# EXPLAINING CONSUMERS' CHANNEL-SWITCHING BEHAVIOR USING THE THEORY OF PLANNED BEHAVIOR

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The undersigned, appointed by the Dean of the Graduate School, have examined the dissertation entitled

EXPLAINING CONSUMERS' CHANNEL-SWITCHING BEHAVIOR USING THE THEORY OF PLANNED BEHAVIOR

Presented by Sanjukta Arun Pookulangara

A candidate for the degree of Doctor of Philosophy

And hereby certify that in their opinion it is worthy of acceptance.

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To my daughter, Rhea…. You made everything worthwhile!

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## ABSTRACT

The study was exploratory and examined channel-switching behavior using Theory of Planned Behavior in three retail channels (i.e. brick-and-mortar stores, catalogs, and the Internet). The theory assumes that individual attitudes and beliefs, along with subjective norms and control factors will lead to an intention to perform a certain behavior, i.e. whether to switch channels or not.

The online survey was administered to four different research sites and resulted in 666 usable surveys. Factor analysis and regression were utilized for data analysis.

Attitude was significantly influenced by hedonic and utilitarian beliefs in stores and catalogs. Utilitarian beliefs were significant predictor for the Internet. Normative beliefs were significant predictors of subjective norms in all the channels, the relationship was negative. Self-efficacy, information and product type were important factors that impacted perceived behavioral control (PBC) in all channels. Time and money did not influence PBC in any of the channels. Attitude and subjective norms influenced channel-switching intention for three channels, whereas, PBC was a significant predictor for channel-switching intention for only catalogs and the Internet. PBC and channel-switching intention significantly influenced the channel-switching behavior in all the three channels

# CHAPTER 1

## INTRODUCTION

The retailing industry is being driven by a new, dynamic equation that has been set in motion by the changing consumer. Indeed, today's consumer market is driven by factors such as an increasing number of dual-income families, a decreasing amount of available time for shopping, technological revolutions, and a myriad of shopping choices not only among different products and brands but also among diverse retail formats such as brick-and-mortar stores, catalogs, and online shopping electronic systems (Shim, Eastlick, & Lotz, 2000). Also, retailers are learning that shoppers are taking advantage of the variety of available multiple channels, and they are shopping more and more often, across several sales channels. This behavior is called consumer channel migration -- a dynamic process in which a current consumer repeatedly makes choices to frequent one of several retailer channel options (e.g., brick-and-mortar, catalog, and the Internet) (Sullivan & Thomas, 2004). Thus, as multiple complementary channels provide more -- and more diverse -- service outputs than single-channel strategies, a retailer increases consumer contact points, when it adds a channel, which serves to expand both the quantity and possible combinations of service outputs available to its consumers (Wallace, Giese, & Johnson, 2004).

That being said, the retail industry is mature, and expansion has slowed to a crawl. As a consequence, retailers have to find new ways to create shareholder value with the minimum number of assets (e.g. physical infrastructure, machinery, manpower) (Loeb, 1998). Further, it is important to recognize that multi-channel

marketing is different from traditional multiple-channel marketing, in which a firm interacts with different segments of the consumer base through different channel. Instead, it is about consumers being able to use alternative channels to network with the retailer at their discretion, and they may choose different channels at different times (Rangaswamy, & Bruggen, 2005). So brick-and-mortar and catalog-based retailers now have websites, many Internet-based retailers have physical stores, and television shopping channels are aligning themselves with catalogs and traditional retailers (Kurt Salmon Associates, 2005). Additionally, this consumer channel migration is an important factor in consumer relationship management, because consumers who buy from distinct channel combinations may be different with respect to key drivers of consumer profitability (Sullivan & Thomas, 2004). For consumers, the opportunity to use additional retail channels may mean more retail contacts, convenience, time savings, and reliability (Coughlan, Anderson, Stern, & El-Ansary, 2001); while organizational benefits include cross-selling, service innovations, cost reductions, customization, and flexibility (Bitner, Brown, & Meuter, 2000).

It seems that multi-channels will meet the consumers' desires for flexibility while shopping for what they want, when they want it, and in the way they want it (Johnson, 1999). The challenge, then, is to understand how and when consumers use brick-and-mortar stores, catalogs, or the Internet, and what drives their propensity to switch between retailers and between channels.

This study utilizes the Theory of Planned Behavior (TBP) to examine multi-channel consumer's channel-switching behavior. The Theory of Planned

Behavior is an extension of the Theory of Reasoned Action (TRA) (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975), made necessary by the original model's limitations in dealing with behaviors over which people have incomplete volitional control (Ajzen, 1991). TBP is designed to predict and explain human behavior in specific contexts (Ajzen, 1991). In this case, the context is the behavior of channel-switching while shopping, using any combination of the three channels (i.e. brick-and-mortar stores, catalogs, and the Internet) as the retailing medium. The central factor in this theory is an individual's intention to perform a given behavior under volitional control. TPB postulates that behavioral intention is the direct antecedent of the actual behavior. Behavioral intention (BI) is an individual's likelihood of engaging in the behavior of interest, and it is a function of three components: (1) Attitude ($A_b$), (2) Subjective Norm ($SN_b$), and (3) Perceived Behavioral Control ($PBC_b$). These are further discussed in the second chapter, under conceptual framework. TBP assumes that an individual's attitudes and beliefs, along with subjective norms and control factors, will lead to an intention to perform a certain behavior, i.e. whether to switch channels or not.

## Rationale

Multi-channel retailing is defined as a distribution strategy to serve consumers using more than one selling channel or medium such as the Internet, television, and retail outlets (Stone, Hobbs, & Khaleeli, 2002). It offers an array of shopping experiences and values (i.e., hedonic and utilitarian) for both retailers and consumers (Choi & Park, 2006). Moreover, a new population demographic, a generation that shops across all channels, is emerging in our society. Consumers

expect merchants to adapt to their schedules, and to provide products, service, and information to them any way, any time (Kurt Salmon Associates, 2000). In fact, the power and flexibility of electronic commerce has raised consumers' expectation levels and changed their shopping behavior (Rauh & Shafton, n.d.).

Today's consumers are efficient shoppers, selecting retailers with which they perceive shopping can be done most satisfactorily. This ramp-up in "consumer power" has fed consumers' demand to purchase the exact product they want, precisely when they want it, and through the channel they prefer (Crawford, 2005). In other words, consumers are looking for ways to maximize the benefits of shopping and minimize the costs associated with shopping, in terms of money, time, and energy, whether in a brick-and-mortar store, through a catalog, or over the Internet (Anonymous, 1999; Downs, 1961; Kim & Kang, 1997).

Multi-channel consumers are those who shop from three or more channels, (i.e. brick-and-mortar stores, catalogs, the Internet), television shopping, and direct marketing. They spend four times as much as consumers who confine themselves to one channel for all of their purchases (Goel, 2006). For instance, according to Reda (2002), traditional store shoppers who also bought on-line from the same retailers spent an average of $600 more annually than shoppers who only shopped at brick-and-mortar stores. In shopping through the multi-channels (i.e., brick-and-mortar stores, catalogs and the Internet), consumers want the retail experience to be seamless, allowing them to purchase items from one channel and pick up or return them through another channel (Kurt Salmon

Associates, 2000). As such, consumers want consistency, so that they can expect the same product choices in all points of contacts across all channels.

Multi-channel shoppers, then, engage in more complex buying cycles as they navigate numerous opportunities to compare products, benefits, prices and service options. These consumers refuse to abide by the arbitrary designation of channels. Instead, they hop between brick-and-mortar stores, catalogs and Web visits (i.e. both to retailers' Web sites and others'), using each channel to advance their respective goals (Crawford, 2005). For instance, some consumers may shop mainly in a physical store because they want to enjoy the tangible aspects of shopping -- the touching and trial of products prior to purchase. On the other hand, some consumers prefer the Internet or catalogs for because they can shop in the comfort of the home, and conduct fast transactions (Harden, 1992; Kruger, 1999). Compared to catalogs and brick-and-mortar stores that require physical inventory, the Internet is able to provide the consumer a wide range of choices in products with the advantage of not actually having to physically stock the product.

Entertainment or social interactions also play a significant role in ones selection of channels for shopping. With catalogs as well as the Internet, consumers can enjoy pictures of merchandise presented in an attractive manner. While Internet shopping offers the additional entertainment possibility of surfing in a multimedia environment, playing online games, and chatting with others who have common interests.

Consumers use the Internet, catalogs, and traditional retail channels differently in two stages of the shopper's decision process: seeking information and making purchases. Some consumers may use one channel to perform all shopping activities within a product category while others may rely on different channels at different states of shopping within a single product category (Balasubramanian, Raghunathan, & Mahajan, 2005). In fact, a Ziff-Davis Survey found that Internet shoppers spent more money offline after searching products online (Allen, 2001). Fifty-one percent of online shoppers who receive a catalog also look for or buy something from the same retailer that they first saw in print (Anonymous, 2001). Also, store shoppers who visit a retailer's website purchase 8% more frequently and have 24% higher transaction amounts compared with the average shopper (Anonymous, 2001) who shops only at one channel. Other shoppers use a print catalog to identify products they want, and then go online to the catalog's website to place the order. In the same way, some consumers search for information in conventional retail stores, while using Internet resources for purchasing (Peterson, 1997; Pulliam, 1999). The DoubleClick's (2003) study on multi-channel shopping (Table 1) found that single-channel consumers purchase less than dual-channel consumers, who in turn purchase less than triple-channel consumers. Another issue that has attracted significant attention is the research shopper phenomenon (Table 2). The DoubleClick's (2004) research suggests that that the most common link pertains to using the Internet for search and then buying at the retailer store — 43% of all research shoppers follow this route.

Table 1

*Purchase Volume of the Multi-channel Shopper**

| Channels Used for Shopping | | | Average Annual Expenditure |
|---|---|---|---|
| *Stores* | *Catalog* | *Internet* | **Per Consumer** |
| | | √ | $157 |
| √ | | | $195 |
| | √ | | $201 |
| | √ | √ | $446 |
| √ | | √ | $485 |
| √ | √ | | $608 |
| √ | √ | √ | $887 |

*Adapted from DoubleClick (2003)

Table 2

*Research Shopping Multi-channel Shopper**

| Browsing Channel | Purchase Channel | Percentage of Consumers who Utilize Each Pattern |
|---|---|---|
| Catalog | Internet | 11 |
| Catalog | Retail | 19 |
| Internet | Catalog | 6 |
| Internet | Retail | 43 |
| Retail | Catalog | 5 |
| Retail | Internet | 16 |

*Adapted from DoubleClick (2004)

An important issue for a multi-channel retailer is the consumer's channel choices (Madlberger, 2006). Each channel still has its attractions and detractions for multi-channel shoppers (DoubleClick, 2003). Additionally, consumers enjoy more choice than ever before in stores, brands, and channels -- and have access to a constantly increasing amount of information upon which to base their buying decisions (Williams & Larson, 2004). Consumers may therefore switch channels and/or retailers depending on their shopping benefits (Pulliam, 1999). For a retailer, then, it is crucial not only to obtain knowledge about the costs and benefits associated with different channels, but also to develop an optimized

channel architecture (Madlberger, 2006), through which that retailer will try to lure consumers to the optimal channel instead of waiting for them to choose one (Myers, Pickersgill, & Van Metre, 2004). Capturing the purchasing power of these sophisticated consumers is a difficult and constant challenge for retailers (Williams & Larson, 2004). Also, in order to retain consumers and reduce consumer switching to other retailers, the retailer has to provide the same kind of shopping experience across all its channels.

Given the growth of online retailing and the many shopping alternatives available to consumers, it is important for multi-channel retailers to approach their business holistically (Shern, 2000). Also, as the consumer market splinters into smaller and more diverse groups with differing values and attitudes and, as lifestyle aspirations become more idiosyncratic, buying behavior will consequently become more complex with each consumer assuming the role of many different consumers depending upon the particular purchase occasion or shopping motivation as well as a myriad of other factors affecting a particular buying decision (Hyde, 2003). Hence it can be claimed that the consumers' use of a channel (or channels) in a shopping process must be considered both in light of the final outcome (often, but not always, the purchased product), and in light of the process (i.e., searching and/or purchasing) of using the channel (or channels) (Balasubramanian, Raghunathan, & Mahajan, 2005).

Earlier studies have examined the shopping benefits and costs of multi-channel consumers of individual channels (i.e. brick-and-mortar stores, catalogs, and the Internet). Recently, with a greater emphasis on Internet commerce and

proliferation of online retailers, studies have begun to examine consumers attitudes towards the different channels, as well as channel-switching /channel-migration behavior. For example, some of the studies examined shopping/purchasing using two of the three channels (i.e., brick-and-mortar stores, catalogs, and the Internet) (Baal & Dach, 2005; Bendoly, Blocher, Bretthauer, Krishnan, S., & Venkataramanan, 2005, Dholakia & Uusitalo, 2000; Kim & Park, 2005; Levin, Levin & Heath, 2003; Madlberger, 2006; McGoldrick & Collins, 2007; Neslin, Grewal, Leghorn, Shankar, Teerling, Thomas, Verhoef, 2006; Sullivan & Thomas, 2004). Additionally, some studies examined channel-switching behavior for utilitarian products only (Noble, Griffith, Weinberger & 2005). In order to be profitable, retailers have to ensure that their consumers stay with them irrespective of the channel of shopping. Retailers will need to position their multi-channel operations as an integrated, value-rich package, that generates interest and offers product exclusivity within each channel (Sinioukov, 2000; Worzala & McCarthy, 2001; Khakimdjanova & Park, 2005). Also, in order to retain consumers and reduce switching to other retailers, the retailer has to provide the same kind of shopping experience across all the channels. Hence, by carefully synchronizing its channels, a retailer can create superior channel service outputs, and give its consumers fewer reasons or opportunities to switch to competitors (Rangaswamy & Bruggen, 2005). This entails comparing multiple retail channels in shopping benefits and costs perceived by consumers more holistically. Therefore, this study examines consumer switching behavior more closely with a more comprehensive product range (i.e., hedonic and utilitarian)

based on the Theory of Planned Behavior model. This approach will provide valuable input to multi-channel retailers for their channel strategy. It is hoped that the study will indicate the behavioral intentions of consumers toward channel-switching and also identify the variables that predict channel-switching behavior.

## Purpose of the Study

The purpose of this study was to predict consumer channel-switching behavior in regards to any of the three channels (i.e., brick-and-mortar stores, catalogs, and the Internet), with respect to shopping. These predictions were based on behavioral intentions. The effect of hedonic and utilitarian attitudinal beliefs and the influence of family and peers were investigated in reference to channel-switching intentions. The facilitators and inhibitors of channel-switching in reference to consumers were also explored, and included the variables of self efficacy, information, time and money spent online, and product type. The study concluded with an examination of consumers' actual channel- switching behavior both for information search as well as purchases.

## Assumptions

This research was based on the assumption that intention to perform the behavior, perceived behavior control, and past behavior, are the best predictors of actual behavior (Ajzen, 1991). The researcher also assumed that the respondents would answer truthfully, and that the sample set consisted of consumers who had purchased products or services via the three channels (i.e. brick-and-mortar stores, catalogs, and the Internet).

## Limitations

The examination of the behavioral intentions of channel-switching was limited to information search and purchase of products and services; hence, it did not include the behavior of free use of these products and services online. The study was also limited to the examination of unidirectional channel-switching only, that is, switching from one channel to another, but did not assess the impact of multiple numbers of channel migrations. Additionally, the study was restricted to the examination of channel-switching from a channel (i.e., brick-and-mortar stores, catalogs, and the Internet) to a combination of channels (i.e., brick-and-mortar store/Internet, catalogs/Internet, and brick-and-mortar stores/catalogs), thereby not accounting for direct channel to channel migration (e.g., brick-and-mortar store to catalog). The sample was selected based on the convenience sampling method, and hence was restricted only to those research sites that agreed to participate in the study.

# CHAPTER 2

## REVIEW OF LITERATURE

The history of retailing is marked by a number of watershed events that have reshaped the industry. Among these are the advent of new formats, such as the discount store and the superstore; and the introduction of new technologies such as the point-of-purchase (POS) terminal (Rauh & Shafton, n.d.). Therefore, the retail industry today is all about choices: consumers have a choice of shopping channels, including brick-and-mortar stores, catalogs, and the Internet.

Consumers can choose only one channel, or a combination of different channels and retailers. By engaging consumers at the deepest level across multiple channels, retailers can derive more sales and earn more revenue per consumer than from the separate-channel separate-consumer approach (Hoover, 2001). The multi-dimensional consumer shops in different ways, based on a range of considerations that trigger channel choice and purchase decisions (Hyde, 2003). There is strong evidence suggesting that consumers are selecting those channels in which they perceive that shopping will be done most efficiently and satisfactorily (Kim & Kang, 1997).

This study focused on the prediction of the intentions of consumers' to switch channels (i.e., brick-and-mortar stores, catalogs, and the Internet) which eventually impacted the final outcome, or "switching behavior" using the Theory of Planned Behavior (TBP). The intention to switch between channels/brands depends on three main factors: (1) attitude towards a behavior, (2) subjective

norms, and (3) perceived behavioral control. The TPB has the potential to provide retailers with an actionable framework for influencing behavior and, if interactions between variables exist, then retailers need to know which combination of variables (and thus the retailers' actions) result in the desired behavior (Bansal & Taylor, 2002).

Discussion of the findings of previous research studies is presented in the next section. The chapter is concluded by a summary of all the previous sections.

## Previous Research Related to the Study

### *Consumers' Channel-Switching Behavior*

Increasingly, consumers are taking a more active role in their shopping decisions. They demand any time, any where procurement, as well as any time, any where consumption. They demand more value in exchange for the four primary resources at their disposal: money, time, effort, and space (Seth & Sisodia, 1997). Consumers are now driving the entire marketing process (Seth & Sisodia, 1997) and demanding more customization from the retailer. No longer can a single marketing plan be effective for the entire target segment because individuals expect businesses to respect their individuality along with tailor-made marketing strategies to suit their unique needs and wants. In this current scenario, it is critical for retailers to know who their consumers are and why they are choosing one channel over another. The paradox is that while it is easy for retailers to identify their online and catalog consumers, far fewer retailers know who is buying from them in their stores (Crawford, 2005). This is an opportunity cost that a retailer faces today. Channel-switching can lead to channel conflict,

especially since the consumer can gain service, or get information, from one channel, while conducting business with another.

Each retail channel is associated with certain dimensions which affect their relative attractiveness with respect to consumers (Table 3). Consumers will be switching channels based on their beliefs and attitudes towards each channel, as well as upon social norms, perceived behavioral control, and channel-switching attitude. Table 4 compares the shopping values (i.e. hedonic and utilitarian) and perceived behavior controls of brick-and-mortar stores, catalogs, and the Internet.

Table 3

*Dimensions Affecting Relative Attractiveness to Consumers**

| Dimension | Brick-and-mortar store | Catalog | Internet |
|---|---|---|---|
| **Providing alternatives for consideration** | | | |
| Number of categories | Medium | Low | High |
| Alternatives per categories | Low | Medium | High |
| **Screening alternatives to form consideration set** | | | |
| Selecting consideration set | High | Low | High |
| **Providing information for selecting from consideration set** | | | |
| Quantity | Medium | Medium | Medium |
| Quality | High | Medium | Medium |
| Comparing alternatives | Medium | Low | High |
| **Other benefits** | | | |
| Entertainment | High | Medium | Low |
| Personal security | Low | Low | Low |

*Adapted from Alba, Lynch, Weitz, Janiszewski, Lutz, Sawyer, & Wood, 1997

Table 4

*Brick-and-Mortar Stores versus Catalogs versus the Internet – Shopping Values and Costs**

| | | Brick-and-mortar store | Catalog | Internet |
|---|---|---|---|---|
| Shopping Values | Sensory Experience | Visual, sound, touch, smell and taste | Visual | Visual and sound |
| | Social Interaction | People watching; socializing with friends, talking with other shoppers | Chatting with others of common interest; Land phone | Chatting with others of common interest; Internet phone, electronic dating |
| | Convenience | One-stop shopping; multi-purpose shopping (e.g. garments, accessories, small electronics, beauty salon) | 24- hour accessibility at any place; ease of ordering and payment | 24- hour accessibility at any place; ease of ordering and payment; navigational capabilities; search engines |
| | Consumer Service | Synchronous one-to-one contact with consumers; knowledgeable sales associate; friendly service | Asynchronous contact via telephone; quick product advice; quick delivery; customization of product/service offerings | Asynchronous contact via e-mail; quick product advice; quick delivery; customization of product/service offerings |
| Perceived Behavioral Control | Money | Cost of product/service purchase; cost of transportation; income forgone by shopping | Cost of product/service purchase; shipping cost; catalog purchase cost | Cost of product/service purchase; shipping cost; Internet connection fee |
| | Time | Travel time to mall; time finding a parking place; time spent in the brick-and-mortar store | Time needed to locate the product; time spent ordering and payment and waiting for delivery. | Time needed to locate an on-line vendor's address; the time it takes to load information; time spent ordering and payment and waiting for delivery. |
| | Energy | Energy expended parking, pushy salespeople, finding product wanted and waiting in checkout lines. | Energy expended to find the right product | Navigating to find a specific item or address; broken links |

*Adapted from Kim, 2000

Previous studies have examined consumers' switching habits using the traditional store and online channels (Baal & Dach, 2005; Balasubramanuium, Raghunathan, & Mahajan, 2005; Bendoly, Blocher, Bretthauer, Krishnan & Venkataramanan, 2005; Burke, 2002; Choi & Park, 2006; Dholakia & Uusitalo, 2000; Gupta, Su, & Walter, 2004; Kim & Park 2005; Levin, Levin & Heath, 2003; Shim, Eastlick, & Lotz, 2000). Some of the studies have also compared catalogs and the Internet (Jarvenpaa & Todd, 1997; Madlberger, 2006; Mathwick, Malhotra, & Rigdon, 2001, 2002) (Table 5).

Baal & Dach's (2005) study concluded that the Internet is able to provide services for products with dominant search characteristics, rapid technological changes, and a low frequency of purchase; whereas retention of cross-channel consumers is more likely for products that are purchased infrequently (Table 5). Overall, the study concluded that product characteristics influenced shoppers who seek information online and conducted their transactions offline.

In addition, Balasubramanuium, Raghunathan, & Mahajan's (2005) study stated that a consumer's use of a channel (or channels) in a shopping process must be considered in light of the final outcome (i.e., either information search and/or purchase of the product), and in light of the process of using the channel (or channels), because channels differ in the opportunities they provide consumers. The study highlighted that most often the outcome is attainment of economic goals through any channel or channels that best accommodates these goals (Table 5).

Table 5

*Major Findings of Consumer's Channel-Switching/Channel Selection Behavior on the Internet, Brick-and-Mortar Stores and Catalogs*

| Researchers (Year) | Sample Size | Demographics | User Characteristics | Significant variables | Impact on Channel-Switching/Channel Selection |
|---|---|---|---|---|---|
| Baal & Dach, 2005 (+) | 489 | | purchased on brick-and-mortar | search characteristics (+) | channel-switching (+) |
| | | | | speed of technological change (+) | channel-switching (+) /consumer retention |
| | | | | frequency of purchase (-) | channel-switching (+) /consumer retention |
| | | | (+) | | |
| | 447 | | purchased online | search characteristics | |
| | | | | speed of technological change | |
| | | | | frequency of purchase (+) | channel-switching (+) |
| Balasubramanian, Raghunathan, & Mahajan, 2005 | 30 | | purchased from online and/or traditional retailer | economic goals (+) | use multichannel |
| | | | | self-affirmation (+) | traditional store over online |
| | | | | symbolic meaning (+) | channel selection will depend on economic goals |
| | | | | social influences & experiential | channel selection will depend on economic goals |
| | | | | shopping schemas & scripts | use a combination of channels but follow a schema or script in one of those channels |
| Balabanis, Simintiras, Reynolds, 2006 | 192 | age, gender | only Internet shoppers | switching barriers | related to e- store loyalty (+) |
| | | | Internet experience | e-store loyalty | related to satisfaction (+) |
| | | | purchase decision involvement | satisfaction | related to e-store loyalty (+) |
| Bendoly, Blocher, Bretthauer, Krishnan, & Venkataramanan 2005 | 1598 | age, gender | purchased the same item either through a Web site or a store affiliated with the same firm | perceived integration (+) | firm loyalty (+) |
| | | | | perceived availability of products(+) | within firm switching |

Table 5

*Major Findings of Consumer's Channel-Switching/Channel Selection Behavior on the Internet, Brick-and-Mortar Stores and Catalogs (contd.).*

| Researchers (Year) | Sample Size | Demographics | User Characteristics | Significant variables | Impact on Channel-Switching/Channel Selection |
|---|---|---|---|---|---|
| Bickle, Buccine, Makela, Mallette, 2006 | 103 female 31 male | age, income | purchased home during 12 month period home décor shoppers | retail channel shopping orientation uniqueness (+) cross channel shopping shopping behavior | cross channel shopping( +) |
| Burke, 2002 | 2120 | age, gender income, educational level | purchased product in any one of the ten categories online | convenience fun of shopping value provided product selection product information (+) speed of shopping service privacy product quality security channel preference | frequently purchased good(-) online (+) |
| Choi & Park 2006 | 2926 | sex, age (+), education (-) income(-) | single-channel offline purchasers, single-channel online purchasers, multichannel offline purchasers, multichannel online purchasers | shopping orientation information search | no impact for multichannel purchasers multichannel offline impacted by family/ friends |
| Dholakia & Uusitalo, 2000 | 1600 | gender, age (+), education, total gross annual household income (+), & family composition (+) | ownership of computer | past in-home shopping past store shopping utilitarian benefits hedonic benefits (-) perceived stress | Internet (-) |

Table 5

*Major Findings of Consumer's Channel-Switching/Channel Selection Behavior on the Internet, Brick-and-Mortar Stores and Catalogs (contd.).*

| Researchers (Year) | Sample Size | Demographics | User Characteristics | Significant variables | Impact on Channel-Switching/Channel Selection |
|---|---|---|---|---|---|
| Gupta, Su, & Walter, 2004 | 337 | age, gender education household income | 20 years of age and older warranty cards for computer software/ hardware | channel risk perceptions (-)<br>price search intentions (+)<br>search efforts<br>evaluation efforts (-)<br>delivery time | <br>low price (+)<br>no impact on channel-switching<br><br>impact (-) |
| Jarvenpaa & Todd (1997) | 184 female 36 male | sex, age employment experience, household income, average no. of people in household, education | | product perceptions-variety, price and quality(-)<br>effort<br>compatibility and playfulness(-)<br>responsiveness(-)<br>tangibility(-)<br>empathy, assurance, reliability<br>performance risk(-)<br>personal risk(-)<br>economic, social & privacy risk(-) | catalog shopping better perceived than Internet shopping<br><br><br><br>greatest impact<br>greatest impact |
| Keen, Wetzels, Ruyter, & Feinberg, 2004 (This study used Theory of Planned Behavior and Technology Acceptance Model) | 281 | age, gender education, income, marital status | | format (+)<br>effort<br>control<br>norm<br>attitude<br>price (+) | retail store has advantage over catalog and the Internet and spending more money<br>greatest control in store |

Table 5

*Major Findings of Consumer's Channel-Switching/Channel Selection Behavior on the Internet, Brick-and-Mortar Stores and Catalogs (contd.).*

| Researchers (Year) | Sample Size | Demographics | User Characteristics | Significant variables | Impact on Channel-Switching/Channel Selection |
|---|---|---|---|---|---|
| Kim & Park, 2005 (This study used Theory of Planned Behavior) | 262 | age, ethnicity, sex | | attitude towards purchasing via offline store (+)<br>attitude towards purchasing via online store<br>perceived behavioral control via online store (+)<br>information search intention via online store (+)<br>purchasing intention via online store | purchase from online version of same retailer<br>purchase intention online store<br>shift from offline to online for information and purchase |
| Kumar, Shah, & Venkatesan, 2006 | 303,431 | | | cross-buying (+)<br>returns<br>purchase of specific product category (+)<br>multi-channel shopping behavior (+)<br>time elapsed between successive purchases (-) | consumer lifetime value across channel will increase |
| Kumar, & Venkatesan, 2005 | 3200 | | | cross-buying (+)<br>returns; tenure<br>consumer initiated contacts (+)<br>number of web based contacts<br>purchase frequency (+)<br>number of different channels of contact (+)<br>type of contact channel<br>contact channel mix | multi-channel shopping (+)<br>multi-channel shopping (+)<br>multi-channel shopping (+)<br>multi-channel shopping (+) |

Table 5

*Major Findings of Consumer's Channel-Switching/Channel Selection Behavior on the Internet, Brick-and-Mortar Stores and Catalogs (contd.).*

| Researchers (Year) | Sample Size | Demographics | User Characteristics | Significant variables | Impact on Channel-Switching/Channel Selection |
|---|---|---|---|---|---|
| Levin, Levin, & Heath, 2003 | 40 | | | search<br>compare<br>purchase<br>shopping offline<br>shopping online | clothing – search, compare<br>purchase offline<br>airline tickets, computer soft-<br>ware – search, compare<br>online, shop offline |
| Madlberger, 2006 | 2363 | gender (+), age, & education | | online shopping – perceived convenience<br>online shopping – perceived security<br>attitude toward catalog (+)<br>attitude toward online shop | <br><br><br>attitude toward online shop |
| Mathwick, Malhotra, Rigdon, 2001 | 302<br>213 | gender, age income, & employment profile | catalog shoppers<br>Internet shoppers | efficiency (+)<br>economic value (+)<br>preference for Internet (+)<br>intrinsic enjoyment (+)<br>escapism (+)<br>visual appeal (+)<br>entertainment (+) | preference for Internet (+)<br><br><br>preference for catalog (+)<br>preference for catalog (+)<br>preference for catalog (+)<br>preference for catalog (+) |
| Mathwick, Malhotra, Rigdon, 2002 | 229<br>213 | gender, age& income | catalog shoppers | efficiency<br>Internet shoppers<br>intrinsic enjoyment<br>escapism<br>visual appeal<br>entertainment<br>service excellence | Internet more analytic than economic value<br><br>catalog (+) |

Table 5

*Major Findings of Consumer's Channel-Switching/Channel Selection Behavior on the Internet, Brick-and-Mortar Stores and Catalogs (contd.).*

| Researchers (Year) | Sample Size | Demographics | User Characteristics | Significant variables | Impact on Channel-Switching/Channel Selection |
|---|---|---|---|---|---|
| Mcgoldrick, & Collings,2007 | 2160 | gender, age, education, income hours/week working distance to shops years using computer hours/week Internet | | risk reduction (+)<br>product value<br>ease of shopping (+)<br>experiential (+) | stores > catalogs, Internet<br>stores > Internet > catalogs<br>stores > catalogs, Internet<br>stores > catalogs > Internet |
| Nicholson, Clarke, &Blakemore, 2002 | 48 | | | situation factors (+) | selection of channel (+) |
| Noble, Griffith, & Weinberger, 2005 | 754 | | over the age of 16<br>access to Internet | information attainment (+)<br>price comparison(+) / (-)<br>immediate possession<br>assortment seeking<br>channel information search frequency<br>channel purchase frequency<br>price | Internet provides greater information<br>stores (+)/ catalogs & Internet (-)<br>stores (+)/ catalogs & Internet (-) |
| Palmer, 1997 | 120 product categories | | | product display<br>time spent (+)<br>product price<br>delivery | store has the best display<br>catalog (+)<br>Internet least expensive<br>store fastest option |
| Shim, Eastlick & Lotz (2000) | 706 | gender, age, highest educational level ethnicity, occupation, household income, the state of domicile | | transaction services<br>speedy shopping<br>sales/money saving<br>social shopping<br>store shoppers-solely | Internet for purchasing<br>cognitive products;<br>cross shoppers- product<br>situation specific; |

Bendoly, Blocher, Bretthauer, Krishnan & Venkataramanan's (2005) study, which investigated channel-switching behavior of consumers for the same firm, stated that increased perceived integration between the firm's channel led to firm loyalty (Table 5). However, when consumers believed that specific goods would take longer to acquire simply because the items are not immediately available either for pickup at a store or for delivery online, alternative channels or competing firms that operate along similar channels may appear more appealing both in the present and in the long run.

