respondents indicated that they would recommend non-OEM supplies to others. Thus the word-of-mouth attribute of non-OEM supplies can play a significant role in loyalty for these products.
Chapter 5 - Conclusion

This chapter tries to interpret the collected data so that trends and patterns can be derived from it. The first section of this chapter analyses the demographic trends and the next section discusses the primary data in detail. A list of derived trends and patterns is provided and the original objectives of this dissertation are revisited and analysed.

5.1 Trends and Patterns

Based on the above analysis of data the following trends and patterns can be derived:

- 87.8% of respondents believe that OEM ink supplies are expensive indicating that consumers perceive the sacrifice associated with OEM supplies to be higher than the value they provide.
- 85% of respondents are satisfied with OEM ink supplies.
- Unhappiness with price of OEM ink supplies and high satisfaction indicates that respondents may be engaging in a relationship only to the extent that a better option is not available elsewhere.
- 90% respondents feel that OEM supplies are reliable and 80% respondents feel that they work trouble free in printers indicating brand equity can be built around these products through these attributes.
- Warranty of OEM supplies is not important to respondents.
- Only 56% of respondents indicated that they would participate in Loyalty program for OEM ink supplies indicating that respondents do not see this as an important factor.
- 65% of respondents want Loyalty program to reduce their cost of printing.
- 56% of respondents indicated that they would continue to buy non-OEM supplies while participating in a Loyalty program for OEM supplies. This suggests that respondents do not feel that Loyalty program will reduce their cost of printing significantly and that non-OEM supplies will still be cheaper.
- 73% of respondents have used non-OEM supplies indicating that a large majority was willing to try a cheaper alternative to expensive OEM supplies.
- Messy installation of non-OEM supplies, time required to install CISS systems and getting ink on hands while installing non-OEM supplies are not significant issues for respondents to deter them from using these products.
• 65% respondents believe that non-OEM supplies can be easily purchased.
• Only 39% respondents are satisfied with print quality of non-OEM supplies.
• Non-OEM supplies do not have much brand equity or brand loyalty.
• 51% of respondents are willing to recommend non-OEM supplies to others.

5.2 Demographic and Psychographic Trends
Looking at the responses of the respondents by annual income it was found that 94% of respondents with income above 50K Euros felt that OEM ink supplies were expensive and only 26% agreed that product warranty was important which is similar to the overall findings. 72% respondents from this group had used non-OEM ink supplies indicating that regardless of annual income respondents are buying non-OEM supplies. When looking at the responses of high usage respondents who print more than 200 pages a month it was found that 100% (5) felt that price of OEM ink supplies was expensive. Similarly all 5 respondents indicated that they would continue to buy non-OEM ink supplies even if they were participating in Loyalty programs for OEM supplies thus suggesting that respondents feel that such programs will not significantly reduce the cost of printing and 4 out of 5 respondents had already used non-OEM supplies. Interestingly only 1 out of 5 respondents was satisfied with the print quality of non-OEM supplies and 3 out of 5 had problems installing non-OEM supplies in their printers. This again suggests that if OEM suppliers can deliver an alternative to non-OEM supplies that is good value for money then customers will switch over to that offering. When the data was filtered by gender it did not show any significant differences between responses of males and females. Both groups were equally likely to use non-OEM supplies and responses regarding price, perceived value, brand trust, satisfaction and loyalty programs of OEM supplies were similar thus showing that there was no gender bias to any of the responses of respective questions in those sections.

5.3 Conclusions for the research objectives.
This dissertation had five research objectives as stated in Chapter1. In this section each of the research objectives is analysed and conclusions are drawn to satisfy those objectives.
1) **What customer perceived value-added features, if any, of inkjet supplies can affect consumers’ purchase decisions of OEM products?**

This study looked at a four value added features and respondent’s opinions about them. Satisfaction scored well in respondents’ perception with 85% saying that they were satisfied with OEM ink supplies. However as suggested by Trasorras (2009) and Reichheld (1994) satisfied customers may not necessarily be repeat buyers and tell others about their experiences and Tam (2204) has proved that perceived value has a greater influence on post-purchase behaviour than customer satisfaction. Since only 5% of respondents feel that OEM ink supplies are good value for money it is unlikely for customer satisfaction to translate into customer loyalty for OEM supplies. 75% of respondents indicated that OEM supplies were easy to purchase and 92% indicated that they were easy to install. However, only 60% respondents felt that OEM supplies give consistent print quality. Thus keeping customers satisfied and maintaining their easy to purchase and easy to install attributes by emphasising the convenience factor will add value to OEM ink supplies and influence purchase decisions of consumers. Since only 60% of respondents felt that OEM supplies give consistent print quality, this attribute needs to be improved by OEM suppliers so that more customers appreciate it and this can then be leveraged to influence purchase decisions.

2) **Does emphasising lifestyle benefit over price affect consumer purchase decision of OEM inkjet supplies?**

Lifestyle benefits such as ease of purchase (75% favourable), ease of install (92% favourable) and trouble free operation in printer (80% favourable) all scored highly with the respondents. As pointed out by Huber (2001), these favourable responses suggest that OEM supplies have low time costs, search costs and learning costs. Despite this, 73% of respondents had used non-OEM supplies and 87% respondents considered OEM supplies to be expensive. High price of was thus the main driver for respondents to try non-OEM supplies and needs to be looked at in the context of 85% satisfaction with OEM supplies. This suggests that even though respondents are satisfied with OEM supplies and appreciate the lifestyle benefits such as convenience and reliability associated with them, they are still willing to try out non-OEM supplies. Only 5% respondents felt that OEM supplies are good value for money and so this perception needs to be changed. These findings are further reinforced by Gross (1997) who suggested that Value is a critical dimension in product marketing and as per Calliasisa-Fiol (2009) enhancement of customer perceived value can be an antecedent to customer loyalty. Just emphasising lifestyle benefits while maintaining high price does not provide value the
customer is looking for and therefore may not succeed in affecting consumer purchase decision.

