

# I Know it, so I do not Need to Touch it : Role of Brand Familiarity in Tactile Product Evaluation

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## Abstract

The purpose of this study was to examine the role of brand familiarity in tactile product evaluation. The results of the two experimental studies showed that individual differences in need for tactile input affect purchase intentions depending upon the structure of the choice environment and familiarity levels of a brand. The well-developed knowledge structures for familiar brands allow consumers to access the diagnostic tactile cues from their memory in product assessment in an online environment. Conversely, for less familiar brands, the inaccessibility of predictive tactile cues in an online shopping environment reduces the purchase intentions. This study makes three important contributions. First, it showed that tactile inputs have a positive effect on purchase intentions in the touch environment, particularly for individuals with high levels of need for tactile input. Second, it posited that the lack of tactility can be overcome by offering familiar brands in the no-touch environment. Finally, it showed that for low need tactile input individuals, lack of tactility does not impede them from making online purchases. The paper discussed the implications of research findings and offered future research avenues along with limitations.

**Keywords :** tactile, brand familiarity, online purchase, touch environment

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Research on the role of tactile inputs in product evaluation has garnered a lot of attention over the last decade (d'Astous & Kamau, 2010; Grohmann, Spangenberg, & Sprott, 2007; Peck & Childers, 2003). This is largely because of the ubiquitous growth of the online shopping format, which impedes accessing tactile information in purchase decision making (Citrin, Stem Jr., Spangenberg, & Clark, 2003; McCabe & Nowlis, 2003). For tactile or touch-diagnostic products such as apparel and tennis rackets, customers attach greater importance to tactile inputs like texture and weight of the products while evaluating their quality (Klatzky, Lederman, & Matula, 1993). Conversely, in a situation where tactile inputs are not accessible, it negatively affects such products' evaluation (Citrin et al., 2003 ; Peck & Childers, 2003).

It has been argued that consumers often rely on their brand-related experiences or familiarity with a brand in evaluating the products (Degeratu, Rangaswamy, & Wu, 2000; McCabe & Nowlis, 2003). While brand familiarity has been used extensively in previous research to explain differences in consumer information seeking and choice behavior, little is known of its effect on compensating for the lack of tactile inputs in an online environment. Does familiarity with a brand influence consumers' behavioral intentions in the online environment in the same way as it does in the in-store environment? This is an intriguing issue, particularly for the evaluation of tactile products in an online setting. Consumers are likely to depend on their prior consumption experiences in forming expectations and evaluations of such products. These expectations are influenced by consumers' familiarity with a brand, which

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can have an effect on their sensory perceptions (Deliza & MacFie, 1996). It can be expected that for more familiar brands, consumers have a favorable attitude as they have well established knowledge or schema of the brands' sensory experience. On the other hand, for less familiar brands, consumers have limited prior knowledge and thus, face difficulty in evaluating a brand's performance (Alba & Hutchinson, 1987).

Thus, the objective of the current research is to examine the effects of brand familiarity, need for tactile inputs, and purchase environment on purchase intentions. It expands our knowledge by examining the role of brand familiarity as a possible mechanism for overcoming the lack of tactility in the online shopping environment.

## Theoretical Framework and Hypotheses Development

✍ **Tactile Input and Purchase Environment :** People often use sensory inputs to experience objects they come in physical contact with (Jha & Singh, 2013). The sense of touch is considered critical to obtain tactile inputs such as roughness, hardness, temperature, and weight of an object (Klatzky et al., 1993). The significance of touch can well be realized in our frequent shopping behaviors. We often touch fabrics to feel their softness, or lift a laptop to feel its heaviness, or touch a beverage to make sure it is cold. However, individuals differ in their preference or motivation for seeking tactile information, which is conceptualized as individuals' need for tactile input (NTI).

In a study, Citrin et al. (2003) found that individuals high on NTI are less likely to buy tactile products online than individuals low on NTI. They argued that the lack of tactile information in online situations may result in inaccurate product evaluations, and this dissuades such customers from making product purchases. In a touch environment such as physical stores, however, consumers rely on their preferred modality of sense of touch to make more accurate product judgments. Similarly, Peck and Childers (2003) found that individuals with high-touch motivation showed greater confidence in their product evaluations when they touched the tactile products. For low touch motivation individuals, no difference in products was observed in touch versus no-touch environments. Since the touch environment provides access to tactile information, high NTI individuals would prefer this shopping environment for their purchases. In case of low NTI individuals, as they rely on other intrinsic or extrinsic cues of a product (e.g. sound, visual appeal, price, brand name, etc.) in the product evaluation, accessibility of the tactile inputs may not affect their product evaluations and purchases. Therefore, based on the above discussion, it is hypothesized that :

➔ **H1a:** Individuals with high levels of NTI show more purchase intentions towards tactile products in touch environments than in no-touch environments.

➔ **H1b:** Individuals with low levels of NTI show no difference in their purchase intentions towards tactile products in touch versus no-touch environments.

✍ **Brand Familiarity and Purchase Environment :** Brand familiarity reflects the extent of knowledge the consumers have acquired about the brands through their direct and indirect experiences (Alba & Hutchinson, 1987). Brand familiarity captures “consumers' brand knowledge structures, that is, the brand associations that exist within consumers' memory” (Campbell & Keller, 2003, p. 293). Studies have shown that brand familiarity influences consumers' product evaluation and choice. For example, Hoyer and Brown (1990) and Söderlund (2002) showed differences in purchase intentions between high and low familiar brands, such that the more familiar a brand is, the more likely it would be considered for purchase. Furthermore, consumers have a greater preference or liking for familiar brands when compared to less familiar brands (Rindfleisch & Inman, 1998).