Burke's (2002) study highlighted the fact that shoppers' value different features when shopping for different kinds of products, with consumers proving less interested in using multiple channels when shopping for frequently purchased goods, such as groceries and health and beauty care products (Table 5). Consumers appreciated having the option to buy online and pick up the product at the closest store, on to shop in the store and have the merchandise delivered to home, and being able to return merchandise to the store or through the mail (Burke, 2002).

Choi & Park's (2006) study examined the multi-channel choice behavior for information search and product purchase explained by shopping orientations, the perceived usefulness of information sources, along with demographics, and provided evidence of differences among channel users with multi-channel users, exhibiting no difference in shopping orientation between offline purchasers and online purchasers (Table 5). However, multi-channel offline purchasers placed

more importance upon use of the Internet and family/friends for their information source, as compared to multi-channel online purchasers.

Demographics including age, household income, and family composition, had a significant effect on consumer perception of benefits for both online and store shopping (Dholakia & Uusitalo, 2000) (Table 5). The study concluded that electronic shopping has yet to achieve the levels of hedonic benefits associated with shopping.

Gupta, Su, & Walter's, (2004) study based on utility maximization stated that the utility obtained from online shopping needs to be greater than the utility provided by the traditional format in order to cause the consumer to switch to an online environment. The findings of the study indicated that channel-risk perceptions between channels showed a negative association with channel-switching tendency; the difference in price-search intentions between on-line and off-line channels had a positive influence on channel-switching tendencies; and search effort between channels had no significant effect on channel-switching tendencies. And the difference in evaluation effort between channels showed a significant negative effect on consumer intentions to switch to online channels (Table 5).

Kim & Park's (2005) study based on TBP provided strong support for the relationships among attitude, perceived behavioral control, information search, and online purchase. The results further indicated that positive attitudes towards the offline retailer increased the likelihood of the consumer purchasing from the online version of the same retailer. Positive attitude toward the online store built

from attitude toward the offline store can lead consumers to use an online store for searching product and service information, and utilizing such information to confirm purchase in the offline store (Table 5).

Product categories were utilized in the study by Levin, Levin & Heath (2003) to predict channel-switching behavior. The findings indicated that for "high-touch" products like clothing, sporting goods, and health and grooming products, traditional bricks-and-mortar shopping methods were preferred whereas "low-touch" products like airline tickets and computer software generally require online services because of the importance placed on shopping quickly ( Table 5).

In addition, Shim, Eastlick, and Lotz (2000) also examined the impact of the Internet and the brick-and-mortar stores on the consumer and their purchase intention. Their findings suggested that the Internet was used for purchasing cognitive products, whereas cross-shoppers were product situation specific (Table 5).

Jarvenpaa and Todd's (1997) study concluded that responsiveness and tangibility had the greatest impact on patronage intention during Internet shopping, with product perceptions being greater on catalogs vis-à-vis the Internet (Table 5). Another study (Madlberger, 2006) inferred that the most important factor influencing consumer attitudes toward an online shop is their attitudes toward the catalog, and the convenience of online shopping thus can lead to more favorable attitudes among catalog shoppers toward the multichannel retailer's online shop and, eventually, toward online shopping

( Table 5). Two studies indicated that consumers preferred catalogs based on hedonic values such as intrinsic enjoyment, escapism, visual appeal, and entertainment, whereas utilitarian value such as efficiency was the criteria for selecting the Internet (Mathwick, Malhotra, & Rigdon, 2001, 2002) (Table 5).

There are a few studies that have investigated channel-switching behavior among consumers, using a combination of three channels (i.e., brick-and-mortar stores, catalogs, and the Internet) for both information search and/or shopping. Bickle, Buccine, Makela, & Mallette's, (2006) study investigated the purchase of home décor via three channels where the respondents identify themselves as high frequenters of brick-and mortar retailers, medium frequenters of catalog retailers, and low frequenters of e-retailers. The study also indicated that "uniqueness" of products would lead to cross-channel shopping (Table 5).

Additionally, Keen, Wetzels, Ruyter, & Feinberg's (2004) study implied that retail stores may have a large advantage over both catalogs and the Internet where the structure of the retail decision process was found to be primarily one of choosing the format (store, catalog, or the Internet) and desired price, with the retail format providing the maximum control. Furthermore, Kumar, Shah, & Venkatesan's (2006) findings showed that consumers who shopped from other channels in addition to the primary shopping channel had a higher consumer lifetime value score (Table 5).

Similarly, Kumar & Venkatesan's (2005) study indicated that cross-buying, consumer initiated contacts, purchase frequency, and number of different channels of contact positively impacted multi-channel shopping (Table 5). Thus,

it can be inferred that compared to consumers who shop through a single channel, multi-channel shoppers may have deeper relationships with the retailer and have greater trust and lower perceived risk in their transactions which could motivate them to spend more with the retailer (Kumar & Venkatesan's, 2005).

Situational factors can also influence selection of channels (Nicholson, Clarke, & Blakemore, 2002) with risk reduction, ease of shopping, and experiential attribute highest for stores and lowest for the Internet (Mcgoldrick, & Collins, 2007) (Table 4). Noble, Griffith, & Weinberger's (2005) study examined consumer channel utilization. The study findings indicated that consumers derived greater utilitarian value from more traditional price comparison means, and product assortment did not impact channel-switching behavior. Also, the incurred switching costs in the brick and mortar channel are likely to be higher than the switching costs in the catalog channel (Noble, Griffith, & Weinberger, 2005). Finally, Palmer's (1997) study investigated multichannel behavior for 120 products, and results indicated that brick-and-mortar stores were preferred for display and delivery, whereas the Internet had the lowest price options (Table 5).

Channel-switching behavior is a complex phenomena, and while it is a given that multi-channel retailing is a challenging proposition, it also offers retailers enormous opportunities. It is important to note that like multiple channel retailing strategies, consumer multi-channel employment manifests itself in a variety of ways, and the most important distinction in this context is between shopping that crosses a merchant's different channels (e.g., when a consumer researches products at a Best Buy retail store and purchases at BestBuy.com),

and shopping that crosses not only channels but merchants as well (e.g., researching with the Crutchfield catalog and purchasing from Comp USA's retail store) (Wallace, Giese, & Johnson, 2004). Peaking same-store sales plague many retailers, and developing a growth strategy to include multi-channel sales should be the goal of every retailer (Crawford, 2005). When retailers can integrate their multi-channel operations effectively, they gain new ways to build loyalty among existing consumers, along with the potential to attract new ones (Crawford, 2005).

## Summary of the Literature Review

Today, the retailing industry has been diversified into more than one channel of business. Consumers are inundated with choices in all aspects of retailing and the multi-channel retailer format is one of them. Consumers are shopping across all the three channels (i.e., brick-and-mortar stores, catalogs and the Internet), and may use a combination of the three retail channels during the purchase decision process. Also, for the retailers, responding to the multi-dimensional consumer mindset will mean harnessing all of the dimensions of the retail mix in different ways to create multiple formats with distinct kinds of shopping appeals (Hyde, 2003). The impact of anticipating consumer demands and fulfilling them through whichever mix of channels the consumer prefers is enormous: increased conversion rates, higher average order size, higher aggregate spending, lower risks, targeted products aligned to targeted consumers, increased loyalty, decreased out-of-stocks, fewer markdowns, and fewer returns (Kurt Salmon Associates, 2005).

There is no question that multi-channel retailing is a complex endeavor with a series of individual elements that, when taken as a whole, spell either success or failure depending on how well the consumer is satisfied (Crawford, 2005). Multi-channels provide retailers with strategic opportunities to increase their business and leverage existing variables such as brand equity, marketing and advertising expertise and expense, distribution networks, and real estate. Multi-channel integration does not mean that channel-specific advantages should be leveled; on the contrary, multi-channel retailers can enhance their consumer support by exploiting unique channel capabilities (Goersch, 2002). In general, understanding and managing consumer migration between channels is significantly more challenging as firms move towards having integrated channels, that is, the same price, product, and sometimes promotion offering across all of its channels of distribution (Anonymous 2001).

# CHAPTER 3

## CONCEPTUAL FRAMEWORK & HYPOTHESES DEVELOPMENT

This study was designed to examine switching behavior in all the channels (i.e., brick-and-mortar stores, catalogs, and the Internet). The conceptual framework of the Theory of Planned Behavior (Ajzen, 1991) is described in the next section, and then the relationship between the variables is illustrated in the research model followed by the development of the hypotheses. The chapter concludes with a section or operational definitions.

### The Theory of Planned Behavior

Ajzen's (1991) Theory of Planned Behavior provides a framework to study attitudes toward behaviors. According to this theory, the most important determinant of a person's behavior is behavior intent. The individual's intention to perform a behavior is a combination of attitude toward performing the behavior and subjective norm. The individual's attitude toward the behavior includes behavioral belief, evaluations of behavioral outcomes, subjective norms, normative beliefs, and the motivation to comply (See Figure 1).

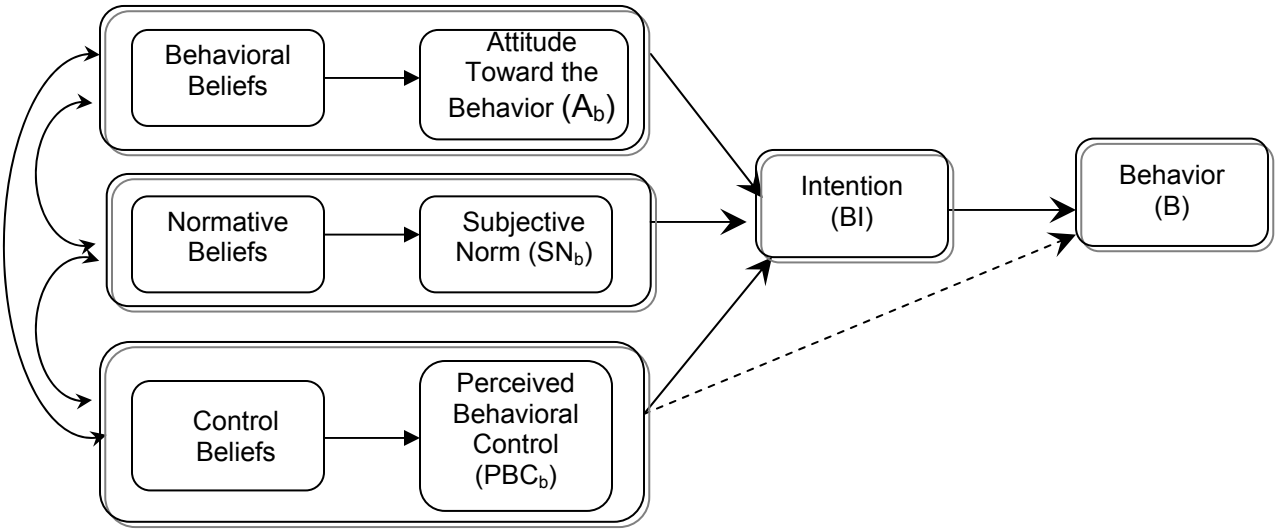



*Figure 1.* Theory of Planned Behavior (Ajzen, 1991)

*Behavioral Intentions and Behavior*

The Theory of Planned Behavior postulates that behavioral intention is the direct antecedent of the actual behavior (B). In this study B is the intention to switch shopping channels in the next six months (i.e. information search and/or purchasing product/services) Behavioral intention (BI) is defined as an individual's likelihood of engaging in the behavior of interest and is a function of three components: (a) attitude ($A_b$), (b) subjective norm ($SN_b$), and (c) perceived behavioral control ($PBC_b$). Behavioral intentions are regarded as a summary of the motivation required to perform a particular behavior, reflecting an individual's decision to follow a course of action, as well as an index of how hard people are willing to try and perform the behavior (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975). Clearly, intentions can change over time; the longer the time interval, the greater the likelihood that unforeseen events will produce changes in intentions,

and it follows that accuracy of prediction will usually decline with the amount of time that intervenes between measurement of intention and observation of behavior (Ajzen, 1988).

*The Attitudinal Component of Behavioral Intention*

Attitude is the predisposition of the individual to evaluate some symbol or object or aspect of his world in a favorable or unfavorable manner (Katz, 1960). Each belief associates the object with a certain attribute, and a person's overall attitude toward an object is determined by the subjective values of the object's attributes in interaction with the strength of the associations; and although people can form many different beliefs about an object, it is assumed that only beliefs that are readily accessible in memory influence attitude at any given moment (Ajzen, 2001). According to the model, a person's attitude towards performing a specific behavior ($A_b$) has an indirect relationship to behavior, and is based on the summed set underlying salient beliefs ($b_i$) associated with the attitude and the evaluation ($e_i$) of these beliefs by consumers. Expectancy-value models are designed to represent how people actually integrate multiple pieces of information to arrive at the overall judgment (Bagozzi, 1982). Symbolically, this can be expressed as:

$$\text{Attitudinal belief} = \sum_{i=1}^{n} b_i e_i$$

Where:
$b_i$ = Beliefs of an individual
$e_i$ = Individual's evaluation of the desirability of the outcome, i
n = number of salient beliefs the person holds about performing behavior B.

*Subjective Norm: The Second Component of Behavior Intention.*

The subjective norm ($SN_b$) represents the consumer's perceptions of what he/she thinks about what the referent wants him/her to do. It is a function of two subcomponents: the associative normative beliefs ($nb_j$), which reflects the consumer's perception of what the referent thinks about whether he/she should or should not perform behavior (B); and the consumer's motivation to comply with the referent j ($mc_j$). Motivation to comply can be viewed in two different ways. First, it can be seen as the person's motivation to comply with a given reference group, regardless of the referent's particular demands (i.e., as the person's general tendency to accept the directives of a given referent). Second, it is possible to view motivation to comply as specific to the given expectation of a reference group that is, while a person may be generally motivated to comply with, say, his friends, he may not want to behave in accord with one of their specific expectations (Ajzen & Fishbein, 1973). These determinants of SN can be symbolically represented as:

$$\text{Normative Structure} = \sum_{j=1}^{n} nb_j mc_j$$

Where:
$nb_j$ = Individual's normative beliefs
$mc_j$ = Individual's motivation to comply with referent j
n = number of relevant referents.

*Perceived Behavioral Control (PBC)*

As seen from Figure 1, perceived behavioral control influences behavior directly as well as indirectly. The direct approach is based on the assumption that,

while holding intention constant, the individual's effort or confidence to successfully perform a behavior in question strongly influences performance of that behavior (Ajzen, 1991). For example, between two individuals who have no experience in shopping online but have strong intentions to do so, the one who is more confident that he can master online shopping is more likely to persevere than the person who doubts his ability. The second reason for expecting a direct link between perceived behavioral control and behavioral achievement is that perceived behavioral control can often be used as a substitute for a measure of actual control (Ajzen, 1991). Perceived behavioral control can be determined from two subcomponents: (a) control belief ($cb_k$) - perceptions of obstacles or resources affecting the behavior, and (b) perceived power ($pf_k$) - importance of these barriers or resources. Symbolically, this can be expressed as:

$$\text{Perceived Behavioral Control} = \sum_{k=1}^{n} cb_k pf_k$$

Where:
$cb_k$: Individual's control beliefs
$pf_k$: Perceived facilitation of the control factor in either inhibiting or facilitating the behavior.
n = number of relevant referents

*Decomposition of Theory of Planned Behavior*

Control over execution of a behavior depends upon the presence of various internal and external factors that may serve to facilitate or interfere (Ajzen, 2002). PBC appears to encompass two components. The first is "perceived controllability" (Ajzen, 2002), which reflects the availability of resources which are within the control of the consumer and are needed to engage in a behavior. This

component is similar to Triandis's (1977) "facilitating conditions" (Ajzen, 1988). Facilitating conditions refers to the ability of the person to carry out an act, the person's arousal to carry out the act, and the person's knowledge (Triandis, 1977). This might include access to time, money and other specialized resources required to engage in a behavior (Taylor & Todd, 1995b). The second component is "perceived self-efficacy" (Ajzen, 2002), that is, an individual's self-confidence in his/her ability to perform a behavior (Bandura, 1977, 1982). Inclusion of the hierarchical model of perceived behavioral control will lead to the new decomposed model (Figure 2). This hierarchical model implies that although perceived self-efficacy and perceived controllability (i.e., facilitating conditions) can be reliably distinguished, they should nevertheless be correlated with each other (Ajzen, 2002). Decomposition of belief structures in TPB appears to produce more parsimonious and understandable models (Bagozzi, 1992; Shimp & Kavas, 1984; Taylor & Todd, 1995b). Decomposition of the belief structure also allows a better understanding of the relationships between the belief structures and antecedents of intention, so that various factors that impact beliefs can be investigated more thoroughly.

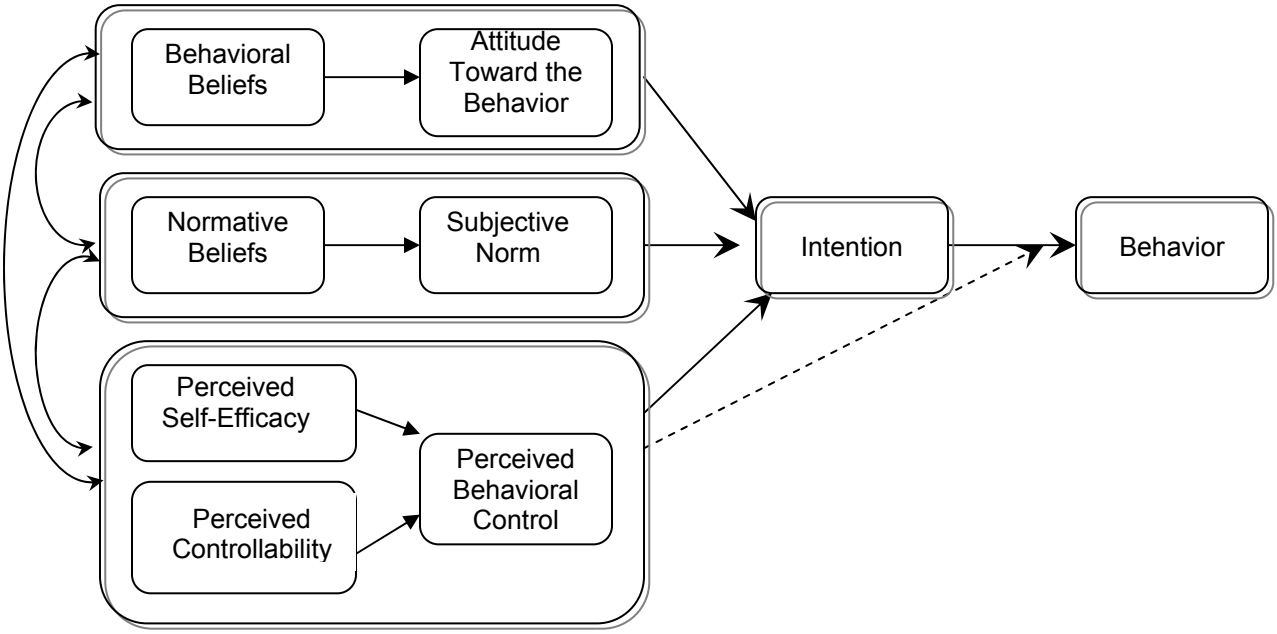



*Figure 2.* Decomposed Theory of Planned Behavior (Ajzen, 2002)

*Development of the Research Model*

According to the Theory of Planned Behavior, performance of a behavior is a joint function of intentions and perceived behavioral control (Ajzen, 1991). In order to make an accurate prediction based on the behavior, it is critical that the measures of intention (i.e., channel-switching intention) and perceived behavioral control are compatible with the behavior that is to be predicted. When people believe that they have the required resources and opportunities (e.g., skills, time, money, and cooperation by others), and that the obstacles they are likely to encounter are few and manageable, they should have confidence in their ability to perform the behavior and thus exhibit a high degree of perceived behavioral control, and vice-versa (Ajzen, 2002).

In the current study, it is proposed that beliefs toward switching shopping channels, the influence of family and friends, and self-efficacy and facilitating

conditions will impact the channel-switching behavior of a multi-channel consumer. Therefore, Figure 3 shows the model of the proposed study.

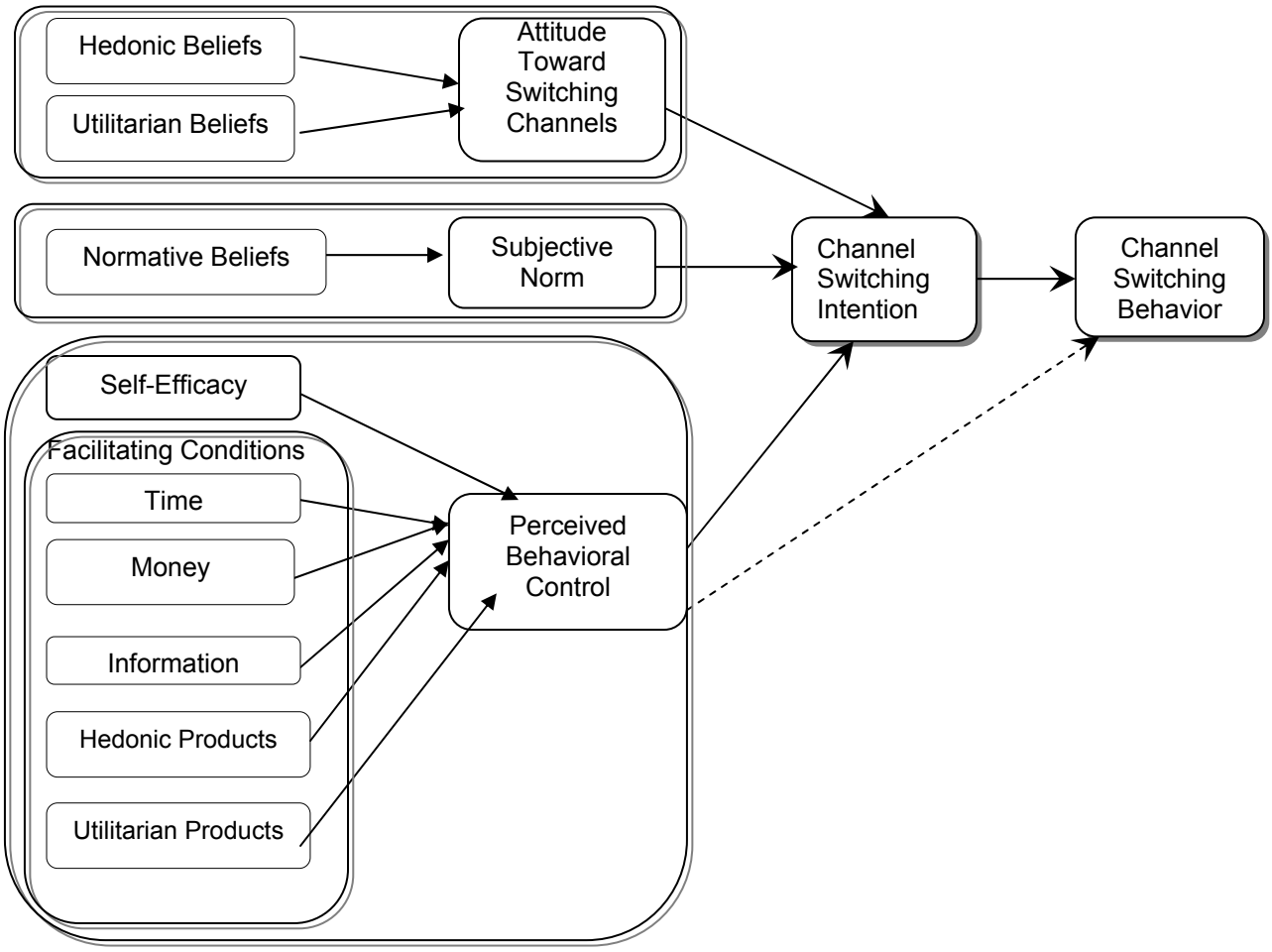



*Figure 3.* Research Model for Channel-Switching Behavior

## Variables in the Study & Hypotheses Development

### *Belief Towards Switching Channels: Hedonic and Utilitarian*

Since the experiential perspective recognizes the importance of various hitherto neglected variables -- the roles of emotions in behavior; the fact that consumers are feelers as well as thinkers and doers; the significance of symbolism in consumption; the consumer's need for fun and pleasure; the roles

of consumers beyond the act of purchase, such as product usage as well as brand choice -- many marketing and consumer researchers have begun to study behavior more holistically (Addis & Holbrook, 2001). Retail attributes can be identified as utilitarian or hedonic. Utilitarian attributes offer practical functionality (e.g., convenience, price, and assortment), whereas hedonic attributes satisfy emotional wants (e.g., atmosphere, social experiences) (Lee, Atkins, Kim, & Park, 2006). A general view of value recognizing both (1) a utilitarian outcome resulting from some type of conscious pursuit of an intended consequence, and (2) an outcome related to more spontaneous hedonic responses, captures a basic duality of rewards for much human behavior, and reflects the distinction between performing an act “to get something” as opposed to doing it because “you love it” (Babin, Darden, & Griffin, 1994).

For example, shopping in itself could be attributed to utilitarian values, whereas experiential shopping, where individuals are exposed to entertainment as well as shopping, could be stated as hedonic value. Each retail channel (i.e., brick-and-mortar stores, catalogs, and the Internet) are associated with hedonic and utilitarian values which impact the overall belief towards channel-switching behavior. Also, different products can be high or low in both hedonic and utilitarian attributes (Crowley, Spangenberg, and Hughes 1992).

Historically, researchers have directed attention to the emotional aspects of shopping and the need to understand the shopping experience from both utilitarian and hedonic perspectives (e.g., Bloch & Richins, 1983; Westbrook & Black, 1985). In contrast to the utilitarian perspective, hedonic shopping is

viewed as a positive experience where consumers may enjoy an emotionally satisfying experience related to the shopping activity regardless of whether or not a purchase was made (Kim, 2005). The hedonic aspect of shopping has been documented and examined as excitement, arousal, joy, festivity, escapism, fantasy, and adventure (Babin et al., 1994; Bloch & Richins, 1983; Sherry, 1990; Fischer & Arnold, 1990; Hirschman, 1983). Also, the entertainment aspect of retailing is increasingly being recognized as a competitive tool among retailers (Arnold & Reynolds, 2003). Childers, Carr, Peck, and Carson's (2000) study examined hedonic and utilitarian motives for shopping online, and their findings indicate that hedonic aspects play an important role in online shopping behavior along with utilitarian predictors such as usefulness and ease of use. Another study shows that attitudes toward online shopping and intention to shop online are not only affected by ease of use, usefulness, and enjoyment, but also by exogenous factors such as consumer traits, situational factors, product characteristics, previous online shopping experiences, and trust in online shopping (Monsuwe, Dellaert, & Ruyter, 2004). A study comparing experiential value between catalogs and the Internet found that consumers enjoyed shopping more via catalog versus online (Mathwick, Malhotra, & Rigdon, 2001). A study by Noble, Griffith, & Weinberger (2005) found that the Internet provided the greatest information attainment value across retail channels, while possession was a strong indicator of brick-and-mortar channel usage in terms of both search and purchase frequency. It can be seen then that even though there is extensive extant literature on the impact of hedonic and utilitarian values in shopping, there

is no study that examines this value system with respect to channel-switching. Thus the hypotheses of this study can be stated as follows:

> H1a: Hedonic & utilitarian beliefs will predict attitude towards switching channels from brick-and-mortar stores to catalog/Internet.
> H1b: Hedonic & utilitarian beliefs will predict attitude towards switching channels from catalogs to brick-and-mortar stores/Internet.
> H1c: Hedonic & utilitarian beliefs will predict attitude towards switching channels from the Internet to brick-and-mortar stores/catalogs.

*Normative Beliefs*

Most social scientists agree that individual behavior is motivated in large part by "social" factors, such as the desire for prestige, esteem, popularity, or acceptance (Bernheim, 1994). Normative beliefs constitute the underlying determinants of the subjective norms and are concerned with the likelihood that important referent individuals or groups would approve or disapprove of performing the behavior (Ajzen, & Madden, 1986). Burnkrant and Cousineau (1975) defined normative influence as the tendency to conform to the expectations of others. Generally speaking, people who believe that most referents with whom they are motivated to comply think they should perform the behavior will perceive social pressure to do so; conversely, people who believe that most referents with whom they are motivated to comply would disapprove of their performing the behavior will have a subjective norm that puts pressure on them to avoid performing the behavior (Ajzen, 1988). Therefore, peer communication is conceptualized as encouragement or approval of certain behaviors and intentions through either spoken (reinforcement) or unspoken (modeling) messages that peers send to each other (Lueg & Finney, 2007).

In a marketing context, various sources, such as friends, family, advertising, and news groups on the Internet, can have an impact on the consumer, and the composition of a group of important others is likely to vary based on the context of the behavior (Lim & Dubinsky, 2005). In an organizational context, for instance, the referent group might be peers, superiors, and subordinates (Taylor & Todd, 1995a). In a consumer context, shoppers' purchase decisions are likely to be influenced primarily by family and nonfamily referents (Ryan & Bonfield, 1980). In this study, family and friends are the two referent groups and the hypothesis is:

H2a: Normative beliefs will predict the subjective norms for brick-and-mortar stores.
H2b: Normative beliefs will predict the subjective norms for catalogs
H2c: Normative beliefs will predict the subjective norms for the Internet.

*Perceived Self-efficacy & Facilitating Conditions*

Self-efficacy can be defined as individual judgments of a person's capabilities to perform a behavior. The stronger the perceived self-efficacy, the more active the efforts (Bandura, 1977). Efficacy in dealing with one's environment is not a fixed act or simply a matter of knowing what to do; rather, it involves a generative capability in which component cognitive, social, and behavioral skills must be organized into integrated courses of action to serve innumerable purposes (Bandura, 1982). Applied to channel-switching, self-efficacy refers to consumers' judgments of their own capabilities to get product information and purchase products from the three channels (i.e., brick-and-mortar stores, catalogs, and the Internet).

