



Window displays and consumer shopping decisions

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Abstract

Window displays are an ubiquitous and prominent but under-researched element of retail strategy. This paper explores how the store and product category information communicated by a store's windows are related to consumers' shopping decisions, such as store entry and product purchase, and how these relationships vary for consumer segments that differ in terms of their knowledge of the retailer's product(s). Results of a study conducted in the context of clothing retailers demonstrate that the store entry decision is related both directly as well as indirectly (through acquisition of inferred, store-related information) to the acquisition of observed, store-related information from window displays. However, it is product category-related information (e.g. fashion and product-self fit) rather than store-related information (e.g. merchandise and store image) that is more strongly associated with the product purchase decision. Moreover, consumers with medium levels of clothing knowledge are more influenced by windows in their shopping decisions than those with low or high levels. © 2002 Elsevier Science Ltd. All rights reserved.

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1. Introduction

A key instrument of many retailers' communication strategy is their store window displays (Chain Store Age Executive, 1989). Recent surveys suggest that consumers are very likely to attend to and acquire information from window displays (Castaneda, 1996; Fletcher, 1987). Similarly, a renewed faith among retailers in the ability of window displays to capture consumers' attention and draw them into a store has generated recent interest in this communication tool after years of neglect (Discount Store News, 1994; Horvitz, 1998). Yet, to our knowledge, no research has examined whether, how, and for whom window displays work. This paucity is underscored by the possibility that window displays, in their effect on retailer-related cognitions and decisions, can function both as advertising and sales promotion (Klokis, 1986; Horvitz, 1998). Window displays are akin to advertising in helping create and maintain an overall image of the retailer

in consumers' minds (Park et al., 1986). However, by virtue of their location at the purchase site, windows, like other sales promotions, can also directly induce consumers into the store to make specific purchases.

The influence of window displays, particularly relative to other marketing actions, is likely to depend on various characteristics of the consumer, the product category, the retail context, and the shopping task (e.g. shopping goal, planned versus unplanned task). However, an understanding of this potentially complex relationship between window displays and shopping decisions is predicated on evidence of its existence. In attempting to shed light on the existence and nature of this relationship, this research represents an initial step in our understanding of the role of window displays in consumer shopping decisions. Specifically, we draw upon prior research in consumer search and inference to investigate two fundamental yet unexamined questions: (1) are consumers' shopping decisions related in any way to their propensities to look at window displays for different types of information? and (2) does this relationship depend on consumers' knowledge of retailers' merchandise? Because the primary objective of this research is to investigate the relationship between window displays and consumers' shopping decisions, we focus on a retail category—clothing—in which the role

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of window displays is likely, a priori, to be a pervasive and significant one.

We start by developing a framework that (i) draws on cue utilization theory (Cox, 1967; for a recent review see Richardson et al., 1994) to delineate the types of information consumers are likely to acquire from window displays and (ii) relies on the accessibility–diagnosticity framework (Feldman and Lynch, 1988) to articulate the relationships between these types of information, consumers' category knowledge, and their shopping decisions, such as store entry and product purchase. We then develop a research instrument to measure the different constructs in this framework and use it to empirically test a set of predictions regarding the relationships among them. After presenting the study results, we conclude with a discussion of our findings, their implications for retailers, and directions for future research.

2. Conceptual development

2.1. Information acquisition from window displays

Consumers acquire and utilize decision-relevant information as an integral part of decision making. From this perspective, window displays constitute a key source of decision-relevant information in the external retail environment. Some research suggests that consumers may seek out store windows primarily as a leisure activity, to have fun and feel good (e.g. Bloch et al., 1986). However, because such recreational use of windows does not preclude the concurrent acquisition of information, we take an informational approach in our investigation of window displays.

What information can consumers obtain from window displays? The different elements of the window display directly convey a range of store-related as well as product category-related information. Perhaps more interestingly, prior applications of cue utilization theory in the retail context (for a recent review, see Richardson et al., 1994) suggest that consumers are likely to use these different elements, separately or in combination, as informational cues to make inferences about the product category and the store. These disparate types of meanings can be characterized along two continuous dimensions (see Fig. 1). The primary dimension reflects the substantive nature of the information. On one hand, the information can relate primarily to the retailer (e.g., retailer image). Alternately, consumers may use the window displays to obtain information about the product category (e.g., the latest trends/innovations).¹ The secondary dimension captures the extent to which

¹Of course, consumers can acquire both types of information simultaneously.

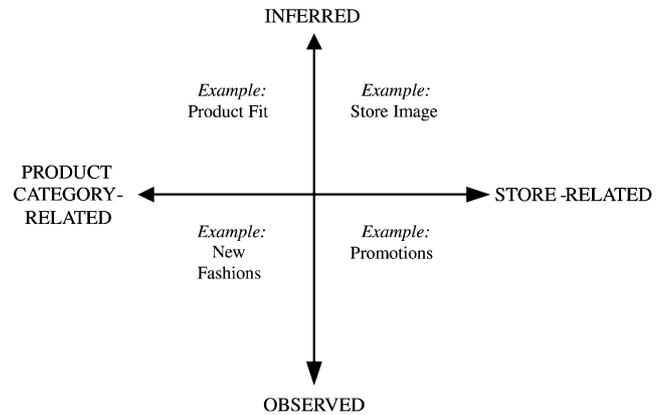


Fig. 1. Dimensions of information acquired from window displays.

the information is directly evident from the window displays. Along this dimension, information can either be observed or inferred. Observed information is obtained as is from the window (e.g. promotional announcements) whereas inferred information (e.g. retailer image) refers to meanings generated on the bases of relevant informational cues (i.e. those with high predictive and confidence values; see Richardson et al., 1994 for details). Next, we discuss these dimensions in detail.