3) **What OEM brand attributes, if any, are sufficient to influence consumer decision in purchasing OEM supplies over non-OEM supplies?**

This study looked at four brand attributes of OEM ink supplies: product warranty, brand trust, reliability and trouble-free operation in printer. 90% of consumers feel that OEM supplies are reliable and more than 80% respondents consider OEM supplies to work trouble-free in printers. However only 46% respondents trust OEM supplies and only 26.8% believe that warranty is important to them. Thus OEM supplies have strong brand equity through product reliability and hassle-free operation in printer and according to Netemeyer’s model (2004), perceived quality of brands is one of the factors that can influence future customer behaviour. Of the four brand equity dimensions proposed by Aaker (1991) OEM supplies scored high only on the perceived quality. Product warranty and trust for OEM supplies is low. Thus purchase loyalty and altitudinal loyalty of OEM inkjet supplies are low. (Chaudhari et.al 2001). This explains the finding in the previous research objective that consumers are willing to buy non-OEM supplies that do not have a warranty and expensive ink is the main reason for low trust of OEM ink suppliers. Only 43% respondents believe that non-OEM supplies always work in printers but they are still willing to try these supplies. This finding again suggests that brand attributes of OEM supplies such as reliability and hassle free operation will influence consumers to buy OEM supplies but that may not be enough to convince consumers to buy OEM supplies over non-OEM supplies.

4) **Would a loyalty/rewards program promote consumer purchasing behaviour of OEM supplies over non-OEM supplies?**

Only 56% respondents said they would participate in a loyalty program for OEM supplies. Similarly 56% respondents also said that they would continue to purchase non-OEM supplies even if they were participating in a loyalty program. It is therefore clear that not a large majority of respondents are keen to join Loyalty program for OEM supplies and again a large number will continue to buy non-OEM supplies even after joining loyalty programs. This finding resonates with the study carried out by Shukla (2009) which suggested that past usage and convenience were not significant contributors to product loyalty. Loyalty programs may thus prove ineffective to promote purchase of OEM supplies over non-OEM supplies. 65% of respondents want Loyalty programs to reduce their printing cost so if OEM suppliers can convince customers to sign up to Loyalty programs and reward them with lower printing cost
then Loyalty programs may be more successful and according to Hsee et.al (2003) and Thaler (1985) Loyalty programs can enhance overall value proposition of products by providing psychological benefits and enhancing the transaction utility of a purchase. 49% respondents consider non-OEM supplies to be good value for money compared to just 5% who believe OEM supplies are good value for money. Therefore if OEM suppliers can deliver additional value while reducing the perceived sacrifice then that can help influence consumer purchase decisions.

5) *Will higher intervention rates for, and, questionable reliability of, non-OEM supplies deter consumers from buying these products?*

This study looked at three specific issues associated with using non-OEM ink supplies: messy installation process, time lost in installing non-OEM supplies and getting ink on hands. 26% of respondents felt that installation of non-OEM supplies was a messy process only 19% respondents agreed with the statement that it could take up to 45 minutes for CISS installation and 39% respondents indicated that they were comfortable with getting ink on hands. 51% respondents were willing to recommend non-OEM supplies to others and 53% respondents were planning to repurchase non-OEM supplies. This shows that some of the common issues faced when using non-OEM supplies don’t seem to bother respondents and they are still willing to use non-OEM supplies. 49% respondents consider non-OEM supplies to be good value for money and are thus not deterred by higher intervention rates and questionable reliability. However less than 45% of respondents were satisfied with the Print Quality of non-OEM supplies and so OEM suppliers need to use this information to their advantage. Low satisfaction could mean that if customers are given an alternative which is good value for money then then may be prone to switching as observed by Schneider and Bowen (1999).

5.4 *Contribution of this Study*

The vast majority of respondents find the price of inkjet supplies to be high and only 5% of respondents believe that these are good value for money. Thus the sum of benefits received minus the costs incurred by customers in using the product is negative and this is one of the key finding of this study. This perceived high level of sacrifice needed to purchase inkjet supplies is driving respondents to use non-OEM supplies. Upon using OEM supplies a vast majority of customers are satisfied by these products but the study found that this satisfaction is not necessarily translating to loyalty. Contrary to the finding by Trasorras (2009),
satisfaction is not the dominant consideration over value in the customers’ decision to repurchase OEM ink supplies. Respondents appreciate the convenience benefits of OEM supplies such as ease of purchase and ease of installation. But respondents do not care for warranty on OEM ink supplies and don’t have much trust for OEM ink suppliers. OEM ink supplies have strong brand equity through features such as trouble free operation in printers and reliability of supplies. However these attributes are not leading to brand trust, as was found by Ruparelia (2010). Because of the significant gap in price between OEM supplies and non-OEM supplies differentiation through these attributes of brand equity does not go far enough to change customers’ perception of OEM supplies. Similar to the findings of Netemeyer (2004) this study found that perceived value for cost of OEM ink supplies and willingness to pay a premium price are influencing the repurchase behaviour of OEM ink supplies. Introduction of Loyalty Programs for OEM supplies will not have significant influence on consumer purchase behaviour as just about 56% respondents were interested in participating and more than half of those participating in Loyalty Programs indicated that they would continue to purchase non-OEM supplies. This finding reflects the findings of Schneider and Bowen (1999) and of Reichheld and Sasser (1990) that satisfied customers are not necessarily loyal.