While previous research has shown that familiarity influences product evaluation, Huang, Schrank, and Dubinsky (2004) examined the effect of brand familiarity when the brand is offered in online channels. They found that for familiar brands, consumers showed lower levels of perceived risk towards online shopping and greater levels of intentions to purchase online than for unfamiliar brands. The better developed knowledge structures in individuals' memory for familiar brands reduced the uncertainty in online shopping and directly affected their

willingness to purchase. On the contrary, for less familiar brands, consumers have high perception of risk as they are relatively unknown in comparison to the established brands (Delgado-Ballester & Hernandez-Espallardo, 2008). Similarly, Park and Stoel (2005) found that brand familiarity and prior experience reduce consumers' perceived risk associated with online apparel purchase and increase online purchase intentions. Based on the above discussion, we hypothesize the following :

➔ **H2a:** For brands with low familiarity, consumers show greater purchase intentions in the touch environment as compared to the no-touch environment.

➔ **H2b:** For brands with high familiarity, consumers show no difference in purchase intentions across touch and no-touch environment.

🔗 **Interaction Among NTI, Familiarity, and Purchase Environment :** The accessibility- diagnosticity framework put forward by Feldman and Lynch Jr. (1988) offers some guidance in understanding the role of brand familiarity in tactile product assessment. The accessibility-diagnosticity model predicts that “an earlier response will be used as an input to a subsequent response if the former is accessible and if it is perceived to be more diagnostic than other accessible inputs” (Feldman & Lynch, 1988, p. 431). This model posits that when diagnostic inputs are accessible, consumers base their judgment on the memory-based information than context-based information (Menon, Raghubir, & Schwarz, 1995). In other words, consumers weigh the diagnostic cues accessible from the memory more heavily in their judgment process and consumer inferences. Furthermore, when these diagnostic cues are readily accessible, the subsequent inferences are made on overall prior evaluation than on attribute information (Dick, Chakravarti, & Biehal, 1990). Conversely, when memory-based information is inaccessible, consumers base their judgment on context-based information, even if they are not diagnostic. However, this reduces the judgment accuracy, confidence, and consumer choice (Wanke, Bohner, & Jurkowitsch, 1997).

Based on the accessibility-diagnosticity model, we propose that for less familiar brands, consumers would prefer the in-store environment as it allows the accessibility of the predictive tactile cues that contribute to their judgment accuracy. Consistent with this reasoning, we hypothesize that high NTI individuals may favor a touch environment to facilitate the acquisition of tactile cues that affect the evaluation of less familiar brands. Furthermore, in a no-touch environment, high NTI individuals may feel frustrated and uncertain with the evaluation of the less familiar brand as the tactile cues are not accessible (Peck & Childers, 2003), and make product inferences based on alternative cues that are not predictive in the choice process. This increases their judgment error and reduces purchase intentions. For more familiar brands, the low NTI individuals would access product-related and other sensory information cues essential for product evaluation from their well-developed knowledge structures accessible in their memory. Similarly, for high NTI individuals, the tactile cues from the brand knowledge structures would be accessible for accurate product decisions for familiar brands. Klatzky (2009), in her study, posited that consumers do not use tactile evaluation even when it was offered for familiar brands as they base their judgment on their prior knowledge or experience about the brand. Thus, we expect no difference in purchase intentions in high and low NTI individuals in touch versus no-touch environments when a familiar brand is offered. The above arguments lead us to the following hypotheses :

🔗 **H3a :** In the touch environment, individuals with high levels of NTI show greater purchase intentions for less familiar brands than low NTI individuals.

🔗 **H3b:** In the no-touch environment, individuals with high levels of NTI have lower purchase intentions for less familiar brands than low NTI individuals.

## Methodology

We conducted two studies to test the hypotheses. In study 1, we tested H1 by examining the interaction effect of

NTI and purchase environment on purchase intentions. In study 2, we tested H1, H2, and H3 by examining the effects of brand familiarity on the influence of NTI and purchase environment on purchase intentions.

## Study 1

The purpose of this study was to examine the role of NTI and purchase environment in purchase intentions. The study consisted of two factors: 2 (NTI: high versus low) X 2 (purchase environment : touch versus no-touch). The first factor was measured and the second factor was manipulated between subjects.

➤ **Stimuli and Procedures :** This study used a fictitious brand. This was done, in particular, to remove any preexisting brand perceptions as it might affect the respondents' purchase intentions. Two pretests were conducted to select a tactile product that participants were familiar with. Seventeen student subjects completed the first pretest to generate a list of tactile product categories. In the second pretest, 29 students assessed the importance of touch in evaluation of product categories generated in the first pretest. Following these two pretests, a mobile phone was selected as a study stimulus. Later on, a focus group study was conducted to develop the product descriptions. Both touch and no-touch conditions had the same brand name called Vin-Obile, and the same model name, B720, both of which are fictitious.

Each participant was provided a pamphlet containing instructions, product description, and a questionnaire. The participants first responded to the NTI scale. The questionnaire then asked the participants to imagine that they were considering purchasing a mobile phone after they had seen the product description for it. Next, the participants read the product description of Vin-Obile B720 that described the tactile experience and provided information about its purchase (see Appendix 1). Participants in the touch environment were informed that they can visit the exclusive stores nearby, touch the phone, and then make a purchase. However, in case of the no-touch environment, the participants were informed that they had to visit the website for purchase where they cannot touch the product before purchase.

