

## THE EFFECT OF MULTI-CHANNEL STORE IMAGE ON PURCHASE INTENTION

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### Abstract

Consumer practices of purchasing goods and services through multiple channels versus a single channel, such as a physical store, have become common and reflect a change in purchase behaviors. Consequently, retailers have begun making adjustments to their strategies to integrate physical and virtual channels. Channel integration or multi-channels offer several benefits and options to consumers and retailers. The two most notable include the choices in the way consumers can interact with the retailer and the consumer's ability to select a channel that best suits his/her preference and the type of interaction. This study proposed that the multi-channels store image has a positive effect on purchase intention and consumer characteristics moderate the relationship. The results indicate that of the six multi-channel store image dimensions, only financial, psychosocial, time and convenience, and usefulness influence purchase intention. Consumer characteristics did not moderate the relationship.

### 1. Introduction

Consumer practices of purchasing goods and services through multiple channels versus a single channel, such as a physical store, have become common and reflect a change in purchase behaviors. Consequently, in response to changing consumer trends, retailers have begun adjusting their strategies to incorporate the integration of physical and virtual channels. For example, a marketing executive officer for eBay, Taiwan stated that the integration of their physical and virtual channels will reinforce each other since one is not sufficient to support today's markets. Hanson [19] suggests that the integration of physical and virtual distribution will provide businesses the competitive advantage needed to achieve greater profits as it promotes shared information, helps the business maintain its relationships, and allows the business to circulate promotions over the Internet. Yet, the integration must suit the idiosyncrasies or personality of the business. In this regard, Gulati and Garino [18] propose a "right mix" strategy. Often the benefits of integration, such as cross-promotion, shared information and purchase leverage, will outweigh those of separate channels. Thus, integrating the physical and virtual channels may provide businesses with the edge to more efficiently reach their markets and better capture consumer demands.

Virtual channels have become commonly accepted as retailing over the Internet (e-tailing) has gained in popularity. Visa International reported that global retail sales exceeded US\$150 billion in 2004 and its average transaction jumped to US\$107 from US\$70 in 2003. Furthermore, Forrester Research predicts US online retail sales alone will reach US\$230 billion by 2008 and suggests that 66 percent of online households research products online for purchase, 52 percent contact customer service via e-mail and 35 percent research free products or search for coupons. Thus, many consumers are comfortable with navigating and purchasing goods over the Internet. The synergy of physical and virtual channels impacts not only the traditional marketing model but also consumer purchase behavior. A survey of DoubleClick indicates that 45 percent of web shoppers make their purchases through retail stores, 15 percent of catalog browsers purchased through the retailer's web site, and 17 percent of retail window shoppers bought online.

For the consumer, virtual channels present different opportunities. Compared to shopping through the physical channels where consumers move from one store to another in search of the *best* price and/or value, browse the shelves for a product that satisfies their likings, and converse with the sales staff for product information, virtual channels offer a different set of conveniences. A.C. Nielsen reports the top five reasons for people shopping online were crowd avoidance (38 percent), lower prices (35 percent), ease of comparing products and prices (28 percent), avoiding the inconvenience of traveling to stores (28 percent) and wider selections of products (26 percent). However, purchases that require a complex process to complete (e.g., financial products or insurance) tend to be better situated for face-to-face meetings in a physical store. In determining which channels best suite the nuances of their business, retailers must examine the opportunities each channel and combination of channels presents to their customers.

For the retailer, the multi-channel store image will influence customer buying behavior. Because the ample availability of merchandise and information works in the customer's favor, most online shoppers (67 percent) now seek value in their purchases. A Millard Group survey indicates that of those who sought value, 93 percent stated they received merchandise they believed was high quality, 88 percent agreed their purchase was a good value and 84 percent received merchandise that met or exceeded their expectations. However, sites that request too much information annoy customers and drive away 35 percent of the potential buyers as reported by NetIQ Web Trends. As more consumers become familiar with and adopt online shopping (purchasing), the integration of channels will become crucial to retailers. Thus, with looming market potentials and opportunities, *what consumer-based factors should a retailer focus on in projecting a multi-channel store image that will positively influence purchase intentions?* Prior studies (e.g., [17], [49]) have examined the effects of store image from either physical or online (virtual) channels, but not as an integration of the two.