A vast majority of respondents (73%) were willing to use non-OEM supplies and messy installation process, long time required to install these supplies and possibility of ink getting on hands did not seem to be a concern for them. Respondents were willing to make this trade-off as they (49%) believe non-OEM supplies are good value for money. Non-OEM supplies also scored poorly compared to OEM supplies for ease of purchase, ease of selection, satisfaction with print quality and consistency of print quality but respondents were still willing to use non-OEM supplies. Thus the value construct, as found by Gross (1997), is a better predictor of repurchase behaviour. 51% respondents claimed they would recommend non-OEM supplies to others which is in line with the findings from Tam (2004) and Philstorm (2008) that perceived value will have a positive effect on word of mouth.

5.5 Implications for Product Managers
OEM ink suppliers are obviously not successful in communicating value to customers through their pricing strategy as there is a large gap in the perceived benefits of and perceived sacrifice for these products. Price is the main driver in influencing customer buying behaviour of OEM supplies. Customers are not willing to pay the current premium prices of
OEM supplies for the benefits they are getting and this is leading to lack of trust of OEM brands. Product Managers should therefore consider giving more value to customers by improving the consistency of print quality and perhaps providing more ink to customers if prices cannot be reduced. They should make efforts to reduce the gap between benefits and sacrifice for OEM supplies. It should also be noted that respondents of this study have scored non-OEM supplies poorly for ease of purchase, ease of selection, satisfaction and guaranteed to work in printers. So it is clear that if OEM supplies can provide them with a cheaper or better value for money offering then they may switch to using OEM supplies. Finally, simply introducing loyalty programs for ink supplies is not going to increase sales of OEM supplies. Consumers are looking for reduction in the cost of their printing and if Loyalty programs can deliver that and prove that OEM supplies are better value for money than non-OEM supplies then it will have a positive effect on consumer buying behaviour.
Chapter 6 - Self Reflection

Now that the researcher is at the last stage of a long journey, he feels that this is a good time to look back, and take stock of the progress he has made. He will be reflecting on the dissertation content and the process of writing the dissertation and on how he developed his learning and understanding of the subject matter during this process. Also reflected upon are his key learnings and how he can apply what he has learnt as a Marketing student in his professional career.


This research work started tentatively. The proposal initially wanted to focus on the Green credentials of inkjet supplies and how such environmentally friendly attributes could be used to influence consumer behaviour into buying original inkjet supplies. There was also a vague reference to investigating any other factors that would encourage consumers to buy OEM inkjet supplies over clones or CISS systems. However as the researcher started gathering literature reviews for such a proposal he realised that the focus of the thesis was too narrow and he needed to expand some of the objectives.

When the researcher presented an initial draft of my proposal to the course instructor of Research Methods module he got feedback which suggested that he should look at a broader aspect of consumer behaviour, branding and customer perceived value that can affect purchase decisions around inkjet supplies. All this feedback was then taken on board to prepare a new proposal. The research work was initially broken out into consumer behaviour, branding and perceived value, with a strong notion of interconnection between them, and their relevance to the inkjet supplies business. After discussing the proposal with senior colleagues at the researcher’s place of employment it was decided to add another factor of consumer loyalty into the mix to determine consumer attitudes towards such an initiative for inkjet supplies and its influence on consumer buying behaviour. Out of this feedback from the employer and from the discussion in classroom this dissertation proposal was put together.
In hindsight, the first piece of advice would be to select a topic that is of genuine interest to the researcher. This researcher’s academic interests have deep roots in consumer behaviour and branding and in the Inkjet supplies business. Combining academic interests with ongoing professional work at place of employment provided a good combination of developing knowledge about theory and implementing it in practice. This logic and practicality helped frame the objectives of the research proposal.

**Reflections on the Working Process used in this Dissertation.**

The Literature Review chapter was broken down into 3 main areas: Customer Perceived value, Branding and Loyalty programs. A significant effort was made, through the various papers that were researched, to establish an underlying thread that shows a strong interlink between these factors. The aim was to ensure that even though the literature review is entrenched into these separate attributes there is an underlying theme that that connects them and this integrated approach is the novelty of this dissertation. While preparing literature review, great care was taken to avoid rephrasing information gathered from research papers and the focus was on comparing and critiquing the findings of different researchers and how their work set the tone for conducting the current research work.

The Research Methods chapter was, initially, unbalanced in that it was biased towards providing details on how the research would be implemented rather than any philosophical underpinning to justify the research approach. There needs to be a balance, but in the initial Research Methods chapter, this was missing. That is why getting feedback from supervisor helped. Attending all the lectures of the Research Methods module greatly helped in shaping the contents of Chapter3. Almost all the concepts in this chapter were addressed during the lectures and the instructor clearly explained and contrasted the different fundamentals of each strategy. A clear understanding of the Research Onion concept was one of the highlights of the knowledge gathered in the classroom.

When preparing questions for the in-depth interview, careful attention had to be given in framing the questions so as not to lead or bias the interviewees. The theory from Literature review chapter was used to develop the questionnaire to get the maximum relevant information from the participants in the interview process. The interviews required careful planning, not only in working out the thematic structure of the interviews (based on issues
Developing the Quantitative Research questionnaire was a very challenging exercise. The researcher started with analysing the responses from Qualitative interviews to develop question for quantitative research. To begin with, the researcher revisited the proposed goals of the dissertation and then decided to frame a set number of questions for each of the objectives. The researcher already had the questions from the in-depth interviews for each of the section so he began analysing the responses to look for common strands that were emerging from the responses obtained. Taking into account the Literature review theory and the findings from the interviews he was able to identify three to four constructs for each of my research objectives. He then started developing questions around those constructs.