Facilitating conditions impact perceived behavioral control, which eventually influences the behavior or the outcome. These variables are within the control of the consumer and facilitate the behavior. The facilitating conditions have been categorized into information search, product type, time, and money. In essence, the absence of any of these facilitating conditions represents barriers to switching channels and may inhibit the formation of intention; however, the presence of facilitating conditions may not, per se, encourage channel-switching (Taylor & Todd, 1995b).

Consumer knowledge has two main components: familiarity and expertise and the attractiveness of the opportunity to inspect an expanded number of alternatives are dependent in part on the consumer's ability to sort efficiently through a potentially daunting amount of information (Alba & Hutchinson, 1987). Based on Blackwell, Miniard, & Engel's (2001) study, consumer decision process model, information search that represents the motivated activation of knowledge stored in memory, or acquisition of information from external sources is required prior to a purchase decision. When knowledge stored in memory does not provide adequate or sufficient information to make purchase decisions, consumers tend to engage in collecting relevant additional information for product purchase using various search means (Choi & Park, 2006). External information acquisition can take place on either an upcoming purchase decision (pre-purchase search) or on a regular basis, regardless of sporadic purchase needs (on-going search) (Bloch, Sherell, & Ridgway, 1986) (Table 6).

Table 6

*A Framework for Consumer Information Search**

| | Pre-purchase Search | Ongoing Search | |
|---|---|---|---|
| **Determinants** | • Involvement in the purchase<br>• Market environment<br>• Situational factors | • Involvement with the product<br>• Market environment<br>• Situational factors | |
| **Motives** | To make a better purchase | Build a bank of information for future use | Experience fun and pleasure |
| **Outcomes** | • Increased product and market knowledge<br>• Better purchase decisions<br>• Increased satisfaction with the purchase outcome | • Increased product and market knowledge leading to:<br>♦ Future buying efficiencies<br>♦ Personal influence<br>• Increased impulse buying<br>• Increased satisfaction from search, and other outcomes | |

*Adapted from Bloch, Sherrell, & Ridgway, 1986

Information search pattern using media or technology may be useful to understand the consumer decision making process for store selection (Darden, 1980; Shosteck, 1975). Noble et al.'s (2005) study suggests that consumers incur switching costs within a channel as they search for information, thus influencing channel purchase behavior;, and even though price comparison is provided online via websites such as www.pricecentral.com, or www.shopping.com, consumers may derive greater functional value from more traditional price comparison means, such as newspaper advertisements and free standing inserts.

Product can be classified according to inherited, conferred, and perceived product characteristics (e.g., tangibility, cost, homogeneity, differentiability, utility, and information intensity) (Vijayasarathy, 2002). It can also be categorized depending on the consumer buying process (e.g., search vs. experiential (Vijayasarathy, 2002). Finally, products can also be classified as hedonic or

utilitarian. These classifications are primarily intended to better understand how consumers search for, evaluate, choose, take delivery of, and consume different types of products (Vijayasarathy, 2002).

Both hedonic and utilitarian goods offer benefits to the consumer, the former primarily in the form of experiential enjoyment and the latter in practical functionality. Although the consumption of many goods involves both dimensions to varying degrees (Batra, & Ahtola, 1990), there is little doubt that consumers characterize some products as primarily hedonic and others as primarily utilitarian (Dhar & Wertenbroch, 2000). It can be assumed that due to the nature of the product (i.e. hedonic vs. utilitarian), it is easier to justify the purchase of utilitarian products as opposed to hedonic products. Also, based on the nature of the product it can lead to impulse buying. O'Curry and Strahilevitz's (2004) study that examined the effects of probability and mode of acquisition on choices between hedonic and utilitarian alternatives, suggested that the lower the probability of receiving the selected item, the more likely individuals will be to choose the more hedonic alternative in a choice set.

According to Downs' (1961) Theory of Consumer Efficiency, consumers seek to minimize the costs of shopping, including money and time, while trying to maximize the amount of output to be received. Thus it can be stated that consumers will evaluate each channel based on the costs involved when making a decision to switch channels. In other words, money and time are two important resources available to the consumer that will impact their eventual behavior. Consumers' perceptions of opportunity costs impact their valuation of time and

money (Nichols, Smolensky, and Tideman 1971; Marmorstein, Grewal, and Fishe 1992) and in the end, the relative importance of these resources dictates consumer choices, including retail channel decisions. Therefore, per the research model the resulting hypotheses are as follows:

> H3a: Self-efficacy, time, money, information, hedonic and utilitarian product will predict perceived behavioral control when switching from brick-and-mortar stores to catalogs/Internet.
> H3b: Self-efficacy, time, money, information, hedonic and utilitarian product will predict perceived behavioral control when switching from catalogs to brick-and-mortar stores/Internet.
> H3c: Self-efficacy, time, money, information, hedonic and utilitarian product will predict perceived behavioral control when switching from the Internet to brick-and-mortar stores/catalogs.

In situations where the facilitating conditions act as an inhibitor, individuals may adjust their attitude negatively to be consistent with that situation. Similarly, given adequate time, money and other resources (i.e. information & product type), a positive attitude may be more likely to develop since there are fewer reasons not to engage in the behavior.

*Attitude Towards Switching Channels*

Attitude has long been shown to influence behavioral intentions (Ajzen & Fishbein 1980). This relationship has received substantial empirical support. Attitude toward switching channels is defined as the consumer's evaluation of the desirability of using a channel to purchase products. Using a deductive logic, favorable attitude is likely to encourage consumers to switch channels.

*Subjective Norms*

Shopping is an experience that includes a high degree of socialization. People enjoy shopping because it allows them an opportunity to meet with others as stated by Babin et al. (1994). Verhoef, Neslin, and Vroomen (2005) found that consumers' selection of channels is influenced by the belief that people similar to them use that channel. Keen and colleagues (2004) applied the "social norm" construct from attitude theory. Nicholson, Clarke, and Blakemore (2002), in field research, found that a mother bought an outfit for her child at a brick-and-mortar store rather than from the Internet simply because the higher effort required using the store was commensurate with the mother's care for her child. Because social influences impact the purchase intention, the proposed study examined the influence of subjective norms on a consumer's channel-switching decision. Subjective norm suggests that behavior is instigated by one's desire to act as others act or think one should, and hence will reflect consumer perceptions of whether channel-switching behavior is accepted, encouraged, and implemented by the consumer's circle of influence (Pavlou & Fygenson, 2006).

*Perceived Behavioral Control (PBC)*

As technology increases the alternatives for consumers, it is important to understand what motivates consumers to shop using a particular retail format (Keen, et al., 2004). Madden, Ellen, and Ajzen (1992) examined the effect of control of ten different behaviors and found that perceived behavioral control predicted intention for all categories. Perceived behavioral control represents perceptions of control and, not actual control and the more accurate they are, the more likely they are to reflect true control over the behavior in question (Notani,

1998). Perceived behavioral control can be measured by asking direct questions about capability to perform a behavior, or indirectly on the basis of beliefs about ability to deal with specific inhibiting or facilitating factors (Ajzen, 2002). The more an individual believes he or she possesses the necessary resources, abilities, and opportunities necessary to influence behavior, the more likely he or she will intend to and actually perform the behavior (Bansal & Taylor, 2002). The possibility to choose different channels for their shopping activities should increase the level of control consumers perceives (Goersch, 2002). Moreover, the level or perceived control rises with the availability of resources and opportunities to perform a behavior (Keen, Ruyter, Wetzels, & Feinberg, 2000). Additionally, perceived behavioral control acts as a determinant of behavior. The inclusion of perceived behavioral control as a predictor of behavior is based on the rationale that holding intention constant, greater perceived control will increase the likelihood that enactment of the behavior will be successful (Armitage & Christian, 2003). Thus, the resulting hypotheses are as follows:

H4a: Perceived behavioral control will predict channel-switching behavior from brick-and-mortar stores to catalogs/Internet.
H4b: Perceived behavioral control will predict channel-switching behavior from catalogs to brick-and-mortar stores/Internet.
H4c: Perceived behavioral control will predict channel-switching behavior from the Internet to brick-and-mortar stores/catalogs.

H5a: Attitude, subjective norms and perceived behavior control towards channel-switching will predict the channel-switching intention from brick-and-mortar stores to catalogs/Internet.
H5b: Attitude, subjective norms and perceived behavior control towards channel-switching will predict the channel-switching intention from catalogs to brick-and-mortar stores/Internet.

H5c: Attitude, subjective norms and perceived behavior control towards channel-switching will predict the channel-switching intention from the Internet to brick-and-mortar stores/catalogs.

*Channel-Switching Intention and Channel-Switching Behavior*

As a general rule, the more favorable the attitude and subjective norm, and the greater the perceived control, the stronger should be the person's intention to perform the behavior in question (Bamberg, Ajzen, & Schmidt, 2003). Finally, given a sufficient degree of actual control over the behavior, people are expected to carry out their intentions when the opportunity arises. Intention is thus assumed to be the immediate antecedent of behavior. The hypotheses are:

H6a: The channel-switching intention will predict the channel-switching behavior from brick-and-mortar stores to catalogs/Internet.
H6b: The channel-switching intention will predict the channel-switching behavior from catalogs to brick-and-mortar stores/Internet.
H6c: The channel-switching intention will predict the channel-switching behavior from the Internet to brick-and-mortar stores/catalogs.

## Operational Definitions

*Shopping.* Shopping was defined to include searching for and/or buying goods or services via any of the three channels -- brick-and-mortar stores, catalogs, and the Internet. Consumers were asked to indicate their attitudinal beliefs, normative beliefs, perceived behavioral control beliefs, and behavioral intention for shopping through the three channels, brick-and-mortar stores, catalogs, and the Internet.

*Multi-channel consumer.* A multi-channel consumer refers to the consumer who shops through more than one channel (i.e., brick-and-mortar stores, catalogs, and the Internet).

*Multi-channel retailer.* A multi-channel retailer refers to the person who sells products and/or services through a traditional channel (catalogs and brick-and-mortar stores) and the Internet. According to Ponsford (2000), the current multiple retailing formats in relation to e-business were classified as “click,” “click-and-mortar,” or “brick-and-mortar.” A “click” retailer is defined as the business that operates in the online environment only, whereas a “click-and-mortar” retailer uses an integrated multi-selling channel approach with simultaneous operations of traditional formats and the Internet selling site (Choi & Park, 2006).

*Brick-and-mortar store*. A “brick-and-mortar” retailer refers to the traditional seller that may or may not be operated with a website without selling products online (Choi & Park, 2006).

*Catalogs*. Any form of printed material and including catalogs that are mailed from stores, direct mailers from companies, and promotional printed material.

*Internet.* As used here, this channel included the online presence of a traditional store, a catalog or a pure online store. The study examined only those online stores that allowed both browsing for information as well as the purchase of products/services.

*Switching channels*. Switching channels can be defined as changing channels while shopping, e.g. looking for information on the Internet and

purchasing from the store, or, looking for information both in a store and in a catalog, and then buying online. There can be any combination of channels both for information search as well as buying. Switching channels is a dynamic process in which a consumer repeatedly makes choices to frequent one or the other channel options (i.e., brick-and-mortar stores, catalogs, and the Internet).

# CHAPTER 4

# METHODS

The retail industry is undergoing a major change with more and more retailers following the multi-channel format of brick-and-mortar stores, catalogs, and the Internet as distribution channels. Consumers are also becoming better informed of the various options available, and are frequently using more than one channel to satisfy their shopping needs. Thus it is important for retailers to determine whether consumers have the same shopping needs in different retail channels, and to use this information in developing their multi-channel marketing strategies.

In this chapter, the research hypotheses are explained, followed by instrument development, description of the population and sample, data collection, and data analysis.

## Research Hypotheses

Because of the importance of consumer intention as a tool of demand forecast, this study was designed to examine the consumer switching behavior more closely, based on the Theory of Planned Behavior model. This will provide valuable input to multi-channel retailers for their channel strategy. The main emphasis of this research is on practical applications. In this case, the goal is to optimize explanations of a given criterion i.e. channel-switching behavior. The research hypotheses are summarized in Table 7 and Figure 4 is a visual representation of the same:

Table 7

*Summary of Hypotheses*

| | |
|---|---|
| H1a | Hedonic & utilitarian beliefs will predict attitude towards switching channels from brick-and-mortar stores to catalog/Internet. |
| H1b | Hedonic & utilitarian beliefs will predict attitude towards switching channels from catalogs to brick-and-mortar stores/Internet. |
| H1c | Hedonic & utilitarian beliefs will predict attitude towards switching channels from the Internet to brick-and-mortar stores/catalogs |
| H2a | Normative beliefs will predict the subjective norms for brick-and-mortar stores. |
| H2b | Normative beliefs will predict the subjective norms for catalogs. |
| H2c | Normative beliefs will predict the subjective norms for the Internet. |
| H3a | Self-efficacy, time, money, information, hedonic and utilitarian product will predict perceived behavioral control when switching from brick-and-mortar stores to catalogs/Internet. |
| H3b | Self-efficacy, time, money, information, hedonic and utilitarian product will predict perceived behavioral control when switching from catalogs to brick-and-mortar stores/Internet. |
| H3c | Self-efficacy, time, money, information, hedonic and utilitarian product will predict perceived behavioral control when switching from the Internet to brick-and-mortar stores/catalogs. |
| H4a | Perceived behavioral control will predict channel-switching behavior from brick-and-mortar stores to catalogs/Internet. |
| H4b | Perceived behavioral control will predict channel-switching behavior from catalogs to brick-and-mortar stores/Internet. |
| H4c | Perceived behavioral control will predict channel-switching behavior from the Internet to brick-and-mortar stores/catalogs. |
| H5a | Attitude, subjective norms and perceived behavior control towards channel-switching will predict the channel-switching intention from brick-and-mortar stores to catalogs/Internet. |
| H5b | Attitude, subjective norms and perceived behavior control towards channel-switching will predict the channel-switching intention from catalogs to brick-and-mortar stores/Internet. |
| H5c | Attitude, subjective norms and perceived behavior control towards channel-switching will predict the channel-switching intention from the Internet to brick-and-mortar stores/catalogs. |
| H6a | The channel-switching intention will predict the channel-switching behavior from brick-and-mortar stores to catalogs/Internet. |
| H6b | The channel-switching intention will predict the channel-switching behavior from catalogs to brick-and-mortar stores/Internet. |
| H6c | The channel-switching intention will predict the channel-switching behavior from the Internet to brick-and-mortar stores/catalogs. |

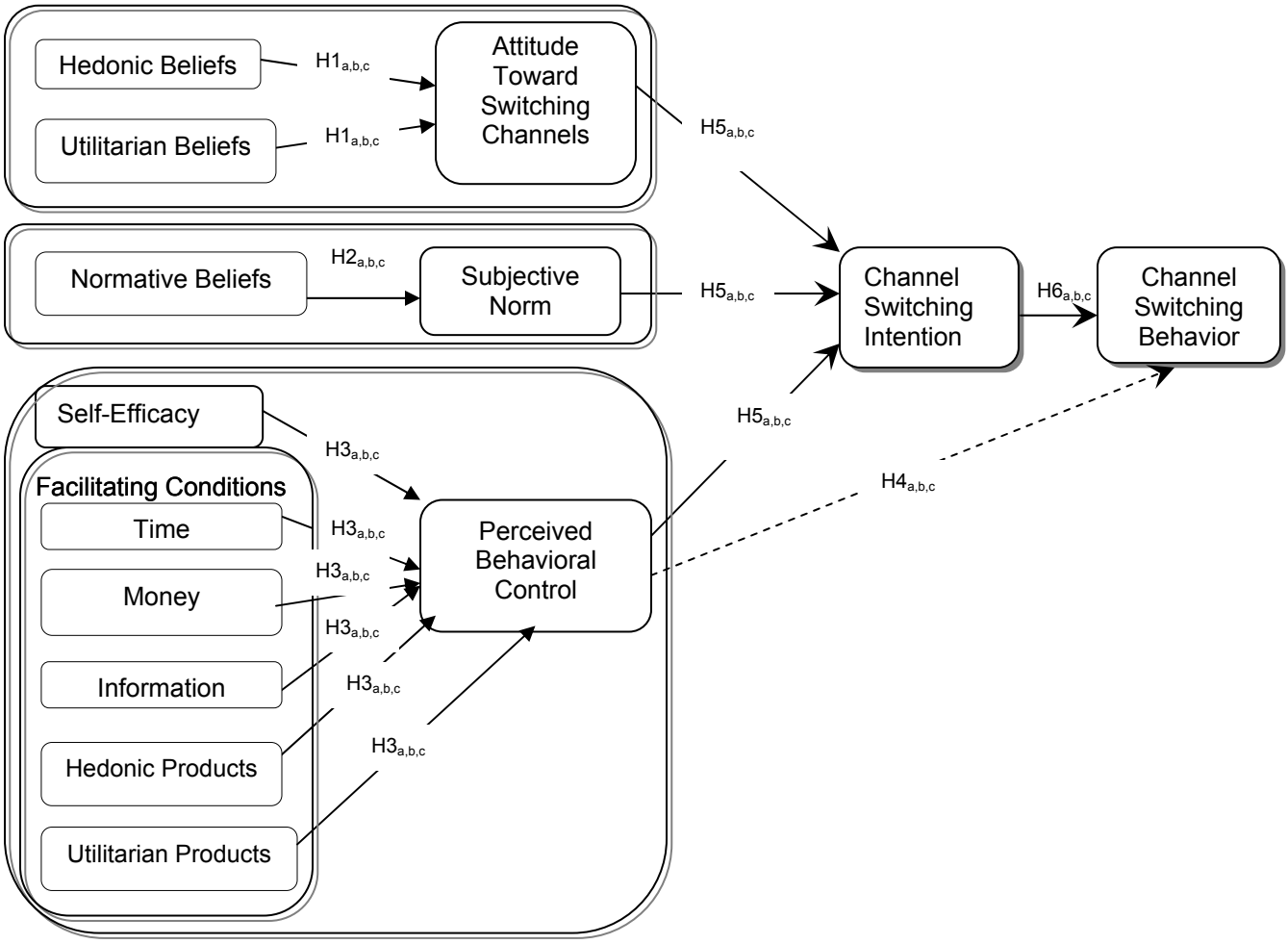



*Figure 4.* Research Model for Channel-Switching Behavior (with hypotheses)

## Instrument Development

A self-administered questionnaire was developed for the consumers based on the literature (Appendix I). The questionnaire consists of items that measured the beliefs towards switching channels, based on hedonic and utilitarian beliefs and attitudes towards switching channels (i.e., brick-and-mortar stores, catalogs, and the Internet). Normative beliefs that impacted subjective norms were also measured for all the channels. Perceived self-efficacy,

facilitating conditions (i.e. time, money, information, and product type), and perceived behavioral control was measured for each channel. Finally channel-switching intention and channel was measured for each of the three channels. Demographics included gender, age, marital status, work status, classification, annual household income, ethnicity, and number of children (Table 8). Each variable of attitudinal belief, normative beliefs, self efficacy, time, money, information, and product type were associated with outcomes as per expectancy value model (Table 9). Professors in the area of merchandising established the content validity of the instrument. The same set of questions will be asked for each of the three channels (i.e., brick-and-mortar stores, catalogs, and the Internet).

Table 8

*Summary of Instrument Items by Variable and Type of Data*

| Variable | Measures | Instrument Items(s) | Type of data |
|---|---|---|---|
| Independent | Hedonic and Utilitarian beliefs | Seven | Interval |
| | Outcome for behavioral beliefs | Seven | Interval |
| Dependent | Attitudes | Four | Interval |
| Independent | Friends and Family | Four | Interval |
| | Motivation to comply | Two | Interval |
| Dependent | Subjective norms | Four | Interval |
| Independent | Self-efficacy | Three | Interval |
| | Facilitating Conditions | | |
| | Time | One | Interval |
| | Money | One | Interval |
| | Information | One | Interval |
| | Product type | Two | Interval |
| | Perceived facilitation of Self efficacy | Three | Interval |
| | Perceived facilitation of Facilitating conditions | Five | Interval |
| Dependent | Perceived behavior control | Two | Interval |
| Independent | Attitudes | Four | Interval |
| | Subjective norms | Four | Interval |
| | Perceived behavior control | Two | Interval |
| Dependent | Channel-switching intention | Two | Interval |
| Independent | Perceived behavior control | Two | Interval |
| Dependent | Channel-switching behavior | Two | Interval |
| Independent | Channel-switching intention | Two | Interval |
| Dependent | Channel-switching behavior | Two | Interval |
| Descriptive | Demographics | Eight | |
| | Sex | | Nominal |
| | Age | | Ratio |
| | Classification | | Nominal |
| | Work Status | | Nominal |
| | Marital Status | | Nominal |
| | Ethnicity | | Nominal |
| | Annual Income | | Interval |
| | No. of children | | Interval |

Table 9

*Summary of Instrument Items by Question*

| Question | Variable Measured | Notation |
|---|---|---|
| 1 & 2 | Descriptive | |
| | <u>Brick-and-mortar stores</u> | |
| 3 | Hedonic Beliefs | $(b_{1s})$, $(b_{2s})$, $(b_{3s})$, $(b_{4s})$ |
| | Utilitarian Beliefs | $(b_{5s})$, $(b_{6s})$, $(b_{7s})$ |
| 4 | Outcomes - Hedonic Beliefs | $(e_{1s})$, $(e_{2s})$, $(e_{3s})$, $(e_{4s})$ |
| | Outcomes - Utilitarian Beliefs | $(e_{5s})$, $(e_{6s})$, $(e_{7s})$ |
| 5 | Attitude | $(a_{1s})$, $(a_{2s})$, $(a_{3s})$, $(a_{4s})$ |
| 6 | Normative Beliefs | $(nb_{1s})$, $(nb_{2s})$, $(nb_{3s})$, $(nb_{4s})$ |
| | Outcomes of Normative Beliefs | $(mc_{1,2s})$, $(mc_{3,4s})$ |
| | Subjective Norms | $(SN_{1s})$, $(SN_{2s})$, $(SN_{3s})$, $(SN_{4s})$ |
| 7 | Self-efficacy, | $(cb_{1s})$, $(cb_{2s})$, $(cb_{3s})$, |
| | Time, Money, Information, Hedonic Products and Utilitarian Products | $(cb_{4s})$, $(cb_{5s})$, $(cb_{6s})$, $(cb_{7s})$, $(cb_{8s})$ |
| | Perceived Behavioral Control | $(PBC_{1s})$, $(PBC_{2s})$ |
| 8 | Outcomes of Self-efficacy | $(pf_{1s})$, $(pf_{2s})$, $(pf_{3s})$ |
| | Outcomes of Time, Money, Information, Hedonic Products, Utilitarian Products | $(pf_{4s})$, $(pf_{5s})$, $(pf_{6s})$, $(pf_{7s})$, $(pf_{8s})$ |
| 9 | Behavioral Intention | $(bi_{1s})$, $(bi_{2s})$ |
| | <u>Catalogs</u> | |
| 10 | Hedonic Beliefs | $(b_{1c})$, $(b_{2c})$, $(b_{3c})$, $(b_{4c})$ |
| | Utilitarian Beliefs | $(b_{5c})$, $(b_{6c})$, $(b_{7c})$ |
| 11 | Outcomes - Hedonic Beliefs | $(e_{1c})$, $(e_{2c})$, $(e_{3c})$, $(e_{4c})$ |
| | Outcomes - Utilitarian Beliefs | $(e_{5c})$, $(e_{6c})$, $(e_{7c})$ |
| 12 | Attitude | $(a_{1c})$, $(a_{2c})$, $(a_{3c})$, $(a_{4c})$ |
| 13 | Normative Beliefs | $(nb_{1c})$, $(nb_{2c})$, $(nb_{3c})$, $(nb_{4c})$ |
| | Outcomes of Normative Beliefs | $(mc_{1,2c})$, $(mc_{3,4c})$ |
| | Subjective Norms | $(SN_{1c})$, $(SN_{2c})$, $(SN_{3c})$, $(SN_{4c})$ |
| 14 | Self-efficacy, | $(cb_{1c})$, $(cb_{2c})$, $(cb_{3c})$, |
| | Time, Money, Information, Hedonic Products and Utilitarian Products | $(cb_{4c})$, $(cb_{5c})$, $(cb_{6c})$, $(cb_{7c})$, $(cb_{8c})$ |
| | Perceived Behavioral Control | $(PBC_{1c})$, $(PBC_{2c})$ |
| 15 | Outcomes of Self-efficacy | $(pf_{1c})$, $(pf_{2c})$, $(pf_{3c})$ |
| | Outcomes of Time, Money, Information, Hedonic Products, Utilitarian Products | $(pf_{4c})$, $(pf_{5c})$, $(pf_{6c})$, $(pf_{7c})$, $(pf_{8c})$ |
| 16 | Behavioral Intention | $(bi_{1c})$, $(bi_{2c})$ |

Table 9

*Summary of Instrument Items by Question (contd.)*

| Question | Variable Measured | Notation |
|---|---|---|
| | Internet | |
| 17 | Hedonic Beliefs | $(b_{1i})$, $(b_{2i})$, $(b_{3i})$, $(b_{4i})$ |
| | Utilitarian Beliefs | $(b_{5i})$, $(b_{6i})$, $(b_{7i})$ |
| 18 | Outcomes - Hedonic Beliefs | $(e_{1i})$, $(e_{2i})$, $(e_{3i})$, $(e_{4i})$ |
| | Outcomes - Utilitarian Beliefs | $(e_{5i})$, $(e_{6i})$, $(e_{7i})$ |
| 19 | Attitude | $(a_{1i})$, $(a_{2i})$, $(a_{3i})$, $(a_{4i})$ |
| 20 | Normative Beliefs | $(nb_{1i})$, $(nb_{2i})$, $(nb_{3i})$, $(nb_{4i})$ |
| | Outcomes of Normative Beliefs | $(mc_{1,2i})$, $(mc_{3,4i})$ |
| | Subjective Norms | $(SN_{1i})$, $(SN_{2i})$, $(SN_{3i})$, $(SN_{4i})$ |
| 21 | Self-efficacy, | $(cb_{1i})$, $(cb_{2i})$, $(cb_{3i})$ |
| | Time, Money, Information, Hedonic Products and Utilitarian Products | $(cb_{4i})$, $(cb_{5i})$, $(cb_{6i})$, $(cb_{7i})$, $(cb_{8i})$ $(PBC_{1i})$, $(PBC_{2i})$ |
| | Perceived Behavioral Control | |
| 22 | Outcomes of Self-efficacy | $(pf_{1i})$, $(pf_{2i})$, $(pf_{3i})$, $(pf_{4i})$ |
| | Outcomes of Time, Money, Information, Hedonic Products, Utilitarian Products | $(pf_{5i})$, $(pf_{6i})$, $(pf_{7i})$, $(pf_{8i})$ |
| 23 | Behavioral Intention | $(bi_{1i})$, $(bi_{2i})$ |
| 24 | Behavior – Store | $(ab_{1s})$, $(ab_{2s})$ |
| | Behavior – Catalogs | $(ab_{1c})$, $(ab_{2c})$ |
| | Behavior - Internet | $(ab_{1i})$, $(ab_{2i})$ |
| 25 | Demographics | |

*Variables in the Study*

*Behavioral beliefs and attitudes towards switching channel*. The first scale measured the importance of beliefs when deciding to switch channels (i.e., the brick-and-mortar stores, the catalogs, and the Internet). Empirical findings indicate that the bipolar scaling (-3 to +3) for both belief and evaluation of the outcome most often yields a higher correlation with the global attitude construct than does a bipolar scoring method (-3 to +3) for beliefs and a unipolar scoring method (+l to +7) for evaluation (Gagne & Godin, 2000). Beliefs and evaluations towards the channels were based on the Hedonic and Utilitarian values, and the items for the questionnaire were adapted from the Hedonic and Shopping Values scale developed by Babin, Darden, & Griffin (1994) and Dholakia & Uusitalo

(2000). The scale consisted of four hedonic items and three utilitarian items. The beliefs were measured on a rating scale (-3 “likely” to +3 “unlikely”). The attitudes towards each channel were measured from the scale developed by Taylor & Todd (1995b). The four 7-point semantic differential included the following: dislike/like, foolish/wise and bad/good items.

*Normative beliefs and subjective norms.* Consumers are susceptible to interpersonal influences and this construct is defined as the need to identify with or enhance one’s image in the opinion of others through the acquisition and use of products and brands. The scales to measure normative beliefs and subjective norms were adapted from Taylor & Todd’s (1995b) study. Four normative items were included to measure the normative beliefs of a multi-channel consumer with respect to channel-switching behavior. The normative beliefs were measured on a bipolar scale (-3 “unlikely” to +3 “likely”). Subjective norms were measured for four items on a bipolar scale (-3 “unlikely” to +3 “likely”).

*Self-efficacy, facilitating conditions (i.e. time, money, information, hedonic products, and utilitarian products) and perceived behavior control.* Self-efficacy and facilitating conditions of money, time and information were measured based on the scale adapted from Taylor & Todd (1995b). Two statements were utilized to measure the respondent ability to buy: “I have the ability to buy products such as apparel, jewelry, flowers, home furnishings,” and “I have the ability to buy products such as travel, financial services (Tax returns, Stocks, Home banking, Credit card).” The scale to measure PBC was adapted from Taylor & Todd’s

(1995b) study. The variables were measured on a bipolar scale (-3 “unlikely” to +3 “likely”).

*Channel-switching intention*. A 7 point bipolar scale (-3 “unlikely” to +3 “likely”) adapted from Taylor and Todd (1995b) was used for this study and will consist of two statements that measured switching from “Channel $A_{1,2,3}$” to “Channel $B_{1,2,3}$,” where,

Channel $A_1$: brick-and-mortar stores

Channel $A_2$: catalogs

Channel $A_3$: Internet

Channel $B_1$: catalogs/Internet

Channel $B_2$: brick-and-mortar stores/Internet

Channel $B_3$: brick-and-mortar stores/catalogs

The two statements were: (1) I intend to change to “channel B” from “channel A” while shopping, and (2) I plan to change to “channel B” from “channel A” for all my shopping.

*Channel-switching behavior*. The scale was developed from Ajzen’s (2006) article “Constructing a TpB Questionnaire”. The channel-switching behavior was measured by asking two questions that measured switching from “Channel $A_{1,2,3}$” to “Channel $B_{1,2,3}$”, where,

Channel $A_1$: brick-and-mortar stores

Channel $A_2$: catalogs

Channel $A_3$: Internet

Channel $B_1$: catalogs/Internet

Channel $B_2$: brick-and-mortar stores/Internet

Channel $B_3$: brick-and-mortar stores/catalogs

The two questions were: (1) How many times in the course of last six months have you changed channels (i.e. from “channel A” to “channel B”) while searching for information?, and (2) How many times in the course of last six months have you changed channels (i.e. from “channel A” to “channel B”) while purchasing?