2.1.1. Store-related information

Observed. Consumers can use window displays to obtain a variety of specific information regarding the retailer. For instance, stores typically showcase a range and variety of merchandise in their windows, allowing consumers to learn about the brands, styles, prices, and quality of the store's merchandise.² Moreover, stores often announce special promotions in their windows. Consumers may look to store windows for such promotional information, particularly since monetary savings frequently accompany such promotions. Because consumers often like to minimize search effort (see Payne, Bettman, and Johnson 1992 for recent review), accessing information about a retailer's merchandise and promotional activity without having to enter the store may be particularly appealing.

Importantly, such observations about a store's merchandise can serve as informational cues that consumers' use to assess the store's image (cf. Lindquist, 1974). The role of these observed elements of the window displays in providing consumers with cues about store image is discussed next.

Inferred. Much retailing research has focused on consumers' abstract, global impressions of the store,

²While consumers are likely to use the displayed merchandise to learn about the product-category itself, such usage is *conceptually* distinct from their usage of such information to learn about the store itself.

underscoring its substantial influence on store choice decisions. Research has examined such retailer-specific attitudes under the broad rubric of store image (Baker et al., 1994; Lindquist, 1974; Mazursky and Jacoby, 1986; Nevin and Houston, 1980; Stanley and Sewall, 1976; Zimmer and Golden, 1988). Window displays are likely to provide consumers with important cues about a store's overall image for two reasons. First, prior research suggests that consumers use various ambient (e.g. lighting), design (e.g. architecture) and social (e.g. sales personnel) elements of a store's environment as inferential cues about the its image (Baker et al., 1994; Mazursky and Jacoby, 1986; Zimmer and Golden, 1988). A store's window displays are not only an integral element of both its ambient and design environment but are also typically encountered before most, if not all, other elements of the retail environment (Klokis, 1986). Therefore, consumers are likely to find the overall creative impact of the windows' aesthetic and ambient elements to be strongly predictive of the store's image. Second, research suggests that information about a store's merchandise is a key antecedent of its image (Baker et al., 1994). Therefore, the concrete cues about the quality, models, brands, and prices of the store's merchandise in its windows are likely to serve as inputs into consumers' inferences about its image. In sum, store image is a key example of store-related information that consumers are likely to *infer* from its windows, based on cues culled from the window's aesthetic and ambient elements, as well the displayed merchandise.

2.1.2. Product category-related information

Observed. Clearly, the merchandise displayed in a store's windows provides consumers with valuable information about the product category itself, both specific (e.g. product features) and general (e.g. the latest trends/innovations in that category). In the case of clothing, a primary example of product-category related information that consumers observe from store windows is fashion information. Clothing retailers typically profile their newest, most fashionable, and/or most prestigious lines of clothing in their windows. Therefore, consumers who desire to be current about the latest fashions and clothing trends can use window displays as a retailer-based source of such information (Beatty and Smith, 1987). For instance, consumers often seek out clothes that are congruent with their self-concepts or identities (Kleine III et al., 1993). To the extent that being fashionable enhances consumers' self-concepts, ascertaining what is in fashion from a store's windows helps them make more personally relevant purchase decisions. In sum, consumers may look at a retailer's windows to obtain up-to-date information about a briskly evolving product category.

Inferred. As part of the decision making process, consumers often attempt to mentally simulate or

visualize product trial (see MacInnis and Price, 1987 for review). This type of pre-purchase product visualization is likely to be particularly prevalent in "visual" categories such as clothing, in which consumers' cognizance of what styles and colors to wear, based on what looks good on them, is an integral part of their purchase decisions (Tatzel, 1982). In the clothing category, for instance, window displays of clothing ensembles on mannequins constitute vital cues that consumers can use to better visualize not only how those clothing styles, colors and ensembles might go together but also how the displayed clothes would look on them (Klokis, 1986). In sum, consumers may look to windows to obtain informational cues that would allow them to infer the congruency or "fit" of the displayed items with their physical or symbolic selves (Klokis, 1986; Heath, 1995).

Next we draw on Feldman and Lynch's (1988) accessibility–diagnosticity framework to examine how the information acquired from window displays might be related to two key shopping decisions: entry and purchase. This framework also allows us to examine the role of consumers' product category knowledge in moderating the relationships between such acquisitions and their shopping decisions.

2.2. Information acquisition and store entry decisions

A large body of literature (Bettman et al., 1998; Feldman and Lynch, 1988; Wilson and Hodges, 1992) suggests that consumers' likelihood of using a particular informational input to make a decision depends on both its accessibility and perceived diagnosticity (i.e. the extent to which the decision suggested by that input alone is perceived to allow one to attain one's decision objectives) relative to that of other, alternate information inputs. Since the different types of product-category and store-related informational inputs from window displays are fully accessible at the point of store entry, they are more likely to be used as inputs into consumers' store entry decisions relative to the often less readily accessible inputs from their memory.

More importantly, certain types of information culled from window displays are likely to be diagnostic to the store-entry decision. Consumers may enter a store based on its window displays for several different reasons. For instance, they may enter the store to obtain further information about a specific line or item of merchandise that they saw displayed in the store window, whether or not they intend to purchase that item at that time in that store. Relatedly, consumers' may enter the store to learn more about or take advantage of the sale they saw announced in the window display. More generally, store entry may result from consumers' affinity for the types of merchandise a store displays in its windows. In other words, because of their diagnosticity to the store entry

decision, the observed, store-related elements of window displays such as store merchandise information can serve as a direct incentive to enter the store.