Keeping in mind the rules behind developing the questionnaire the researcher focussed on preparing short, simple and easy to understand questions. While the researcher was able to prepare a first draft of the questionnaire there was difficulty in putting into word the justification behind the prepared questions. The initial draft of justification was far from satisfactory. Following a few email exchanges with the supervisor it was realised that an important research paper had been overlooked that would help in this process. Once the document was available, the researcher was able to review the questionnaire design rules step-by-step and this helped fill some of the knowledge gap.

**Reflections on how Learning occurred.**

This researcher chose the dissertation topic because of his work experience in the field of Inkjet supplies and the thirst to understand consumer behaviour towards inkjet supplies. At the start of the dissertation, the researcher set the target of gaining theoretical and practical knowledge about consumer behaviour and how it is influenced by factors such as customer perceived value, brand equity and customer loyalty. This researcher has achieved the learning of theoretical fundamentals and this should be evident from the detailed nature of the Literature Review chapter and the critical review of research in the relevant areas. On reflection, the researcher notes that his decision to go with a topic of keen interest help fuel
his enthusiasm while conducting this dissertation study. This was a very satisfying experience enabling him to gain valuable knowledge about an area that is highly significant in the Inkjet industry.

Reflecting on his learning style helped the researcher realise his limitations. Looking back at his learning experiences the researcher can recall an email exchange with his supervisor in which he was advised to be more clinical about his critiquing of the Literature review and to ensure a smooth flow of the written material which would paint a concise picture of the direction of Literature review. This prompted the researcher to do a more thorough work on critical analysis by introducing contrasting research carried out by academics and minimising rephrasing of words from articles. In addition, since this dissertation is on consumer behaviour the researcher revisited his notes and learnings from the “Consumer Behaviour” module to refresh some of the theoretical concepts. This helped the researcher when setting objectives for this dissertation as well as when reviewing articles for Literature review.

Completing chapters 4 and 5 was a very fulfilling experience. The researcher had to frequently refer back to the theory referenced in Literature Review to interpret the findings. This process integrated the theory and its application to the real world and provided the researcher with a valuable learning experience. A few of the theoretical concepts were also clarified when going through the process of interpreting results and tying them back to theory. The researcher’s analytical skills were very useful in slicing the data from the quantitative study using various filters such as gender or income to generate insights on the responses of participants. Assigning Linkert scale scores to findings from the survey also helped interpreting the data. The researcher is satisfied that he was able to meet all the research objectives that were set out at the beginning of this study.

Writing this dissertation helped the researcher to put his thoughts and ideas into words to describe to the rest of the world his knowledge and learnings from this study. The researcher came from a technical background and so completing dissertation successfully in the field of Arts gave a great boost of confidence to him. This had been one of the driving forces behind the researcher’s quest to succeed in this study.
Future Application of Learning

The theories and concepts learned while doing this dissertation will help the researcher in many ways. As a future marketing professional, this researcher has had firsthand experience with developing questionnaire for quantitative research, conducting one-to-one in-depth interviews and last but not the least understood the theory and principles behind marketing research and strategy.

The knowledge gained from this dissertation experience has further ignited the passion within this researcher to understand consumer behaviour in the inkjet printing business. The theory captured in the Literature Review section is only a mere drop in the bucket of understanding consumer behaviour and the researcher hopes to include more academic readings in his daily work to have a solid theoretical understanding for implementing new marketing ideas. Another important concept learned by the researcher during this dissertation was effective time management. This is critical in today’s multitasking workplace roles and will greatly help the researcher in meeting deadlines on future projects and working under time pressure. Finally, putting together this dissertation has greatly helped the researcher to put together a story that has different elements to it but is bounded by a common theme. As a professional working in the Marketing world this experience will enhance the researcher’s ability to paint a picture to convey marketing and communication strategies in his line of work.
Appendix I
Qualitative Interview Questionnaire

1) How often do you buy inkjet supplies?
2) How much do you spend on inkjet supplies each year?
3) How many pages do you print per month?

Perceived Value

4) Are you satisfied by current OEM ink supplies?
5) What values/benefits do you associate with OEM supplies?
6) How convenient is it to buy OEM supplies vs. non-OEM supplies?
7) What would be the main driver for buying non-OEM supplies?

Brand Equity

8) How important is product warranty to you?
9) What has been your experience of using OEM supplies?
10) What unique features would you attribute to OEM supplies over non-OEM supplies?
11) Would you trust OEM and consider it to be more reliable than non-OEM supplies?

Loyalty Programs

12) Would you recommend OEM supplies or CISS/non-OEM supplies? Why?
13) Would you participate in a LS for OEM supplies? Why?
14) What rewards would you expect out of a loyalty program?
15) Would you buy non-OEM supplies if OEM companies were to offer a Loyalty program with rewards?
Appendix II

In-Depth Interview-1

David.F

1) How often do you buy inkjet supplies?
I buy supplies about once every 3-4 months.

2) How much do you spend on inkjet supplies each year?
I spend about 40-50 euros every year on ink supplies.

3) How many pages do you print per month?
I print about 100 pages a month.

Perceived Value

4) Are you satisfied by current OEM ink supplies?
OEM supplies deliver good print quality. I haven’t had any problems with OEM original supplies. However the ink is expensive and that is what drove me towards trying CISS. OEM also is a reliable company and I am happy using OEM printers as well as other OEM products. So, yes I am satisfied with OEM supplies.