This study examines the influence of a multi-channel store image on purchase intention from the consumer's perspective and the moderating effect of consumer characteristics on the relationship. With advances in information technology (IT), consumers now have many unprecedented opportunities available to them, such as purchasing merchandise through a physical store as a result of online information gathering via the Internet, or online purchasing on a retailer's web site after browsing and gathering information at the physical store. Given these increasingly common practices, retailers must carefully attend to developing and coordinating both their physical and virtual channels. For example, van der Heijden et al. [49] cite the challenges and differences in perceived risks (with physical and virtual channels) that impact purchase intentions. Technology also poses challenges to consumers and narrows the target groups to those who possess online backgrounds, experiences and/or certain demographics. The effect may be such that store image and consumer characteristics interact to increase purchase intentions, giving consumer characteristics a moderating effect.

## **2. Background**

### **2.1 Store Image and Channels**

The American Marketing Association (AMA) provides two definitions of store image, one from a consumer behavioral perspective and the other from retailing. For the former, the AMA defines store image as "the total of what consumers think about a particular store." Similarly, the retailing definition involves "the way in which a store is defined in a shopper's mind. It is based on the store's physical characteristics, retailing mix, and a set of psychological attributes." This study aligns with the retailing definition and follows the definition forward by Marks [27] and Martineau [30] that store image is the image a shopper perceives or associates with a store and is developed over time through the interactions of physical qualities and psychological attributes. It reflects the personality the store projects to the public [48]. Several cognitive [22] and affective factors [32] and subjective thinking [6] go into building the image. Oxenfeldt [40] suggests that image is the combination of truth and emotion which means the store characteristic is seen and perceived by the customers' psychological emotion.

The definition put forth by Martineau [30] encompasses two components: functional qualities and psychological attributes. Lindquist [25] posits that functional qualities include merchandise selection, price range, credit policies, store layout and other elements that can objectively compare against competitors. In contrast, psychological attributes involve emotional responses, such as feelings of belonging and warmth, friendliness, and excitement or interest.

The importance lies in the positive relationship between store image and consumer purchase intentions [17]. It affects purchasing decisions, such that the better the store image, the better the perceived shopping environment and service quality, and consequently lends greater credibility to merchandise quality. Thus, establishing a positive store image facilitates the contact between the business and customers.

Stern and Ansary [46] and Friedman and Furey [15] define a channel as a set of interdependent organizations that moves a product from its point of production to point of its consumption, and includes all marketing activities within the process that create customer value. Mitchell [34] and Mitchell and Harris [35] proposed four perceived risk dimensions associated with physical channels: physical (i.e., atmosphere, environment, utility), financial (i.e., economy, value, alternatives), time and convenience (i.e., time savings, ease and convenient operation), and psychological (i.e., information gathering, self-gratification, power and authority). Understanding and addressing (i.e., reducing, suppressing, etc.) these risks helps in developing a positive or favorable store image, and consequently increases purchase intentions. Prior studies that have examined virtual channels (e.g., [12], [28], [42], [48]) have generally identified several dimensions, including attitude, security, privacy, design, entertainment/enjoyment, information/information content, efficiency, ease of use, usefulness, settlement and trustworthiness, and characteristics, including home page, overall web site design and performance, text content, audio-visual elements, interaction and involvement. Many of these studies have directly or indirectly tested their effects on customer purchase intention or a

related variable, such as loyalty or satisfaction.