Similarly, consumers may enter a store because they are intrigued by or like the image of that store, as inferred from its window displays. In other words, inferred, store-related information, such as store image information, is also likely to serve as a diagnostic input into the store entry decision. Interestingly, given that observed, store-related information, such as merchandise information, constitute the cues on which the inferred, store-related information is based, such observed, store-related information then is also indirectly diagnostic to the store entry decision. In other words, observed, store-related information has (i) a direct effect on a consumer’s decision to enter the store by virtue of its diagnosticity and (ii) an indirect effect on the store entry decision because it is an input into inferred, store-related information which is also diagnostic to store entry. This is summarized in the following prediction and illustrated in Fig. 2.

H1: Consumers’ likelihood of obtaining observed, store-related information (e.g. store merchandise information) has both a direct effect on their likelihood of entering the store based on its window displays as well as an indirect effect, which is mediated by their likelihood of obtaining inferred, store-related information (e.g. store image) from its windows.

Our theorizing so far has focused on the relationship between observed and inferred store-related information on consumers’ likelihood of entering the store. What about the relationship of category-related information to window-based store entry? While consumers obtain product- and store-related information from multiple sources (e.g. advertising, manufacturer’s reputation, reference groups etc.), windows displays are used primarily as a communication vehicle for the store (i.e. they are not typically associated with a particular brand or manufacturer) (Levy and Weitz, 1998). Thus, at the point of store entry, the relative accessibility and diagnosticity of window display-based information for

the store entry decision will be greater when such information is store-related than when it is category-related. Given this asymmetry borne of the greater availability of alternate accessible and diagnostic inputs of store-related information, it follows that store entry is, in general, less likely to be driven by information culled from its window displays when such information is category-related rather than store-related.

2.2.1. The moderating role of category knowledge

Consumers’ ability to use observed, store-related information (e.g. merchandise information) as cues towards inferred, store-related information (e.g. store image information) is likely to depend on their extant knowledge across a wide range of retailers and clothing types, about whether, and to what extent, observed store-related information, such as its merchandise constitutes a viable inferential cue for inferred store-related information, such as its overall image. Specifically, prior knowledge helps to structure contextual information and facilitates both comprehension and retention of information about products and stores (Alba and Hutchinson, 1987). As a result, more knowledgeable consumers are likely to have a more detailed, complex and meaningful set of associations about the product category, allowing them to accurately appraise the predictive value of specific information cues and use these cues with greater confidence in making inferences about the product category and its relationship to store-related variables such as image (Richardson et al., 1994). Thus, we expect consumers with lower clothing knowledge to display a weaker indirect relationship (i.e. by way of inferred, store-related information) between their acquisitions of observed store-related information from window displays and their store entry based on such displays.

H2: When consumers’ product-category knowledge is lower, their acquisitions of inferred, store-related information from window displays are less likely to mediate the relationship between their likelihood of acquiring observed, store-related information and window display-based store entry.

2.3. Acquisition of information and purchase decisions

Window displays can affect storewide sales through numerous mechanisms. For instance, consumers’ decision to patronize a particular store may be based on information obtained from its windows regarding overall image and range of merchandise. More specifically, window displays can act as a more direct point-of-purchase promotional device by stimulating the purchase probability of the displayed merchandise. The increased prominence of a displayed item may make consumers aware of its existence as an attractive choice option, trigger a need in them for that item, grant it an

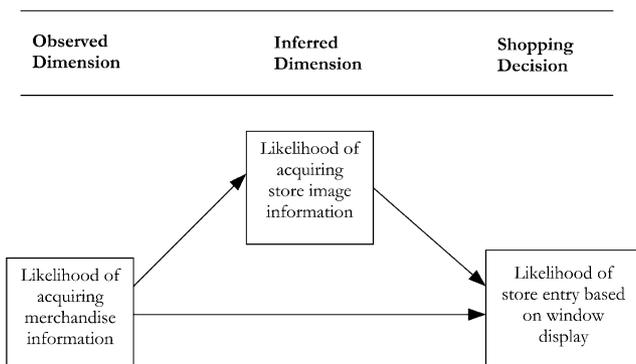


Fig. 2.

informational advantage over undisplayed merchandise (e.g. fit information), and increase its salience in consumers' mind once they are in the store. Often, exposure to such information may even stimulate purchases when they were not originally planned (e.g., Park et al., 1989).

From an accessibility–diagnosticity perspective, then, information from window displays can affect storewide sales in two key ways. First, by enhancing exposure to specific types of information at the point of store entry, window displays can increase the accessibility of such information (relative to other information) as relevant inputs into the purchase decision. Second, certain types of information culled from a store's windows can be diagnostic to the purchase decision. What might these types of information be? Whereas consumers' decision to patronize a store may be largely affected by the store-related information they obtain from its window, the ultimate decision to purchase an item of clothing based on window displays is more likely to be based on product-related information, such as considerations of personal fit of that item. For instance, a consumer might browse the windows of a clothing store and be generally pleased with the type of clothing displayed, but realize that the specific items in the window would not fit well. While this customer might enter the store to look around for more suitable matches, they are unlikely to purchase the displayed items. On the other hand, if the customer perceives a potentially good fit between the displayed items and his/her self-image, then the customer might enter the store specifically to purchase the displayed merchandise.

In sum, we can expect window display-based category-related information to be more diagnostic to the purchase decision than store-related information. More specifically, since the purchase decision hinges on an evaluations of self-product fit (Kleine III et al., 1993) inferred, category-related information, such as personal fit information, is likely to be more diagnostic to the purchase decision than observed, category-related information, such as fashion information.