5) What values/benefits do you associate with OEM supplies?
OEM supplies are easy to order, there is no hassle. They are backed by company warranty and I have never had any problems with OEM supplies. The print quality is consistent and I don’t have to give a second thought while using the printer. Also, I rarely have to intervene with the system once the supplies are installed.

6) How convenient is it to buy OEM supplies vs non-OEM supplies?
With OEM supplies, it is very easy to order online as you get a low on ink reminder once your supplies start to deplete. However I typically buy my OEM supplies in stores when I am shopping. Ordering CISS supplies is also easy, but I just had to put a lot of initial work into it in terms of identifying the supplier. Once I found the supplier it was fairly easy to order online using a credit card. It took about 4 days for the supplies to arrive. But OEM supplies can also take that time or sometimes even longer.

7) What would be the main driver for buying non-OEM supplies?
For a one time buy, the cost is high particularly when compared to OEM supplies (eg. 65GBP vs 15euros) but for the amount of ink supplied and the pages I can print the cost per page is way too cheap with CISS, we are talking 1/10th the price with OEM supplies. So if the system works in the printer then it is brilliant and very good bargain. The print quality is not as good as OEM but for the price I am paying I am content with what I get. So CISS is definitely good value for money.
Brand Equity

8) How important is product warranty to you?

Product warranty is important to me because it gives me peace of mind that I am not spending money on a risky purchase. If there is an issue with the product, I can always call customer support and get the issue sorted or request replacement supplies.

9) What has been your experience of using OEM supplies?

I have had very good experience with OEM supplies. I clearly understand what supplies work in my printer and can buy those supplies online or at a nearby shop such as PC World. I have never had problems of the pens not working in the printer. I am very happy with the print quality of OEM printers and have used OEM supplies to print photos as well as material for external use.

10) What unique features would you attribute to OEM supplies over non-OEM supplies?

Once OEM supplies are put into the printer there are no further interventions. With non-OEM supplies such as CISS, the print quality has to be monitored for the first few pages and also have to be on the lookout for paper jams. OEM supplies can be installed instantly, while CISS systems can take up to 1 hr for installation and there is no guarantee that they would work after that. OEM supplies give better and consistent PQ compared to non-CISS supplies and also let me know when the supplies are about to run out of ink so that I do not start a print job that gets only half completed.

11) Would you trust OEM and consider it to be more reliable than non-OEM supplies?

I would definitely consider OEM supplies to be much much reliable than non-OEM supplies. I have never had any problems with OEM supplies, there is no question of the supplies not working in the printer and it is backed by warranty. Also, there is readily available customer support to contact if required.

Loyalty Programs

12) Would you recommend OEM supplies or CISS/non-OEM supplies? Why?

I will not recommend non-OEM or CISS supplies. The process was messy. You need to be prepared for the mess. Adjusting the tube length and the bracket in the printer correctly was difficult when I tried to install a CISS system on my printer. However, despite that, I may repurchase CISS in future, but only because it is very cheap than OEM. I am not happy about the mess it creates and the time commitment involved in the whole process but I don’t have another choice.

13) Would you participate in a LS for OEM? Why?

If the rewards are achievable and if I get rewarded adequately for my current usage pattern I would be interested in participating in a LS. If I can save money by participating in a LS then that is something I would be interested in.

14) What rewards would you expect out of a loyalty program?

I would like to receive a discount on my purchases of OEM supplies or would like to get free supplies after purchasing certain number of OEM supplies. Alternately, I would also like to accumulate points
that could be used on my next OEM printer/computer purchase. The LS should not be just limited to printers/supplies.

15) Would you buy non-OEM supplies if OEM companies were to offer a Loyalty program with rewards?

I probably will not buy non-OEM supplies, if OEM LS can offer me ink supplies that are cheaper to use in the longer term. If there are any other benefits, other than cheaper costs, then that too would be interesting and I would opt for it to see how it works out for me.
Appendix III

In-Depth Interview-2

1) How often do you buy inkjet supplies?
I buy supplies about once every 2-3 months.

2) How much do you spend on inkjet supplies each year?
I spend about 60-70 euros every year on ink supplies. I have 2 kids in school so they tend to print a lot.

3) How many pages do you print per month?
I print about 150-200 pages a month.

Perceived Value

4) Are you satisfied by current OEM ink supplies?
I think OEM supplies are very expensive. For someone like me who has kids in school and who prints a lot, the cost of cartridges is too high and the frequency at which I repurchase supplies is not acceptable. I am therefore not satisfied with the current OEM supplies.

5) What values/benefits do you associate with OEM supplies?
OEM supplies are reliable. I have never had any problems with the working of the supplies in the printer. Print quality is quite good and photos look excellent when printed with original OEM ink. It’s also easy to install the supplies in the printer and the system works as expected every time.

6) How convenient is it to buy OEM supplies vs non-OEM supplies?
It is very easy to buy OEM supplies. They are available in a variety of shops from Tesco to Harvey Norman. It’s also easy to choose the correct supply for your printer. I also like the fact that the high fill and low fill supplies can now be identified by the colour of their packaging. It’s also very easy to install the supplies in the printer.

7) What would be the main driver for buying non-OEM supplies?
In one word....cost. It is just so cheap, especially when you are printing a lot of pages that don’t necessarily have to be fabulous every time. The Print quality is acceptable most of the time and that is just what I want for the type of printing that is done on my printer. Once the CISS system is installed it can last upto 6 months and so I don’t have to make frequent trips to buy supplies. Also, by buying CISS, I am telling OEM that if there is a cheaper option out there, even though not perfect, I am willing to try it.
Brand Equity

8) How important is product warranty to you?