➤ **Participants :** A total of 134 graduate business students enrolled in a large private university in South India participated in the experiment. The study was conducted over a 2 week period in November 2011. Of these, 60 students were male and 74 were female. Their age ranged from 19 to 40 years ; 18% of the participants had more than one mobile phone and one-third of the participants had purchased a new mobile phone in the last 1 year ; 94% of the respondents had made an Internet purchase in the last 6 months.

➤ **Measures :** The questionnaire administered to the participants used published items and scale. The participants' NTI (captures individuals' propensity to seek tactile information) was measured using a six-item 5-point Likert scale developed by Citrin et al. (2003). The Cronbach's  $\alpha$  value for NTI ( $M = 15.82$ ,  $SD = 6.25$ ) was 0.91. A median split was done to divide the participants into low NTI ( $M = 10.56$ ,  $SD = 3.52$ ,  $\alpha = .92$ ) and high NTI ( $M = 20.92$ ,  $SD = 3.43$ ,  $\alpha = .85$ ),  $t = 17.22$ ,  $p < .01$ . Purchase intention was measured using three items on 5 - point Likert scales (Dawar, 1996). The reliability of the items "I will consider buying the advertised brand in the near future," "advertised brand would be my first choice," and "I will not buy any other brand if the advertised brand is available" was 0.82. A principle component analysis of purchase intentions extracted one factor (Purchase Intentions, AVE = 0.73) and the item loadings on the factor exceeded the 0.50 recommended levels (Nunnally, 1978). In addition, we asked the respondents to express their extent of agreement (1 = "strongly disagree," and 5 = "strongly agree") with a statement that indicated that the described brand could be touched during purchase. Using ANOVA, we found a significant difference between touch and no touch environment, indicating successful manipulation ( $M_{no-touch} = 1.61$ ,  $M_{touch} = 3.86$ ,  $t = 13.58$ ,  $p < .01$ ).

➤ **Results :** Analysis of covariance (ANCOVA) was conducted to test the effect of two independent variables (NTI and Purchase Environment) and their interaction on purchase intentions using gender as a covariate in the

**Table 1. Means and Standard Deviations of Dependant Measures**

	Touch environment		No touch environment	
	High_NTI	Low_NTI	High_NTI	Low_NTI
Responses ( <i>N</i> )	38	29	29	38
Purchase intentions	3.97 (1.0)	3.06 (1.43)	2.83 (1.15)	3.13 (1.24)

model. The covariate was found to contribute to the model significantly. The results showed no main effects of neither purchase environment [Wilks'  $\lambda = .96$ ,  $F(2,128) = 2.68$ ,  $p = .17$ ,  $\eta p^2 = .04$ ] nor NTI [Wilks'  $\lambda = .97$ ,  $F(2,128) = 1.80$ ,  $p = .17$ ,  $\eta p^2 = .03$ ], but a significant interaction effect [Wilks'  $\lambda = .93$ ,  $F(2,128) = 4.47$ ,  $p < .05$ ,  $\eta p^2 = .01$ ], suggesting that the effect of NTI depends on the purchase environment of a brand. The means of purchase intentions are reported in the Table 1.

The high NTI individuals in the touch condition ( $M = 3.97$ ,  $SD = 1.00$ ) showed significant difference in purchase intentions than participants in the no touch condition ( $M = 2.84$ ,  $SD = 1.15$ ),  $F(1, 64) = 16.07$ ,  $p < 0.01$ ,  $\eta p^2 = 0.20$ . This provides support for hypothesis H1a. Among the participants with low NTI, no significant difference was observed in purchase intentions between participants in the touch condition ( $M = 3.05$ ,  $SD = 1.44$ ) and in the no-touch condition ( $M = 3.13$ ,  $SD = 1.24$ ),  $F(1, 64) = 0.1$ ,  $p = .75$ ,  $\eta p^2 = 0.02$ . Additionally, the low NTI participants in the no-touch condition ( $M = 3.30$ ,  $SD = 1.11$ ) did not show difference in attitude towards the brand than the participants in the touch condition ( $M = 3.34$ ,  $SD = 1.20$ ),  $F(1, 64) = 0.01$ ,  $p = 0.97$ ,  $\eta p^2 = 0.00$ , thus providing support for hypothesis H1b.

The pattern of the results shows that for consumers with high NTI, purchase intentions increase in the touch environment. The inability to touch the product in a no-touch environment impedes high NTI consumers from purchasing products, particularly for those that require tactile cues for their evaluation. However, in case of individuals with low NTI, no difference in purchase intentions was observed in either touch or no touch environments. This supports the findings of earlier researchers (Citrin et al., 2003; Peck & Childers, 2003). To further validate the findings of this study, and to expand our understanding about the role of brand familiarity in tactile information processing, the Study 2 was conducted.

## Study 2

The Study 2 was designed to examine the impact of familiarity on purchase intentions in touch versus no touch environment using NTI as a moderating variable and to generate external validity for Study 1. The study consisted of three factors: 2 (NTI: high versus low) X 2 (brand familiarity: high versus low) X 2 (purchase environment: touch versus no-touch). The first two factors were measured, and the last factor was manipulated between the subjects.

🔗 **Stimuli and Procedures :** Based on a pretest, we selected Brand-N mobile phone as a high familiar brand and Brand-M mobile phone as a low familiar brand. The original brand names were not provided because of copyright issues. The manipulation procedures of purchase environment and NTI and the stimuli used were similar to those used in the Study 1. The questionnaires were randomly assigned to participants, each of whom viewed the product description for one of the brands. Special care was taken to ensure roughly equal sample size for purchase environment conditions.