H3: Consumers' likelihood of acquiring product category-related information from window displays is a better predictor of window display-based purchasing behavior than their likelihood of acquiring store-related information.

2.3.1. *The moderating role of category knowledge*

How might the relationship between the acquisition of category-related knowledge and the window display-based product purchase decision vary with consumers' category knowledge? A robust body of research suggests that, in general, an inverted-U relationship exists between product category expertise and external search: novices and experts seek external information more so than consumers with a moderate amount of product

knowledge (Johnson and Russo, 1984; for a recent review, see Moorthy et al., 1997). We expect a similar non-monotonic relationship to exist between product category knowledge and the acquisition of product category information from window displays. Window displays are not diagnostic sources of information for novices because they lack the product category knowledge to make meaningful interpretations. Likewise, experts possess an extensive amount of product category information from other sources (both internal and external), thereby decreasing the relative diagnosticity of category-related information from window displays. In other words, window displays are of greatest diagnostic value to those consumers with a moderate amount of product category knowledge. These consumers can meaningfully interpret the window display cues, and rely on these cues as valid sources of product information, making them diagnostic to the product purchase decision. Consequently, we can expect consumers with medium knowledge levels to be more likely than those with low or high levels to base their purchase decisions on information obtained from window displays.

H4: Consumers with medium levels of category knowledge are more likely to make purchase decisions based on a store's window displays than those with low or high knowledge.

3. Method

The relationships between information obtained from window displays, consumers' shopping decisions, and their category knowledge (i.e. H1–H4) were examined in the context of clothing retailers using a paper and pencil survey³ completed by undergraduate students at a large, urban, US university. We focused on this young, educated, urban sample for two reasons. First, although this population segment does not earn as much as members of other, older segments it tends to spend more on clothes than the other segments (Lee and Vrana, 1995). Thus, apart from being attractive to clothing retailers, this segment is likely to have high relevance for and engage in significant search in the clothing category.

³Such methodology has been used extensively in the retailing/shopping context. For instance, D'Astous (2000) used such methodology to examine aspects of the retail environment that act as irritants and impact both likelihood of reentry and purchase. Similarly, Machleit and Eroglu (2000) use the survey method to describe and measure consumers' emotional responses to shopping experiences. In a customer portfolio analysis, Woodside and Trappey (1996) examine customers' attitude accessibilities using survey data. Arnold et al., (1996) used survey data to explore the impact of symbolic acts by retail stores on store patronage. Campo et al., (2000) used survey data to examine consumer responses to stockouts. Attitudes of the informal shopper were explored by Donthu and Gilliland (1996) using survey data.

At the same time, there is likely to be substantial variation in clothing expertise within this segment. Second, because this segment belongs to a large metropolitan area with a high density and wide array of clothing stores (ranging from large department stores to small specialty boutiques), it is very likely that its members have been exposed, unwittingly or otherwise, to a substantial number of clothing store window displays.

3.1. Measure development

Based on our conceptual framework and a pretest, in which 26 respondents from the test population indicated what they look for in window displays and why, we measured the acquisition of (i) observed, store-related information in terms of promotions (PROMO) and store merchandise (MERCH), (ii) inferred, store-related information in terms of store image (IMAGE), (iii) observed, product category-related information in terms of information about the latest fashions (FASHION), and (iv) inferred, product category information in terms of product fit (FIT). Moreover, we measured respondents' more general propensity to look at window displays (LOOK) as well as their propensity to both enter (ENTER) and purchase (PURCHASE) from a store based on its window displays. Finally, we measured respondents' clothing and clothes shopping knowledge (KNOWLEDGE).

Multi-item measures for each of these variables of interest were developed through three pretests. In the first pretest (80 subjects), respondents' ratings and oral debriefings were used to narrow down the pool of items drawn up by the researchers to reflect the different constructs. In the second pretest (44 subjects), this select subset of items for each measure was factor-analyzed using principal components analysis and a varimax rotation. For each variable, a screen test was used to establish one dominant factor (eigenvalue < 1).⁴ In the third pretest (61 subjects), all items measuring the five specific types of information acquisition measures were pooled and factor-analyzed using principal components analysis with a varimax rotation. This yielded the six original factors, providing evidence of discriminant validity. Appendix A contains the final multi-item measures (7-point scales) including the means, standard deviations and coefficients alphas. These measures are described next.

Types of information obtained from window displays. **PROMO:** This 5-item measure focuses on the extent to which consumers look at window displays to ascertain whether a store is having any special promotions or

sales. **MERCH:** This 6-item measure reflects the extent to which consumers look at window displays for information regarding the type of merchandise they can expect to find in the store. The first 3-item factor relates to the brands of merchandise available while the second 3-item factor focuses on merchandise prices. **IMAGE:** This 6-item measure assesses the extent to which consumers look at window displays to get information about the store's overall image. Since impressions of a store's "typical" patron (e.g., their social class) is an important part of consumers' store image perceptions (Dickson and MacLachlan, 1990), we included two items that capture this aspect of store image. **FIT:** This 4-item measure assesses the extent to which consumers look at window displays to better visualize how the displayed clothes would look on them and infer the degree of product fit. **FASHION:** This 5-item measure reflects the degree to which consumers look at window displays to obtain information about the latest styles and fashion.

Shopping decisions. **ENTER:** This 6-item measure assesses the degree to which a store's windows are a key determinant of consumers' decisions to enter the store. **PURCHASE:** This 4-item measure reflects consumers' propensity to be influenced in their clothing purchase decisions by a store's window displays. **LOOK:** This 5-item measure assesses the extent to which consumers tend to look at window displays.