Channel integration or multi-channels offer several benefits and options to consumers and retailers. Multi-channel retailing focuses on using more than one channel in a consistent and coordinated manner to provide consumers with numerous touch-points or points at which they may initiate and conclude a purchase of a product or service [47]. The two most notable benefits that multi-channels extend to customers are the choices in the way they can interact with the retailer and the ability to select a channel that best suits their preference and the type of interaction (e.g., information search vs. problem handling). Conversely, multi-channels allow the retailer to cater to a wider variety of customers [15]. Multi-channels also open the opportunity to provide different services [8]. For example, a physical store allows the customer to handle, try (experience) and immediately purchase an item. Yet, the ubiquity of virtual channels increases customer contact and opens access to a variety of product information [17]. Because messages and presentations may be personalized, virtual channels may have a greater influence on customer loyalty.

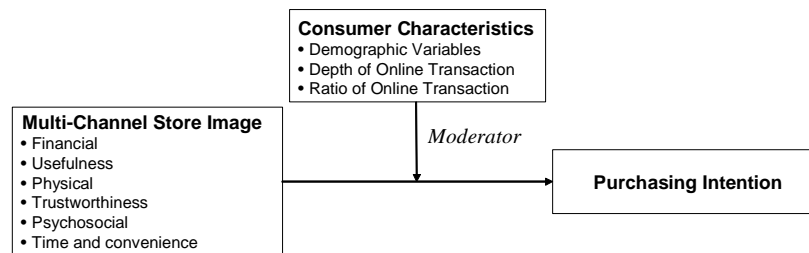
## 2.2 Purchase Intentions

The theoretical foundation supporting purchase intentions, the theory of reasoned action (TRA), states that behavioral intentions formed through the attitude toward a behavior and subjective norms lead to actual behavior given the availability of resources and opportunities [1], [2]. Azjen [1] suggests that generally, the stronger a person's intention, the more likely he or she will perform a behavior. The attitude toward a behavior reflects a person's interest in performing a particular behavior, and is determined through behavioral beliefs. These beliefs are derived through a cognitive evaluation of outcomes associated with performing the behavior and the strength of the associations between outcomes and behavior. The evaluation produces either a favorable or unfavorable response to the object, person, thing or event. In contrast to attitudes, subjective norms set a standard for perceived acceptable behavior based on a person's referents, people or groups that influence or motivate a person's behavior through their approval or disapproval (i.e., social pressure). Normative beliefs motivate a person to comply with his or her subjective norms. Hence, methods to instill a belief of what is proper or desired behavior, and increase the association between desired outcomes and behavior will increase the chances of intended and actual behavior.

Based upon TRA, purchase intention can be used to predict actual purchase behavior. Prior studies have identified a positive relationship between purchase intentions and purchase behavior (e.g., [36]). As it applies to purchase intentions, the multi-channel store image must instill positive attitudes and relate positive normative beliefs to achieve purchase intentions.

## 3. Research Model

Figure 1 illustrates this study's research model. It proposes that the multi-channels store image has a positive effect on purchasing intention and the consumer characteristics moderate the relationship. Multiple-channels store image reflects a customer's perception of the store and the perceived risks that are associated with dealing with the store. In contrast to prior studies that examined store image, many of which concentrated on identifying the organizational or operational attributes of the store that made certain impressions on the customer (i.e., physical and psychological attributes), this study approaches store image from the customers' perspective and examines six salient variables that are involved during their decision making process (to purchase a product).



**Fig. 1 Research model**

The consumer characteristics chosen were based on prior research [23], and include demographic variables (age, gender, income level, education level), depth of transaction (frequency of Internet use, highest acceptable transaction price, average transaction price, time interval of online shopping), and ratio of online transactions to both physical store and online transactions. Prior surveys indicate age, gender, household income and education influence online purchases. For instance, although younger males are more likely to browse the Internet, older males with higher incomes are more inclined to purchase products and services online. The depth of transaction and ratio of online transactions reflect a person's familiarity, experience, comfort level and confidence with online purchases.

Multi-channel store image variables reflect risk and usefulness as they appear among the most significant in the customer's decision making process for purchasing a product or service from a store (i.e., the intent to purchase). These include the four risks Mitchell [34] identified, physical (i.e., product quality and assortment), financial, time and convenience (i.e., location and layout, one-stop shop, speed) and psychosocial (i.e., after-sale service, attitude of sales staff), and two other variables that appear common across prior studies (e.g., [48]), trustworthiness (i.e., safety of transaction, privacy) and usefulness (i.e., shipping notification, comparison information, personalized services). Reducing these risks (i.e., increasing the effectiveness of the dimension by overcoming the risks) and increasing trustworthiness and usefulness will have positive effects on purchase intentions, particularly in forming positive attitudes toward buying a product or service.