🔗 **Participants :** A total of 242 students enrolled in the post-graduate program at a large private university in South India participated in the experiment. The responses were collected over a 3 -week period in July 2012. Of these, 132 students were male and 110 were female. Their age ranged from 18 to 42 years. Twenty percent of the participants had more than one mobile phone, and half of the participants had purchased a new mobile phone in the



last 1 year ; 96% of the respondents were familiar with Brand-N and contrastingly, 99% of the respondents were unfamiliar with Brand-M brand.

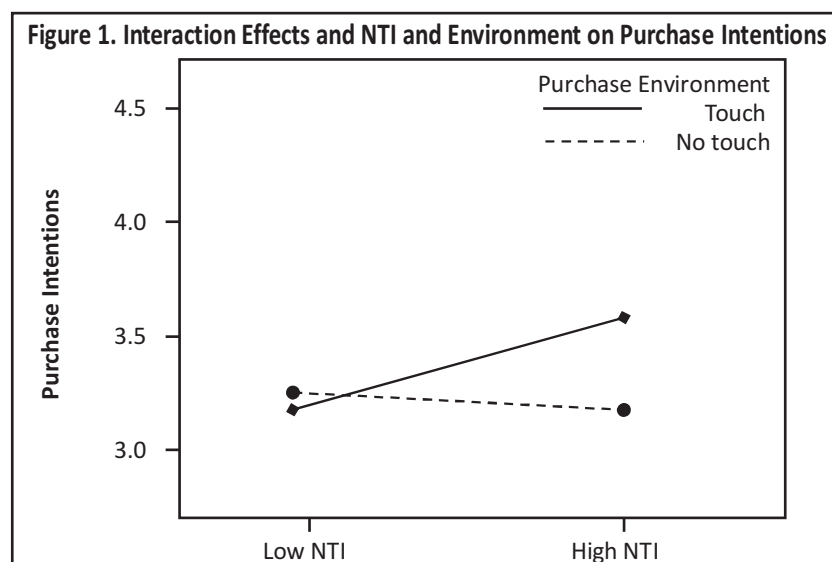
↳ **Measures :** Brand familiarity was measured using three-items "very familiar with the brand," "very knowledgeable about it," and "considerable experience with the brand" measured on a 5-point Likert scale (Martinez & de Chernatony, 2004). Factor analysis of the items produced a single factor structure which explained 65.3% of the total variance. The reliability of the brand familiarity scale was 0.78. Brand familiarity was significantly higher for respondents assigned in high familiar condition ( $M = 4.03, SD = .97$ ) than those assigned to the low familiar condition ( $M = 2.65, SD = .96$ ),  $t = 11.13, p < .01$ . The same scales of purchase intention and NTI of Study 1 were used in the current study. The Cronbach's  $\alpha$  value for purchase intention and NTI were 0.85 and 0.92 respectively. We conducted manipulation checks for both the brands. As in Study 1, a single-item 5-point Likert scale "the advertised product can be touched during purchase" was used, satisfying successful assumption checks.

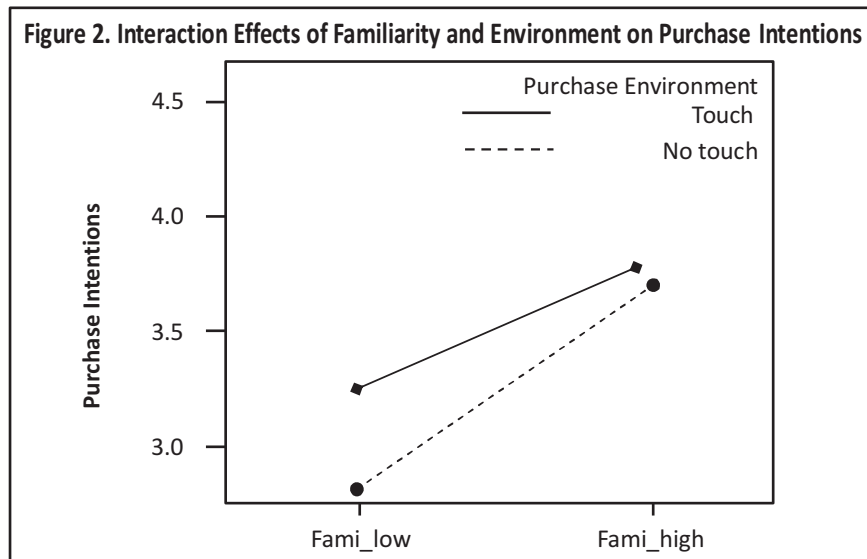
↳ **Results :** An analysis of covariance (ANCOVA) was conducted on purchase intention as the dependent variable with purchase environment, brand familiarity, and NTI as fixed factors. In addition, we used Gender ( $F(1, 232) = 34.0, p < .01, \eta_p^2 = 0.128$ ) as a covariate.

As in Study 1, we observed no main effects of purchase environment and NTI on purchase intentions. The linear contrast for the comparison of means for purchase intention were not significant across touch versus no-touch purchase environments ( $M_{touch} = 3.39$  versus  $M_{no-touch} = 3.20, F(1, 232) = 1.96, p = .163, \eta_p^2 = 0.008$ ) and NTI ( $M_{H\_NTI} = 3.38$  versus  $M_{L\_NTI} = 3.19, F(1, 232) = 1.15, p = .285, \eta_p^2 = 0.005$ ). In contrast, the mean comparisons of purchase intentions across high/low familiar brand conditions was significant ( $M_{H\_familiar} = 3.59$  versus  $M_{L\_familiar} = 3.00, F(1, 232) = 43.14, p < .01, \eta_p^2 = 0.157$ ), indicating that the more familiar the brand is to the customer, the stronger is the intention to buy the brand. The means (standard deviations) of the dependent variable are reported in the Table 2.