*Consumer Demographic Characteristics*

Consumer demographic characteristics were measured for a descriptive purpose. Demographic variables are gender, age, work status, classification, marital status, annual household income, ethnicity, and number of children. Age was measured as a continuous variable and the respondents were asked to fill in their age. Respondents were asked to indicate their classification: (1) Freshmen, (2) Sophomore, (3) Junior, (4) Senior, (5) Graduate, (6) Faculty, and (7) Staff. Work status was measured based on the number of hours worked and was divided into four categories: (1) Not working, (2) Part-time (> 20 hrs/week), (3) 3/4 time (20 – 31 hrs/week), and (4) Full time (32 – 40hrs/week). Marital status was measured in three categories: (1) single, never married, (2) married, living with a partner, and (3) separated, widowed, divorced. Ethnicity was measured in six categories: (1) native American, (2) African American, (3) Asian, (4) Hispanic, (5) Caucasian, and (6) other. Income was measured as total household income in the past year before taxes. The single, never married student respondents were asked to indicate their parents’ income. The scale included eleven levels:

(1) less than $10,000, (2) $10,001 - $20,000, (3) $20,001 - $ 30,000, (4) $30,001 - $40,000, (5) $40,001 - $50,000, (6) $50,001 - $60,000, (7) $60,001 - $70,000, (8) $70,001 - $80,000, (9) $80,001 - $90,000, (10) $90,001 - $100,000, and (11) Over $100,000. Respondents were also asked to indicate the number of children living with them in four categories: (1) none, (2) 1-2 children, (3) 3-4 children, and (4) 5 or more children.

## Population and Sample

All consumers who purchased products or services on the three channels (i.e., brick-and-mortar stores, catalogs and the Internet) were the population for this study. The study was based on convenience sampling, with the survey instrument administered to the staff, faculty, and students of Midwest/Southern Universities. A total of 666 completed surveys were obtained (Please see Table 10 for a breakup of the respondents by site). The respondents had to meet the criteria of shopping online and/or catalog prior to participating in the survey. The three assumptions for convenience sampling based on Ferber's (1977) paper is important, and include (1) The relevance of the sample under the study needs to be established; (2) Sample size should be large enough to yield some feeling of stability of results; and (3) Subjects should be representative of the population being studied. As per Fox & Madden's (2006) study, 82% of the 18-28 age group is online with 68% of them making purchases online and hence the selection of undergraduate students for the study is justified.

Table 10

*Summary of Data Collection by Site*

| Site | No. of responses | Completed responses | % of responses |
|---|---|---|---|
| University of Missouri* | 301 | 169 | 56.0% |
| University of North Texas | 141 | 132 | 93.6% |
| University of Tennessee - Knoxville | 45 | 40 | 88.8% |
| Western Illinois University | 902 | 325 | 36.0% |

* incentive provided

## Data Collection

### *Pre-testing*

The survey instrument was pre-tested for content validity and adjustments were made prior to main data collection. In April 2007, the survey instrument was pre-tested with consumers (N = 50). It was assumed that these consumers had used at least one channel (i.e., catalog or the Internet). These consumers were comprised of students at the University of Missouri, Columbia, Missouri. Based on the pretest, items were revised to ensure readability and a logical flow of questions. Other adjustments were made to the survey instrument based on respondent comments.

The survey instrument was administered as an online survey. The survey was developed by using the software SurveyMonkey, an online tool that enables people to create their own surveys quickly and easily. Web surveys are a visual stimulus, and the respondent has complete control with regard to whether or how each question is read and comprehended (Gupta, et. al, 2004). Therefore, responses to Web questionnaires are expected to closely resemble those obtained via mail questionnaires (Dillman, 2000). Since the study assumed that

the consumer would be conversant with online shopping, a web survey was deemed to be a good fit for the study. Considerable effort was exerted to carefully design the instrument to make it as user-friendly as possible, including the incorporation of a progress-indicator. While it is easy for a respondent to estimate the length of a survey by running over the pages of a paper questionnaire, online surveys using a multiple-page design without some kind of progress-indicator usually do not allow respondents to draw conclusions about their position in the questionnaire and the amount of work left. Therefore, in order to motivate the respondents to conclude the questionnaire, progress-indicators are recommended (Couper, Traugott & Lamias 2001). Further, the Web questionnaire was constructed to imitate the visual aspects of a paper survey instrument. Thus, the colored background and placement of questions on the page were intended to ensure much the same stimulus as a traditional mail survey (Gupta, et. al, 2004). Additionally, care was taken to ensure that the respondent did not have to scroll down the screen to answer the questions.

In order to raise motivation to participate in surveys, one frequently recommended technique is to offer some sort of incentive (Church 1993). The use of monetary incentives in general has been declared as being effective in increasing the response rate in offline and online surveys (Dillman, 2000). For online surveys, incentives which are online-suitable, easy to transfer, and produce little transaction costs (e.g., payments via bank transfer, loyalty points, or entry in a lottery) are usually recommended (Jackob & Zerback, 2006). Incentives can be divided into two groups, based on when the survey recipient

receives the incentive: either with the survey (known as pre-payment) or after the survey has been completed and returned (post-payment) (Porter & Whitcomb, 2003). For online surveys of general populations, lotteries (i.e., raffles) appear to be a suitable way, as the overall completion rates seem to be slightly higher. This study had two versions of the same survey. The survey version administered by the University of Missouri, had incentives and the other version, administered at the other sites, did not (see Table 9). The incentive was two fifty-dollar gift cards to the local mall.

The online version of the survey instrument was tested by graduate students of a large Midwestern University (n = 12) to ensure that the instrument worked with different types of browsers, computer equipment, and operating systems. Changes were incorporated to make the survey more user-friendly. Institutional Review Board clearance was obtained from all but one site (i.e., University of Tennessee - Knoxville (UTK)), in accordance with research policies. UTK did not require IRB approval as the survey was administered in only one class and the chair of the department had provided written permission to conduct the survey. The letter from the chair person was submitted to the Institutional Review Board at the researcher's home university and they gave their approval based on the same. The survey was administered at four different sites, two land grant universities and two state universities. As stated above, the incentive (two $50 gift certificates to a local mall) was offered only to the researcher's home university participants because of the local nature of the incentive.

Participants at University of Missouri were recruited via an online email that is generated by the University, sent to all students, staff, and faculty on October 10, 2007. The script of the announcement was as follows:

*Consumers Channel-Switching Habits*

*A graduate student in TAM is conducting a study on consumers channel switching habits as a part of her dissertation. The purpose of the study is to understand how people choose between shopping in store, by catalog, or online. Participation is voluntary. You will also have a chance to enter your name in the raffle to win one of two $50 gift certificates to the Columbia Mall. If you have any questions concerning this project, please contact TAM at (573) 882-7317. For additional information regarding human participation in research, please feel free to contact the UMC Campus Institutional Review Board Office at 573-882-9585. Please click this link to enter the survey: https://www.surveymonkey.com/s.aspx?sm=RFOMRWMxQh_2bnqT3DkNkDAQ_3d_3d"*

Participants at the two Southern Universities were recruited by the professors in their respective classes. Participants at Western Illinois University were recruited via an email that was sent to all the members of the university community and included students, faculty, staff, and administrators. The email invited the individuals to participate in the online survey.

## Data Analyses

The data collected for this study were analyzed using Statistical Package for the Social Sciences (SPSS) for descriptive, factor analysis, and regression analysis.

Frequency statistics were obtained for the demographics. Both simple and multiple regression analyses were utilized for the data analysis. All the variables were factor analyzed prior to utilizing regression. Due to the nature of the model,

the dependent variables were independent variables for the next stage of the model. For example, attitude was the dependent variable for the independent variables:  hedonic and utilitarian beliefs and it was the independent variable for the dependent variable channel-switching intention. Similarly, subjective norm was the dependent variable for the independent variable normative beliefs and it was the independent variable for channel-switching intention. In the same fashion, perceived behavioral control was the dependent variable for self-efficacy and facilitating conditions (i.e., time, money, information, hedonic products, and utilitarian products) and the independent variable for channel-switching intention and channel switching behavior. The summary of statistical data analyses for consumers is presented in Table 11.

Table 11

*Summary of Statistical Tests Used for Data Analysis**

| Independent variables | Dependent variables | Statistical procedures |
|---|---|---|
| Demographics | | Descriptive |
| Hedonic Beliefs | | Factor analysis & Regression analysis |
| Utilitarian Beliefs | | Factor analysis & Regression analysis |
| | Attitudes | Factor analysis & Regression analysis |
| Friends & Family | | Factor analysis & Regression analysis |
| | Subjective norms | Factor analysis & Regression analysis |
| Self-efficacy | | Factor analysis & Regression analysis |
| Facilitating conditions | | |
| Time | | Regression analysis |
| Money | | Regression analysis |
| Information | | Regression analysis |
| Hedonic Products | | Regression analysis |
| Utilitarian Products | | |
| | Perceived behavior control | Factor analysis & Regression analysis |
| Attitudes | | Factor analysis & Regression analysis |
| Subjective norms | | Factor analysis & Regression analysis |
| Perceived behavior control | | Factor analysis & Regression analysis |
| | Channel-switching intention | Factor analysis & Regression analysis |
| Perceived behavior control | | Factor analysis & Regression analysis |
| | Channel-switching behavior | Factor analysis & Regression analysis |
| Channel-switching intention | | Factor analysis & Regression analysis |
| | Channel-switching behavior | Factor analysis & Regression analysis |

* same set of independent and dependent variables were tested for all the three channels

*Data – Strength and Weaknesses*

The data was collected through convenience sampling. In convenience sampling, the selection of units from the population is based on easy availability

and/or accessibility. The trade-off made for ease of obtaining the sample is the fact that the sample may not represent the population. The primary problem is that one can never be certain what population the participants in the study represent. The population is unknown, the method for selecting cases is indiscriminate, and the cases studied probably don't represent any particular population.

Data was collected through a survey instrument that was administered to the respondents online. As with all surveys there are chances of respondent bias leading to interaction between the variables, as well as outliers in the data.

*Outliers*

Skewness and Kurtosis were the measures utilized to identify outliers. “Skewness” refers to asymmetry of the distribution. A distribution with an asymmetric tail extending out to the right is referred to as “positively skewed” or “skewed to the right,” while a distribution with an asymmetric tail extending out to the left is referred to as “negatively skewed” or “skewed to the left.” Skewness can range from minus infinity to positive infinity. Kurtosis is a measure of the “peakedness” of the distribution. If the data is within the range of ± 3 then it is acceptable. Frequencies with kurtosis and skewness, and histograms with normal curve overlay were used to identify the outliers.

## Regression Analysis

This study utilizes a combination of simple regression and multiple regression analysis. Simple regression involves only one independent variable and one dependent variable. Multi-regression allows one to assess the

relationship between one dependent variable (DV) and several independent variables (IVs). Multiple regression is employed to account for the variance in an interval dependent, based on linear combinations of interval, dichotomous, or dummy independent variables. The purpose of regression analysis is to estimate the parameters of dependency, not an interdependency of a relationship (Farrar & Glauber, 1967). Multiple regressions can establish that a set of independent variables explains a proportion of the variance in a dependent variable at a significant level, and can establish the relative predictive importance of the independent variables (by comparing regression coefficient weights). The regression equation is as follows:

$Y = a + b_1X_1 + b_2X_2 + ……..b_nX_n + e$
Where:
Y is the value of the Dependent variable (Y), what is being predicted or explained
a : Constant (α) or intercept
$b_1$ : Change in Y associated with the unit change in $X_1$
$X_1$ : First independent variable that is explaining the variance in Y
$b_2$ : Change in Y associated with the unit change in $X_2$
$X_2$ : Second independent variable that is explaining the variance in Y
$b_n$ : Change in Y associated with the unit change in $X_n$
$X_n$ : $n^{th}$ independent variable that is explaining the variance in Y
e: Total regression error

*Collinearity*

Not all the IVs contribute equally to the correlation. If there is a high degree of collinearity between the IVs, then it impacts the regression equation as predictors that are highly collinear, that is, linearly related, can cause problems in estimating valid parameter estimates. Collinearity means that within the set of IVs, some of the IVs are (nearly) totally predicted by the other IVs. The variables

thus affected have b and β weights that are not well estimated, and minor fluctuations in the sample (measurement errors, sampling error) will have a major impact on the weights and, eventually, on Y' (Y predicted). Multicollinearity is a threat both to the proper specification and the effective estimation of the type of relationship commonly sought through the use of regression techniques (Farrar & Glauber, 1967). Partial correlation allows the control required to check for correlation between two DVs, and thus by using partial correlation, one can control for those variable that do not contribute significantly to the regression.

Variance partitioning is central to understanding the degree of collinearity in the data. Variance partitioning helps in determining the appropriateness of a particular model for a given dataset. It helps to determine the relative importance of IVs. It also helps to analyze how each set of IVs affect the regression equation and also helps to analyze how the data responds with each addition or deletion of IVs, as well as the order in which they enter or leave the regression equation.

*Assumption of Simple and Multiple Regression Analysis*

The assumptions of linearity, reliability of measurement, homoscedasticity, and normality need to be met before simple and/or multiple regression analysis can be utilized. Additionally, in case of multiple regression the data has to further meet the assumption of absence of multicollinearity before multiple regression analysis can be utilized. Regression assumes that variables have normal distributions. Non-normally distributed variables (highly skewed or kurtotic variables, or variables with substantial outliers) can distort relationships and significance tests (Osborne & Waters, 2002). This assumption can be tested by

visual inspection of the histogram with normal curve overlay and/or skew and kurtosis data. The second assumption of simple and multiple regressions is linearity of the relationship between the independent and dependent variables. Standard simple and/or multiple regressions can accurately estimate the relationship between dependent and independent variables only if the relationships are linear in nature. If the relationship between independent variables (IVs) and the dependent variable (DV) is not linear, the results of the regression analysis will under-estimate the true relationship (Osborne & Waters, 2002). The third assumption is that the variables are measured without error. In regression, unreliable measurement causes relationships to be under-estimated, increasing the risk of Type II errors (Osborne & Waters, 2002). Alpha coefficients are utilized to test this assumption. The fourth assumption for simple and multiple regressions is the assumption of homoscedasticity. Homoscedasticity means that the variance of errors is the same across all levels of the independent variable. This assumption can be checked by visual examination of a plot of the standardized residuals (the errors) by the regression standardized predicted value; whereas when the variance of errors differs at different values of the independent variables, heteroscedasticity is indicated (Osborne & Waters, 2002). Ideally, residuals are randomly scattered around 0 (the horizontal line), providing a relatively even distribution. Heteroscedasticity is indicated when the residuals are not evenly scattered around the line (Osborne & Waters, 2002). Finally, multicollinearity between the independent variables is of concern in multiple regression as it inflates standard errors and makes assessment of the relative

importance of the independents unreliable (Garson, 2008). This is checked by the collinearity diagnostics for the data.

*Factor Analyses*

Data reduction techniques were applied to the variables of behavioral beliefs, attitudinal beliefs, normative beliefs, subjective norms, self-efficacy, perceived behavioral control, channel-switching intention, and channel-switching behavior in order to convert the individual variable items into a smaller number of dimensions. For identifying underlying dimensions, the variables at each channel level (i.e., brick-and-mortar stores, catalogs, or the Internet) were factor analyzed using principal components analysis with varimax rotation. The factors were loaded for eigen values equal to or greater than one. Cronbach's alpha was acceptable within the range of 0.40 and 1.0.

# CHAPTER 5

# RESULTS

The data for this study consisted of 666 responses from multi-channel consumers. The consumer demographics are described in the first section, which is followed by preliminary data analysis as per expectancy value model. Factor analysis is described in the next section. The chapter is concluded with a section on multiple regression analysis.

## Characteristics of Respondents

### Consumer Demographics

A demographic profile of the respondents, summarized in Table 12, indicated that 81% of the respondents were females and nineteen percent were male. The percentage of respondents between 18 and 27 years of age was 59.8%, and annual household income was spread across the categories with fairly even distributions across all the cataegories. Approximately 60% of the respondents were single, never married. There was an even distribution in terms of classification of the respondents with freshmen (17.2%), sophomore (9.0%), junior (14.3%), senior (15.2%), graduate (10.6%), faculty (8.1%), and staff (25.5%), respectively. The respondents were predominantly Caucasian (82.6%), with approximately 39% of them working full-time. Approximately 74% of the respondents reported no children living with them, followed by 12-17 years old (7.3%), 1-2 (6.8%) and 3-4 children (6.2%).

Table 12

*Demographic Characteristics of the Respondents*

| Variables | Frequency (N=666) | Percent |
|---|---|---|
| Gender | | |
| Female | 539 | 81% |
| Male | 125 | 19% |
| Age | | |
| 18 – 27 | 398 | 59.8% |
| 28 – 37 | 74 | 11.1% |
| 38 – 47 | 61 | 9.2% |
| 48 – 57 | 77 | 11.6% |
| Over 57 | 56 | 8.4% |
| Household income | | |
| Less than $9,999 | 60 | 9.2% |
| $10,000 - $29,999 | 81 | 12.4% |
| $30,000 - $49,999 | 107 | 16.4% |
| $50,000 - $69,999 | 118 | 18.0% |
| $70,000 - $89,999 | 106 | 15.9% |
| $90,001 or more | 182 | 27.8% |
| Marital status | | |
| Single, never married | 405 | 60.9% |
| Married, living with a partner | 222 | 33.4% |
| Separated, widowed, divorced | 30 | 4.5% |
| Classification | | |
| Freshmen | 114 | 17.2% |
| Sophomore | 60 | 9.0% |
| Junior | 95 | 14.3% |
| Senior | 101 | 15.2% |
| Graduate | 70 | 10.6% |
| Faculty | 54 | 8.1% |
| Staff | 169 | 25.5% |
| Work status | | |
| No | 174 | 26.2% |
| Part time (less than 20 hrs/week) | 137 | 20.6% |
| ¾ time (20-31 hrs/week) | 94 | 14.1% |
| Full time (32 – 40 hrs/week) | 260 | 39.1% |
| Ethnicity | | |
| Caucasian | 549 | 82.6% |
| African American | 42 | 6.3% |
| Hispanic | 24 | 3.6% |
| Asian | 20 | 3.0% |
| Native American | 18 | 2.7% |
| Other | 12 | 1.8% |
| No. of children | | |
| None | 484 | 73.6% |
| Under 6 years old | 45 | 6.8% |
| 6 to 11 years old | 41 | 6.2% |
| 12 to 17 years old | 48 | 7.3% |
| 18 years and older | 40 | 6.1% |

*Other External Variables*

Table 13 summarizes the descriptive statistics of brick-and-mortar stores, catalog and Internet usage for finding information as well as purchasing in the last one year. Approximately 94% of the respondents had searched for information online, followed by brick-and-mortar stores (90%) and catalogs (68.5%). In terms of actual purchase of products in the last one year, brick-and-mortar stores reported the highest number of respondents (97.3%), followed by the Internet (85.3%) and catalogs (36.6%).

Table 13

*Descriptive Statistics of the Respondents*

| Variables | Channel | Frequency | Percent |
|---|---|---|---|
| Searched for Information in the last 1 year | Store | 602 | 90.0% |
| | Catalog | 456 | 68.5% |
| | Internet | 629 | 94.4% |
| Purchased Products in the last 1 year | Store | 648 | 97.3% |
| | Catalog | 244 | 36.6% |
| | Internet | 568 | 85.3% |

## Preliminary Data Analyses

The data was examined for outliers prior to analyzing it. As stated earlier, all the variables were analyzed using descriptives. The values for skewness and kurtosis fell in the acceptable range, and thus it can be assumed that the data is normally distributed. The research had 171 variables and hence it is difficult to

show the results for each of them. Table 14 illustrates the use of skewness and kurtosis just for the brick-and-mortar stores.

Table 14

*Skewness and Kurtosis for the Data - Brick-and-Mortar Stores**

| Variables (Stores) | Skewness | Kurtosis |
|---|---|---|
| Hedonic Beliefs (Stores)** | .138 | 1.034 |
| Utilitarian Beliefs (Stores)** | -.435 | .146 |
| Attitude Store** | -.256 | -.025 |
| Normative Beliefs (Stores) ** | 1.952 | 5.879 |
| Subjective Norms (Stores) ** | -.775 | 1.116 |
| Self-Efficacy (Stores) ** | .115 | -.588 |
| Time (Stores) | .081 | .051 |
| New Money (Stores) | -.035 | .290 |
| New Information (Stores) | .128 | -.440 |
| New Hedonic Product (Stores) | -.062 | -.300 |
| New Utilitarian Product (Stores) | .107 | -.054 |
| Perceived Behavioral Control (Stores) ** | -1.197 | 1.323 |
| How many times in the last 6 months have you changed from stores to either catalogs or the Internet while SEARCHING FOR INFORMATION? | .065 | -1.173 |
| How many times in the last 6 months have you changed from stores to either catalogs or the Internet while PURCHASING? | .764 | -.269 |
| Intention (Stores) | .050 | -.449 |

* this is a small sample of the variables; all the variables in the study met the assumption
** factors for variables

*Collinearity Diagnostics*

Collinearity diagnostics was generated to check for the collinearity of the data set. A condition index greater than 15 indicates a possible problem, and an index greater than 30 suggests a serious problem with collinearity. As a rule of thumb, if tolerance is less than .20 and VIF >= 4 the data is said to exhibit collinearity. Collinearity diagnostics was run on the entire data and some of the results have been presented in Tables 15 & 16. The data set met the assumptions of collinearity.

Table 15

*Collinearity Statistics[a] - Brick-and-Mortar Stores*

| | Tolerance | VIF |
|---|---|---|
| (Constant) | | |
| Self-Efficacy Store | .386 | 2.588 |
| Time Store | .498 | 2.009 |
| Money Store | .531 | 1.882 |
| Information Store | .364 | 2.744 |
| Hedonic Product Store | .464 | 2.156 |
| Utilitarian Product Store | .614 | 1.629 |

[a] Dependent Variable: Perceived Behavioral Control Store

Table 16

*Collinearity Diagnostics[a] - Brick-and-Mortar Stores*

| | | Eigen Value | Condition Index |
|---|---|---|---|
| 1 | 1 | 4.987 | 1.000 |
| | 2 | .587 | 2.915 |
| | 3 | .505 | 3.142 |
| | 4 | .310 | 4.012 |
| | 5 | .276 | 4.250 |
| | 6 | .197 | 5.033 |
| | 7 | .138 | 6.016 |

[a] Dependent Variable: Perceived Behavioral Control Store

The data was further examined to ensure that it met the main assumption of simple and multiple regression analysis. Normality of the data can was tested by visual inspection of the histogram with normal curve overlay and/or skew and kurtosis data. The skew and kurtosis of data had previously been analyzed when examining the data for outliers (Table 13) and the entire data set met this assumption. To test the second assumption of linearity of data P-P plots were run, and the entire data set met this assumption. Figures 5 and 6 are a representation of all the created graphs

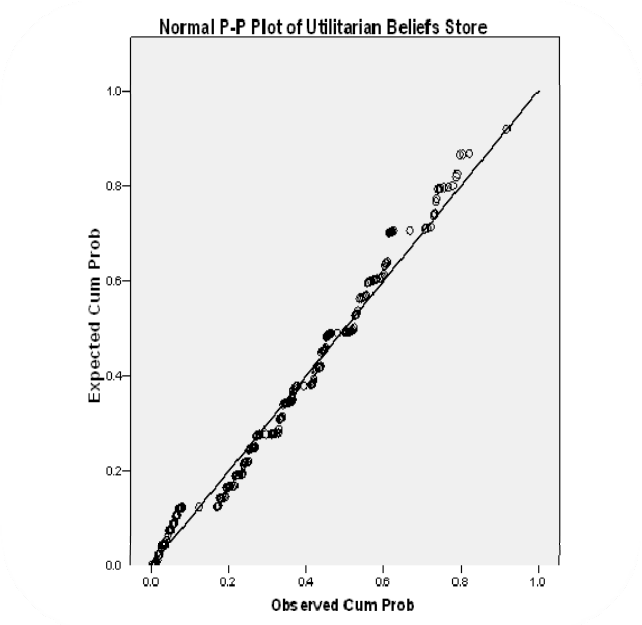



*Figure 5.* P-P Plot Utilitarian Beliefs(Store)

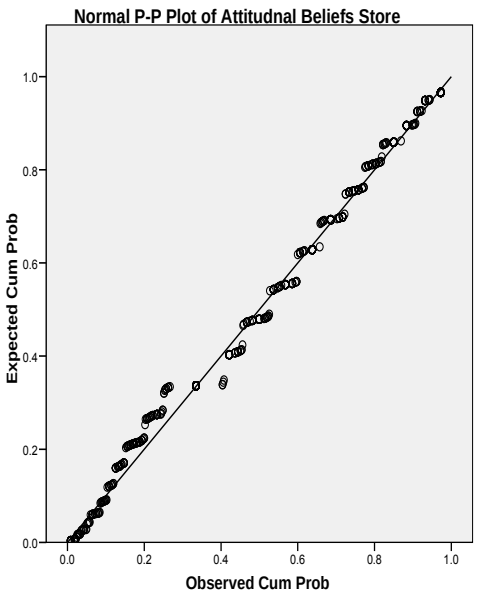



*Figure 6.* P-P Plot Attitudinal Beliefs(Store)

To test the third assumption that variables are measured without error Alpha coefficients are utilized. The data had Cronbach's alpha values ranging from 0.57 to 0.83 for brick-and-mortar stores; 0.58 to 0.92 for catalogs; and 0.31 to 0.90 for the Internet. It can be inferred from the alpha values that some of the variables have not met the assumption. This inference has to be taken into consideration while interpreting the results of multiple regression analysis.

The fourth assumption of homoscedasticity that states that the variance of errors is the same across all levels of the independent variable, was checked by visual examination of a plot of the standardized residuals (the errors) by the regression standardized predicted value. Some of the data did not meet (the assumption Figure 7) and some did (Figure 8). This could be explained based on the alpha values that were calculated earlier. The variables which had a low

reliability coefficient had heteroscedastic plots and the variables which had moderate to high alpha values had homoscedastic plots.

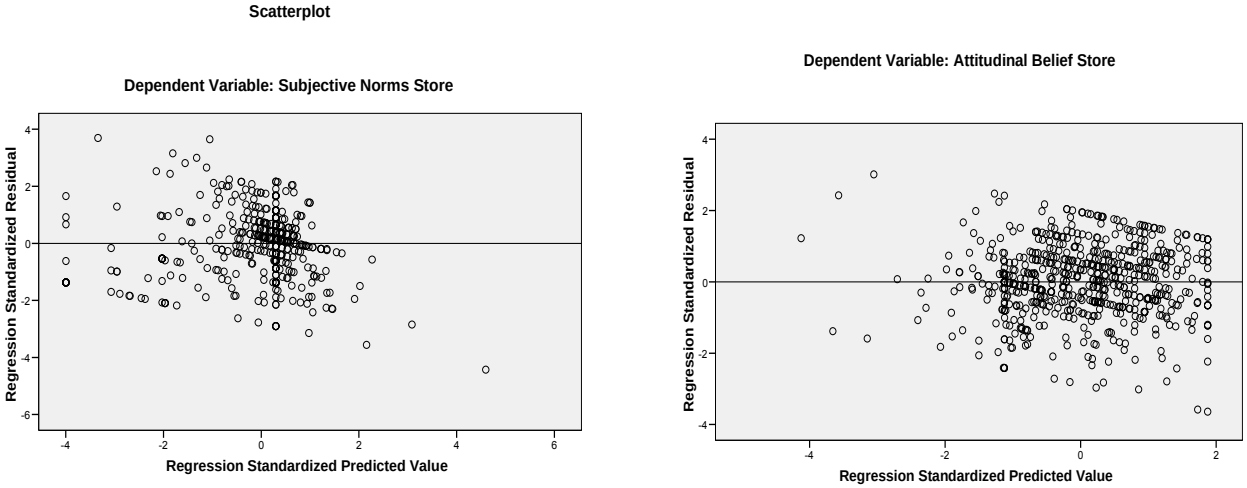



*Figure 7.* Plot of the standardized residuals (the errors) by the regression standardized predicted value (Stores – Did not meet assumption)

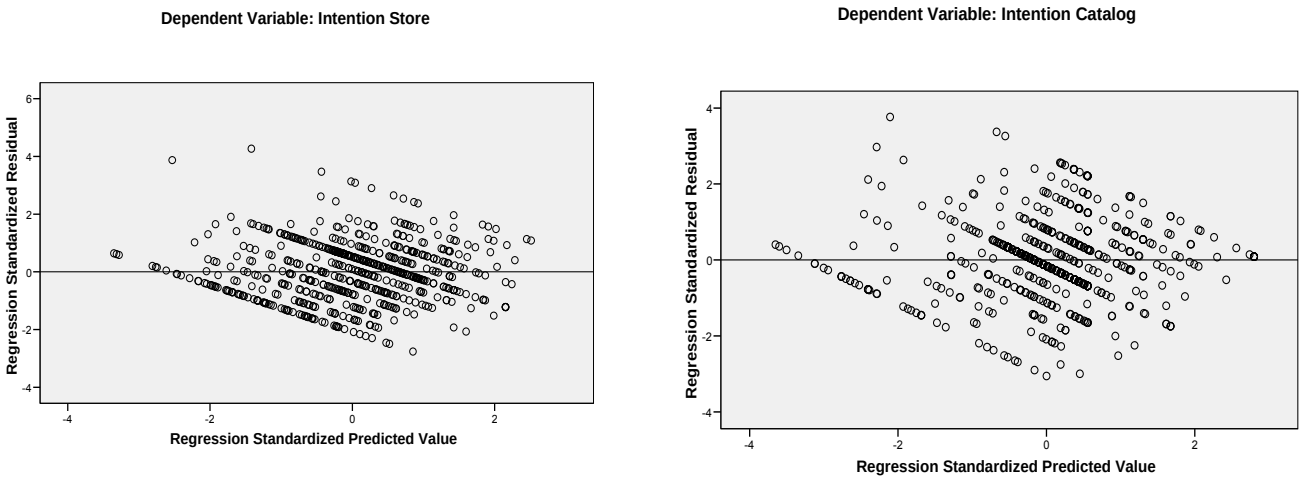



*Figure 8.* Plot of the standardized residuals (the errors) by the regression standardized predicted value (Stores - Met the assumption)

The last assumption of multicollinearity between the independent variables was checked by generating collinearity diagnostics for the data set. As seen in Table 15 & 16 which is a representation of the entire data, it met the assumption.

*Expectancy-value Model*

The behavioral beliefs, normative beliefs, self-efficacy, and facilitating conditions (i.e., money, time, information, and product type) variables have been measured using the expectancy-value model. The indirect measures of the variables were obtained as a product of the variables and their outcomes. The resulting variables were factor analyzed to reduce them into a manageable number of factors.

## Factor Analyses

*Dimensions of Behavioral Beliefs*

Identifying underlying dimensions of behavioral beliefs entailed using an exploratory factor analysis. Principal component factor analysis using varimax rotation was initially performed on the seven behavioral belief items for each retail channel (i.e., brick-and-mortar stores, catalogs, and the Internet).

*Behavioral Beliefs*

*Brick-and-mortar stores.* An exploratory factor analysis revealed two factors of behavioral beliefs in brick-and-mortar stores whose eigen-values were greater than 1, and two factors explained 78.31% of the total variance of shopping benefits (Table 17).