The four dimensions adopted from Mitchell [34] and Mitchell and Harris' [35] risks shape consumer attitudes toward purchasing. The financial dimension concerns the achievement of value through pricing [48], discounts [39], and return and refund policies [3], [36]. It is based on the availability of information for the consumer to compare alternatives and make informed decisions (i.e., best value for the money). Although physical risks embrace a broader definition that is associated with physical stores (i.e., layout, comfort of the physical environment, cleanliness, quality, assortment, etc.), this study focuses on two attributes that better pertain to both physical and virtual stores, product quality and assortment [25]. The physical dimension addresses the comfort of the environment that Lumpkin et al. [26] cite. The time and convenience dimension refers to the amount of time required to find a store and purchase a product, and/or rectify a problem with it [35]. This dimension is characterized by attributes that capture consumer's perception to one-stop shopping [3], [7], convenience of location [44], location and layout planning [48], and fast checkouts [39]. The psychosocial dimension often involves the consumer's self-image and self-esteem, and subjective norms with the perceived risk of engaging in an action that would harm the image he/she wants to project or place him/her into an unfavorable position with others. Psychosocial variables have been used to successfully predict purchase intentions [43]. This study has selected attributes that reflect the consumer's confidence in the store and thereby promote his/her purchase intention, including friendly store personnel [20], [23], [39], [41] and after-sales service [33]. Store personnel convey the commitment, intentions and image of the retailer to the customer, and are instrumental in forming attitudes toward purchases. Lapses in friendliness and after-sales service (based on reputation) often result in a negative attitude and impact on purchase intention. Advances in information, telecommunication and web technologies have contributed towards instilling greater consumer awareness and reducing perceived threats attributed to risks and uncertainties. By increasing consumer accessibility to information, consumers become better informed, which in turn will boost consumer purchase intentions.

Usefulness and trustworthiness have been empirically tested as determinants of intention (e.g., [10], [16]). Perceived usefulness in the context of the consumer can be described as a feature or property that enhances the performance of a task in a non-organizational setting [16]. Because a consumer uses a channel to gather information that directly pertains to his/her decision making task at hand, usefulness describes the channel's ability to support his/her information needs. Order process flow, product search and comparison, and personalized service [9] are usefulness features that frequently influence purchase intention. A focus group composed of frequent multi-channel shoppers also identified process flow (i.e., ability to inform the customer of his/her purchase status including its whereabouts) and information search comparisons as attributes of a channel's usefulness. Although measured differently, perceived usefulness has been found to positively influence purchase intentions (e.g., [11], [48]).

Trust is critical to transactions, especially those conducted online. Mayer et al. [31] define trust as a person's willingness to make him/herself vulnerable to the actions of another party with the expectation the other party will perform a particular action important to the person, irrespective of having the ability to monitor or control the party. In their study of factors influencing online purchase intentions, So et al. [45] reported that security breaches (59.5 percent strongly agreed) and privacy violations (44.2 percent strongly agreed) were top concerns of consumers. Similarly, Ranganathan and Ganapathy [42] report security as the best predictor of online purchase intent, with privacy as the second. This study uses transaction security data privacy to represent trustworthiness. Given these six descriptors, a positive multi-channel store image should have a positive effect on consumer intention.