Individual-specific variable. **KNOWLEDGE:** This 6-item measure captures consumers' subjective expertise in the domains of clothing, fashion, and clothes shopping.

To ensure the appropriateness of our student sample, we also elicited the frequency with which respondents' visited clothing retailers, examined clothing catalogs and fashion magazines, and consulted with friends/acquaintances about fashion and clothing (Bloch et al., 1986). Finally, we obtained respondents' age, gender, and the approximate amount they spent on clothing in a year.

3.2. Data collection

One hundred twenty nine respondents completed the study as part of class credit. In the instructions, the respondents were informed that we were interested in their perceptions and beliefs about clothes shopping. Respondents took approximately 30 min to complete the study. Approximately 90% of the respondents indicated that they did most of their clothes shopping themselves. The profile of the average respondent, including their information search behaviors and expenditures in the clothing category (Appendix A), suggests that the sample is fairly well acquainted with the local area clothing stores and their window displays.

⁴In the case of MERCH, two factors were retained based on their considerable content validity.

Table 1
Regression of shopping decisions on different types of information acquisitions

Independent variables	VIF	Enter			Purchase		
		β	t	p	β	t	p
PROMO	1.52	0.12	1.96	0.05	0.12	1.54	0.12
rPROMO	1.17	0.04	0.42	0.67	0.11	1.23	0.22
MERCH	1.90	0.13	1.55	0.12	0.09	0.92	0.36
rMERCH	1.20	0.04	0.34	0.73	0.09	0.73	0.47
IMAGE	2.07	0.38	4.47	0.00	-0.41	-3.99	0.00
rIMAGE	1.19	0.25	1.67	0.10	-0.42	-3.29	0.00
FASHION	1.58	0.12	1.98	0.05	0.50	6.96	0.00
rFASHION	1.13	0.08	0.80	0.42	0.50	5.88	0.00
FIT	1.63	0.28	4.62	0.00	0.36	5.03	0.00
rFIT	1.15	0.18	1.77	0.08	0.36	4.01	0.00
R^2_{adj}			0.64			0.52	
			0.05			0.36	
F(5128)			46.00			28.29	
			2.38			14.29	

4. Results

4.1. Information acquisition and store entry

To examine whether the acquisition of certain types of information are more likely to be associated with the store entry decision than others, we regressed ENTER on PROMO, MERCH, IMAGE, FIT, and FASHION. As shown in Table 1, PROMO, IMAGE, FASHION and FIT were significant predictors of window display-induced store entry. Interestingly, the two types of inferred information (IMAGE and FIT) were significantly better predictors⁵ of ENTER than were different types of observed information (PROMO and FASHION).

Even though the Variance Inflation Factors (VIFs) shown in Table 1 suggest that multicollinearity caused by the substantial correlation between some of the independent variables (particularly MERCH and IMAGE, see Appendix B) is not a significant concern (Kennedy, 1992, p. 183), we conducted two sets of additional analyses. First, we ran two reduced models, omitting MERCH as a predictor in one case and IMAGE in the other. When ENTER was regressed on PROMO, IMAGE, FASHION and FIT (i.e., MERCH omitted), the coefficients and their significance levels were very similar to that in the full model. However, when MERCH was substituted for IMAGE in the

reduced model, MERCH was now a significant predictor of ENTER ($\beta=0.28$, $t=3.3$, $p<0.01$) as were PROMO, FIT, and FASHION.⁶

Second, given that respondents' scores on these information acquisition measures may be affected by their more general propensity to look at window displays, we attempted to control for this potential halo effect by first regressing each information acquisition measure on LOOK and then using the resulting residuals (i.e., rPROMO, rMERCH, rIMAGE, rFIT and rFASHION; correlations in Appendix B) as predictors in a regression of ENTER. As might be expected, all the coefficients in this "residual" regression (see Table 1) were smaller and only rFIT approached significance as a predictor of ENTER.

More specifically, we expect (H1) consumers' likelihood of acquiring observed, store-related information (i.e. MERCH) to be related to their likelihood of entering the store based on its window displays (i.e. ENTER) both directly, and indirectly through their likelihood of acquiring inferred, store-related information (i.e. IMAGE). In other words, we expect the relationship between subjects' MERCH and ENTER ratings to be partially mediated by their IMAGE ratings. We find evidence of such a partial mediational role of IMAGE using Baron and Kenny's (1986) test of mediation. Specifically, MERCH is a significant pre-

⁵Based on standardized coefficients.

⁶Again, these coefficients and their significance levels were very similar to that in the full model.

Table 2
Moderating effect of knowledge on shopping decisions

Dependent variables	Knowledge			<i>t</i> for H0: Low = Med	<i>t</i> for H0: Low = High	<i>t</i> for H0: Med = High
	Low (<i>n</i> = 44)	Med (<i>n</i> = 44)	High (<i>n</i> = 41)			
ENTER	3.93 (1.18) ^a	4.57 (1.13)	4.56 (1.20)	2.09 0.04	2.47 0.01	0.37 0.71
PRODUCT CATEGORY	3.72 (1.05)	4.60 (0.99)	4.15 (1.23)	3.64 0.00	1.79 0.07	1.88 0.06
FIT	3.20 (1.30)	4.26 (1.19)	3.71 (1.38)	3.75 0.00	1.81 0.07	1.98 0.05
FASHION	4.13 (1.27)	4.86 (1.08)	4.50 (1.51)	2.59 0.01	1.30 0.19	1.31 0.19
PURCHASE	2.99 (1.14)	3.52 (1.17)	3.00 (1.33)	1.99 0.05	0.04 0.96	1.98 0.05

^aS.D.

dictor of IMAGE ($\beta=0.63$, $t=8.9$, $p<0.01$) in a regression of the latter on the former. Second, MERCH is a significant predictor of ENTER ($\beta=0.67$, $t=8.2$, $p<0.01$) in a regression of the latter on the former. Finally, IMAGE is a significant predictor of ENTER ($\beta=0.63$, $t=7.3$, $p<0.01$) in a regression of the latter on both IMAGE and MERCH. Moreover, the effect of MERCH on ENTER is attenuated by the inclusion of IMAGE ($\beta=0.27$, $t=3.1$, $p<0.01$).