As shown in Table 17, Factor 1 (Hedonic Behavioral Beliefs - Store) was composed of four behavioral belief items: fun, enjoyable, shopping experience

truly satisfying, and rewarding. The standardized factor loading for thisfactor was in the range of 0.80 to 0.90 with a Cronbach's Alphas of 0.89. Factor 2 (Utilitarian Behavioral Beliefs - Store) included three items of shopping benefits: convenient, easy, and efficient. The standardized factor loadings were in the range of 0.87 to 0.90 with a Cronbach's Alpha of 0.89. Nunnally (1978) recommends that if the Cronbach's alpha is higher than .7, then the constructs are internally consistent; thus it can be inferred that the two constructs are internally consistent and reliable measures of hedonic and utilitarian beliefs.

*Catalogs.* In terms of behavioral beliefs related to catalogs, an exploratory factor analysis revealed two factors whose eigen-values were greater than 1 and explained 88.28% of the variance (Table 17).

Factor analysis of the scale revealed one item, rewarding, which was loaded on both the factors; however, as the factor loading for this item for factor 1 was much higher, this variable was included in factor 1. Factor 1 (Hedonic Behavioral Beliefs - Catalogs) was composed of fours items: fun, enjoyable, shopping experience truly satisfying, and rewarding. All of the standardized factor loadings were in the range of 0.85 to 0.91. Factor 2 (Utilitarian Behavioral Beliefs - Catalogs) included three variables: convenient, easy, and efficient. The standardized factor loadings were in the range between 0.88 and 0.90. The Cronbach's Alpha for these factors were 0.95 and 0.95 respectively.

*Internet.* An exploratory factor analysis revealed one factor (i.e., without any rotated component) for the behavioral beliefs for the Internet. However, as the scale in the survey instrument had been adapted from Babin, Darden, &

Griffin's (1994) study, the factor was analyzed again by forcing the formation of two factors. Eigen-values were greater than one, and these factors explained 86.84% of the total variance (Table 17).

Factor analysis of the scale revealed one item, rewarding, which was loaded on both the factors; however, as the factor loading for this item for factor 1 was much higher, this variable was included in factor 1. Factor 1 (Hedonic Behavioral Beliefs - Internet) was composed of four items: security, easy return, privacy, good consumer service, and good quality of product. All of the standardized factor loadings were in the range of 0.79 to 0.91 with a Cronbach's Alpha of 0.95. Factor 2 (Utilitarian Behavioral Beliefs - Internet) contained three items: convenient, easy, and efficient. The standardized factor loadings were in the range of 0.84 to 0.89 with a Cronbach's Alpha of 0.93.

Table 17

*Factor Analysis of Behavioral Beliefs*

| Factor items | Factor loading | Eigen value | % of variance | α | Factor loading | Eigen value | % of variance | α | Factor loading | Eigen value | % of variance | α |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | *Brick-and-Mortar Stores* | | | | *Catalogs* | | | | *Internet* | | |
| Hedonic Behavioral Beliefs | | 3.010 | 43.00% | 0.89 | | 3.309 | 47.27% | 0.95 | | 3.303 | 47.19% | 0.95 |
| It is enjoyable | 0.90 | | | | 0.91 | | | | 0.91 | | | |
| It is fun | 0.89 | | | | 0.91 | | | | 0.88 | | | |
| It is rewarding | 0.81 | | | | 0.78 | | | | 0.79 | | | |
| The shopping experience truly felt satisfying | 0.80 | | | | 0.85 | | | | 0.87 | | | |
| Utilitarian Behavioral Beliefs | | 2.472 | 35.32% | 0.89 | | 2.871 | 41.02% | 0.95 | | 2.775 | 39.65% | 0.93 |
| It is easy | 0.90 | | | | 0.89 | | | | 0.89 | | | |
| It is convenient | 0.89 | | | | 0.90 | | | | 0.84 | | | |
| It is efficient | 0.86 | | | | 0.88 | | | | 0.88 | | | |

*Attitude*

The attitude for each of the three channels (i.e., brick-and-mortar stores, catalogs, and the Internet) were also factor analyzed, and all of them revealed one factor (i.e., factor did not undergo any rotation). Thus, the factor loading of the un-rotated solution was utilized to create one factor each for the three channels. The four items for all the scales were: (1) I think changing from "Channel $A_{1,2,3}$" to "Channel $B_{1,2,3}$" is (Bad/Good); (2) Using "Channel $B_{1,2,3}$" instead of "Channel $A_{1,2,3}$" is (Bad/Good); (3) Changing from "Channel $A_{1,2,3}$" to "Channel $B_{1,2,3}$" is (Foolish/Wise); and (4) The idea of using "Channel $B_{1,2,3}$" instead of the ""Channel $A_{1,2,3}$" is something I (Dislike/Like); where,

Channel $A_1$: brick-and-mortar stores

Channel $A_2$: catalogs

Channel $A_3$: Internet

Channel $B_1$: catalogs/Internet

Channel $B_2$: brick-and-mortar stores/Internet

Channel $B_3$: brick-and-mortar stores/catalogs

A single factor indicates that consumers' attitudes are homogenous in each of the three channels.

*Brick-and-mortar stores*. The four items for brick-and-mortar stores had factor loading in the range of 0.85 to 0.93, and explained 81.32% of the total variance. The factor, Attitudinal Beliefs - Store had a Cronbach's Alpha of 0.92 (Table 18).

*Catalogs*. In case of catalogs, Attitudinal Beliefs - Catalogs, the four items had a factor loading in the range of 0.85 to 0.93 and this factor explained 81.90% of the total variance with Cronbach's Alpha of 0.93 (Appendix: Table 18).

*Internet.* The one factor, Attitudinal Beliefs - Internet, had factor loadings in the range of 0.81 to 0.93 and a variance of 79.38% and Cronbach's Alpha of 0.91 (Table 18).

Table 18

*Factor Analysis of Attitudinal Beliefs*

| Factor items | Factor loading | Eigen value | % of variance | α | Factor loading | Eigen value | % of variance | α | Factor loading | Eigen value | % of variance | α |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *Brick-and-Mortar Stores* | | | | *Catalogs* | | | | *Internet* | | | |
| Attitudinal Beliefs | | 3.253 | 81.32% | 0.92 | | 3.276 | 81.90% | 0.93 | | 3.175 | 79.38% | 0.91 |
| I think changing from "Channel $A_{1,2,3}$" to "Channel $B_{1,2,3}$" is | 0.93 | | | | 0.93 | | | | 0.93 | | | |
| Changing from "Channel $A_{1,2,3}$" to "Channel $B_{1,2,3}$" is | 0.93 | | | | 0.91 | | | | 0.92 | | | |
| Using "Channel $B_{1,2,3}$ instead of "Channel $A_{1,2,3}$" is | 0.90 | | | | 0.92 | | | | 0.91 | | | |
| The idea of using "Channel $B_{1,2,3}$" instead of "Channel $A_{1,2,3}$" is something I | 0.85 | | | | 0.85 | | | | 0.81 | | | |

where: Channel $A_1$: brick-and-mortar stores
Channel $A_2$: catalogs
Channel $A_3$: Internet
Channel $B_1$: catalogs/Internet
Channel $B_2$: brick-and-mortar stores/Internet
Channel $B_3$: brick-and-mortar stores/catalogs

*Normative Beliefs*

The normative beliefs for each of the three channels (i.e., brick-and-mortar stores, catalogs, and the Internet) had four items and were factor analyzed. All of them revealed one factor (i.e. factor did not undergo any rotation) which was utilized to create a new variable. There were two items that measured family influence on the respondent and two items that were designed to explore friends' influence. A single factor indicates that consumers' normative beliefs are homogenous across family and friends.

*Brick-and-mortar stores*. A single factor, Normative Beliefs - Stores, with factor loading in the range of 0.62 to 0.82 had 52.15% total variance ($\alpha = 0.69$) (Table 19).

*Catalogs.* The single factor, Normative Beliefs - Catalogs, had an eigen value greater than one with factor loadings in the range of 0.83 to 0.87. The factor explained 70.74% of the variance and had a reliability of 0.86 (Table 19).

*Internet.* The factor, Normative Beliefs - Internet, had factor loadings in the range of 0.77 to 0.85 and explained 67.11% of the variance with a Cronbach's Alpha of 0.84 (Table 19).

Table 19

*Factor Analysis of Normative Beliefs*

| **Factor items** | **Factor loading** | **Eigen value** | **% of variance** | **α** | **Factor loading** | **Eigen value** | **% of variance** | **α** | **Factor loading** | **Eigen value** | **% of variance** | **α** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | *Brick-and-Mortar Stores* | | | | *Catalogs* | | | | *Internet* | | |
| Normative Beliefs | | 2.086 | 52.15% | 0.69 | | 2.822 | 70.54% | 0.86 | | 2.684 | 67.11% | 0.84 |
| My friends would think that I should change from "Channel $A_{1,2,3}$" to "Channel $B_{1,2,3}$" | 0.82 | | | | 0.87 | | | | 0.77 | | | |
| My family would think that I should change from "Channel $A_{1,2,3}$" to "Channel $B_{1,2,3}$" | 0.74 | | | | 0.84 | | | | 0.83 | | | |
| My friends approve of my changing from "Channel $A_{1,2,3}$" to "Channel $B_{1,2,3}$" | 0.70 | | | | 0.83 | | | | 0.85 | | | |
| My family approves of my changing from "Channel $A_{1,2,3}$" to "Channel $B_{1,2,3}$" | 0.62 | | | | 0.83 | | | | 0.82 | | | |

where: Channel $A_1$: brick-and-mortar stores
Channel $A_2$: catalogs
Channel $A_3$: Internet
Channel $B_1$: catalogs/Internet
Channel $B_2$: brick-and-mortar stores/Internet
Channel $B_3$: brick-and-mortar stores/catalogs

*Subjective Norms*

The subjective norms for each of the three channels (i.e. brick-and-mortar stores, catalogs, and the Internet) were factor analyzed to reveal their underlying dimensions, and all of them revealed one factor (i.e. factor did not undergo any rotation). The factor loading of the un-rotated solution was utilized to create one factor each for the three channels. All four items were related to the family/friends' impact in the channel-switching intention. There were two items that measured importance and two items that were designed to explore influence. A single factor indicates that consumers' subjective norms are homogenous that is, their channel-switching intentions were similar both for importance as well as for influence of family and friends.

*Brick-and-mortar stores.* The factor, Subjective Norm - Stores, had factor loading between 0.79 and 0.83. The factor explained 81.32% of the variance and a Cronbach's Alpha value of 0.82 (Table 20).

*Catalogs.* The factor, Subjective Norms - Catalogs, had factor loadings between 0.82 and 0.84. The single factor explained 69.51% of the variance and the reliability of the scale (α) was 0.85 (Table 20).

*Internet.* The single factor, Subjective Norms - Internet, had factor loading between 0.84 and 0.87 with a total variance of 72.12% and Cronbach's α of 0.87 (Table 20).

Table 20

*Factor Analysis of Subjective Norms*

| Factor items | Factor loading | Eigen value | % of variance | α | Factor loading | Eigen value | % of variance | α | Factor loading | Eigen value | % of variance | α |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *Brick-and-Mortar Stores* | | | | *Catalogs* | | | | *Internet* | | | |
| Subjective Norms | | 3.253 | 81.32% | 0.82 | | 2.684 | 69.51% | 0.85 | | 2.855 | 72.12% | 0.87 |
| The people who influence my decisions would approve of my changing from "Channel $A_{1,2,3}$" to "Channel $B_{1,2,3}$" | 0.83 | | | | 0.82 | | | | 0.87 | | | |
| The people who influence my decisions think that I should change from "Channel $A_{1,2,3}$" to "Channel $B_{1,2,3}$" | 0.80 | | | | 0.83 | | | | 0.84 | | | |

where: Channel $A_1$: brick-and-mortar stores
Channel $A_2$: catalogs
Channel $A_3$: Internet
Channel $B_1$: catalogs/Internet
Channel $B_2$: brick-and-mortar stores/Internet
Channel $B_3$: brick-and-mortar stores/catalogs

Table 20

*Factor Analysis of Subjective Norms (contd.)*

| Factor items | Factor loading | Eigen value | % of variance | α | Factor loading | Eigen value | % of variance | α | Factor loading | Eigen value | % of variance | α |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *Brick-and-Mortar Stores* | | | | *Catalogs* | | | | *Internet* | | | |
| Subjective Norms | | 3.253 | 81.32% | 0.82 | | 2.684 | 69.51% | 0.85 | | 2.855 | 72.12% | 0.87 |
| Most people who are important to me would approve of my changing from "Channel $A_{1,2,3}$" to "Channel $B_{1,2,3}$" | 0.80 | | | | 0.84 | | | | 0.85 | | | |
| Most people who are important to me think that I should change from "Channel $A_{1,2,3}$" to "Channel $B_{1,2,3}$" | 0.79 | | | | 0.84 | | | | 0.84 | | | |

where: Channel $A_1$: brick-and-mortar stores
Channel $A_2$: catalogs
Channel $A_3$: Internet
Channel $B_1$: catalogs/Internet
Channel $B_2$: brick-and-mortar stores/Internet
Channel $B_3$: brick-and-mortar stores/catalogs

*Self-Efficacy*

Self-efficacy is concerned with people's beliefs in their capabilities to exercise control over their own functioning (Bandura, 1994). The three items of self-efficacy for each of the three channels (i.e. brick-and-mortar stores, catalogs, and the Internet) were also factor analyzed and all of them revealed one factor (i.e., factor did not undergo any rotation). This indicates that the self-efficacy variable for all the three channels were homogenous. The three items included the statements (1) I know enough to change from "Channel $A_{1,2,3}$" to "Channel $B_{1,2,3}$" on my own; (2) If I wanted to, I could easily change from "Channel $A_{1,2,3}$" to "Channel $B_{1,2,3}$" on my own; and (3) I would feel comfortable changing from "Channel $A_{1,2,3}$" to "Channel $B_{1,2,3}$" on my own, where,

Channel $A_1$: brick-and-mortar stores

Channel $A_2$: catalogs

Channel $A_3$: Internet

Channel $B_1$: catalogs/Internet

Channel $B_2$: brick-and-mortar stores/Internet

Channel $B_3$: brick-and-mortar stores/catalogs

*Brick-and-mortar stores*. A single factor, Self Efficacy - Stores, with factor loading in the range of 0.86 to 0.93 was created. This factor explained 81.77% of the total variance and had a Cronbach's Alpha value of 0.89 (Table 21).

*Catalogs.* The factor, Self Efficacy - Catalogs, had eigen-values greater than one, and 89.23% of the total variance ($\alpha = 0.94$). The factor loadings were in the range of 0.90 to 0.97 (Table 21).

*Internet.* The factor, Self Efficacy - Internet, had factor loadings in the range of 0.87 to 0.94, explained 81.71% of the total variance, and had a Cronbach's Alpha value of 0.89 (Table 21).

Table 21

*Factor Analysis of Self-efficacy*

| **Factor items** | **Factor loading** | **Eigen value** | **% of variance** | **α** | **Factor loading** | **Eigen value** | **% of variance** | **α** | **Factor loading** | **Eigen value** | **% of variance** | **α** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *Brick-and-Mortar Stores* | | | | *Catalogs* | | | | *Internet* | | | |
| Self-Efficacy | | 2.453 | 81.77% | 0.89 | | 2.677 | 89.23% | 0.94 | | 2.451 | 81.71% | 0.89 |
| I know enough to change from "Channel $A_{1,2,3}$" to "Channel $B_{1,2,3}$"on my own | 0.93 | | | | 0.97 | | | | 0.94 | | | |
| If I wanted to, I could easily change from "Channel $A_{1,2,3}$" to "Channel $B_{1,2,3}$" on my own | 0.96 | | | | 0.97 | | | | 0.91 | | | |
| I would feel comfortable changing from "Channel $A_{1,2,3}$" to "Channel $B_{1,2,3}$" on my own | 0.86 | | | | 0.90 | | | | 0.87 | | | |

where: Channel $A_1$: brick-and-mortar stores
Channel $A_2$: catalogs
Channel $A_3$: Internet
Channel $B_1$: catalogs/Internet
Channel $B_2$: brick-and-mortar stores/Internet
Channel $B_3$: brick-and-mortar stores/catalogs

*Perceived Behavioral Control (PBC)*

For perceived behavioral control, two items for each of the three channels (i.e., brick-and-mortar stores, catalogs, and the Internet) loaded on only one factor whose eigen-value was greater than 1, and thus the solution could not be rotated. The two items measured the ability to, and the availability of resources to switch channels. A single factor indicates that ability and availability of resources are homogenous when measuring a consumer's perception of PBC.

*Brick-and-mortar stores.* The single factor, Perceived Behavioral Control - Stores, had same factor loadings for both the items, 0.95, and the single factor accounted for 89.56% of the total variance of PBC for brick-and-mortar stores. The Cronbach's Alpha for this factor was 0.76 (Table 22).

*Catalogs.* The factor, Perceived Behavioral Control - Catalogs, had same factor loadings of 0.96 for both the items. The factor explained 91.44% of the variance and had a Cronbach's Alpha of 0.91 (Table 22).

*Internet.* The factor, Perceived Behavioral Control - Internet, had same factor loadings of 0.95 for both the items. The factor explained 90.01% of the variance and had a Cronbach's Alpha of 0.89 (Table 22).

Table 22

*Factor Analysis of Perceived Behavioral Control*

| Factor items | Factor loading | Eigen value | % of variance | α | Factor loading | Eigen value | % of variance | α | Factor loading | Eigen value | % of variance | α |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | *Brick-and-Mortar Stores* | | | | *Catalogs* | | | | *Internet* | | |
| Perceived Behavioral Control | | 1.791 | 89.56% | 0.76 | | 1.829 | 91.44% | 0.91 | | 1.800 | 90.01% | 0.89 |
| I would be able to change from "Channel $A_{1,2,3}$" to "Channel $B_{1,2,3}$" | 0.95 | | | | 0.96 | | | | 0.95 | | | |
| I have the resources, knowledge and ability to change from "Channel $A_{1,2,3}$" to "Channel $B_{1,2,3}$" | 0.95 | | | | 0.96 | | | | 0.95 | | | |

where: Channel $A_1$: brick-and-mortar stores
Channel $A_2$: catalogs
Channel $A_3$: Internet
Channel $B_1$: catalogs/Internet
Channel $B_2$: brick-and-mortar stores/Internet
Channel $B_3$: brick-and-mortar stores/catalogs

*Channel-Switching Intention*

For channel-switching intention two items for each of the three channels (i.e., brick-and-mortar stores, catalogs, and the Internet) was loaded on only one factor whose eigen-value was greater than 1, and thus the solution could not be rotated. The two items measured the intention and the plan to switch channels while shopping. A single factor indicates that consumer's intention to switch channels is homogenous across the two items of the scale.

*Brick-and-mortar stores.* The single factor, Channel-Switching Intention - Stores, had same factor loadings for both the items, 0.90, and the single factor accounted for 90.01% of the total variance of the factor for brick-and-mortar stores. The Cronbach's Alpha for this factor was 0.76 (Table 23).

*Catalogs.* The factor, Channel-Switching Intention - Catalogs, had same factor loadings of 0.93 for both the items. The factor explained 85.94% of the variance and had a Cronbach's Alpha of 0.84 (Table 23).

*Internet.* The factor, Channel-Switching Intention - Internet, had same factor loadings of 0.91 for both the items. The factor explained 81.99% of the variance and had a Cronbach's Alpha of 0.78 (Table 23).

Table 23

*Factor Analysis of Channel-Switching Intention*

| Factor items | Factor loading | Eigen value | % of variance | α | Factor loading | Eigen value | % of variance | α | Factor loading | Eigen value | % of variance | α |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | *Brick-and-Mortar Stores* | | | | *Catalogs* | | | | *Internet* | | |
| Channel-Switching Intention | | 1.800 | 90.01% | 0.76 | | 1.719 | 85.94% | 0.84 | | 1.640 | 81.99% | 0.78 |
| I intend to change to "Channel $B_{1,2,3}$" from "Channel $A_{1,2,3}$" while shopping | 0.90 | | | | 0.93 | | | | 0.91 | | | |
| I plan to change to "Channel $B_{1,2,3}$" from "Channel $A_{1,2,3}$" for all my shopping | 0.90 | | | | 0.93 | | | | 0.91 | | | |

where: Channel $A_1$: brick-and-mortar stores
Channel $A_2$: catalogs
Channel $A_3$: Internet
Channel $B_1$: catalogs/Internet
Channel $B_2$: brick-and-mortar stores/Internet
Channel $B_3$: brick-and-mortar stores/catalog

*Channel-Switching Behavior*

The channel-switching behavior for each of the three channels (i.e., brick-and-mortar stores, catalogs, and the Internet) were factor analyzed to reveal their underlying dimensions, and all of them revealed one factor (i.e., factor did not undergo any rotation). The factor loading of the un-rotated solution was utilized to create one factor each for the three channels. Two items measured the factor, switched channels while searching for information and switched channels while purchasing. A single factor indicates that consumers' channel-switching behavior is homogenous with respect to switching channels while searching for information as well as purchasing.

*Brick-and-mortar stores.* The single factor, Channel-Switching Behavior - Stores, had same factor loadings for both the items, 0.83 and the single factor accounted for 69.51% of the total variance of the factor for brick-and-mortar stores. The Cronbach's Alpha for this factor was 0.56 (Table 24).

*Catalogs.* The factor, Channel-Switching Behavior - Catalogs, had same factor loadings of 0.92 for both the items. The factor explained 84.09% of the variance and had a Cronbach's Alpha of 0.81 (Table 24).

*Internet.* The factor, Channel-Switching Behavior - Internet, had same factor loadings of 0.89 for both the items. The factor explained 78.83% of the variance and had a Cronbach's Alpha of 0.73 (Table 24).

Table 24

*Factor Analysis of Channel-Switching Behavior*

| **Factor items** | **Factor loading** | **Eigen value** | **% of variance** | **α** | **Factor loading** | **Eigen value** | **% of variance** | **α** | **Factor loading** | **Eigen value** | **% of variance** | **α** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *Brick-and-Mortar Stores* | | | | *Catalogs* | | | | *Internet* | | | |
| Channel-Switching Behavior | | 1.390 | 69.51% | 0.56 | | 1.682 | 84.09% | 0.81 | | 1.577 | 78.83% | 0.73 |
| How many times in the last 6 months have you changed from "Channel $A_{1,2,3}$" to "Channel $B_{1,2,3}$" while purchasing? | 0.83 | | | | 0.92 | | | | 0.89 | | | |
| How many times in the last 6 months have you changed from "Channel $A_{1,2,3}$" to "Channel $B_{1,2,3}$" while searching for information? | 0.83 | | | | 0.92 | | | | 0.89 | | | |

where: Channel $A_1$: brick-and-mortar stores
Channel $A_2$: catalogs
Channel $A_3$: Internet
Channel $B_1$: catalogs/Internet
Channel $B_2$: brick-and-mortar stores/Internet
Channel $B_3$: brick-and-mortar stores/catalogs

## Regression Analysis: Brick-and-Mortar Stores

The following discussion deals with the regression analysis for channel-switching behavior from brick-and-mortar stores to catalogs/Internet. Hedonic and Utilitarian Beliefs were the independent variables that were utilized to predict Attitude toward channel-switching behavior (i.e., the dependent variable) in brick-and-mortar stores with regression coefficient values of 0.128 and 0.307 respectively with $p<.001$. Thus it can be stated that the hypothesis H1a is supported, that is, hedonic and utilitarian beliefs will predict attitude towards switching channel from brick-and-mortar stores to catalogs/Internet. Also, as seen in Table 25, both the independent variables were significant in predicting the dependent variable with a overall model with F value of 53.956 ($p<.001$) and Adjusted $R^2$ value of 0.14. The regression equation is as follows:

Attitude = 0.00 + 0.128*(Hedonic Beliefs) + 0.307*(Utilitarian Beliefs)

In case of Normative Beliefs (b = -.335; $p<.001$), the variable significantly predicted Subjective Norms with an F value of 52.609 ($p<.001$) and Adjusted $R^2$ value of 0.11 (Table 25), thus supporting the hypothesis, H2a which stated that normative beliefs will predict the subjective norms for brick-and-mortar stores. The regression equation is as follows:

Subjective Norms = -0.105 - 0.335*(Normative Beliefs)

Self-Efficacy, Time, Money, Information, Hedonic Products and Utilitarian Products were the independent variables that were used to predict Perceived Behavioral Control (PBC). Regression analysis revealed that only Self-Efficacy

($p$<.001), Information ($p$<.01), and Hedonic Products ($p$<.05) significantly predicted the dependent variable (Table 25) with regression coefficient values of 0.336, 0.146, 0.107 respectively. The regression equation had an overall F value of 51.788 ($p$<.001) and Adjusted $R^2$ value of 0.32. To generate a parsimonious result, the regression analysis was analyzed using the stepwise method. Stepwise multiple regression is one of the several methods available to compute ordinary least square regression in stages. In stage one, the independent best correlated with the dependent is included in the equation. This is followed by entering the second variable of the remaining independent variables with the highest partial correlation with the dependent, controlling for the first independent, and so on. This process is repeated, at each stage, partialling for previously-entered independents, until the addition of a remaining independent variable does not increase R-squared by a significant amount (Garson, 2008). Stepwise regression analysis did not generate a higher value of Adjusted $R^2$. Based on the results, it can be stated that hypothesis H3a is partially supported with Self-efficacy, Information, and Hedonic Products significantly predicting PBC when switching from brick-and-mortar stores to catalogs/Internet. The regression equation is as follows:

> Perceived Behavioral Control = 1.027 + 0.336*(Self-efficacy) + 0.006*(Time) + 0.030*(Money) + 0.146*(Information) + 0.107*(Hedonic Products) + 0.40*(Utilitarian Products)

PBC was the independent variable utilized to predict Channel-Switching Behavior. As seen in Table 25, the variable was significant in predicting the

dependent variable with a regression coefficient value of 0.349 ($p$<.001) and an overall F value of 91.446 ($p$<.001) and Adjusted $R^2$ of 0.12. The results supported hypothesis H4a, that PBC will predict channel-switching behavior from brick-and-mortar stores to catalogs/Internet. The regression equation is as below:

Channel-Switching Behavior = 1.128 + 0.349*(Perceived Behavioral Control)

Attitude, Subjective Norms and PBC were the independent variables for the dependent variable Channel-Switching Intention. As seen in Table 25, only Attitude (b = 0.463; $p$<.001) and Subjective Norms (b = 0.139; $p$<.001) were significant in predicting Chanel-Switching Intention with an F value of 153.349 ($p$<.001) and Adjusted $R^2$ value of 0.39. Thus, hypothesis, H5a was partially supported with Attitude and Subjective Norms predicting the channel-switching intention from brick-and-mortar stores to catalogs/Internet. The regression equation is as follows:

Channel-Switching Intention = -0.659 + 0.463*(Attitude) + 0.319*(Subjective Norms) - 0.029*(Perceived Behavioral Control)

Finally, Channel-Switching Intention with a regression coefficient value of 0.359 at $p$<.001 level significantly predicted Channel-Switching Behavior with an F value of 97.219 ($p$<.001) and Adjusted $R^2$ of 0.13 (Table 25), thus supporting hypothesis H6a, that the channel-switching intention will predict the channel-switching behavior from brick-and-mortar stores to catalogs/Internet. The regression equation is as follows:

Channel-Switching Behavior = 1.667 + 0.359*(Channel-Switching Intention)

Table 25

*Regression Analysis - Brick-and-Mortar Stores*

| Variable | Parameter Estimates | Standard Error | Variable | Parameter Estimates | Standard Error |
|---|---|---|---|---|---|
| *Predictors of Hedonic and Utilitarian Values on Attitude* | | | *Predictors of Normative Beliefs on Subjective Norms* | | |
| Intercept | 0.000 | 0.068 | Intercept | -0.105** | 0.032 |
| Hedonic Beliefs | 0.128** | 0.017 | Normative Beliefs | -0.335*** | 0.021 |
| Utilitarian Beliefs | 0.307*** | 0.016 | | | |
| Adjusted $R^2$ | 0.14 | | Adjusted $R^2$ | 0.11 | |
| F | 53.956*** | | F | 52.609*** | |

| Variable | Parameter Estimates | Standard Error | Variable | Parameter Estimates | Standard Error |
|---|---|---|---|---|---|
| *Predictors of Self-Efficacy, Time, Money, Information, Hedonic Products, and Utilitarian Products on Perceived Behavioral Control* | | | *Predictors of Perceived Behavioral Control on Channel-Switching Behavior* | | |
| Intercept | 1.027*** | 0.058 | Intercept | 1.128*** | 0.053 |
| Self-Efficacy | 0.336*** | 0.020 | Perceived Behavioral Control | 0.349*** | 0.025 |
| Time | 0.006 | 0.015 | | | |
| Money | 0.030 | 0.014 | | | |
| Information | 0.146** | 0.018 | | | |
| Hedonic Products | 0.107* | 0.015 | | | |
| Utilitarian Products | 0.40 | 0.013 | | | |
| Adjusted $R^2$ | 0.32 | | Adjusted $R^2$ | 0.12 | |
| F | 51.788*** | | F | 91.446*** | |