**Table 2. Means and Standard Deviations of Purchase Intention**

	High familiar brand		Low familiar brand	
	Low NTI	High NTI	Low NTI	High NTI
Touch Environment	3.62 (.56)	3.64 (.73)	2.78 (.66)	3.56 (.61)
No touch Environment	3.53 (.83)	3.58 (.73)	2.89 (.59)	2.62 (.62)





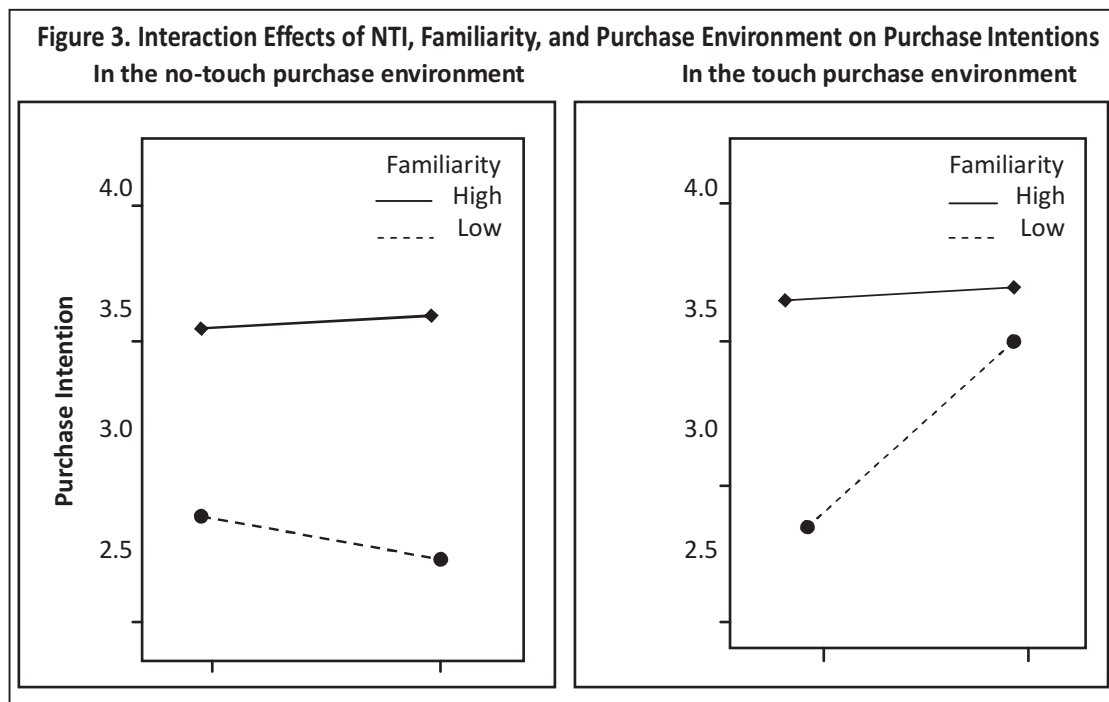
**Table 3. Summary of Hypotheses Testing**

Hypotheses	Supported / Not supported
H1a: Individuals with high levels of NTI show more purchase intentions towards tactile products in a touch environment than in the no-touch environment.	Supported
H1b: Individuals with low levels of NTI show no difference in their purchase intentions towards tactile products in touch versus no-touch environments.	Supported
H2a: For brands with low familiarity, consumers show greater purchase intentions in touch environment as compared to the no-touch environment.	Supported
H2b: For brands with high familiarity, consumers show no difference in purchase intentions across touch and no-touch environments.	Supported
H3a: In the touch environment, individuals with high levels of NTI show greater purchase intentions for less familiar brands than low NTI individuals.	Supported
H3b: In the no-touch environment, individuals with high levels of NTI have lower purchase intentions for less familiar brands than low NTI individuals.	Not supported

We found a significant interaction between NTI and purchase environment. This validates the findings of Study 1. Specifically, we found that for high NTI individuals, the purchase intentions were greater in the touch environment than in the no-touch environment ( $M_{touch} = 3.55$  versus  $M_{no-touch} = 3.15$ ,  $F(1,232) = 5.88$ ,  $p < .05$ ,  $\eta_p^2 = 0.025$ ). For low NTI individuals, the purchase environment made no difference in intention to purchase the brand (see Figure 1). These findings provide support for hypotheses H1a and H1b.

We observed significant interaction between brand familiarity and purchase environment (see Figure 2). For brands with low familiarity, intention to purchase the brand was less in the no touch environment than in the touch environment ( $M_{touch} = 3.18$  versus  $M_{no touch} = 2.77$ ,  $F(1,232) = 3.89$ ,  $p < .05$ ,  $\eta_p^2 = 0.017$ ). This provides support for hypothesis H2a. On the contrary, when subjects had more brand familiarity, no significant difference was observed in purchase intentions in touch ( $M = 3.63$ ,  $SD = .65$ ) versus no-touch purchase environments ( $M = 3.55$ ,  $SD = .78$ ),  $t = .593$ ,  $p = .575$ . This supports hypothesis H2b. No significant interaction effect was detected for NTI and brand familiarity ( $F(1,232) = 1.93$ ,  $p = .163$ ,  $\eta_p^2 = 0.008$ ).