Notably, the relationship between MERCH and ENTER is not completely mediated by IMAGE, in line with the expected direct relationship of MERCH on ENTER. To examine whether MERCH predicts ENTER independently of IMAGE, we ran a two-step or “auxiliary” regression procedure (Judge et al., 1980, p. 461) by obtaining the residuals from a regression of ENTER on IMAGE and regressing these residuals on MERCH. In this regression, variation in MERCH accounted significantly ($\beta=0.17$, $t=2.4$, $p<0.05$) for that component of variation in ENTER which remained unexplained by IMAGE, supporting a direct relationship between MERCH and ENTER, independent of IMAGE. In summary, as expected, respondents’ likelihood of acquiring observed, store-related information from window displays is related to their window-based store entry behavior both directly and indirectly (as an input into their likelihood of acquiring inferred, store-related information).⁷

⁷While we do not hypothesize a similar role of inferred product-related information (FIT) as a mediator of observed product-related information (FASHION) on the likelihood of store entry we also test for the presence of this relationship using Baron and Kenny’s (1986) test of mediation. In this case, we find no evidence of mediation.

4.1.1. The moderating role of knowledge

The role of knowledge was examined by dividing all respondents into three approximately equal groups (low, medium, and high) based on their KNOWLEDGE scores and analyzing differences across these groups using ANOVAs with KNOWLEDGE as the independent factor at three levels. We find that medium and high KNOWLEDGE respondents are more likely to enter a store based on its windows than low KNOWLEDGE ones. Table 2 contains the mean scores for low, medium and high levels of KNOWLEDGE, and the significance tests for inter-group differences.

More specifically, we expect a larger mediational role of IMAGE in the relationship between MERCH and ENTER for the more knowledgeable respondents (H2). To test this, we ran the three regressions involving MERCH, IMAGE and ENTER that constitute the mediation test (Baron and Kenny, 1986) separately for the high, medium, and low groups of KNOWLEDGE. For all three groups, MERCH was a significant predictor of IMAGE and ENTER in separate regressions. Moreover, when IMAGE was added to the regression of ENTER on MERCH, the significance of MERCH as a predictor of ENTER varied inversely, in line with H2, with KNOWLEDGE (Low: $\beta=0.43$, $t=2.71$, $p<0.01$; Medium: $\beta=0.31$, $t=1.85$, $p<0.07$; High: $\beta=0.14$, $t=0.92$, $p<0.37$). In other words, in support of H2, we do find IMAGE to be a stronger mediator of the relationship between MERCH and ENTER for more knowledgeable respondents. These findings are consistent with our premise that the role of merchandise information in inducing experts into a store may be based primarily on their use of such information as a viable input into their store image perceptions,

whereas for novices, merchandise information is a more direct incentive for store entry.

4.2. Information acquisition and purchase

Next we examined whether and how respondents' likelihood of acquiring specific types of information from store windows is related to their likelihood of being influenced by windows in their purchase decision. Specifically, we find support for our expectation that window-based purchase behavior would be more strongly related to category-related information than to store-related information (H3). In a regression of PURCHASE on the various information acquisition measures (Table 1), FASHION and FIT (but not PROMO and MERCH) were significant predictors. More interestingly, IMAGE was a significant negative predictor of PURCHASE. In other words, a greater likelihood of acquiring store image information from windows is associated with a lower likelihood of making a purchase based on these windows. As in the case of ENTER, we ran two sets of additional analyses to control for potential multicollinearity. IMAGE remained a significant negative predictor both in the "residual" regression (Table 1) and when MERCH was omitted from the full model ($\beta = -0.37$, $t = -3.9$, $p < 0.01$). Similarly, these analyses yielded coefficients and accompanying significance levels for the remaining predictors, PROMO, MERCH, FIT and FASHION that were very similar to those obtained in the full model.

To further explore the relationship between respondents' tendency to be influenced by store windows in their clothing purchase decisions and the specific types of information they acquire from these windows, we contrasted the information acquisition patterns of respondents who are likely to be influenced by a store's windows to enter but not to purchase with that of those who are likely to be influenced to both enter and purchase. We did so by comparing the information acquisition measures of two groups obtained by dividing all respondents who scored above the median value on ENTER into approximately equal halves based on whether they scored above or below the median value on PURCHASE. In line with our regression results, the group that was more likely to be influenced by windows to purchase was more likely to acquire FIT ($t = 2.52$, $p = 0.05$) and FASHION information ($t = 3.73$, $p < 0.01$).

4.2.1. The role of knowledge

We expect an inverted-U relationship between KNOWLEDGE and PURCHASE (H4), such that consumers with medium knowledge will display higher likelihoods of window-based purchase than those at low and high levels (H4). Table 2 shows that our results support this expectation. The medium KNOWLEDGE

group (mean = 4.60) not only is more likely than both the low (mean = 3.72) and high groups (mean = 4.15) to acquire product category information (measured as an average of FIT and FASHION)⁸ but also displays higher PURCHASE levels (mean = 3.52) than high (mean = 3.00) or low KNOWLEDGE respondents (mean = 2.99).