*H1: Multi-channels store image has a positive effect on consumer purchase intention*

*H1a: Financial has a positive effect on consumer purchase intention*

*H1b: Usefulness has a positive effect on consumer purchase intention*

*H1c: Physical has a positive effect on consumer purchase intention*

*H1d: Trustworthiness has a positive effect on consumer purchase intention*

H1e: *Psychosocial has a positive effect on consumer purchase intention*

H1f: *Time and convenience has a positive effect on consumer purchase intention*

Online channels pose particular (computer) technology challenges to consumers. Their familiarity and experience with the Internet and technology will influence their propensity toward multi-channel store images. Consumer characteristics that capture their capabilities, including demographics, depth of transaction and ratio of online transactions to both physical store and online transactions, may enhance (moderate) the effects of multi-channel store image in shaping their attitudes on their purchase intentions.

H2: *Consumer characteristics moderate the relationship between multi-channels store image and purchasing intention.*

H2a: *Consumer demographics moderate the relationship between multi-channel store image and purchasing intention.*

H2b: *Consumer depth of online transaction moderates the relationship between multi-channel store image and purchasing intention.*

H2c: *Consumer ratio of online transaction moderates the relationship between multi-channel store image and purchasing intention.*

For a retailer to gain a competitive advantage or remain competitive in today's markets, it must be able to accommodate consumers through the integration of channels or multi-channels, particularly in consumer savvy markets. As proposed in this study, increasing a buyer's purchase intention requires the retailer to project a multi-channel store image that addresses risks and trust issues, and conveys usefulness.

#### **4. Methodology**

To test the proposed model, a survey questionnaire was developed and administered to shoppers of two bookstores in Taiwan that rely on both physical and virtual channels to market their catalogs. Items were adopted from prior studies (cited in the previous paragraphs) and focus group discussions with frequent multi-channel consumers to represent the seven dimensions (physical, financial, psychosocial, time and convenience, usefulness, trustworthiness, purchase intention). Measures (items) were stated on five-point Likert-type scales (1 = strongly disagree, 5 = strongly agree). The initial questionnaire was pretested by a panel of domain experts who subsequently proposed several refinements to enhance the validity of the items and improve their readability. To ensure the meanings and content of the items were not lost or altered, the items were translated from English to Mandarin and back to English. After adjusting the instrument as prescribe by the panelists, a survey of mostly college-student bookstore shoppers was conducted. Respondents were required to possess multi-channel (i.e., physical and virtual channels) experience. Of the 280 questionnaires distributed, 246 were returned completed and usable for a response rate of 87.8 percent.

A review of the demographics reveals 51.6 percent of the respondents were male, and the predominant age group was between 21 and 30 (74 percent). Eighty-one percent were students, of which 98 percent have or were pursuing a college (non-graduate) education. Table 1 displays the means, standard deviations and correlations of the seven dimensions.

#### **5. Analysis**

Following the work of Anderson and Gerbing [4], a confirmatory factor analysis (CFA) was conducted (in AMOS 5.0) to examine the validity of the measurement model. The overall model statistics reveal the following:  $\chi^2 = 318.964$  (d.f. = 207), goodness of fit index (GFI) = 0.90, incremental fit index (IFI) = 0.96, comparative fit index (CFI) = 0.96, and root mean square error of approximation (RMSEA) = 0.047. No unidirectional paths were specified between any of the constructs (dimensions). Tests for construct reliability revealed Cronbach alphas (for the seven constructs) between 0.72 and 0.90 (Table 1). Since each exceeds .70, the results suggest high internal consistency [34]. The results of convergent validity indicate the observed measures are related to one another as all factor loadings are significant and the average variance extracted (AVE) exceeds the Barclay et al. [5] recommended threshold of .50 (Table 1). The correlations between the measures of potentially overlapping constructs were examined to assess discriminant validity. As shown in Table 1, the main constructs are more strongly correlated with their own measures than with the others. The square root values of the AVE (along the diagonal) are greater than the construct correlations (off the diagonal). Therefore, the results suggest discriminant validity [13].

A structural model tested in the previously presented hypotheses. The  $\chi^2$  statistic of 1.541 is within the acceptable limit [29]. Several goodness of fit indices of the model are presented in Table 2. The normed fit index (NFI) and

comparison fit index (CFI) are both close to 1, suggesting an excellent fit between the structural model and the data. RMSEA is well below the recommended threshold value of .08 [7]. The parsimony-adjusted NFI [21] of the revised model is 0.73, which is significantly above the suggested value of .60 [37], [50], indicating highly acceptable levels of parsimony and fit of the overall model. All of these fit indices are acceptable and therefore suggest that the overall structural model provides a good fit with the data.