The three-way interaction between NTI, purchase environment, and brand familiarity was significant ( $F(1, 232) = 7.304$ ,  $p < .05$ ) and is shown in the Figure 3. In the touch environment, individuals with high NTI ( $M = 3.48$ ,  $SD = .49$ ) showed greater purchase intention for less familiar brands than individuals with low NTI ( $M = 2.78$ ,  $SD = .66$ ),  $F(1, 115) = 9.10$ ,  $p < .05$ ,  $\eta_p^2 = 0.073$ . Thus, there is support for hypothesis H3a. However, for the familiar



brand in the touch environment, we did not find significant difference in purchase intentions for high/low NTI individuals ( $M_{H\_NTI} = 3.64$  versus  $M_{L\_NTI} = 3.61$ ). In addition, no significant interaction effects were detected between brand familiarity and individual's NTI in the no-touch environment ( $F(1, 115) = 0.62, p = .43, \eta_p^2 = 0.005$ ). Thus, the hypothesis H3b is not supported. The Table 3 provides a summary of the results.

## Discussion

A number of researchers have examined the role of tactile inputs (Grohmann et al., 2007) and brand familiarity independently (Ha & Perks, 2005) on behavioral intentions. Based on the theoretical underpinnings, we examined the joint effects of three factors - namely NTI, purchase environment, and brand familiarity on behavioral intentions. Prior research has suggested that accessibility of tactile information positively affects consumers' attitudinal perceptions and behavioral intentions of tactile laden products. However, it was argued that this relationship was contingent on the customer, firm, and situational factors. Consequently, we proposed that need for tactile inputs (consumer factor), brand familiarity (firm factor), and purchase environment (situational factor) may affect the evaluation of tactile products. Across the two studies conducted, we found evidence to support the relationship between these factors in customers' assessment of the product (mobile phone) and subsequent purchase intentions.

## Theoretical Implications

The present study contributes to the literature in several ways. First, we extend prior research studies by applying the accessibility-diagnostics framework to understand the role of purchase environment in product evaluation for customers with varied levels of need for tactile inputs. Specifically, the results of Studies 1 and 2 suggest that for tactile products, providing tactile information increases the diagnosticity about the product performance and enables consumers to make accurate product evaluations. In a no-touch environment, as tactile information is not accessible, it becomes difficult for consumers to evaluate and differentiate product performances, and thus, this



impedes accurate product evaluations. However, in case of low NTI individuals, since they rely on other product/shopping cues, for example, price, brand name, website interactivity, and so forth in product evaluation, they showed no preference for purchase environment.

Second, while the existing studies have explored the role of tactile inputs in shopping medium choices for product categories (Citrin et al., 2003; d'Astous & Kamau, 2010; Peck & Childers, 2003), it is evident that product categories have well-established brands along with less familiar and unfamiliar brands. Thus, consumer choices are characterized by brands with varying levels of familiarity, ranging from those with many previous experiences for familiar brands to few or any previous experiences for less familiar brands. Thus, it was important to consider the role of brand familiarity in the evaluation of sensory experiences. The present study addresses this gap by investigating the role of brand familiarity in evaluation of touch-diagnostic products.

Finally, this study proposed that brand familiarity might affect the evaluation of the product in various purchase environments. The mere exposure theory (Zajonc, 1968) indicates that individuals develop preferences for products that are well-known to them. Furthermore, previous studies have reported that brand familiarity based on exposure to advertisement, purchase, or usage leads to higher trust and engagement in the purchase medium (Ha, 2004). Based on these, we examined a boundary condition that brand familiarity might influence the role of purchase environment and the customers' need for tactile input in product evaluation. The findings of our study provide support for the moderating role of brand familiarity in interactive effects of NTI and purchase environment on purchase intentions.

Brand familiarity was found to be a significant moderator of the influence of NTI for both touch and no-touch purchase environments, with a greater impact of brand familiarity and purchase environment on purchase intentions of consumers with high levels of NTI. The accessibility of memory-based tactile information for familiar brands enabled consumers to accurately evaluate product performance in both touch and no-touch purchase environments. However, for less familiar brands, the inaccessibility of the tactile cues reduces the judgment accuracy as consumers base their evaluation on alternative cues available that are not predictive in the decision making process. In the touch environment, consumers access these predictive tactile cues by touching the product to make more accurate judgments. These findings are in line with prior research studies. For example, Degeratu et al. (2000) suggested that the Internet may not be a good medium to market less-familiar brands. Similarly, Prince and Simon (2009) also pointed out that Internet adoption of new technology/products is greatly influenced by product familiarity. The reduced access to information in an online channel has been suggested to affect the magnitude of Internet purchase for less familiar products.

## **Managerial Implications**

The findings of the study have many useful implications for managers. Specifically, the study findings provide valuable insights into the customer evaluation process in both online and offline channels. As we found that a no-touch environment impedes high NTI individuals from evaluating the product using tactile inputs, providing tactile information along with product information on the online retail website (no-touch media) could help high NTI individuals in making a purchase decision. For instance, in case of apparel, the online retailer could provide thread count and texture (tactile information) along with another product-related information. This could overcome the lack of tactile information and aid high NTI customers in the decision making process. Additionally, as high NTI individuals seek feature-based information than overall information while deciding to buy a product (Peck & Childers, 2003), providing tactile information could enhance their attitude and actual purchase behavior.

As touch is acknowledged as a key factor in determining evaluation of tactile products among high NTI individuals, allowing direct tactile contact with a product in the offline channels may increase the likelihood of sales. In cases where this is not possible (contagion effect), interpersonal touch can be used to reduce the frustration among the high NTI individuals. It is argued that interpersonal touch makes the customer confident and promotes a positive mood (Nuszbbaum, Voss, & Klauer, 2014). Prior research studies have indicated that a positive mood enhances the relational process and decreases the feature-based information process. Consequently, it mitigates

the need for tactile inputs among the high NTI individuals in the decision making process. This leads to a favorable attitude and increased sales.