*$p$< .05; **$p$< .01; ***$p$< .001

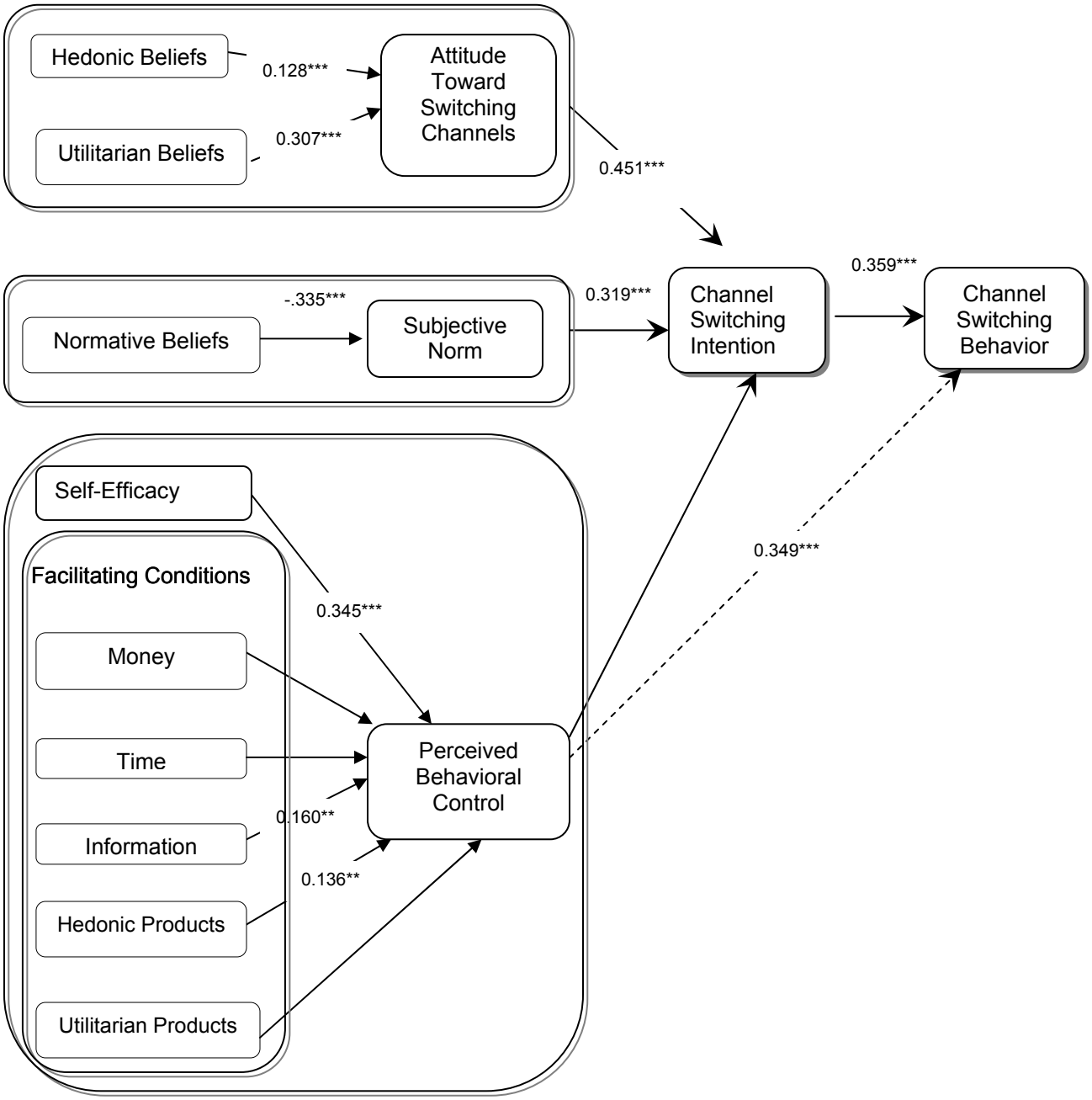
Table 25

*Regression Analysis - Brick-and-Mortar Stores (contd.)*

| Variable | Parameter Estimates | Standard Error | Variable | Parameter Estimates | Standard Error |
|---|---|---|---|---|---|
| *Predictors of Attitude, Subjective Norms, and Perceived Behavioral Control on Channel-Switching Intention* | | | *Predictors of Channel-Switching Intention on Channel-Switching Behavior* | | |
| Intercept | -0.659*** | 0.074 | Intercept | 1.667*** | 0.033 |
| Attitude | 0.463*** | 0.040 | Channel-Switching Intention | 0.359*** | 0.023 |
| Subjective Norms | 0.319*** | 0.051 | | | |
| Perceived Behavioral Control | -0.029 | 0.037 | | | |
| Adjusted $R^2$ | 0.39 | | Adjusted $R^2$ | 0.13 | |
| F | 153.349*** | | F | 97.219*** | |

*$p$< .05; **$p$< .01; ***$p$< .001

Based on the results, the following hypotheses were supported (Figure 9):




*$p$< .05; **$p$< .01; ***$p$< .001

*Figure 9*. Research Model for Channel-Switching Behavior - Brick-and-Mortar Stores

## Regression Analysis: Catalogs

The following discussion deals with the regression analysis for channel-switching behavior from catalogs to brick-and-mortar stores/Internet. Hedonic and Utilitarian Beliefs were the independent variables that were utilized to predict Attitude toward channel-switching behavior (i.e., the dependent variable) in catalogs with regression coefficient values of 0.105 ($p$<.05) and 0.310 ($p$<.001) respectively. As seen in Table 26, both independent variables were significant in predicting the dependent variable, with an overall F value of 56.482 ($p$<.001) and Adjusted $R^2$ value of 0.15. The results supported hypothesis, H1b, that hedonic & utilitarian beliefs will predict attitude towards switching channels from catalogs to brick-and-mortar stores/Internet. The regression equation is as follows:

Attitude = 0.820 + 0.105*(Hedonic Beliefs) + 0.310*(Utilitarian Beliefs)

In case of Normative Beliefs (b = -.307; $p$<.001), the variable significantly predicted Subjective Norms with an F value of 67.991 ($p$<.001) and Adjusted $R^2$ value of 0.09 (Table 26), thus supporting the hypothesis, H2a which stated that normative beliefs will predict the subjective norms for catalogs. The regression equation is as follows:

Subjective Norms = 0.070 - 0.307*(Normative Beliefs)

Self-Efficacy, Time, Money, Information, Hedonic Products and Utilitarian Products were the independent variables that were used to predict Perceived Behavioral Control (PBC). Regression analysis revealed that only Self-Efficacy with a regression coefficient value of 0.452 ($p$<.001) and Hedonic Products with a

regression coefficient value of 0.186 ($p$<.001) significantly predicted the dependent variable (Table 26). The regression equation had an overall F value of 112.69 ($p$<.001) and Adjusted $R^2$ value of 0.51. To generate a parsimonious result, the regression analysis was analyzed using the stepwise method. Stepwise regression analysis did not generate a higher value of Adjusted $R^2$. Based on the results, it can be stated that hypothesis H3a is partially supported with Self-efficacy and Hedonic Products significantly predicting PBC when switching from catalogs to brick-and-mortar stores/Internet. The regression equation is as follows:

> Perceived Behavioral Control = 0.748 + 0.452*(Self-efficacy) + 0.042*(Time) + 0.015*(Money) + 0.058*(Information) + 0.186*(Hedonic Products) + 0.032*(Utilitarian Products)

PBC (b = 0.222; $p$<.001) was the independent variable that was utilized to predict Channel-Switching Behavior. As seen in Table 26, the variable was significant in predicting the dependent variable, with an overall model F value of 32.636 ($p$<.001) and Adjusted $R^2$ of 0.05. The results supported hypothesis H4b, which stated that perceived behavioral control will predict channel-switching behavior from catalogs to brick-and-mortar stores/Internet. The regression equation is as follows:

> Channel-Switching Behavior = 1.286 + 0.218*(Perceived Behavioral Control)

Attitude, Subjective Norms and Perceived Behavior Control were the independent variables for the dependent variable, Channel-Switching Intention.

As seen in Table 26, Attitude (regression coefficient = 0.207) and Subjective Norms (b = 0.555) were significant at $p<.001$ level, whereas PBC with a regression coefficient value of 0.110 was significant at $p<.01$ level in predicting Chanel-Switching Intention with an overall F value of 190.535 ($p<.001$) and Adjusted $R^2$ value of 0.47. The results supported hypothesis, H5b, that attitude, subjective norms and perceived behavior control will significantly predict the channel-switching intention from catalogs to brick-and-mortar stores/Internet. The regression equation is as follows:

Channel-Switching Intention = -0.323 + 0.207*(Attitude) + 0.555*(Subjective Norms) + 0.110*(Perceived Behavioral Control)

Finally, Channel-Switching Intention significantly predicted Channel-Switching Behavior with regression coefficient value of 0.218 ($p<.001$) and an overall F value of 34.107 ($p<.001$) and Adjusted $R^2$ of 0.05 (Table 26), which supports hypothesis H6b with Channel-Switching Intention predicting the channel-switching behavior from catalogs to brick-and-mortar stores/Internet. The regression equation is as follows:

Channel-Switching Behavior = 1.565 + 0.222*(Channel-Switching Intention)

Table 26

*Regression Analysis - Catalogs*

| Variable | Parameter Estimates | Standard Error | Variable | Parameter Estimates | Standard Error |
|---|---|---|---|---|---|
| *Predictors of Hedonic and Utilitarian Values on Attitude* | | | *Predictors of Normative Beliefs on Subjective Norms* | | |
| Intercept | 0.820*** | 0.057 | Intercept | 0.070* | 0.035 |
| Hedonic Beliefs | 0.105* | 0.018 | Normative Beliefs | -0.307*** | 0.016 |
| Utilitarian Beliefs | 0.310*** | 0.016 | | | |
| Adjusted $R^2$ | 0.15 | | Adjusted $R^2$ | 0.09 | |
| F | 56.482*** | | F | 67.991*** | |

| Variable | Parameter Estimates | Standard Error | Variable | Parameter Estimates | Standard Error |
|---|---|---|---|---|---|
| *Predictors of Self-Efficacy, Time, Money, Information, Hedonic Products, and Utilitarian Products on Perceived Behavioral Control* | | | *Predictors of Perceived Behavioral Control on Channel-Switching Behavior* | | |
| Intercept | 0.748*** | 0.049 | Intercept | 1.286*** | 0.068 |
| Self-Efficacy | 0.452*** | 0.021 | Perceived Behavioral Control | 0.218*** | 0.033 |
| Time | 0.042 | 0.016 | | | |
| Money | 0.015 | 0.015 | | | |
| Information | 0.058 | 0.021 | | | |
| Hedonic Products | 0.186*** | 0.016 | | | |
| Utilitarian Products | 0.032 | 0.013 | | | |
| Adjusted $R^2$ | 0.51 | | Adjusted $R^2$ | 0.05 | |
| F | 112.69*** | | F | 32.636*** | |

*$p$< .05; **$p$< .01; ***$p$< .001

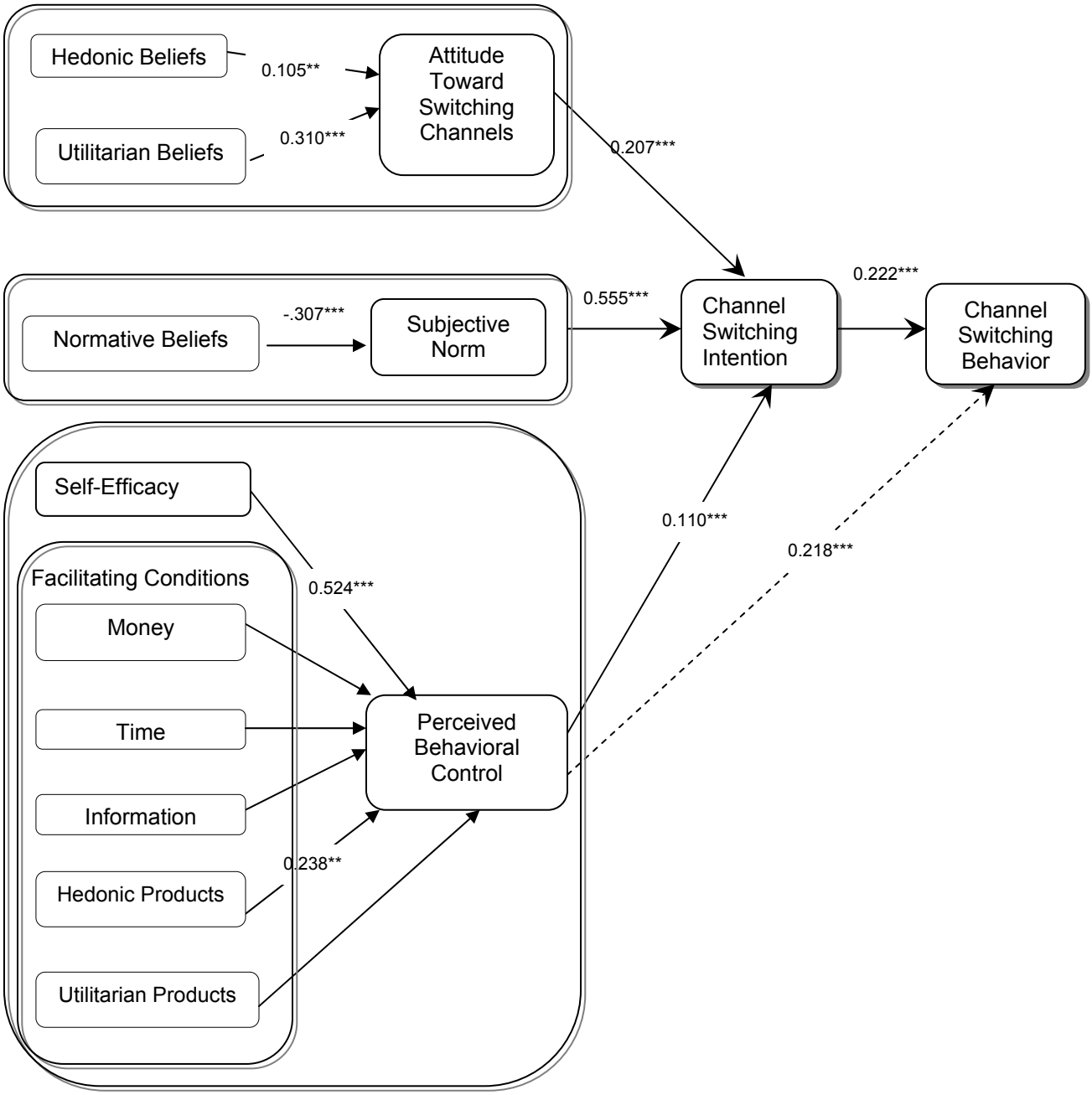
Table 26

*Regression Analysis - Catalogs (contd.)*

| Variable | Parameter Estimates | Standard Error | Variable | Parameter Estimates | Standard Error |
|---|---|---|---|---|---|
| *Predictors of Attitude, Subjective Norms, and Perceived Behavioral Control on Channel-Switching Intention* | | | *Predictors of Channel-Switching Intention on Channel-Switching Behavior* | | |
| Intercept | -0.323*** | 0.068 | Intercept | 1.565*** | 0.042 |
| Attitude | 0.207*** | 0.034 | Channel-Switching Intention | 0.222*** | 0.031 |
| Subjective Norms | 0.555*** | 0.045 | | | |
| Perceived Behavioral Control | 0.110** | 0.039 | | | |
| Adjusted $R^2$ | 0.47 | | Adjusted $R^2$ | 0.05 | |
| F | 190.535*** | | F | 34.107*** | |

*$p$< .05; **$p$< .01; ***$p$< .001

Based on the results, the following hypotheses were supported (Figure 10):




*$p$< .05; **$p$< .01; ***$p$< .001

*Figure 10.* Research Model for Channel-Switching Behavior - Catalogs

## Regression Analysis: Internet

The following discussion deals with the regression analysis for channel-switching behavior from the Internet to brick-and-mortar stores/catalogs. Hedonic and Utilitarian Beliefs were the independent variables that were utilized to predict Attitude toward channel-switching behavior (i.e., the dependent variable) in Internet. As seen in Table 27, only Utilitarian Beliefs with a regression coefficient value of 0.375 ($p$<.001) variable were significant in predicting the dependent variable with an overall F value of 65.616 ($p$<.001) and Adjusted $R^2$ value of 0.15. Thus, the results partially support hypothesis H1c, that hedonic & utilitarian beliefs will significantly predict attitude towards switching channels from the Internet to brick-and-mortar stores/catalogs. The regression equation is as follows:

Attitude = 0.139 + 0.054*(Hedonic Beliefs) + 0.375*(Utilitarian Beliefs)

In the case of Normative Beliefs (b = -0.174; $p$<.001) the variable significantly predicted Subjective Norms with an overall F value of 20.372 ($p$<.001) and Adjusted $R^2$ value of 0.03 (Table 27). The results supported hypothesis H2c, which stated that normative beliefs will predict the subjective norms for the Internet. The regression equation is as follows:

Subjective Norms = 0.010 - 0.174*(Normative Beliefs)

Self-Efficacy, Time, Money, Information, Hedonic Products and Utilitarian Products were the independent variables that were used to predict Perceived Behavioral Control (PBC). Regression analysis revealed that only Self-Efficacy

(b = 0.184; $p$<.001) and Information (b = 0.430; $p$<.001) significantly predicted the dependent variable (Table 27). The regression equation had an overall F value of 71.916 ($p$<.001) and Adjusted $R^2$ value of 0.40. To generate a parsimonious result, the regression analysis was analyzed using the stepwise method. Stepwise regression analysis did not generate a higher value of Adjusted $R^2$, however, it did increase the value of F statistics to 143.133 ($p$<.001). Also, Utilitarian Products with a regression coefficient value of 0.078 were included in the regression outcome with a significance level of .05. Self-Efficacy (b = 0.188; $p$<.001) and Utilitarian Products (b = 0.427; $p$<.001) were the other two variables included in the regression outcome (Table 26). The results partially support hypothesis H3c, with only Self-efficacy and Hedonic Products predicting the PBC when switching from the Internet to brick-and-mortar stores/catalogs. The regression equation is as follows:

Perceived Behavioral Control = 0.597 + 0.188*(Self-efficacy) + 0.427*(Information) + 0.078*(Hedonic Products)

PBC was the independent variable utilized to predict Channel-Switching Behavior. As seen in Table 27, the variable was significant in predicting the dependent variable with a regression coefficient value of 0.143 ($p$<.001) and an overall F value of 32.636 ($p$<.001) and Adjusted $R^2$ of 0.02, which supported the hypothesis H4c, that perceived behavioral control will predict channel-switching behavior from the Internet to brick-and-mortar stores/catalogs. The regression equation is as follows:

Channel-Switching Behavior = 1.246 + 0.143*(Perceived Behavioral Control)

Attitude, Subjective Norms and PBC were the independent variables for the dependent variable Channel-Switching Intention. As seen in Table 27, Attitude (b = 0.358), Subjective Norms (b = 0.496), and PBC (b = -0.097), were significant at $p<.001$ level. The results support the hypothesis, H5c, which stated that Attitude, Subjective Norms and PBC towards channel-switching will predict the channel-switching intention from the Internet to brick-and-mortar stores/catalogs. The regression equation is as follows:

Channel-Switching Intention = -0.173 + 0.358*(Attitude) + 0.496*(Subjective Norms) -0.097*(Perceived Behavioral Control)

Finally, Channel-Switching Intention significantly predicted Channel-Switching Behavior with a regression coefficient value of 0.245 ($p<.001$) and an overall F value of 36.242 ($p<.001$) and Adjusted $R^2$ of 0.05 (Table 27). Thus the results supported the hypothesis, H6c, that the channel-switching intention will predict the channel-switching behavior from the Internet to brick-and-mortar stores/catalogs. The regression equation is as follows:

Channel-Switching Behavior = 1.418 + 0.245*(Channel-Switching Intention)

Table 27

*Regression Analysis - Internet*

| Variable | Parameter Estimates | Standard Error | Variable | Parameter Estimates | Standard Error |
|---|---|---|---|---|---|
| *Predictors of Hedonic and Utilitarian Values on Attitude* | | | *Predictors of Normative Beliefs on Subjective Norms* | | |
| Intercept | 0.139** | 0.052 | Intercept | 0.010 | 0.038 |
| Hedonic Beliefs | 0.054 | 0.018 | Normative Beliefs | -0.174*** | 0.018 |
| Utilitarian Beliefs | 0.375*** | 0.017 | | | |
| Adjusted $R^2$ | 0.17 | | Adjusted $R^2$ | 0.03 | |
| F | 65.616*** | | F | 20.372*** | |

| Variable | Parameter Estimates | Standard Error | Variable | Parameter Estimates | Standard Error |
|---|---|---|---|---|---|
| *Predictors of Self-Efficacy, Time, Money, Information, Hedonic Products, and Utilitarian Products on Perceived Behavioral Control (Enter Method)* | | | *Predictors of Self-Efficacy, Time, Money, Information, Hedonic Products, and Utilitarian Products on Perceived Behavioral Control (Stepwise Method)* | | |
| Intercept | 0.595*** | 0.057 | Intercept | 0.597*** | 0.057 |
| Self-Efficacy | 0.184*** | 0.021 | Self-Efficacy | 0.188*** | 0.018 |
| Time | 0.001 | 0.014 | Information | 0.427*** | 0.020 |
| Money | -0.053 | 0.015 | Utilitarian Products | 0.078* | 0.013 |
| Information | 0.430*** | 0.020 | | | |
| Hedonic Products | 0.061 | 0.020 | | | |
| Utilitarian Products | 0.060 | 0.021 | | | |
| Adjusted $R^2$ | 0.40 | | Adjusted $R^2$ | 0.40 | |
| F | 71.916*** | | F | 143.133*** | |

*$p$< .05; **$p$< .01; ***$p$< .001

Table 27

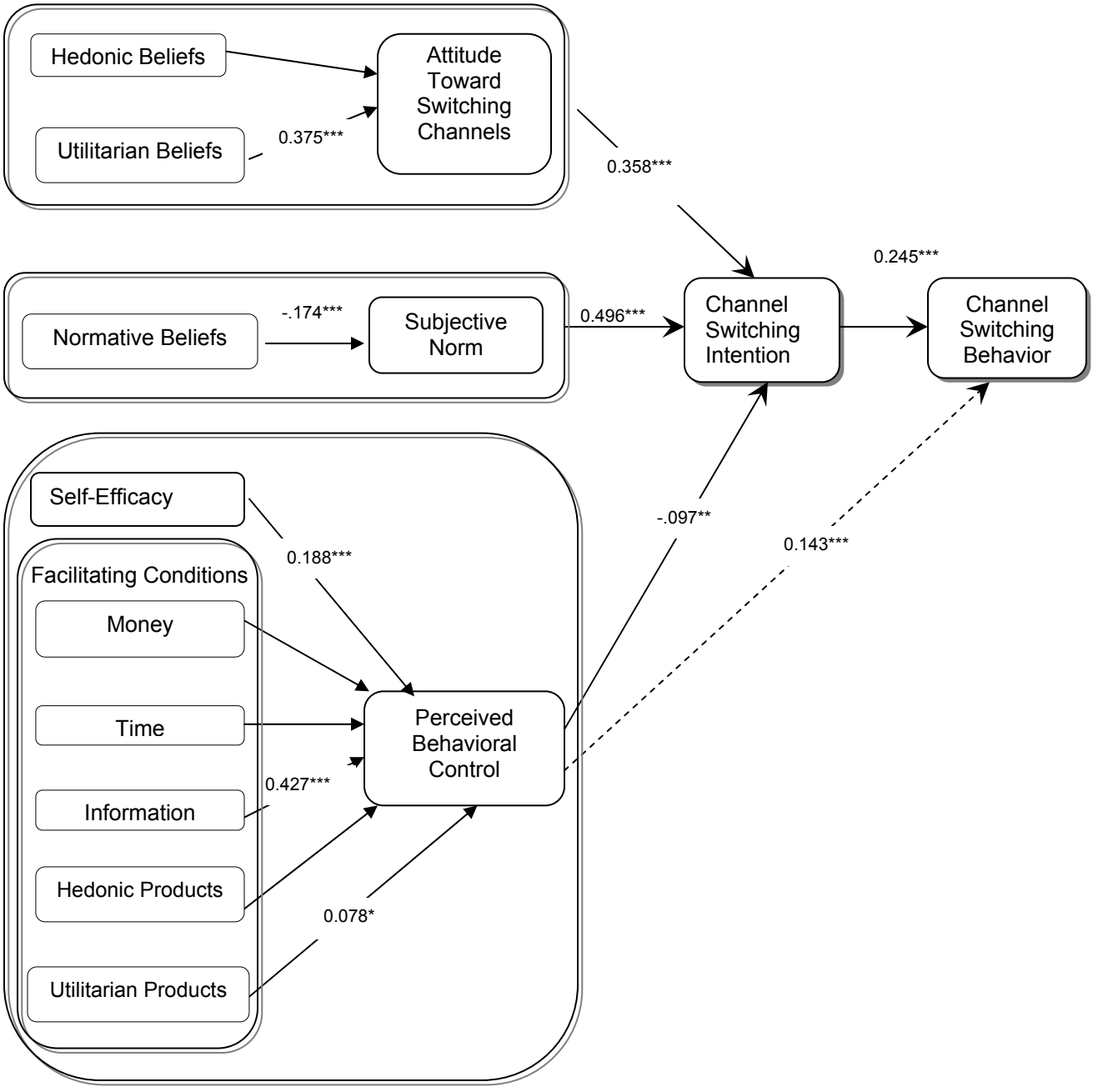
*Regression Analysis- Internet (contd.)*

| Variable | Parameter Estimates | Standard Error | Variable | Parameter Estimates | Standard Error |
|---|---|---|---|---|---|
| *Predictors of Perceived Behavioral Control on Channel-Switching Behavior* | | | *Predictors of Attitude, Subjective Norms, and Perceived Behavioral Control on Channel-Switching Intention* | | |
| Intercept | 1.246*** | 0.053 | Intercept | -0.173** | 0.056 |
| Perceived Behavioral Control | 0.143*** | 0.027 | Attitude | 0.358*** | 0.034 |
| | | | Subjective Norms | 0.496*** | 0.042 |
| | | | Perceived Behavioral Control | -0.097** | 0.029 |
| Adjusted $R^2$ | 0.02 | | Adjusted $R^2$ | 0.46 | |
| F | 32.636*** | | F | 184.009*** | |

| Variable | Parameter Estimates | Standard Error | Variable | Parameter Estimates | Standard Error |
|---|---|---|---|---|---|
| *Predictors of Channel-Switching Intention on Channel-Switching Behavior* | | | | | |
| Intercept | 1.418*** | 0.036 | | | |
| Channel-Switching Intention | 0.245*** | 0.028 | | | |
| Adjusted $R^2$ | 0.05 | | | | |
| F | 36.242*** | | | | |

*$p$< .05; **$p$< .01; ***$p$< .001

Based on the results, the following hypotheses were supported (Figure 11):




*$p$< .05; **$p$< .01; ***$p$< .001

*Figure 11.* Research Model for Channel-Switching Behavior - Internet

The following chapter summarizes the findings of this study and provides implications for the retailer.

# CHAPTER 6

# SUMMARY AND DISCUSSION

Today's consumers are increasingly shopping across multi-channels and switching channels in order to maximize their shopping benefits, and minimize their shopping costs. Hence, it is critical for retailers to understand their consumers' needs across channels and their reasons for switching channels.

This study attempted to understand the channel-switching behavior of the multi-channel consumer using the Theory of Planned Behavior. The research endeavored to use this theory to get a better understanding of what variables impact the channel-switching behavior across the three channels (i.e., brick-and-mortar store, catalogs, and the Internet).

## Interpretation of Results

The result of consumer data analyses suggests that the independent variables in each channel (i.e., brick-and-mortar stores, catalogs, and the Internet) have similarities as well as differences while predicting the dependent variables. In the case of brick-and-mortar stores, consumers' attitude toward channel-switching was significantly predicted by both hedonic as well as utilitarian behavioral beliefs (see Table 25). This result indicates that consumers' behavioral beliefs while changing channels from stores to either catalogs or the Internet while shopping is predicted both by the functional as well as experiential values. This supports the ideology that even with the growth of online sales physical stores will still play an important role in the retail industry with

consumers wanting both the touch -and-feel aspect of shopping along with convenience of shopping in a brick-and-mortar store.

For catalogs, Hedonic and Utilitarian Beliefs were significant in predicting the attitude toward switching channels from catalogs to either store or the Internet (Table 26). Utilitarian beliefs had higher parameter estimates (i.e., regression coefficient value) vis-à-vis Hedonic Beliefs. It can be inferred that consumers form the attitude to switch channel while shopping is based more on the efficiency and convenience of switching rather than experiential values. It has been stated that catalog shopping is based on a broad range of experiential values (Gehrt & Shim, 1998; Mathwick et al., 2001), and thus the result supports the belief that consumers would switch to other channels for utilitarian reasons.

For the Internet, Utilitarian Beliefs were the only predictor of the dependent variable, Attitudinal Belief (Table 27). The finding implies that consumers considering switching from the Internet to brick-and-mortar store or catalogs while shopping will be influenced by the convenience factor, the belief that switching channels is more efficient that shopping online. This finding contradicts the norm that online shopping is convenient.

Thus, overall it can be stated that utilitarian beliefs are more relevant in predicting the attitude toward channel-switching for all the three channels for shopping. It can be inferred that the utility or efficiency of changing channels outweighs the emotional satisfaction of forming an attitude towards switching channels. In this case, the attitude towards switching channels while shopping starts from a mission or task, and the acquired benefit (i.e., successfully

switching channels) depends on whether the mission is completed or not, or whether the mission is completed efficiently during the process (Batra and Ahtola, 1991; Sherry, McGrath, Levy, 1993; Babin et al., 1994).

Normative influence is defined as the tendency to conform to the expectations of others (Bearden, Netemeyer, & Teel, 1989). Under normative influence, an individual either adopts a behavior or an opinion because of the belief that the adoption will enhance the individual's self-concept, or complies with others' with the expectation of awards (Hu & Jasper, 2006). In this study Normative Beliefs for each of the channels (i.e., brick-and-mortar store, catalogs, and the Internet) were significant in predicting Subjective Norms. However, the relationship was negative (see Tables 25-27). This result contradicts studies such as Lim & Dubinsky (2005)’s on online purchase intention and retail store patronage (Evans, Christiansen & Gill, 1996), where Normative Beliefs positively impacted Subjective Norms. Thus, it can be inferred that subjective norms, which reflect consumer perceptions (i.e. Normative Belief) is in contradiction with group influence. In other words, consumers will act against their referent group when considering switching channels for shopping. This finding is important as “peer-influence” is an important consideration in retail and the absence of this influence while deciding whether to switch channels or not while shopping would have important implications for retail strategy.

In the case of brick-and-mortar stores, Self-efficacy, Information, and Hedonic Product are the three predictors for the dependent variable, Perceived Behavioral Control (Table 25). Other variables of facilitating conditions, (i.e.,

Time, Money, and Utilitarian Product) did not predict the dependent variable. Self-efficacy had the largest regression coefficient value. Thus, it can be inferred that having self-confidence in switching channels from brick-and-mortar stores to catalogs or the Internet was strongest in influencing volitional control.

For catalogs, Self-efficacy and Hedonic Product variables significantly predicted the dependent variable (Table 26). Self-efficacy was the stronger predictor of the dependent variable based on the regression coefficient value. Thus, it can be inferred that consumers who had a higher level of self-efficacy where more likely to have positive feelings about switching channels from catalogs to the stores or the Internet.

In the case of the Internet, Self-efficacy, Information, and Utilitarian Products are the independent variables that significantly impacted Perceived Behavioral Control (Table 27). Based on the results, it can be inferred that consumers were more likely to switch channels for utilitarian products.

Self-efficacy was the significant predictor of Perceived Behavioral Control in all three channels. Self efficacy measures a feeling of self competence (Salanova, Grau, Cifre, & Llorens, 2000), and hence it can be inferred that this was an important variable across all three channels. Thus, a consumer's experience and confidence in their own ability is a powerful indicator of whether they perceive a degree of control over switching channels while shopping.

Information was a significant predictor for Perceived Behavioral Control for both brick-and-mortar stores and the Internet. Knowledgeable consumers are able to attend to, comprehend, and analyze relevant channel information, as

opposed to less knowledgeable consumers (Rosen & Olshavsky, 1987), and hence can engage in channel-switching behavior. Availability of information is important to the success of channel-switching and has important implications for retailers.

Type of product is an important variable that influence consumer choices among goods. Both hedonic and utilitarian goods offer benefits to the consumer, the former primarily in the form of experiential enjoyment and the latter in practical functionality (Batra & Ahtola 1991; Hirschman & Holbrook 1982; Mano & Oliver 1993). Hedonic Product was a significant predictor for brick-and-mortar stores and catalogs (see Tables25 & 26), whereas Utilitarian Product significantly influenced PBC variable in the Internet channel (Table 27). Hence, it is reasonable to expect that type of product is likely to be an important driver of Perceived Behavioral Control. Both brick-and-mortar stores and catalogs afford the customers greater control in switching channels for hedonic products; whereas the Internet provides customers with the ability to make conscious choices (i.e., control) in relation to utilitarian products while switching channels.