Product warranty is good to have because it gives me an opportunity to go back to the seller if there is a problem with the product that I have purchased. While, I have never had to call OEM’s customer service it instils confidence in me when I buy OEM supplies. It is possible that in future I may encounter a problem with OEM supplies and so a warranty is always good.

9) What has been your experience of using OEM supplies?

OEM supplies work trouble-free in printers. I am happy with their print performance and reliability. Even when I start my printer after a gap of few days or weeks, it still prints with good quality.

10) What unique features would you attribute to OEM supplies over non-OEM supplies?

OEM supplies are highly reliable and consistent and I have never had any problems with their installation and use. The print quality is good across the life of the supply. I also get a message on the printer when I am running out of ink. I can’t say all this is true about CISS supplies. The print quality is quite inconsistent and I may have to intervene at times if there are problems with the ink tubing. While OEM supplies are readily available in shops, I have to order CISS from online vendors, possibly in UK.

11) Would you trust OEM and consider it to be more reliable than non-OEM supplies?

Yes I would say that OEM supplies are more reliable than non-OEM supplies and I have much more faith in the OEM brand than in any of the suppliers of non-OEM inkjet supplies. OEM companies being MNCs are more highly regarded than the other suppliers on Amazon or Ebay.

Loyalty Programs

12) Would you recommend OEM supplies or CISS/non-OEM supplies? Why?

I would recommend that people try CISS/non-OEM supplies before purchasing OEM supplies. These alternatives are excellent value for money. If the users are willing to trade-off on print quality and willing to spend a little more time on doing research then these supplies offer the best value for money in my opinion.

13) Would you participate in a LS for OEM? Why?

If I get free supplies or discounted supplies then I would certainly participate in a Loyalty program.

14) What rewards would you expect out of a loyalty program?

I would like to have the cost of printing reduced if I am participating in a loyalty program. If for eg. by printing more, I can save more then that is something I would be interested in.
15) Would you buy non-OEM supplies if OEM companies were to offer a Loyalty program with rewards?
I would have to look at the cost benefit but in principle yes, I would not buy a non-OEM supply if OEM can take care of my printing needs at a cheaper cost.
Appendix IV

**In-depth Interview - 3**

**Ciaran.D**

1) How often do you buy inkjet supplies?
I typically buy supplies about once every 3 months.

2) How much do you spend on inkjet supplies each year?
I spend about 40-50 euros every year on ink supplies. I and my wife use the home printer.

3) How many pages do you print per month?
I print about 100 pages a month.

**Perceived Value**

4) Are you satisfied by current OEM ink supplies?
I am happy with the print quality delivered by OEM supplies and printers but I feel that the cost of the supplies is high and the company should do something about it. I cannot imagine why ink is so expensive. So I am not satisfied with OEM supplies.

5) What values/benefits do you associate with OEM supplies?
OEM supplies work smoothly in printers with no hiccups. The photo quality is especially impressive and the images look brilliant. The print quality for documents like CVs and PowerPoint handouts also looks good. I know when I use OEM ink that I will get professional quality printouts.

6) How convenient is it to buy OEM supplies vs non-OEM supplies?
OEM supplies are readily available in shops like PC World so they can be purchased instantly. Non OEM supplies are also available in a lot of shops but there is no reliable brand that I can think of. These supplies can also be ordered online, even cheaper, but you need to spend time in buying the correct supplies for your printer and then making sure that the supplier has a good reputation. This usually requires a bit of time and you have to be available to do that.

7) What would be the main driver for buying non-OEM supplies?
The fact that I get charged so much for little ink drives me nuts and hence I prefer to use CISS. The ink is cheap and I get loads of it, in litres, when I order a system online. Once the CISS system is hooked up it can last me anywhere from 6 to 9 months. Granted that I may have some issues setting it up or may have to intervene at times, but for the price I am paying I don’t think I would be going wrong. A good operating CISS system proves that ink does not have to cost an arm and a leg to get acceptable print quality.
Brand Equity

8) How important is product warranty to you?

It’s not too important. I know OEM products have a warranty and that is reassuring. I however will also buy non-OEM supplies that do not have a warranty as they are fairly cheap.

9) What has been your experience of using OEM supplies?

I would consider OEM supplies to be very good. I have not had any problems with OEM original supplies. OEM supplies are very easy to use. The supplies can also be recycled and that’s something that I like.

10) What unique features would you attribute to OEM supplies over non-OEM supplies?

OEM supplies give better and consistent print quality than CISS supplies. They are 100% reliable and there is no question of supplies not being accepted by printer. There is no adjustment of tubing or danger of getting ink on hands. It is a compact system so I don’t have to worry about ink spillage or missing or blocked nozzles that will not put down ink and lead to white streaks on paper in between text.

11) Would you trust OEM supplies and consider it to be more reliable than non-OEM supplies?

Yes, in general I would trust OEM supplies more than any of the other non-OEM ink suppliers. I also think that OEM supplies are more reliable than the alternative supplies.

Loyalty Programs

12) Would you recommend OEM supplies or CISS/non-OEM supplies? Why?

It depends on what people want to print. If the printouts are just for home/domestic use then I would definitely suggest trying out the cheaper non-OEM alternatives. They are very cheap and the quality is decent as well. If people need professional looking prints then OEM supplies are the way to go.

13) Would you participate in a LS for OEM? Why?

If participating is not too much of a hassle and there are no privacy or data sharing issues then I would participate in a OEM loyalty program. I also expect that rewards are fairly easy to achieve and that I do not have increase my usage significantly for some paltry discounts.