The study findings show significant differences in the importance of haptic information for the high and low NTI customers. This could be of particular significance in developing persuasive appeals in both offline and online mediums. As traditional marketing is moving towards experiential marketing (Shukla, 2007), incorporating product tactile or haptic information in advertisements could provide sensory feedback to high NTI customers. This increases the persuasion appeal as high NTI customers find the advertisements congruent with their need for haptic information. Prior research has indicated that such congruent advertisements are favorably evaluated and enhance the purchase intention of the advertised brand (Fleck, Korchia, & Le Roy, 2012).

## **Limitations of the Study and Suggestions for Future Research**

Although this research expands our knowledge about the role of brand familiarity in tactile product evaluation, viable prospects for further research remain. First, we investigated only one product category and used one type of sample (graduate business students) in our study. Future studies should employ a variety of product types and samples to enhance the validity of the findings. However, as is the case in many controlled experiments, the focus of our study was on internal validity rather than on external validity.

Second, studies to investigate how shopping cues for tactile products enhance purchase intentions for individuals with high NTI in an online environment need to be carried out. Coyle and Thorson (2001) and Klein (2003) suggested that increasing the interactivity levels in an online environment leads to increased perception of sensory inputs. Future studies should consider manipulation of interactivity in the online environment in investigating the effects of NTI on purchase intentions. This would provide strategic insights for online retailers in marketing less familiar products in the no touch environment.

Third, Peck and Childers (2003) proposed that touch consists of instrumental and autotelic dimensions. In our study, we considered only the instrumental dimension in the tactile input. Studies that link these two dimensions of touch and familiarity would provide more insights into the role of touch in the consumer decision-making process. Finally, Fenko, Schifferstein, Huang, and Hekkert (2009) found that product type and its usage influenced the use of various sensory modalities in product evaluation. Future studies should investigate the role of product usage on the influence of NTI as touch may not be a dominant sensory modality in product evaluation.

## **References**

- Alba, J. W., & Hutchinson, J. W. (1987). Dimensions of consumer expertise. *Journal of Consumer Research*, 13 (4), 411-454.
- Campbell, M. C., & Keller, K. L. (2003). Brand familiarity and advertising repetition effects. *Journal of Consumer Research*, 30 (2), 292-304.
- Citrin, A. V., Stem Jr, D. E., Spangenberg, E. R., & Clark, M. J. (2003). Consumer need for tactile input: An internet retailing challenge. *Journal of Business Research*, 56 (11), 915-922.
- Coyle, J. R., & Thorson, E. (2001). The effects of progressive levels of interactivity and vividness in web marketing sites. *Journal of Advertising*, 30 (3), 65-77. DOI:10.1080/00913367.2001.10673646
- d'Astous, A., & Kamau, E. (2010). Consumer product evaluation based on tactile sensory information. *Journal of Consumer Behaviour*, 9 (3), 206-213. DOI: 10.1002/cb.312

- Dawar, N. (1996). Extensions of broad brands: The role of retrieval in evaluations of fit. *Journal of Consumer Psychology*, 5 (2), 189-207. DOI: [http://dx.doi.org/10.1207/s15327663jcp0502\\_05](http://dx.doi.org/10.1207/s15327663jcp0502_05)
- Degeratu, A. M., Rangaswamy, A., & Wu, J. (2000). Consumer choice behavior in online and traditional supermarkets: The effects of brand name, price, and other search attributes. *International Journal of Research in Marketing*, 17(1), 55-78. DOI: [http://dx.doi.org/10.1016/S0167-8116\(00\)00005-7](http://dx.doi.org/10.1016/S0167-8116(00)00005-7)
- Delgado-Ballester, E., & Hernández-Espallardo, M. (2008). Building online brands through brand alliances in internet. *European Journal of Marketing*, 42(9/10), 954-976. DOI: <http://dx.doi.org/10.1108/03090560810891091>
- Deliza, R., & MacFie, H. J. (1996). The generation of sensory expectation by external cues and its effect on sensory perception and hedonic ratings: A review. *Journal of Sensory Studies*, 11 (2), 103-128. DOI: 10.1111/j.1745-459X.1996.tb00036.x
- Dick, A., Chakravarti, D., & Biehal, G. (1990). Memory-based inferences during consumer choice. *Journal of Consumer Research*, 17(1), 82-93.
- Feldman, J. M., & Lynch Jr., J. G. (1988). Self-generated validity and other effects of measurement on belief, attitude, intention, and behavior. *Journal of Applied Psychology*, 73 (3), 421-435.
- Fenko, A., Schifferstein, H. N. J., Huang, T. - C., & Hekkert, P. (2009). What makes products fresh: The smell or the colour ? *Food Quality and Preference*, 20(5), 372-379. DOI: <http://dx.doi.org/10.1016/j.foodqual.2009.02.007>
- Fleck, N., Korchia, M., & Le Roy, I. (2012). Celebrities in advertising: Looking for congruence or likability? *Psychology & Marketing*, 29(9), 651-662. DOI: 10.1002/mar.20551
- Grohmann, B., Spangenberg, E. R., & Sprott, D. E. (2007). The influence of tactile input on the evaluation of retail product offerings. *Journal of Retailing*, 83 (2), 237-245.
- Ha, H. - Y. (2004). Factors influencing consumer perceptions of brand trust online. *Journal of Product & Brand Management*, 13 (5), 329-342. DOI: <http://dx.doi.org/10.1108/10610420410554412>
- Ha, H. - Y., & Perks, H. (2005). Effects of consumer perceptions of brand experience on the web: Brand familiarity, satisfaction and brand trust. *Journal of Consumer Behaviour*, 4 (6), 438-452. DOI: 10.1002/cb.29
- Hoyer, W. D., & Brown, S. P. (1990). Effects of brand awareness on choice for a common, repeat-purchase product. *Journal of Consumer Research*, 17(2), 141-148. DOI: <http://psycnet.apa.org/doi/10.1086/208544>
- Huang, W. Y., Schrank, H., & Dubinsky, A. J. (2004). Effect of brand name on consumers' risk perceptions of online shopping. *Journal of Consumer Behaviour*, 4 (1), 40-50. DOI: 10.1002/cb.156
- Jha, S., & Singh, B. (2013). Impact of ambient music and affability of salespersons on consumer behavior in a real retail setting with emphasis on gender difference. *Indian Journal of Marketing*, 43 (4), 5-11.
- Klatzky, R. L. (2009). Touch: A gentle tutorial with implications for marketing. In A. Krishna (Ed.). *Sensory marketing research on the sensuality of product* (pp.33-48). New York: Routledge Academic.
- Klatzky, R. L., Lederman, S. J., & Matula, D. E. (1993). Haptic exploration in the presence of vision. *Journal of Experimental Psychology: Human Perception and Performance*, 19 (4), 726-743.
- Klein, L. R. (2003). Creating virtual product experiences: the role of telepresence. *Journal of Interactive Marketing*, 17 (1), 41-55. DOI: 10.1002/dir.10046