In sum, consumers' window-influenced purchase decisions seem to be more closely related to the acquisition of product category information from a store's windows than of store information. In fact, those who are more likely to use windows for store image information are actually less likely to make window-influenced purchase decisions. Given that the acquisition of store image information is a positive predictor of window-influenced entry decisions, it is possible that consumers who acquire such information from windows are more likely to be browsers or recreational shoppers who, due in part to their accumulated expertise, are not particularly inclined to base their purchases on a store's windows. This is also consistent with the finding that consumers with medium levels of clothing knowledge are more likely than those with high knowledge to be influenced by a store's windows in their clothing purchases.

5. Discussion

This paper explores, in a clothing retail context, the relationship between the acquisition of product category and store information from window displays and consumers' likelihood of entering the store and making purchases based on these displays. Next, we discuss our findings in terms of the two basic questions of interest that motivated this research.

(1) *Do window displays influence store entry and purchase decisions?* One contribution of this paper lies in establishing a link, albeit correlational, between consumers' propensity to acquire four different types of information from a window display and their likelihood of store entry and product purchase. Those looking for inferred information, such as store image and product fit information, are more likely to enter a store than those looking for observed information, such as merchandise, promotional and fashion information. Those acquiring store image may enter the store to browse and gain further information about the store and its merchandise while those acquiring fit information may enter with a more specific intent to examine and/or purchase the items on display. Our findings suggest that clothing retailers may be most successful in drawing customers into the store if they focus on communicating

⁸This non-linearity holds for the FIT and, to a lesser extent, the FASHION measure.

cues that allow consumers to infer fit and store image information.

How can retailers best communicate fit and image? While clothing retailers frequently use mannequins with idealized body-types, fit information may be better conveyed through the use of more life-like mannequins that more closely reflect the dimensions and proportions of the store's major target market(s). Store image information can be conveyed through both the ambient (e.g., lighting) and design (e.g., architecture) elements of a store's windows (Baker et al., 1994). Moreover, such information can be communicated through the merchandise displayed in the windows, since this affects store entry indirectly through store image. However, a retailer looking to draw consumers into the store through its window displays may need to be mindful of what merchandise it displays because this information also constitutes a direct incentive for store entry. And sometimes the merchandise that best conveys a store's image is not necessarily the same as that which serves as a direct draw into the store. For instance, a store's image is often best conveyed through its most innovative, expensive, and, exclusive merchandise. However, it is the more affordable and "mainstream" merchandise that is more likely to directly pull consumers into the store. Thus, in making decisions about what merchandise to display, stores may need to consider which of its two roles they want to focus on, particularly if these roles are at odds with each other in terms of the specific items of merchandise to be displayed.

Finally, we find that those who acquire category-related information are more likely to make purchases based on a store's windows. In fact, consumers who are more likely to acquire store image information are more likely to enter the store but *less* likely to make purchases that are influenced by the store's windows. This conflicting role of store image information in affecting the two shopping decisions of interest underscores the importance to retailers of clearly establishing the communication objectives for their window displays (see Horvitz, 1998). Retailers interested in stimulating the sales of displayed items may need to actively move away from communicating store image information and focus, instead, on other product category-related information in their window displays.

(2) *Do windows work differently for different customer segments?* This paper's second contribution lies in establishing category knowledge-based differences in the relationship between consumers' likelihood of acquiring information from windows displays and their window-based store entry and product purchase decisions. As expected (e.g., Johnson and Russo, 1984), consumers with medium levels of knowledge are not only more likely to acquire product category information from store windows but also more likely to make a purchase decision based on these windows. To the

extent that preferences vary with product knowledge (e.g., in categories such as cameras), retailers can best use windows to stimulate sales by displaying products in their windows that are most preferred by, or "fit" best with, the segments that have medium amounts of category knowledge. More generally, if retailers are able to correlate such knowledge with demographic or behavioral measures, and those with medium levels of knowledge represent a lucrative market segment, then retailers who use windows primarily to increase sales can gear their displays mainly to this, most susceptible, segment.

5.1. Limitations and future directions

Since this paper represents an initial attempt at empirically exploring how information acquired from window displays is related to shopping decisions, its findings are far from definitive. Thus, further research on numerous fronts can help enhance the validity and generalizability of our conclusions. First, the validity of our results could be increased by greater refinement of certain measures. For instance, in measuring window-based product purchase decisions, we do not explicitly distinguish between consumers' purchase of a specific item they saw in the store's windows and their general propensity to purchase from that store. However, retailers are interested in both these qualitatively distinct types of window-based purchase decisions and future attempts to characterize the role of windows in purchase decisions need to explicitly acknowledge and examine this distinction. Second, given our study design, the relationships established between the key constructs are correlational and not causal. Therefore, future research needs to establish the causal links between these constructs by manipulating the types of information highlighted in a store's windows and examining the effects on store entry or product purchase behavior. More generally, replications using visual window display stimuli in naturalistic settings, perhaps through computer simulations using graphical technologies (cf. Burke et al., 1992) are of much importance in establishing the validity of the current findings.

Our focus on a single product category raises concerns about the generalizability of our conclusions. However, while this study deals empirically with clothing retailers, the two dimensions of information acquired from window displays (see Fig. 1) are not category-specific. In other words, we expect our conceptual framework to generalize across retail environments. For instance, regardless of whether the retailer sells clothing, toys or pharmaceuticals (cf. Edwards and Shackley, 1992), we expect consumers' store entry decisions to be related to their acquisitions of store-related information but their purchase decisions to be related to their acquisitions of category-related

information. Similarly, our findings about the moderating effects of knowledge should hold across different product contexts. Thus, the interests of generalizability may be best served by empirical tests of our conceptual framework across many product categories.