### 5.1 Hypotheses Testing

Tables 2 and 3 present summaries of the hypothesis tests. The structural links to purchase intention from financial (H1a), usefulness (H1b), psychosocial (H1e), and time and convenience (H1f) are supported. However, the data do not support the links from physical (H1c) and trustworthiness (H1d). Thus, the model is only partially supported as only four of the six proposed multi-channel store image dimensions influence purchase intention.

**Table 2 Results of hypotheses and model statistics**

	Path Coefficient	t-value	Results
Financial → Purchase intention (H1a)	0.15	2.27*	Supported
Usefulness → Purchase intention (H1b)	0.14	2.11*	Supported
Physical → Purchase intention (H1c)	0.03	0.54	Not supported
Trustworthiness → Purchase intention (H1d)	0.00	0.04	Not supported
Psychosocial → Purchase intention (H1e)	0.26	3.90**	Supported
Time and convenience → Purchase intention (H1f)	0.14	2.15*	Supported
<b>Goodness of Fit Statistics</b>			
$\chi^2$		318.964	
df		207	
$\chi^2/df$		1.541	
GFI		0.90	
IFI		0.96	
CFI		0.96	
Parsimony-adjusted NFI		0.73	
RMSEA		0.047	

\* p < .05, \*\* p < .01

**Table 3 Moderation effects**

<i>Panel A</i>	Dependent Variable: Purchase Intention (PI)		
	Model 1 Main Effects	Model 2 Moderator Direct Effects	Model 3 Moderated Effects
Multi-channel store image (MCSI) → PI	.47**	.47**	-.07
Gender → PI		-.01	.99
Age → PI		-.08	-.54
Education → PI		-.06	-.89
Occupation → PI		-.05	-.68
MCSI x Gender → PI			-1.03
MCSI x Age → PI			.54
MCSI x Education → PI			.99
MCSI x Occupation → PI			.61
R <sup>2</sup>			
PI	.22	.23	.26
<i>Panel B</i>			
MCSI → PI	.47**	.47**	.50
Depth of online transaction (DOT) → PI		-.08	-.02
MCSI x DOT → PI			-.06
R <sup>2</sup>			
PI			
<i>Panel C</i>			
MCSI → PI	.47**	.47**	.47**
Ratio of online transaction (ROT) → PI		.00	.04
MCSI x ROT → PI			-.04
R <sup>2</sup>			
PI	.22	.22	.22

\* p < .05, \*\* p < .01

The moderating effect suggests that customer characteristics, represented by demographics, depth and ratio of online transactions (i.e., intervening variables), enhance the effects of multi-channel store image on purchase intention. To test for a moderating effect, interaction terms were introduced in Model 3 with Models 1 and 2 testing for the main effect and the moderator direct effects, respectively (Table 3). The results in Panels A, B and C indicate that none of the moderating variables is significant. As such, hypotheses H2a, H2b, and H2c are not supported. This implies that none of the characteristics enhances the effect of multi-channel store image on purchase intention.

## 6. Discussion

Advances in information and communication technologies have opened new opportunities for retailers to reach and serve their customers. In contrast to traditional (unidimensional) physical channel retailing, multi-channel retailing reaches consumers both physically and virtually to create various opportunities for them to better inform themselves and numerous touch points to initiate a purchase. As a result, consumer expectations of service have dramatically changed. Thus, creating a store image that captures the appeal of consumers, influences the attitudes towards a retailer and product, and reassures or boosts their behavioral beliefs plays importantly to retailers, particularly to reduce perceived risks and increase self-efficacy.

This study examined the effects of six multi-channel store image dimensions, four of which were based as perceived risks, to purchase intentions. The dimensions can be considered as essential elements to a purchase decision making task leading to purchase intention. In contrast to prior studies that focused on organizational or operational aspects of building a positive store image, the dimensions reflect the consumer's perspective. Based upon TRA, purchase intention is used as a surrogate measure for actual purchase behavior.