- Martinez, E., & de Chernatony, L. (2004). The effect of brand extension strategies upon brand image. *Journal of Consumer Marketing*, 21 (1), 39-50. DOI: <http://dx.doi.org/10.1108/07363760410513950>
- McCabe, D. B., & Nowlis, S. M. (2003). The effect of examining actual products or product descriptions on consumer preference. *Journal of Consumer Psychology*, 13 (4), 431-439. DOI:10.1207/S15327663JCP1304\_10
- Menon, G., Raghurir, P., & Schwarz, N. (1995). Behavioral frequency judgments: An accessibility-diagnostics framework. *Journal of Consumer Research*, 22 (2), 212-228.
- Nunnally, J. C. (1978). *Psychometric theory*. New York: McGraw-Hill.
- Nuszbbaum, M., Voss, A., & Klauer, K. C. (2014). Assessing individual differences in the need for interpersonal touch and need for touch. *Social Psychology*, 45 (1), 31- 40. DOI : <http://psycnet.apa.org/doi/10.1027/1864-9335/a000157>
- Park, J., & Stoel, L. (2005). Effect of brand familiarity, experience and information on online apparel purchase. *International Journal of Retail & Distribution Management*, 33 (2), 148-160. DOI : <http://dx.doi.org/10.1108/09590550510581476>
- Peck, J., & Childers, T. L. (2003). Individual differences in haptic information processing: The “need for touch” scale. *Journal of Consumer Research*, 30 (3), 430-442.
- Prince, J. T., & Simon, D. H. (2009). Multimarket contact and service quality: Evidence from on-time performance in the U.S. airline industry. *Academy of Management Journal*, 52 (2), 336-354. DOI: 10.5465/AMJ.2009.37308251
- Rindfleisch, A., & Inman, J. (1998). Explaining the familiarity-liking relationship: Mere exposure, information availability, or social desirability? *Marketing Letters*, 9(1), 5-19.
- Shukla, T. (2007). Experiential marketing. The new paradigm. *Indian Journal of Marketing*, 37(4), 10 - 12.
- Söderlund, M. (2002). Customer familiarity and its effects on satisfaction and behavioral intentions. *Psychology & Marketing*, 19(10), 861-879.
- Wänke, M., Bohner, G., & Jurkowsch, A. (1997). There are many reasons to drive a BMW: Does imagined ease of argument generation influence attitudes? *Journal of Consumer Research*, 24 (2), 170-178. DOI: <http://doi.org/10.1086/209502>
- Zajonc, R. B. (1968). Attitudinal effects of mere exposure. *Journal of Personality and Social Psychology*, 9 (2), 1-27. DOI : <http://psycnet.apa.org/doi/10.1037/h0025848>

## **Appendix**

### **Appendix 1. The Vin-Obile B720 Stimuli for Touch Environment**

#### **Introducing**

#### **The New Vin-Obile® B720 Mobile Phone**

#### **Sleek, Slim, and Filled to the Brim with Features**

The B720 is the latest design mobile phone from Vin-Obile Communications. The phone is compact, slim & weighs only 96 grams. It has user definable convenience keys with well-spaced QWERTY keypad. The keys have been sized and positioned to allow maximum comfort, guaranteeing precision in typing ; texting or writing emails will be even easier and faster. The Five-way Navi key allows easy navigation through menu and provides incomparable usability. Finished in jet black, the exterior has a rubberized feel, and the body offers excellent grip and style.

In addition, the B720 offers a full range of features: including high resolution 320 x 240 pixel color display, ultra-long battery, 4 GB expandable memory, 1.3 MP in-build camera, GPS Navigation, and WiFi enabled.

This new mobile phone is available only at exclusive Vin-Obile mobile stores\* near you.

Note: You can visit any of the Vin-Obile stores near you and TOUCH the product to feel its features before purchase.

\*Vin-Obile Exclusive Stores: Hyderabad Central, Banjara Hills ; Shop No 7, City Center, Banjara Hills ; Raj Bhavan Road, Somajiguda ; Near Deccan Chronicle Office, Secunderabad