14) What rewards would you expect out of a loyalty program?

I would expect a lower printing cost through a loyalty programs scheme. In addition if there are benefits when buy OEM PCs or printers then that would be good too.
15) Would you buy non-OEM supplies if OEM companies were to offer a Loyalty program with rewards?
Yes, I will still consider buying non-OEM supplies because I believe that they would still be cheaper despite any Loyalty programs.
Appendix V

Quantitative Research Questionnaire (Not Pre-tested)

1) Do you own a inkjet printer?
   Yes □ No □

2) Do you buy inkjet supplies?
   Yes □ No □

3) Have you purchased OEM inkjet supplies in the last 3 months?
   Yes □ No □

4) Have you purchased non-OEM supplies such as refilled, remanufactured or continuous inkjet system supplies (CISS) in the last 3 months?
   Yes □ No □

5) How often do you buy inkjet supplies?
   Yes □ No □

6) How much do you spend on inkjet supplies each year?
   Less than 50 Euros □, Between 50-100 euros □, More than 100 euros □

7) How many pages do you print per month?
   Less than 100 pages □, Between 100-200 pages □, More than 200 pages □

8) OEM Inkjet supplies are expensive compared to non-OEM supplies? -4
   Strongly Agree □ Somewhat agree □ Neutral □ Somewhat Disagree □ Strongly Disagree □

9) OEM inkjet supplies deliver good print quality? -4
   Strongly Agree □ Somewhat agree □ Neutral □ Somewhat Disagree □ Strongly Disagree □

10) OEM inkjet supplies are easy to order? -5,10
    Strongly Agree □ Somewhat agree □ Neutral □ Somewhat Disagree □ Strongly Disagree □

11) OEM inkjet supplies give consistent Print Quality over the life of the supply? -5,10
    Strongly Agree □ Somewhat agree □ Neutral □ Somewhat Disagree □ Strongly Disagree □

12) OEM inkjet supplies are easy to install? -5
    Strongly Agree □ Somewhat agree □ Neutral □ Somewhat Disagree □ Strongly Disagree □
13) OEM inkjet supplies are reliable?-5,10

Strongly Agree□ Somewhat agree□ Neutral □Somewhat Disagree □Strongly Disagree□

The following questions are for respondents who have used non-OEM inkjet supplies.

14) Installing CISS supplies is a messy process.-6

Strongly Agree□ Somewhat agree□ Neutral □Somewhat Disagree □Strongly Disagree□

15) Installing CISS systems can take up to 45 mintues-6

Strongly Agree□ Somewhat agree□ Neutral □Somewhat Disagree □Strongly Disagree□

16) Non-OEM supplies are excellent value for money-6

Strongly Agree□ Somewhat agree□ Neutral □Somewhat Disagree □Strongly Disagree□

17) Would you recommend non-OEM inkjet supplies over OEM inkjet supplies?-6

Strongly Agree□ Somewhat agree□ Neutral □Somewhat Disagree □Strongly Disagree□

18) Non-OEM supplies can be easily purchased?-7

Strongly Agree□ Somewhat agree□ Neutral □Somewhat Disagree □Strongly Disagree□

19) Selecting a non-OEM supply for your printer is very easy.-7

Strongly Agree□ Somewhat agree□ Neutral □Somewhat Disagree □Strongly Disagree□

20) You are happy with the print quality of your non-OEM inkjet supply

Strongly Agree□ Somewhat agree□ Neutral □Somewhat Disagree □Strongly Disagree□

21) You often need to clean non-OEM supplies to get good print quality?-10

Strongly Agree□ Somewhat agree□ Neutral □Somewhat Disagree □Strongly Disagree□

22) You are comfortable getting ink on your hands when installing CISS systems.-10

Strongly Agree□ Somewhat agree□ Neutral □Somewhat Disagree □Strongly Disagree□

23) You get consistent print quality from 1st page after installing non-OEM supplies?

Strongly Agree□ Somewhat agree□ Neutral □Somewhat Disagree □Strongly Disagree□

24) Low cost is the main driver for buying non-OEM inkjet supplies-12

Strongly Agree□ Somewhat agree□ Neutral □Somewhat Disagree □Strongly Disagree□
25) The non-OEM supply you have purchased has not worked in your printer-10
Strongly Agree □ Somewhat agree □ Neutral □ Somewhat Disagree □ Strongly Disagree □

26) You will repurchase non-OEM inkjet supplies in future?
Strongly Agree □ Somewhat agree □ Neutral □ Somewhat Disagree □ Strongly Disagree □

27) OEM supplies can be conveniently bought at any retail shops-7
Strongly Agree □ Somewhat agree □ Neutral □ Somewhat Disagree □ Strongly Disagree □

28) Product warranty on inkjet supplies is important to you.-8
Strongly Agree □ Somewhat agree □ Neutral □ Somewhat Disagree □ Strongly Disagree □

29) Brand trust is important to you when making purchase of inkjet supplies-8
Strongly Agree □ Somewhat agree □ Neutral □ Somewhat Disagree □ Strongly Disagree □

30) You are happy with the print quality of your OEM inkjet supply.-9
Strongly Agree □ Somewhat agree □ Neutral □ Somewhat Disagree □ Strongly Disagree □

31) OEM inkjet supplies work trouble-free in printer-9,10
Strongly Agree □ Somewhat agree □ Neutral □ Somewhat Disagree □ Strongly Disagree □

32) OEM inkjet supplies are more reliable than non-OEM inkjet supplies-11
Strongly Agree □ Somewhat agree □ Neutral □ Somewhat Disagree □ Strongly Disagree □