The results of this study suggest that of the six dimensions only four, financial, psychosocial, time and convenience and usefulness, influence purchase intention, and none of the proposed moderators enhance the effects of these dimensions on purchase intention. The salience of these dimensions indicates that consumers perceive multi-channels as means for offsetting or mitigating risks persistent to either a physical or virtual channel, increasing value through greater awareness of competing products and services and prices, and accessing information relevant to supporting their purchase decisions (i.e., purchase intention). Financial risks primarily concern a product's or service's value, such as the amount paid (e.g., benefit versus cost) or the inability to resolve performance issues (e.g., having to absorb a loss due to no refund or restrictive exchange policies). Such risks can be averted or reduced through information which has become more readily available through the Internet (virtual channel) than the stores (physical channel). Internet portals, such as Cnet.com, allow consumers to view and compare the total costs (i.e., selling prices, taxes, shipping and handling) and availability of electronic products from various retailers and link to their sites to learn of their return and exchange policies, and contact information. The consumer can use this information to weigh his/her alternatives for the best value, which may not necessarily be based on price alone.

Time and convenience risks are often reduced through online inquiries. For example, Sears.com informs customers of the product's availability at the stores closest to them, allows them to purchase the item online and presents them with a choice of taking delivery in the store or their home. The web site (virtual channel) works with the stores to direct customers to a convenient store location to experience the item (physical channel), and provides customized maps and directions from a specified address. Problems (i.e., returns, exchanges) may be resolved either online or over the phone. In another example, Ikea creates a shopping experience in its stores with "live" displays that mimic the home environment and provides consumers who visit their web site a map, directions and information (i.e., address, phone numbers, store hours) of the stores within 250 mile radius of a starting location. However, consumers may find buying through the Internet more convenient as they can avoid travel and quickly narrow their searches to view specific categories in the catalog.

Consumers often face psychosocial risks through uncertainties in a product's effect on their self-image. Store personnel (physical channel) provide reassurances during and after the sale to the customer that product he/she has chosen is the *right* choice. However, a web site (virtual channel) has the advantage of consistently projecting a graphic and lasting image of the ownership experience through such means as streaming video and virtual showrooms. The consumer has the option of purchasing the item online or through the (physical) store.

Lastly, the usefulness dimension emphasizes the need to provide access to information and support the consumer's decision making task. Burke's [9] study indicates access to product and personal historical information are among the highest concerns for both online and physical stores customers. For online customers, tracking an order reassures the (eventual) receipt of the item and expectations of the retailer's performance. With bar code and newer radio frequency identification (RFID) technologies, a customer's order can be accurately tracked from the warehouse to the customer's home. Information may not be confined to catalog descriptions and technical specifications, but may also include other customer comments and ratings. Often retailers, such as Borders/Amazon.com (books and movies) and Home Depot

(home improvements), ask readers if the information is useful.

The physical and trustworthiness dimensions appear not to be major determinants of purchase intention. Consumers may overcome physical risks (assortment and quality) through the usefulness, and time and convenience dimensions. Having access to product information and availability allows consumers to weigh alternatives, become more informed and better judge quality. Thus, the physical dimension is not critical to forming purchase intention when other avenues are available to consumers. Trustworthiness has been principally associated with e-commerce and online stores. Because multi-channels create numerous touch points (for customers to purchase a product), consumers have alternatives to making a purchase. Compared to the total number of retail transactions, physical store transactions still overshadow online transactions. Forrester Research projects in 2010 online sales will grow to 12 percent of total retail sales. This indicates the vast majority of consumers do not perceive security breaches or violations of privacy as a threat as they can still rely on the physical stores to conduct their transactions; they may feel less vulnerable in a face-to-face setting. Hence, consumers may not see trustworthiness as contributing to their purchase intention.