Time & Money were not significant predictors in any of the three channels (i.e., brick-and-mortar stores, catalogs, and the Internet), which contradicts previous studies. This is clearly a counter-intuitive result. The perception of time available for a task has been shown to impact the shopping outcome. Conceptualized as a secondary purchase cost (Bender 1964), time has been shown to affect a consumer's choice of shopping strategy (Holman &Wilson 1982; Berry &Cooper 1992) and store patronage intentions (Baker, Parasuraman,

Grewal, & Voss 2002). Similarly, price has always been one of the salient, performative attributes that determine consumer store choice (Blakney & Sekely, 1994; Arnold, Handelman, & Tigert, 1996). These results could be explained based on the demographic characteristics of the respondents. Most of the respondents were college students and as such adept is using a variety of channels for shopping and hence were not constrained by the parameters of time. Additionally, it can be assumed that most of the college students are financially dependent on their parents and hence their concept of spending money would be different than the other respondents (i.e., faculty and staff). This is an important finding, as it can be inferred that consumers' criteria for switching channels is not based on the availability of resources such as time and money and has important retail implications.

Attitude, Subjective Norms, and Perceived Behavioral Control are the independent variables that were utilized in predicting the dependent variable, Channel-Switching Intention. In the case of brick-and-mortar stores, Attitude and Subjective Norms were significant predictors of the intention to switch channel (Table 25). For catalogs, Attitude, Subjective Norms, and Perceived Behavioral Control were the predictors of Channel-Switching Intention (Table 26). Subjective Norms were had the largest regression coefficient value.

In the case of the Internet, all the three independent variables were significant in predicting the dependent variable, Channel-Switching Intention, with Subjective Norms having the largest regression coefficient value (Table 27). In the case of the Internet, PBC was a negative predictor of the intention, and

hence it can be inferred that consumers with high levels of perceived control online have lower channel-switching intention. This result indicates, consumers comfortable using online channel are less likely to switch to other channels for shopping.

Attitude and Subjective Norms were the predictors of the channel-switching intention for all the three channels (i.e., brick-and-mortar stores, catalogs, and the Internet) (Tables 25-27). Previous studies on consumers' behavioral intention have supported a causal relationship between a favorable attitude and behavioral intention (e.g., Chang, Burns, & Noel, 1996; Cheung, Chan, and Wong, 1999; Chiou, 2000; Shim et al., 2001). In consumer research, attitude has been considered the most important predictor of a person's behavioral intention (e.g., Chang, Burns, & Noel, 1996). This assumption is not supported in the current study, with only brick-and-mortar channel reporting a larger regression coefficient value with respect to the channel-switching intention vis-à-vis other variables (i.e., Subjective Norms, and Perceived Behavioral Control). The findings of this study supports Ajzen's (1991) study which stated that the weight of each belief (i.e., attitude, subjective norm, perceived behavioral control) in influencing a person's behavioral intention may vary based on the nature of the behavior under investigation.

Subjective norm suggests that behavior is instigated by ones desire to act as important referent others (e.g., friends, family, or society in general) think one should act, or as these others actually act (Bearden et al. 1989). In other words, subjective norms are the perceived social pressure an individual faces when

deciding whether to behave in a certain way. Applied to the focal behaviors, subjective norm reflects consumer perceptions (normative belief) as to whether this channel-switching behavior is accepted, encouraged, and implemented by the consumer's circle of influence. Subjective Norms had the larger regression coefficient values with respect to other variables for both catalogs and the Internet (Tables 26 & 27). This finding supports Shim and Drake's (1990) findings, which indicated that even though attitude and subjective norms influenced intentions, the subjective norm component was more influential, because of the nature of the new shopping behavior (i.e., individuals attempted to fit in with perceived opinions of important others due to the use of shopping via channel-switching). Thus it can be inferred that consumer intention to switch channels in case of catalogs and the Internet is influenced more by subjective norms than by attitude. The finding is important especially when viewed with respect to normative beliefs. As stated earlier, subjective norms were negatively influenced by normative beliefs, conversely subjective norms positively influenced channel-switching intention. Thus, it can be inferred that while an individual will not conform to peer/family influence with respect to channel-switching, their channel-switching intention is positively influenced by their social environment.

Perceived Behavioral Control was a significant predictor for both catalogs as well as the Internet (Tables 26 & 27). Earlier research has shown that consumers may feel that perceived control is as real as actual control, and can enhance the evaluation and value of the experience (Ajzen, 1988; Bateson & Hui,

1987; Langer & Saegert, 1977), or channel-switching intention. The findings of this study indicate that consumers when switching from catalogs to either store or the Internet, consumers are influenced by the level of perceived control they have over the act, with more control leading to a greater likelihood of channel-switching intention. The result is similar to what has been indicated by earlier studies for innovation adoption (Taylor & Todd, 1995a, Taylor & Todd, 1995b). For the Internet, there is a negative relationship between perceived control and channel-switching intention. The result is similar to the research findings in Lim & Dubinsky's (2005) study of online shopping. It can be inferred that when consumers have higher perceived control over their abilities for switching channels from the Internet to stores/catalogs, they are less likely to switch channels than when they had lower perceived behavioral control over channel-switching.

Perceived Behavioral Control significantly influenced the Channel-Switching Behavior in all three channels (i.e. brick-and-mortar stores, catalogs, and the Internet) (Tables 25-27). This result supports the previous findings of Pavlou & Fygenson (2006). These findings indicate that channel-switching behavior in all the three channels increases with an increase in consumers' perceived behavioral control.

Channel-Switching Intention positively influences Channel-Switching Behavior in all the three channels, with the brick-and-mortar store channel explaining the greatest variance of 13%. The results supported the assumption in the Theory of Planned Behavior that intentions are an immediate antecedent of

behavior is shared by other social psychological models (e.g., Fisher & Fisher, 1992; Gollwitzer, 1993; Triandis, 1977). Meta-analyses covering diverse behavioral domains have reported mean intention-behavior correlations of 0.47 (Armitage & Conner, 2001; Notani, 1998), 0.53 (Shepherd, Hartwick, & Warshaw, 1988), and 0.45 (Randall & Wolff, 1994). Overall, intentions are generally found to predict corresponding behavior quite well.

In the current study, past behavior is equated to actual behavior based on the assumption that an individual is more likely to exhibit same traits for the same behavior. However, it is also important to understand that if the individual's beliefs when the behavior (i.e., channel-switching) is actually performed differ from the beliefs during questionnaire administration, actual channel-switching behavior may well differ from expressed intention (Ajzen, Brow, & Carvajal, 2004).

## Implications and Recommendations

Overall, the study has been successful in predicting the causal relationships (among independent and dependent variables) in the Theory of Planned Behavior research model, for each of the channels (i.e., brick-and-mortar stores, catalogs, and the Internet). The findings of the study have implications for academia as well as the retail industry. The information from the current study will help academics to fine tune variables that would provide a greater insight in the channel-switching behavior. Additionally, the results will impact retailers, especially since there are interactions between variables, so retailers need to know which combination of variables (and thus the retailers' actions) will result in the desired consumer behavior (Bansal & Taylor, 2002). In

other words, actively managing multiple sales channels requires knowing the customers' channel preferences (Reardon & McCorkle 2002).

*Academic Implications and Recommendations*

Earlier studies have utilized individual variables such as convenience, enjoyment, ease of use, et al., to predict attitude towards shopping behavior. This study was able to predict attitude using the hedonic and utilitarian behavioral belief scale, thereby reducing the number of variables required to predict attitude. Such a reduction in the number of items is apt to lower the administration time of the questionnaire and, consequently, to reduce subjects' fatigue and boredom when answering redundant questions (Gagne & Godin, 2000). Hence, more valid information may be obtained. The results also supported earlier research studies that established the predictive power of normative beliefs for subjective norms. However, due to the recent development in technology and increasing usage of the Internet, researchers need to examine other variables that may influence subjective norms, for example online blogs, user-generated reviews, and other online decision aids.

The importance of self-efficacy as a significant variable in predicting perceived control required further support from the study, with the variable notably predicting perceived control for all the three channels. Self-efficacy is the confidence one has in their own abilities; however, ability is only as good as its execution (Bandura, 2007). The same individual may perform poorly, adequately, or well with the same ability depending on fluctuations in their perceived self-efficacy (Bandura, 1990). It is suggested that academics analyze this concept in

further detail by decomposing this construct into cognitive, motivational, self-regulatory, and affect regulation skills (Bandura, 2007).

Type of products was also an important variable, as different channels favored different kind of products (i.e., hedonic vs. utilitarian) when predicting the perceived control variable. Most of previous studies focused on a single product or a group of similar products and as a result the product effect is eliminated, and additional effort is required to systematically examine the effects of product types. Thus, using a more comprehensive listing of type of products (i.e., hedonic and utilitarian) would be beneficial in understanding their impact in channel-switching behavior.

Time and Money were not important predictors for Perceived Behavioral Control. Researchers will need to take the respondent demographic characteristics into account while designing the study especially since most of the studies use college students as a sample (see Brown & Dant's 2008 meta-analysis in *Journal of Retailing*).

The impact of normative beliefs on subjective norms, and the relationship between subjective norm and attitude needs to be examined further. There is a greater need to understand the difference as well as the similarities of the various components of both normative beliefs as well as subjective norms. It is imperative that influencers other than family and friends (e.g., online shopping aids, blogs, and other interactive media) be considered while examining the importance of these variables in the Theory of Planned Behavior.

Finally, channel-switching intention predicted channel-switching behavior, providing support to the theory, that intention is the antecedent to the actual behavior. However, it is suggested that academics pursuing further investigation of the channel-switching behavior addresses the manner in which the actual behavior is measured. It is suggested that two surveys are designed and send to the same sample set. One of the surveys would measure all the parameters leading to channel-switching intention, and the second one sent after a time-lag would measure the actual channel-switching behavior.

*Retailer Implications and Recommendations*

Information was an important variable in all the three channels of shopping (i.e. brick-and-mortar stores, catalogs, and the Internet). The retailing industry is undergoing great change, with new retail formats enabled and enhanced by the availability of information and other communication technologies (Palmer, 1997). Effective information search is a win-win situation with both consumers and merchants wanting the process of searching and evaluating as seamless as possible. For consumers finding products that closely match needs boosts customer satisfaction. For merchants providing products that satisfy consumer needs creates loyal customers (Tedeschi, 2005). It is critical that the retailers use a combination of aids (e.g., kiosk in-store, visual and written information in catalogs, and websites online) as well as emerging technologies to ensure an uninterrupted flow of communication with their consumers.

Influence of family and friends as well as need to conform are important parameters that can impact retail strategy. As the study indicates, consumers are

less likely to be influenced by their peers/family but on the other hand their attitude toward channel-switching is influence by their subjective norms. It is of the essence that retailers employ different technological advances such as "Customer Relationship Management" to their advantage to influence channel-switching behavior. As more consumers are using "non-traditional" aids such as blogs, customer-generated reviews or e-word-of-mouth it is important for the retailers to consider such tools as an integral part of their marketing strategy.

Time and Money have always been critical to consumers. Recently, with changing consumer behavior, shopping is regarded as being more than just an exchange of money for goods/services and involves several other 'environmental' factors that enrich the process of shopping for goods and /or services in the various channels. As the findings of the study indicate, consumers' channel-switching decision is not influenced by time or money, that is, consumers expect retailers to cater to their need for right value at right time irrespective of the channel or the product/service type. Retailers have to expand their horizons and be more creative in their offerings if they want to keep their consumers throughout the shopping process irrespective of the channel. Offering consumers multi-media rich websites, greater degree of personalization, and excellent customer service will enable retailers build loyalty.

Overall, it can be stated that retailers operating a portfolio of different concepts will need to educate multi-channels consumers and show them how each format satisfies different shopping needs (Hyde, 2003). Retailers will need to re-think their targeting strategies for the channels (i.e., brick-and-mortar stores,

catalogs, and the Internet). In other words, instead of targeting shopper segments using traditional segmentation and target marketing approaches (i.e., based on historical attribute/benefit distinctions), retailers should strive to understand the shift in consumers' perceptions with regard to retail formats (Ganesh, Reynolds, & Luckett, 2007). Retailers should track patronage behaviors in all the three channels with the goal of retaining the customers irrespective of the channel of their choice.

## Study Limitations and Suggestions for Future Studies

The findings from this study may not be generalized to the study population because the sample was not normally distributed in terms of demographic characteristics. About 60% of the respondents were between 18 and 27 years of age; 61% of the respondents were single, and the respondents were predominantly Caucasian (82.6%). It is recommended that future study should be expanded to include other ethnic groups as well as age groups. Additionally, as both students and employees of the university (i.e., faculty and staff) participated in the survey, their responses would vary based on their age and income level. It is suggested that the study could be further analyzed by separating the different sample groups. Multivariate statistics such as Hierarchical Linear Modeling (HLM), which allows for nested data, could be used for analysis. Finally, the respondents were concentrated in two parts of the country, the Midwest and the South, and this could lead to differences in the parameters under study (Arnold, Oum, & Tigert 1983). Hence the data could be

analyzed for each region separately or by using HLM. Also, Structural Equation Modeling can be utilized to generate a model fit.

The survey was administered online, which made it difficult to calculate response rate. The response rate of a Web-posted survey cannot be calculated because there is no way in which to know how many individuals might have seen the survey or its links but declined to participate (Kaye & Johnson, 1999). Also, the survey instrument was rather lengthy, which could have led to respondent fatigue. It is suggested for future studies for the survey to be split into three surveys, one for each channel, and then administered to the sample group.

There are more similarities between catalogs and the Internet than traditional brick-and-mortar stores. Hence, it is suggested that in future studies, the channel-switching behavior be examined for each individual channel pair (e.g., brick-and-mortar stores & catalogs; brick-and-mortar stores & the Internet). Further, the interaction between different parameters of the model could also be studied to facilitate a better understanding of how each parameter eventually affects the channel-switching behavior. Consumers may use a specific channel for both information gathering and purchasing. In this study, even though the channel-switching behavior was examined for both information search as well as purchasing, one question is too cursory to provide a complete picture of consumers' use of each channel. Hence, a study incorporating an in-depth analysis of information-gathering behavior as well as purchasing habits of consumers will provide a better insight as to how consumers use a combination of resources to reach a purchase decision across all three channels. In addition,

if a study includes information available as to when and why consumers switch channels, it can help retailers to formulate strategies that will prevent the consumer from switching channels.

In conclusion, even though it is apparent that the distinction between retail formats is getting diffused, it is critical to understand retail formats are not becoming completely homogenous (Ganesh, Reynolds, & Luckett, 2007). Customers need to be supported in transactions between channels, but their interaction with specific channels need to be designed to accommodate the roles for which customers want to use that channel (Slack, Rowley, Coles, 2007). Consumers do perceive competing retail formats differently, but the points of difference, and hence the perceptions of the retail formats, have changed and will continue to change (Ganesh, Reynolds, & Luckett, 2007).

# APPENDIX I

Dear Consumer:

This is a survey about online shopping behavior. The purpose of the study is to understand how people choose between shopping in store, or by catalog, or online. Since you are important as a consumer, we are requesting that you participate in our study. In addition, your participation earns you the right to enter your name into a raffle for a $50 gift card.

Please understand that your participation is voluntary, your refusal to participate will involve no penalty or loss of benefits to which you are otherwise entitled, and you may discontinue your participation at any time without penalty or loss of benefits. Also, you do not have to answer any questions that may be asked. By participating in the survey you have granted your consent. Please answer all of the survey questions. This survey will take approximately 10 -15 minutes of your time.

I would like to thank you for taking the time to fill out the survey. If you have any questions concerning this project, please do not hesitate to contact me at (573) 882-4327. For additional information regarding human participation in research, please feel free to contact the UMC Campus Institutional Review Board Office at 573-882-9585.

If you would like to enter your name in the raffle for a chance to win a one of the two $50 gift certificates to any store in the Columbia Mall, please provide contact information at the end of the survey, where you can be notified if your name is selected. The contact information you provide will only be used for the purpose of contacting raffle winners and mailing the gift certificates to the winners. Thank you again for your participation

Sincerely,

Sanjukta Arun Pookulangara
Graduate Student
Textile and Apparel Management
sapgg3@mizzou.edu

Dr. Ge Xiao
Assistant Professor –

**Important Definitions**

**Important Definitions:**
**Catalogs: Any form of printed material mailed from a retailer.**
**Shopping: Searching for information or purchasing goods or services.**

**<u>Changing channels while shopping:</u> Looking for information on the Internet and purchasing from the store, OR, looking for information both in a store as well as catalog and then buying online. There could be a combination of channels (i.e. stores, catalogs, and the Internet) for information search as well as purchasing.**

1. Have you **SEARCHED FOR INFORMATION** with respect to **GOODS/SERVICES** from any of the following in the **LAST YEAR? PLEASE SELECT ALL THAT APPLY.**

Store Catalog Internet

2. Have you **PURCHASED ANY GOODS/SERVICES** from any of the following in the **LAST YEAR? PLEASE SELECT ALL THAT APPLY.**

Store Catalog Internet

3. Please indicate the extent to which you agree with the following statements when **"CHANGING from STORES to either CATALOGS or THE INTERNET while SHOPPING".** Please select the number that best describes your opinion

| | **Unlikely** | | | **Neutral** | | | **Likely** |
|---|---|---|---|---|---|---|---|
| It is fun ($b_{1s}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| It is enjoyable ($b_{2s}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| The shopping experience truly felt satisfying ($b_{3s}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| It is rewarding ($b_{4s}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| It is convenient ($b_{5s}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| It is easy ($b_{6s}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| It is efficient ($b_{7s}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |

4. How **IMPORTANT** is each of the following when **"CHANGING from STORES to either CATALOGS or THE INTERNET while SHOPPING"?**

| | **Unimportant** | | | **Neutral** | | | **Important** |
|---|---|---|---|---|---|---|---|
| Having fun is ($e_{1s}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| Enjoyment is ($e_{2s}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| Having a satisfying experience is ($e_{3s}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| Having a rewarding experience is ($e_{4s}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| Convenience is ($e_{5s}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| Ease of shopping is ($e_{6s}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| Shopping efficiently is ($e_{7s}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |

5. How important are each of the following when **"CHANGING from STORES to either CATALOGS or THE INTERNET while SHOPPING"?** Please select the number that best describes your opinion

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| The idea of using catalog/Internet instead of store ($a_{1s}$) | Dislike (-3) | -2 | -1 | 0 | 1 | 2 | Like (3) |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Changing from store to catalog/Internet is ($a_{2s}$) | Foolish (-3) | -2 | -1 | 0 | 1 | 2 | Wise (3) |
| I think changing from store to catalog/Internet is ($a_{3s}$) | Bad (-3) | -2 | -1 | 0 | 1 | 2 | Good (3) |
| Using catalog/Internet instead of store is ($a_{4s}$) | Bad (-3) | -2 | -1 | 0 | 1 | 2 | Good (3) |

6. How much do you **AGREE** with each of the following statements with respect to **"CHANGING from STORES to either CATALOGS or THE INTERNET while SHOPPING"?**

| | Unlikely | | | Neutral | | Likely | |
|---|---|---|---|---|---|---|---|
| My family would think that I should change channels ($nb_{1s}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| My family approves of my changing channels ($nb_{2s}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| Generally speaking, I want to do what my family thinks I should do ($mc_{1,2s}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| My friends would think that I should change channels ($nb_{3s}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| My friends approves of my changing channels ($nb_{4s}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| Generally speaking, I want to do what my friends thinks I should do ($mc_{3,4s}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| Most people who are important to me would think that I should change channel ($SN_{1s}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| Most people who are important to me would approve of changing channel ($SN_{2s}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| The people who influence my decisions would think that I should change channel ($SN_{3s}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| The people who influence my decisions would approve of changing channel ($SN_{4s}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |

7. How much do you **AGREE** with each of the following statements with respect to **"CHANGING from STORES to either CATALOGS or THE INTERNET while SHOPPING"?**

| | Unlikely | | | Neutral | | Likely | |
|---|---|---|---|---|---|---|---|
| If I wanted to, I could easily change channels on my own ($cb_{1s}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| I know enough to change channels on my own ($cb_{2s}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| I would feel comfortable changing channel on my own ($cb_{3s}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| I have the time needed to change channel ($cb_{4s}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| I have the money to change channel ($cb_{5s}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| I have the information needed to change channel ($cb_{6s}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| I have the ability to buy products such as apparel, jewelry, flowers, home furnishings ($cb_{7s}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| I have the ability to buy products such as travel, financial services (Tax returns, Stocks, Home banking, Credit card) ($cb_{8s}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| I have the resources, knowledge and ability to change channel ($PBC_{1s}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| I would be able to change channels ($PBC_{2s}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |

8. How much do you **AGREE** with each of the following statements with respect to **"CHANGING from STORES to either CATALOGS or THE INTERNET while SHOPPING"?**

| | **Unimportant** | | | **Neutral** | | **Important** | |
|---|---|---|---|---|---|---|---|
| Being able to change channels on my own is ($pf_{1s}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| Knowing enough to change channel is ($pf_{2s}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| Being comfortable changing channel on my own is ($pf_{3s}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| Having the time needed to change channel is ($pf_{4s}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| Having the money needed to change channel is ($pf_{5s}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| Having the information needed to change channel is ($pf_{6s}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| Having the ability to buy products such as apparel, jewelry, flowers, home furnishings ($pf_{7s}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| Having the ability to buy products such as travel, financial services ($pf_{8s}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |

9. Please answer the following with respect to overall **INTENTION** to **"CHANGING from STORES to either CATALOGS or THE INTERNET while SHOPPING".** Please circle one.

| | **Unlikely** | | | **Neutral** | | **Likely** | |
|---|---|---|---|---|---|---|---|
| I intend to change to catalog/Internet from a store while shopping ($bi_{1s}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| I plan to change to catalog/Internet from a store for all my shopping ($bi_{2s}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |

10. Please indicate the extent to which you agree with the following statements when **"CHANGING from CATALOGS to either STORES OR THE INTERNET while SHOPPING".** Please select the number that best describes your opinion

| | **Unlikely** | | | **Neutral** | | **Likely** | |
|---|---|---|---|---|---|---|---|
| It is fun ($b_{1c}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| It is enjoyable ($b_{2c}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| The shopping experience truly felt satisfying ($b_{3c}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| It is rewarding ($b_{4c}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| It is convenient ($b_{5c}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| It is easy ($b_{6c}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| It is efficient ($b_{7c}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |

11. The following questions have to do with the evaluation of outcomes that might be associated with when **"CHANGING from CATALOGS to either STORES OR THE INTERNET while SHOPPING".** Please select the number that best describes your opinion.

| | Unimportant | | | Neutral | | | Important |
|---|---|---|---|---|---|---|---|
| Having fun is ($e_{1c}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| Enjoyment is ($e_{2c}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| Having a satisfying experience is ($e_{3c}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| Having a rewarding experience is ($e_{4c}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| Convenience is ($e_{5c}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| Ease of shopping is ($e_{6c}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| Shopping efficiently is ($e_{7c}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |

12. How important are each of the following when **"CHANGING from CATALOGS to either STORES OR THE INTERNET while SHOPPING"?** Please select the number that best describes your opinion

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| The idea of using store/Internet instead of catalog ($a_{1c}$) | Dislike (-3) | -2 | -1 | 0 | 1 | 2 | Like (3) |
| Changing from catalog to store/Internet is ($a_{2c}$) | Foolish (-3) | -2 | -1 | 0 | 1 | 2 | Wise (3) |
| I think changing from catalog to store/Internet is ($a_{3c}$) | Bad (-3) | -2 | -1 | 0 | 1 | 2 | Good (3) |
| Using store/Internet instead of catalog is ($a_{4c}$) | Bad (-3) | -2 | -1 | 0 | 1 | 2 | Good (3) |

13. How much do you **AGREE** with each of the following statements with respect to **"CHANGING from CATALOGS to either STORES OR THE INTERNET while SHOPPING"?**

| | Unlikely | | | Neutral | | | Likely |
|---|---|---|---|---|---|---|---|
| My family would think that I should change channels ($nb_{1c}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| My family approves of my changing channels ($nb_{2c}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| Generally speaking, I want to do what my family thinks I should do ($mc_{1,2c}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| My friends would think that I should change channels ($nb_{3c}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| My friends approves of my changing channels ($nb_{4c}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| Generally speaking, I want to do what my friends thinks I should do ($mc_{3,4c}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| Most people who are important to me would think that I should change channel ($SN_{1c}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| Most people who are important to me would approve of changing channel ($SN_{2c}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| The people who influence my decisions would think that I should change channel ($SN_{3c}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| The people who influence my decisions would approve of changing channel ($SN_{4c}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |

14. How much do you **AGREE** with each of the following statements with respect to **"CHANGING from CATALOGS to either STORES OR THE INTERNET while SHOPPING"?**

| | **Unlikely** | | | **Neutral** | | **Likely** | |
|---|---|---|---|---|---|---|---|
| If I wanted to, I could easily change channels on my own ($cb_{1c}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| I know enough to change channels on my own ($cb_{2c}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| I would feel comfortable changing channel on my own ($cb_{3c}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| I have the time needed to change channel ($cb_{4c}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| I have the money to change channel ($cb_{5c}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| I have the information needed to change channel ($cb_{6c}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| I have the ability to buy products such as apparel, jewelry, flowers, home furnishings ($cb_{7c}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| I have the ability to buy products such as travel, financial services ($cb_{8c}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| I have the resources, knowledge and ability to change channel ($PBC_{1c}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| I would be able to change channels ($PBC_{2c}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |

15. How much do you **AGREE** with each of the following statements with respect to **"CHANGING from CATALOGS to either STORES OR THE INTERNET while SHOPPING"?**

| | **Unimportant** | | | **Neutral** | | **Important** | |
|---|---|---|---|---|---|---|---|
| Being able to change channels on my own is ($pf_{1c}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| Knowing enough to change channel is ($pf_{2c}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| Being comfortable changing channel on my own is ($pf_{3c}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| Having the time needed to change channel is ($pf_{4c}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| Having the money needed to change channel is ($pf_{5c}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| Having the information needed to change channel is ($pf_{6c}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| Having the ability to buy products such as apparel, jewelry, flowers, home furnishings ($pf_{7c}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| Having the ability to buy products such as travel, financial services ($pf_{8c}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |

16. Please answer the following with respect to overall **INTENTION** to **"CHANGING from CATALOGS to either STORES OR THE INTERNET while SHOPPING"?** Please circle one.

**Unlikely** **Neutral** **Likely**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| I intend to change to store/Internet from a catalog while shopping ($bi_{1c}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| I plan to change to store/Internet from a catalog for all my shopping ($bi_{2c}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |

17. How important are each of the following when **"CHANGING from THE INTERNET to either STORE OR CATALOGS FOR SHOPPING"?** Please select the number that best describes your opinion

| | **Unlikely** | | | **Neutral** | | | **Likely** |
|---|---|---|---|---|---|---|---|
| It is fun ($b_{1i}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| It is enjoyable ($b_{2i}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| The shopping experience truly felt satisfying ($b_{3i}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| It is rewarding ($b_{4i}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| It is convenient ($b_{5i}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| It is easy ($b_{6i}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| It is efficient ($b_{7i}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |

18. How important are each of the following when **"CHANGING from THE INTERNET to either STORE OR CATALOGS FOR SHOPPING"?** Please select the number that best describes your opinion

| | **Unimportant** | | | **Neutral** | | | **Important** |
|---|---|---|---|---|---|---|---|
| Having fun is ($e_{1i}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| Enjoyment is ($e_{2i}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| Having a satisfying experience is ($e_{3i}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| Having a rewarding experience is ($e_{4i}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| Convenience is ($e_{5i}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| Ease of shopping is ($e_{6i}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| Shopping efficiently is ($e_{7i}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |

19. How important are each of the following when **"CHANGING from the INTERNET to either STORES OR CATALOGS while SHOPPING"?** Please select the number that best describes your opinion

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| The idea of using store/catalog instead of the Internet ($a_{1i}$) | Dislike (-3) | -2 | -1 | 0 | 1 | 2 | Like (3) |
| Changing from the Internet to store/catalog is ($a_{2i}$) | Foolish (-3) | -2 | -1 | 0 | 1 | 2 | Wise (3) |
| I think changing from the Internet to store/catalog is ($a_{4i}$) | Bad (-3) | -2 | -1 | 0 | 1 | 2 | Good (3) |
| Using store/catalog instead of the Internet is ($a_{4i}$) | Bad (-3) | -2 | -1 | 0 | 1 | 2 | Good (3) |

20. How much do you **AGREE** with each of the following statements with respect to **"CHANGING from the INTERNET to either STORES OR CATALOGS while SHOPPING"?**

| | Unlikely | | | Neutral | | | Likely |
|---|---|---|---|---|---|---|---|
| My family would think that I should change channels ($nb_{1i}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| My family approves of my changing channels ($nb_{2i}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| Generally speaking, I want to do what my family thinks I should do ($mc_{1,2i}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| My friends would think that I should change channels ($nb_{3i}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| My friends approves of my changing channels ($nb_{4i}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| Generally speaking, I want to do what my friends thinks I should do ($mc_{3,4i}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| Most people who are important to me would think that I should change channel ($SN_{1i}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| Most people who are important to me would approve of changing channel ($SN_{2i}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| The people who influence my decisions would think that I should change channel ($SN_{3i}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| The people who influence my decisions would approve of changing channel ($SN_{4i}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |

21. How much do you **AGREE** with each of the following statements with respect to **"CHANGING from the INTERNET to either STORES OR CATALOGS while SHOPPING"?**

| | Unlikely | | | Neutral | | | Likely |
|---|---|---|---|---|---|---|---|
| If I wanted to, I could easily change channels on my own ($cb_{1i}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| I know enough to change channels on my own ($cb_{2i}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| I would feel comfortable changing channel on my own ($cb_{3i}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| I have the time needed to change channel ($cb_{4i}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| I have the money to change channel ($cb_{5i}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| I have the information needed to change channel ($cb_{6i}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| I have the ability to buy products such as apparel, jewelry, flowers, home furnishings ($cb_{7i}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| I have the ability to buy products such as travel, financial services ($cb_{8i}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| I have the resources, knowledge and ability to change channel ($PBC_{1i}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| I would be able to change channels ($PBC_{2i}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |

22. How much do you **AGREE** with each of the following statements with respect to **"CHANGING from the INTERNET to either STORES OR CATALOGS while SHOPPING"?**

| | Unimportant | | | Neutral | | | Important |
|---|---|---|---|---|---|---|---|
| Being able to change channels on my own is ($pf_{1i}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| Knowing enough to change channel is ($pf_{2i}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| Being comfortable changing channel on my own is ($pf_{3i}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| Having the time needed to change channel is ($pf_{4i}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| Having the money needed to change channel is ($pf_{5i}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| Having the information needed to change channel is ($pf_{6i}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| Having the ability to buy products such as apparel, jewelry, flowers, home furnishings ($pf_{7i}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| Having the ability to buy products such as travel, financial services ($pf_{8i}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |

23. Please answer the following with respect to overall **INTENTION** to **"CHANGING from the INTERNET to either STORES OR CATALOGS while SHOPPING"?** Please circle one.

| | Unlikely | | | Neutral | | | Likely |
|---|---|---|---|---|---|---|---|
| I intend to change to store/catalog from the Internet while shopping ($bi_{1i}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |
| I plan to change to store/catalog from the Internet for all my shopping ($bi_{2i}$) | -3 | -2 | -1 | 0 | 1 | 2 | 3 |

24. Please answer the following with respect to overall **ACTUAL BEHAVIOR of "CHANGING CHANNEL"**. Please circle one.

| | | | | | |
|---|---|---|---|---|---|
| How many times in the course of **last six months** have you changed channels **(i.e. from store to catalog or the Internet)** while **searching for information**? | Never | 1-5 times | 6-10 times | 11-15 times | > 15 times |
| How many times in the course of **last six months** have you changed channels **(i.e. from store to catalog or the Internet)** while **purchasing**? | Never | 1-5 times | 6-10 times | 11-15 times | > 15 times |
| How many times in the course of **last six months** have you changed channels **(i.e. from catalog to store or the Internet)** while **searching for information**? | Never | 1-5 times | 6-10 times | 11-15 times | > 15 times |
| How many times in the course of **last six months** have you changed channels **(i.e. from catalog to store or the Internet)** while **purchasing**? | Never | 1-5 times | 6-10 times | 11-15 times | > 15 times |
| How many times in the course of **last six months** have you changed channels **(i.e. from the Internet to store or catalog)** while **searching for information**? | Never | 1-5 times | 6-10 times | 11-15 times | > 15 times |

| How many times in the course of **last six months** have you changed channels **(i.e. from the Internet to store or catalog)** while **purchasing**? | Never | 1-5 times | 6-10 times | 11-15 times | > 15 times |
|---|---|---|---|---|---|

25. ABOUT YOURSELF: The following background information questions are included only to help us interpret your responses in relation to other questions. Your responses here and throughout the questionnaire will be held strictly confidential.