33) Would you participate in a Loyalty program of OEM inkjet supplies?-13
Strongly Agree □ Somewhat agree □ Neutral □ Somewhat Disagree □ Strongly Disagree □

34) You would like discounted supplies as part of the loyalty program.-13
Strongly Agree □ Somewhat agree □ Neutral □ Somewhat Disagree □ Strongly Disagree □

35) You would like to accumulate points and receive discount on a future printer purchase-14.
Strongly Agree □ Somewhat agree □ Neutral □ Somewhat Disagree □ Strongly Disagree □

36) You would like the cost of printing to be reduced as part of the loyalty program.-14
Strongly Agree □ Somewhat agree □ Neutral □ Somewhat Disagree □ Strongly Disagree □
37) You would not buy non-OEM supplies if you participate in a Loyalty program of inkjet supplies-15

Strongly Agree □ Somewhat agree □ Neutral □ Somewhat Disagree □ Strongly Disagree □

Information about respondents
38) Age Group

15-25 □, 25-35 □, 35-45 □, Above 45 □

39) Gender

Male □, Female □

40) Annual Income

Less than 25,000 euros, Between 25000-50000 euros, Above 50,000 Euros.
Appendix VI

Quantitative Research Questionnaire (Pre-tested)

This is a survey to understand consumer behaviour and attitudes towards inkjet supplies. Completing this survey will take approximately 10 minutes.

1) Do you own an inkjet printer?
   Yes □  No □

2) Do you buy inkjet supplies?
   Yes □  No □

3) How often do you buy inkjet supplies?
   Every month □  Every 3 months □  Every 6 months □

4) How much do you spend on inkjet supplies each year?
   Less than 50 Euros □, Between 50-100 euros □, More than 100 euros □

5) How many pages do you print per month on your inkjet printer?
   Less than 100 pages □, Between 100-200 pages □, More than 200 pages □

Kindly choose an option for the following questions that best describes your opinion:

*OEM inkjet supplies refers to original inkjet supplies from printer manufacturers. Non-OEM inkjet supplies refers to refilled, remanufactured or CISS (continuous ink supply system) inkjet supplies.*

6) Price of OEM inkjet supplies is.....?:-4
   Good value for money □, Expensive □, Not important to me □

7) OEM inkjet supplies are easy to purchase?-5,10
   Strongly Agree □ Somewhat agree □ Neutral □ Somewhat Disagree □ Strongly Disagree □

8) OEM inkjet supplies give consistent Print Quality from 1st page over the life of the supply-5,10
   Strongly Agree □ Somewhat agree □ Neutral □ Somewhat Disagree □ Strongly Disagree □

9) OEM inkjet supplies are easy to install?-5
   Strongly Agree □ Somewhat agree □ Neutral □ Somewhat Disagree □ Strongly Disagree □

10) OEM inkjet supplies are reliable?-5,10
Strongly Agree □ Somewhat agree □ Neutral □ Somewhat Disagree □ Strongly Disagree □

11) Product warranty on inkjet supplies is important to you.-8

Strongly Agree □ Somewhat agree □ Neutral □ Somewhat Disagree □ Strongly Disagree □

12) Brand trust is important to you when making purchase of inkjet supplies-8

Strongly Agree □ Somewhat agree □ Neutral □ Somewhat Disagree □ Strongly Disagree □

13) You are satisfied with the print quality of you OEM inkjet supply-9

Strongly Agree □ Somewhat agree □ Neutral □ Somewhat Disagree □ Strongly Disagree □

14) OEM inkjet supplies work trouble-free in printer-9,10

Strongly Agree □ Somewhat agree □ Neutral □ Somewhat Disagree □ Strongly Disagree □

15) Would you participate in a Loyalty program of OEM inkjet supplies?-13

Yes □ No □

16) Which of the following rewards would you prefer as part of a Loyalty Program?-14

Discounted inkjet supplies, □

Free inkjet supplies after certain number of purchases, □

Accumulate points and receive discount on future PC or printer purchases. □

17) Would you buy non-OEM supplies if you participate in a Loyalty program of inkjet supplies-15

Yes □ No □

*The following questions are about use of non-OEM inkjet supplies. Non-OEM inkjet supplies includes refilled, remanufactured or CISS(continuous ink supply system) inkjet supplies.*

18) Have you purchased non-original inkjet supplies such as refilled, remanufactured or continuous inkjet system supplies (CISS) in the last 3 months?

Yes □ No □

19) Installing (continuous ink supply system) CISS supplies is a messy process.-6

Strongly Agree □ Somewhat agree □ Neutral □ Somewhat Disagree □ Strongly Disagree □

20) Installing (continuous ink supply system) CISS systems can take up to 45 mintues-6
21) Selecting a non-OEM supply for your printer is very easy.

22) You are satisfied with the print quality of your non-OEM inkjet supply.

23) You are comfortable getting ink on your hands when installing CISS/non-OEM systems.

24) You get consistent print quality from 1st page after installing non-OEM supplies?

25) The non-OEM supplies you have purchased have always worked in your printer.

26) Non-OEM supplies are good value for money.

27) Would you recommend non-OEM inkjet supplies over OEM inkjet supplies?

Yes □ No □

28) Non-OEM supplies can be easily purchased?

29) You will purchase non-OEM inkjet supplies in future?

30) Your Age Group is

15-25 □, 26-35 □, 36-45 □, Above 45 □

31) Gender

Male □, Female □
32) Annual Income

Less than 25,000 euros □, Between 25000-50000 euros □, Above 50,000 Euros □.

Thank You for your valuable time in taking the survey.
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