As for the non-significance of the moderators, a consumer's characteristics as reflected in his/her demographics including income, education and gender, and experience and knowledge of technology (depth of online transactions, ratio of online transactions to total transactions) do not necessarily make him/her a better target nor create obvious market segments. Unlike strictly virtual channels, multi-channels accommodate less-technically savvy consumers as well and allow them to be functional through an alternate channel. Yet, the studies of Burke [9] and Kwak et al. [23] suggest that demographics play a role in influencing purchase intention. Because a large majority of survey respondents (in this study) were students (81.7 percent) and were 30 years old or younger (93.9 percent), the results may be too biased to distinguish differences and therefore show inconsistency with these prior studies.

## **6.1 Practical Implications**

A multi-channel store image benefits both the consumer and retailer. It benefits consumers by accommodating them through the deployment of both physical and virtual channels and thereby providing them with alternatives that suit their particular preferences to interact with the retailer. Thus, the major practical implication is coordinating and building redundancy across the channels to reduce or overcome risks by providing consumers with access to information supportive to their purchase decision making task. Although online sales are increasing, the bulk of sales will still be conducted through the physical stores over the coming years and emphasis should be placed on integrating the channels rather than investing in one over the other. However, Burke [9] identified three product groups: infrequently purchased durable goods, frequently purchased non-durable goods, and entertainment products. Associated with each was a different buying behavior which will bear on the selection and functional assignment of the channels. As Galati and Garino [18] recommend, each retailer must determine its "right mix" strategy.

The multi-channel store image benefits the retailer by more efficiently reaching its markets and attracting shoppers across a wide spectrum of consumers. Building redundancies across the channels means increasing the opportunities to close sales through numerous and various touch points (i.e., physical and virtual stores), and broadening the store's appeal to accommodate greater numbers across the population (i.e., online and physical store shoppers). Surveys have shown that the future of online sales appears very promising and as more consumers become familiar with technology driven virtual stores, their ability and willingness to negotiate multi-channels will open opportunities (i.e., purchase intention) for retailers.

Developing a multi-channel store image also requires a commitment of resources to acquire and implement the technology and its underlying infrastructure, and coordinate and build redundancies across the channels. Because the store image represents the image a retailer wants its customers to see it as, projecting the correct image the first time is crucial. However, the business must carefully weigh its investment costs against the benefits and sales gains it sees attributable to the investments. The business must also take into account the products it sells and configure the channels to best suit the particular buying behaviors associated with them (products). Yet, while making these determinations, the business must remain focused on how it will address the four salient dimensions identified in this study (financial, psychosocial, time and convenience, and usefulness) to promote its store image.

## **7. Conclusions**

Projecting a multi-channel store image can provide a business with a competitive advantage as it can accommodate customers through different channels and broadens the appeal to a wide spectrum of consumers. The four salient dimensions of a multi-channel store image identified in this study emphasize the support of consumers through information, which then allows them to reduce perceived risks. Thus, a strong favorable image build upon these dimensions will positively contribute to purchase intention and behavior.



**Table 1 Means, standard deviations, average variance extracted (AVE), and correlations**

Dimension	Cronbach alpha	Mean	SD	AVE	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Financial (1)	.72	3.82	.56	0.56	<b>0.748</b>						
Usefulness (2)	.76	3.88	.59	0.56	.560**	<b>0.748</b>					
Physical (3)	.82	3.55	.65	0.59	.287**	.320**	<b>0.768</b>				
Trustworthiness (4)	.87	3.69	.66	0.72	.385**	.420**	.358**	<b>0.849</b>			
Psychosocial (5)	.77	3.56	.58	0.52	.269**	.208**	.404**	.407**	<b>0.721</b>		
Time & convenience (6)	.73	3.46	.62	0.51	.136*	.095	.399**	.316**	.463**	<b>0.71</b>	
Purchase intention (7)	.90	3.76	.67	0.66	.341**	.317**	.292**	.288**	.417**	.314**	<b>0.812</b>

n = 246

**Notes.** (a) Figures along the diagonal (in bold) are the values for the square root of the AVE, (b) \* p < .05, \*\* p < .01

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