1. Are you? _____ Male _____ Female

2. How old are you? _____

3. What is your classification?
___ Freshmen ___ Sophomore ____ Junior ____ Senior ____ Graduate ____ Faculty ___ Staff

4. Are you working?
___ No __ Part-time (> 20 hrs/week) __ 3/4 time (20 – 31 hrs/week) __ Full time (32 – 40hrs/week)

5. What is your marital status?
___ Single/never married ___ Married/living with a partner ___ Separated/widowed/divorced

6. Which of the following best describes your ethnicity?
___ Native American ___ Asian __ Caucasian __ African American __ Hispanic __ Other (_____)

7. What is your annual household income from all sources before taxes? *Students, if single, please report your parent's income
__ Less than $9,999 __ $10,000-$29,999 __ $30,000-$49,999 __ $50,000-$69,999 __ $70,000-$89,999
__ $90,000 and more

8. For each age category, please fill in the number of children living with you.
__ None __ Under 6 years old __ 6 to 11 years old __ 12 to 17 years old __ 18 years and older

# BIBLIOGRAPHY


Addis, M. & Holbrook, M. B. (2001). On the conceptual link between mass customization and experiential consumption: An explosion of subjectivity. *Journal of Consumer Behavior, 1*(1), 50-66.

Allen, D. (2001). *Online shopping: Pry before you buy*. Retrieved Feb 15, 2001 from eRetailer, eCommerce: B2C Report on the World Wide Web: http://www.eretailer.com

Anonymous. (August 1999). Nonstore retailing gains favor with consumers. *Chain Store Age*, A29-A32.

Anonymous. (August 2001). Integrating multiple channels. *Chain Store Age,* 24A-25A.

Alba, J. W, & Hutchison, J. W. (1987). Dimensions of consumer expertise. The *Journal of Consumer Research, 13*(4), 411-454.

Ajzen, I. (1988). *Attitudes, personalities, and behavior.* Chicago, IL: Dorsey

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes, 50*(2), 179-211.

Ajzen, I. (2001). Nature and operation of attitudes. *Annual Review of Psychology, 52*, 27-58.

Ajzen, I. (2002). Perceived behavioral control, self-efficacy, locus of control and the theory of planned behavior. *Journal of Applied Social Psychology, 32*(4), 665-683.

Ajzen, I. (2006). Constructing a TpB questionnaire: Conceptual and methodological considerations. Retrieved from World Wide Web in April 2007 from: http://www.people.umass.edu/aizen/pdf/tpb.measurement.pdf

Ajzen, I, Brown, T. C., & Carvajal, F. (2004). Explaining the discrepancy between intentions and actions: The case of hypothetical bias in contingent valuation. *Personality and Social Psychology Bulletin, 30*(9), 1108-1121.

Ajzen, I, & Driver, B. L. (1992). Application of the theory of planned behavior to leisure choice. *Journal of Leisure Research, 24*(3), 207-224.

Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behavior*. Englewood Cliffs, NJ: Prentice-Hall.

Ajzen, I., & Fishbein, M. (1980). Attitudinal and normative variables as predictors of specific behaviors. *Journal of Personality and Social Psychology, 27*(1), 41-57.

Ajzen, I., & Madden, T. J. (1986). Prediction of goal-directed behavior: Attitudes, intentions, and perceived behavioral control. *Journal of Experimental Social Psychology, 22*, 453-474.

Armitage, C. J. & Christian, J. (2003). From attitudes to behavior: Basic and applied research on the theory of planned behavior. *Current Psychology: Developmental, Learning, Personality, Social, 22*(3), 187–195.

Armitage, C. J., & Conner, M. (2001). Efficacy of the theory of planned behavior: A meta-analytic review. *British Journal of Social Psychology*, *40*(4), 471-499.

Arnold, S.J., Handelman, J., & Tigert., D. J. (1996). Organizational legitimacy and retail store patronage. *Journal of Business Research*, *35*(3), 229-239.

Arnold, S. J., Oum, T. H., & Tigert, D. J. (1983). Determinant attributes in retail patronage: Seasonal, temporal, regional and international comparisons. *Journal of Marketing Research, 20*(2), 149–157.

Arnold, M. J. & Reynolds, K. E. (2003). Hedonic shopping motivations. *Journal of Retailing, 79*(2), 77-95.

Baal, S., & Dach, C. (2005). Free riding and consumer retention across retailers' channels. *Journal of Interactive Marketing, 19*(2), 75-85.

Babin, B. J., Darden, W., R. & Griffin, M. (1994). Work and/or fun: Measuring hedonic and utilitarian shopping. *Journal of Consumer Research; 20*(4), 644 – 656.

Bagozzi, R. P. (1982). A field investigation of causal relations among cognitions, affect, intentions, and behavior. *Journal of Marketing Research, 19*(4), 562- 583.

Bagozzi, R. P. (1992). The self-regulation of attitudes, intentions, and behavior. *Social Psychology Quarterly, Special Issue: Theoretical Advances in Social Psychology, 55*(2), 178-204.

Baker, J., Parasuraman, A., Grewal, D. & Voss, G. B. (2002). The influence of multiple store environment cues on the perceived merchandise value and patronage intentions. *Journal of Marketing*, *66*(April), 120-141.

Balasubramanian, S, Raghunathan, R., & Mahajan, V. (2005). Consumers in a multichannel environment: Product utility, process utility, and channel choice. *Journal of Interactive Marketing, 19*(2), 12 – 30.

Bamberg, S., Ajzen, I., & Schmidt, P. (2003). Choice of travel mode in the theory of planned behavior: The roles of past behavior, habit, and reasoned action. Basic *and Applied Social Psychology, 25*(3), 175-188.

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

Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist, 37*(2), 122-147.

Bandura, A. (1990). Reflections on nonability determinants of competence. In R. J. Sternberg & J. Kolligian, Jr. (Eds.), *Competence considered* (pp. 315-362). New Haven, CT: Yale University Press.

Bandura, A. (2007). Much ado over faulty conception of perceived self-efficacy grounded in faulty experimentation. *Journal of Social and Clinical Psychology*, *26*(6), 641-758.

Bansal, H. S., & Taylor, S. F. (2002). Investigating interactive effects in the theory of planned behavior in a service-provider switching context. *Psychology & Marketing, 19*(5), 407–425.

Bateson, J., & Hui, M. (1987). Perceived control as a crucial perceptual dimension of the service experience: an empirical study, in Surprenant, C.F. (Eds), *Add Value to Your Service*, American Marketing Association, Chicago, IL, pp.187-92.

Batra, R. & Ahtola, O. T. (1991). Measuring the hedonic and utilitarian sources of consumer attitudes. *Marketing Letters, 2*(2), 159-170.

Bearden, W. O., Netemeyer, R. G., & Teel, J. E. (1989). Measurement of consumer susceptibility to interpersonal influence. *Journal of Consumer Research, 15*(4), 473-481.

Bender, W. (1964). Consumer purchase costs. *Journal of Retailing*, *40*(1), 1-8, 52.

Bendoly, E, Blocher, J. D., Bretthauer, K. M., Krishnan, S., & Venkataramanan, M. A. (2005). Online/In-Store integration and consumer retention. *Journal of Service Research, 7*(4), 313-327.

Bernheim, B. D. (1994). A theory of conformity. *The Journal of Political Economy, 102*(5), 841-877.

Berry, L. L, & Cooper, L. R. (1992). Competing with time-saving service, in *Managing Services*, Christopher H. Lovelock, ed. Englewood Cliffs, NJ: Prentice Hall, 169-75.

Bickle, M. C., Buccine, R., Makela, C. J. Mallette, D. (2006). Consumers' uniqueness in home décor: Retail channel choice behavior. *International Review of Retail Distribution and Consumer Research, 16*(3), 317- 331.

Bitner, M.J., Brown, S. W, and Meuter, M. L. (2000). Technology infusion in service encounters, *Journal of the Academy of Marketing Science,* 28, 138–149.

Blackwell, R. D., Miniard, P. W., & Engel, J. F. (2001). *Consumer behavior* (9th ed.). Mason, OH: South-Western.

Blakney, V.L., & Sekely, W. (1994). Retail attributes: Influence on shopping mode choice behavior. *Journal of Managerial Issues*, *6*(1), 101-119.

Bloch, P. H., & Richins, M. L. (1983). Shopping without purchase: An investigation of consumer browsing behavior. *Advances in Consumer Research, 10*, 389-393.

Brown, J. R., & Dant, R. P. (2008). Scientific method and retailing research: A retrospective. *Journal of Retailing, 84*(1), 1–13

Burke, R. R. (2002). Technology and the consumer interface: What consumers want in the physical and virtual store. *Journal of the Academy of Marketing Science, 30*(4), 411-32.

Burnkrant, R. E. & Cousineau, A. (1975). Informational and normative social influence in buyer behavior. *Journal of Consumer Research, 2*(3), 206-215.

Childers, T.L., Carr, C.L., Peck, J., & Carson, S. (2001). Hedonic and utilitarian motivations for online retail shopping behavior. *Journal of Retailing, 77*, 511–535

Chang,Y., Burns, L. D., & Noel, C. J. (1996). Attitudinal versus normative influence in the purchase of brand-name casual apparel. *Family and Consumer Sciences Research Journal, 25*(1), 79–109.

Cheung, S. F., Chan, D. K. S., & Wong, Z. S. Y. (1999). Reexamining the theory of planned behavior in understanding wastepaper recycling. *Environment & Behavior, 31*, 587–612.

Chiou, J. (2000). Antecedents and moderators of behavioral intention: Differences between U.S. and Taiwanese students. *Genetic, Social, and General Psychology Monographs, 126*(1), 105–124.

Choi, J., & Park, J. (2006). Multichannel retailing in Korea: Effects of shopping -orientations and information seeking patterns on channel choice behavior. *International Journal of Retail & Distribution Management. 34*(8), 577-596.

Church, A. (1993). Estimating the effect of incentives on mail survey response rates: a meta-analysis. *Public Opinion Quarterly, 57*, 62–79.

Conner, M., & Armitage, C. J. (1998). Extending the theory of planned behavior: A review for further research. *Journal of Applied Social Psychology, 28*(15), 1429–1464.

Coughlan, A. T., Anderson, E., Stern, L. W. and El-Ansary, A. I. (2001). *Marketing Channels.,* Prentice Hall, Upper Saddle River, NJ (2001).

Couper, M. P., Traugott, M. W., & Lamias, M. J. (2001). Web survey design and administration. *Public Opinion Quarterly*, 65, 230-253.

Crawford, J. (2005). Are you really measuring your multi-channel consumer experience? *Apparel, 47*(4), S1-S8.

Crowley, A.E., Spangenberg, E. R., & Hughes, K. R. (1992). Measuring the hedonic and utilitarian dimensions of attitudes toward product categories. *Marketing Letter, 3(*3), 239-240.

Darden, W.R. (1980). A patronage model of consumer behavior, in Stampfl, R.W. and Hirschman, E. (Eds), *Competitive Structure in Retail Markets: The Department Store Perspective, American Marketing Association*, Chicago, IL.

Dhar, R., & Wertenbroch, K. (3000). Consumer choice between hedonic and utilitarian goods. *Journal of Marketing Research, 37*(1), 60-71.

Dholakia, R. R., & Uusitalo, O. (2000). Switching to electronic stores: Consumer characteristics and the perception of shopping benefits. *Under Review* at *International Journal of Retail and Distribution Management*.

Dillman, D. A. (2000). *Mail and Internet surveys--The tailored design method*. New York : John Wiley & Sons, Inc.

Doubleclick. (2004). Retail details: Best Practices in multi-channel Integration. Retrieved May 24, 2007 from the World Wide Web: from www.doubleclick.com

DoubleClick. (2003). 2003 multi-channel holiday shopping study, Retrieved May 24, 2007 from the World Wide Web: from www.doubleclick.com

Downs, A. (1961). A theory of consumer efficiency. *Journal of Retailing, 37*, 6-12, 50-51.

Evans, K. R., Christiansen, T., & Gill, J.D. (1996). The impact of social influence and role expectations on shopping center patronage intentions. *Journal of the Academy of Marketing Science, 24*(3), 208-218.

Farrar, D. E., & Glauber, R. R. (1967). Multicollinearity in regression analysis: The problem revisited. *The Review of Economics and Statistics, 49*(1), 92-107.

Ferber, R. (1977). Research by convenience. *Journal of Consumer Research, 4*(1), 57-58.

Fischer, E., & Arnold, S. J. (1990). More than a labor of love: Gender roles and Christmas shopping. *Journal of Consumer Research*, *17*(3), 333-345.

Fishbein, M. & Ajzen, I. (1975). *Belief, attitude, intention and behavior: An introduction to theory and research.* Addison-Wesley, Reading, MA.

Fisher, J. D., &Fisher, W. A. (1992). Changing AIDS-risk behavior. *Psychological Bulletin*, *111*(3), 455-474.

Fox, S. & Madden, M. (2006). *Generations online. Pew Internet & American Life Project*. Retrieved March 17 2007, from the World Wide Web: http://207.21.232.103/pdfs/PIP_Generations_Memo.pdf

Gagne, C., & Godin, G. (2000). The theory of planned behavior: Some measurement issues concerning belief-based variables. *Journal of Applied Social Psychology, 30*(10), 2173-2193.

Ganesh, J., Reynolds, K. E., & Luckett, M. G. (2007). Retail patronage behavior and shopper typologies: A replication and extension using a multi-format, multi-method approach. Journal of the Academy of Marketing Science, 35(3), 369-381.

Garson, D. (2008). *Multiple regression*. Retrieved March 15 2008, from the World Wide Web: http://www2.chass.ncsu.edu/garson/PA765/regress.htm

Gehrt, K., & Shim, S. (1998). A shopping orientation of French consumers: Implications for catalog marketing. *Journal of Interactive Marketing 12*(4), 34–46.

Goel, L. (2006). Surviving retailing's new age. *Barron's, 86*(12), 55.

Goersch, D. (2002). Multi-channel integration and its implications for retail web sites. *European Conference on Information Systems,* June 6–8, Gdańsk, Poland, 748-758

Gollwitzer, P. M. (1993). Goal achievement: The role of intentions. *European Review of Social Psychology*, *4*, 141-185.

Gupta, A., Su, B., & Walter, Z. (2004). An empirical study of consumer switching from traditional to electronic channels: A purchase-decision process perspective. *International Journal of Electronic Commerce, 8*(3), 131–161.

Harden, A. J. (1992). *Examination of women's attitude towards electronic on-line in-home shopping for apparel information search and purchase.* Doctoral Dissertation. The Ohio State University.

Hirschman, E. C. (1983). Predictors of self-projection, fantasy fulfillment, and escapism. *Journal of Social Psychology, 120*(June), 63-76.

Hirschman, E. C, & Holbrook, M. B. (1982).Hedonic consumption: Emerging concepts, methods, and propositions. *Journal of Marketing, 46*(3), 92-101.

Holman, R. H., & Wilson, R. D. (1982). Temporal equilibrium as a basis for retail shopping behavior. *Journal of Retailing*, *58*(1), 58-81.

Hoover, B. (2001). *Multi-channel integration: The future success of e-tailing*. Retrieved March 12, 2001 from the World Wide Web: www.proxicom.com

Hu, H., & Jasper, C. R. (2006). Social cues in the store environment and their impact on store image. *International Journal of Retail & Distribution Management, 34*(1), 25-48.

Hyde, L. (2003). Twenty trends for 2010: Retailing in an age of uncertainty. *Retail Forward*, 1-33. Retrieved May 18, 2007 from World Wide Web: http://www.retailforward.com/marketing/freecontent/twentytrends.pdf

Jackob N, Zerback T. (2006). Improving quality by lowering non-response—a guideline for online surveys. *Quality Criteria in Survey Research VI*, Cadenabbia, Italy.

Jarvenpaa, S. L. & Todd, P. A. (1997). Consumer reactions to electronic shopping on the World Wide Web. *International Journal of Electronic Commerce, 1*(2), 59-88.

Johnson, J. L. (1999). Face to face… with Sid Doolittle. *Discount Merchandiser, 39*(5), 14-17.

Katz. D. (1960). The functional approach to the study of attitudes. *The Public Opinion Quarterly, Special Issue: Attitude Change, 24*(2), 163-204.

Kaye, B. K., & Johnson, T. J. (1999). Research methodology: Taming the cyber frontier-Techniques for improving online surveys. *Social Science Computer Review, 17*(3), 323-337.

Keen, C, Wetzels, M., Ruyter, K., & Feinberg, R. (2004). E-Tailers versus retailers. which factors determine consumers preferences. *Journal of Business Research, 57*(7), 685-95.

Khakimdjanovaa, L., & Park, J. (2005). Online visual merchandising practice of apparel e-merchants. *Journal of Retailing and Consumer Services, 12*(5), 307-318.

Kim, H-S. (2005). Using hedonic and utilitarian shopping motivations to profile inner city consumers. *Journal of Shopping Center Research, 13*(1), 57-79

Kim, J. & Park, J. (2005). A consumer shopping channel extension model: attitude shift toward the online store. *Journal of Fashion Marketing and Management, 9*(1), 106 - 121.

Kim, Y., & Kang, J. (1997). Consumer perception of shopping costs and its relationship with retail trends. *Journal of Shopping Center Research, 4*(2), 27-62.

Kruger R. M. (1999). Click and mortar. *Discount Merchandiser, 39*(10), 25-31.

Kumar, V., Shah, D.S., Venkatesan, R. (2006). Managing retailer profitability—one consumer at a time! *Journal of Retailing, 82*(4), 277–294.

Kumar, V., & Venkatesan, R. (2005). Who are the multichannel shoppers and how do they perform?: Correlates of multichannel shopping behavior. *Journal of Interactive Marketing, 19*(2), 44-62.

Kurt Salmon Associates. (2000). *Which way to the emerald city? Consumers search for the ideal shopping experience.* Retrieved February 28, 2001, from the World Wide Web: http://www.kurtsalmon.com

Kurt Salmon Associates. (2005). *Multi-channel retailing: Exponential opportunity- insight, information, and profits.* Retrieved May 28, 2007, from the World Wide Web: http://www.kurtsalmon.com

Langer, E. J., & Saegert, S. (1977). Crowding and cognitive control. *Journal of Personality and Social Psychology, 35*(3), 175-182.

Lee, M-Y, Atkins, K. G., Kim, Y-K, & Park, S-H. (2006). Competitive analyses between regional malls and big-box retailers: A competitive analysis for segmentation and positioning. *Journal of Shopping Center Research, 13*(1), 81-98.

Levin, A. M., Levin, I. P., & Heath, C. E. (2003). Product category dependent preferences for online and offline shopping features and their influence on multichannel retail alliance. *Journal of Electronic Commerce Research, 4*(3), 85-93.

Lim, H. & Dubinsky, A. J. (2005). Determinants of consumers' purchase intention on the Internet: An application of theory of planned behavior. *Psychology & Marketing, 22*(10), 833-855.

Loeb, W. F. (1998). Challenges for the new decade. *Discount Merchandiser, 38*(5), 40-42.

Lueg, J. E., & Finney, R. Z. (2007). Interpersonal communication in the consumer socialization process: Scale development and validation. *The Journal of Marketing Theory and Practice, 15*(1), 25 - 39.

Madden, T. J., Ellen, P. S. & Ajzen, I. (1992). A comparison of the theory of planned behavior and the theory of reasoned action. *Personality and Social Psychology Bulletin, 18*(February), 3-9.

Mano, H., & Oliver, R. L. (1993). Assessing the dimensionality and structure of the consumption experience: Evaluation, feeling, and satisfaction. *Journal of Consumer Research, 20*(December), 451-66.

Mathwick, C., Malhotra, N., & Rigdon, E. (2001). Experiential value: conceptualization, measurement, and application in the catalog and Internet shopping environment. *Journal of Retailing, 77*(1), 39-56.

Mathwick, C., Malhotra, N., & Rigdon, E. (2002). The effect of dynamic retail experiences on experiential perceptions of value: An Internet and catalog comparison. *Journal of Retailing, 78*(1), 51-62.

Madlberger, M. (2006). Exogenous and endogenous antecedents of online shopping in a multichannel environment: Evidence from a catalog retailer in the

German-speaking world. *Journal of Electronic Commerce in Organizations, 4*(4), 29-51.

Marmorstein, H., Grewal, D., & Fishe, R. P. H. (1992). The value of time spent in price-comparison shopping: Survey and experimental evidence. *The Journal of Consumer Research*, *19*(1), 52-61.

Mcgoldrick, P. J. & Collins, N. (2007). Multichannel retailing: Profiling the multichannel shopper. *The International Review of Retail, Distribution and Consumer Research, 17*(2), 139 - 158.

Monsuwe, T. P., Dellaert, B. G. C., Ruyter, K. (2004) What drives consumers to shop online? A literature review. *International Journal of Service Industry Management, 15*(1) 102

*Multi-Channel Retail Report 2001. (*2001). Retrieved March 17, 2007, from the World Wide Web: http://retailindustry.about.com/library/weekly/01/aa011010a.htm

Myers, J. B., Pickersgill, A. D., & Van Metre, E. S. (2004). Steering consumers to the right channels. *The McKinsey Quarterly, 4,* 36–47.

Neslin, S. A., Grewal, D., Leghorn, R., Shankar, V., Teerling, M. L., Thomas, J. S., & Verhoef, P. C. (2006). Challenges and opportunities in multichannel consumer management. *Journal of Service Research, 9*(2), 95-112.

Nichols, D., Smolensky, E., Tideman, T. N. (1971). Discrimination by waiting time in merit goods**.** *The American Economic Review*, *61*(3), 312-323.

Nicholson, M., Clarke, I., & Blakemore, M. (2002). One brand, three ways to shop: Situational variables and multichannel consumer behavior. *International Review of Retail, Distribution and Consumer Research, 12*(2), 131-48.

Noble, S. M., Griffith, D. A., & Weinberger, M. G. (2005). Consumer derived utilitarian value and channel utilization in a multi-channel retail context. *Journal of Business Research, 58*(12), 1643 - 1651

Notani, A. S. (1998). Moderators of perceived behavioral control's predictiveness in the theory of planned behavior: A meta-analysis. *Journal of Consumer Psychology, 7*(3), 247-271.

O'Curry, S. & Strahilevitz, M. (2004). Probability and mode of acquisition effects on choices between hedonic and utilitarian options*. Marketing Letters, 12*(1), 37-49.

Osborne, J.,& Waters, E. (2002). Four assumptions of multiple regression that researchers should always test. *Practical Assessment, Research &*

*Evaluation, 8*(2). Retrieved March 24, 2008 from the World Wide Web: http://PAREonline.net/getvn.asp?v=8&n=2 .

Palmer, J. W. (1997). Electronic commerce in retailing: Differences across retail formats. *The Information Society An International Journal, 13*(1), 75 – 91.

Pavlou, P. A. & Fygenson, M. (2006). Understanding and predicting electronic commerce adoption: An extension of the theory of planned behavior. *MIS Quarterly, 30*(1), 115-143.

Peterson, R. A. (1997). Electronic marketing: visions, definitions, and implications. In Robert A. Peterson (Ed.), *Electronic Marketing and the Consumer* (pp. 1-16). Thousand Oaks, CA: Sage.

Ponsford, B. (2000). E-QUAL and promotional tactics of Internet marketing for brick-and-mortar retailers. In: Evans, J.R., Berman, B. (Eds.), *Retailing 2000: Launching the New Millennium*, *Special Conference Series, V.IX 2000, Proceedings of the Six Triennial National Retailing Conference Presented by the Academy of Marketing Science and the American Collegiate Retailing Association*, Academy of Marketing Science, Hofstra University, Hempstead, NY, pp. 130–134.

Porter, S. R., & Whitcomb, M. E. (2003). The Impact of contact type on web survey response rates. *Public Opinion Quarterly, 67*(4), 579-588.

Pulliam, P. (1999). To Web or not to Web? Is not the question but rather: when and how to Web?. *Direct Marketing, 62*(1), 18-24.

Punj, G., & Moore, R. (2008). Information search and consideration set formation in a web-based store environment. *Journal of Business Research* (In press).

Rangaswamy, A. & Bruggen, G. V. (2005). Opportunities and challenges in multiChannel marketing: An introduction to the special issue. *Journal of Interactive Marketing, 19*(2), 5-11.

Rauh, T. & Shafton, S. (n.d.). *In the Internet era, retailers must become multi-channle and consumer centric fast*. Retrieved October 18, 2001 from the World Wide Web: http://www.dttus.com/PUB/Retail/vol0803/vol80301.htm

Reardon, J., & McCorkle, D. E. (2002). A consumer model for channel switching behavior. *International Journal of Retail and Distribution Management, 30*(4), 179-185.

Reda, S. (2002). On-line retail grows up. *Stores*. Retrieved September 15, 2002 from the World Wide Web: http://www.webmaster.org

Rosen, D. L., (1987). A protocol analysis of brand choice strategies involving recommendations*. Journal of Consumer Research, 14*(3), 440

Ryan, M.J., Bonfield, E.H. (1980). Fishbein's intentions model: A test of external and pragmatic validity. *Journal of Marketing, 44*(2), 82-95.

Salanova, M., Grau, R. M., Cifre, E., & Llorens, S. (2000). Computer training, frequency of usage and burnout: the moderating role of computer self-efficacy. *Computers in Human Behavior, 16*(6), 575-590.

Seth, J. N. & Sisodia, R. S. (1997). Consumer behavior in the future. In Robert A. Peterson (Ed.), *Electronic Marketing and the Consumer* (pp. 17-37). Thousand Oaks, CA: Sage.

Shepherd, B. H., Hartwick, J., &Warshaw, P. R. (1988). The theory of reasoned action: A meta-analysis of past research with recommendations for modifications and future research. *Journal of Consumer Research*, *15*(3), 325-342.

Shim, S., & Drake, M. F. (1990). Consumer intention to purchase apparel by mail order: Beliefs, attitude, and decision process variables. *Clothing and Textiles Research Journal, 9*(1), 18-26.

Shim, S., Eastlick, M. A., & Lotz, S. (2000). Assessing the impact of Internet shopping on store shopping among mall shoppers and Internet users. *Journal of Shopping Center Research 7*(2), 7-44.

Shern, S. (2000). Retailing in the multi-channel age*. Chain Store Age, 76*(5), 1-3.

Sherry, J. R., Jr. (1990). A sociocultural analysis of a midwestern American flea market. *Journal of Consumer Research, 17*(1), 13-30.

Sherry, J.F., McGrath, M.A., Levy, S.L. (1993). The dark side of the gift. *Journal of Business Research, 28*(3), 225-244.

Shimp, T. A., & Kavas, A. (1984). The theory of reasoned action applied to coupon usage. *The Journal of Consumer Research, 11*(3), 795-809.

Shop.org. (2001). *The Multi-Channel Retail Report 2001.* Washington, DC: National Retail Federation

Shosteck, H. (1975). Shopping, voting, and media preference. *Journal of Advertising Research, 15*, 38.

Sinioukov, T. (2000) I is for integration, *Dealerscope, 42*(12), pp. 26–30.

Slack, F., Rowley, J., & Coles, S. (2008). Consumer behavior in multi-channel contexts: the case of a theatre festival. *Internet Research, 18*(1), 46-59.

Stone, M., Hobbs, M., & Khaleeli, M. (2002). Multichannel consumer management: The benefits and challenges. *Journal of Database Management, 10*(1), 39–52.

Sullivan, U. Y. & Thomas, J. S. (2004). Consumer migration: An empirical investigation across multiple channels. Retrieved May 24, 2007 from the World Wide Web: http://www.business.uiuc.edu/Working_Papers/papers/04−0112.pdf

Taylor, S, & Todd, P. (1995a). Decomposition and crossover effects in the theory of planned behavior: A study of consumer adoption intentions. *International Journal of Research in Marketing, 12*, 137-155

Taylor, S., & Todd, P. A. (1995b). Understanding information technology usage: A test of competing models. *Information Systems Research, 6*, 144–176.

Tedeschi, B. (November 2, 2005). Turning the online store into a multiplex, *The New York Times, 2*, 4.

Triandis, H. C. (1977). *Interpersonal behavior*. Monterey, CA: Brooks/Cole.

Verhoef, P. C., Neslin, S. A., & Vroomen, B. (2005). Browsing versus buying: Determinants of consumer search and buy decisions in a multi-channel environment. *University of Groningen, the Netherlands*.

Vijayasarathy L. R. (2002). Product characteristics and Internet shopping intentions. *Internet Research: Electronic Networking and Policy, 12*(5), 411-426.

Wallace, D. W, Giese, J, and Johnson, J. L. (2005).Consumer retailer loyalty in the context of multiple channel strategies. *Journal of Retailing, 80*(4), 249-263.

Westbrook, R. A., & Black, W. (1985). A motivation-based shopper typology. *Journal of Retailing, 61(Spring)*, 78-103.

Williams, T. & Larson, M. J. (2004). *Creating the ideal shopping experience what consumers want in the physical and virtual store*. Retrieved June 10, 2007 from the World Wide Web: http://www.kpmg.ca/en/industries/cib/consumer/documents/CreatingIdealShoppingExperience.pdf

Worzala, E. M. & McCarthy, A. (2001). Bricks-and-clicks: e-commerce strategies for the chain retailer. *Journal of Shopping Center Research, 8*(2), 7–34.

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