Another limitation of our research stems from the relatively homogeneous sample population we use to test our predictions regarding consumers' window display-related decisions. Thus, while our sample population is undoubtedly important to retailers of most product categories, examining whether our findings generalize to other relevant populations is an important next step. Not only might different populations vary in their knowledge of different product categories, but also they are likely to vary in terms of several individual-specific variables that we did not examine in this paper. For instance, research suggests that consumers vary in their shopping orientation (e.g., economic consumer, recreational consumer, apathetic consumer) (cf. Gutman and Mills, 1982) and, more specifically, the extent to which they plan their shopping expeditions (Cobb and Hoyer, 1986). Both these variables are likely to affect the types of information consumers acquire from window displays and their subsequent shopping decisions. A clearer delineation of how characteristics of the consumer interact with

those of the shopping context to affect window display usage is of much interest to retailers and consumer researchers.

Finally, future studies could extend this research by replicating the results across different types of retail contexts. While we do not specify the retail context in our study, the type of store (e.g., department store versus boutiques), its location (malls versus stand-alone stores), its retail focus (e.g., upscale versus discount), and range (one versus multiple product categories) are only some of the retail characteristics that are likely to influence the relationship between window displays and consumers' shopping decisions. A clearer understanding of how store windows can be used effectively in stimulating favorable store-related cognitions and behaviors is predicated on future research that examines the role of the retail context on window display-influenced shopping decisions.

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Appendix A. Study measures

PROMO	I use window displays to figure out whether the store is having a sale. I usually look at window displays to see if the store is running any special promotions. I usually look at window displays to catch any sale announcements. Generally, I look at window displays to see if the store is offering any special deals. In general, I look at window displays to see if any of the displayed items are on sale.	Mean: 4.82	SD: 1.22	$\alpha = 0.89$
MERCH	I usually look at window displays to see if the store carries the new styles of the season. I usually look at window displays to see what brands the store carries. I usually look at window displays to find out whether the store carries any of my favorite designers. I use window displays to get some idea about the price range of the clothing sold in the store. I usually look at window displays to see if the stores' merchandise is affordable. I usually look at window displays to figure out whether the stores' merchandise is within my price range.	Mean: 4.55	SD: 1.03	$\alpha = 0.86$

IMAGE	<p>I use window displays to get a general impression of the store.</p> <p>I usually look at window displays to get a general feeling for what the store is all about.</p> <p>I usually use window displays to get a feel for who the store's prototypical customer is.</p> <p>I use window displays to figure out if that store is for me.</p> <p>I usually use window displays to figure out the store's overall image.</p> <p>I usually look at window displays to get an idea of the type of person that would shop at that store.</p>	Mean: 5.11	SD: 1.05	$\alpha = 0.82$
FIT	<p>Looking at window displays makes it easier for me to decide whether I would look good or not in the styles displayed.</p> <p>I find window displays useful for visualizing how the clothes would look on me.</p> <p>I usually look at window displays to imagine what the clothes would look like on me.</p> <p>I find it easier to visualize how clothes will look on me by looking at window displays.</p>	Mean: 3.74	SD: 1.35	$\alpha = 0.90$
FASHION	<p>I usually look at window displays to see what is in fashion for the new season.</p> <p>I usually look at window displays to check out what is new on the fashion scene.</p> <p>I usually use window displays to find out about the latest trends and fashions.</p> <p>I usually look at window displays to find out about the latest clothing styles.</p> <p>I usually look at window displays to figure out what is "in".</p>	Mean: 4.51	SD: 1.32	$\alpha = 0.91$
LOOK	<p>For me, looking at window displays is an important part of the shopping experience.</p> <p>If I am walking past clothing stores, I take every opportunity to look at their window displays.</p> <p>I usually look for interesting window displays.</p> <p>I usually stop and take time to check out window displays.</p> <p>Before entering a store, I usually check out its window displays.</p>	Mean: 4.43	SD: 1.22	$\alpha = 0.86$
ENTER	<p>I will often enter a store solely because of its window display.</p> <p>I will enter a store that I never intended to enter just because of what I saw in its window display.</p> <p>Often, I find myself entering a store because of its window display.</p> <p>My decision to enter a store often depends on its window displays.</p> <p>Window displays are an important factor in my decision to enter a store.</p> <p>I often enter a store because of what I see in its window displays.</p>	Mean: 4.33	SD: 1.19	$\alpha = 0.89$

PURCHASE	Window displays often play an important role in my clothing purchase decisions. I often base my clothing purchases on what is displayed in the store windows. What I buy at a store often depend on its window displays. What I see in the window displays often ends up being what I buy in the store.	Mean: 3.17	SD: 1.23	$\alpha = 0.85$
Clothing knowledge	I consider myself an expert on fashion. I know more than most students about trends in fashion. I am very knowledgeable about the latest styles and fashions. I consider myself to be very knowledgeable about the different clothing stores in my area. I usually have one or more outfits of the very latest style. I am a better clothing shopper than most students are.	Mean: 4.41	SD: 1.32	$\alpha = 0.92$
Search behaviors	In a typical month, how often do you visit clothing stores or departments, just to look around or get information rather than to make a specific purchase?		Mean: 4.41	SD: 4.31
	In a typical month, how many clothing catalogs do you look through?		Mean: 3.09	SD: 2.91
	In a typical month, how many clothing or fashion-related magazines do you read regularly but do not subscribe to?		Mean: 2.17	SD: 1.68
	In a typical month, how often do you talk to friends and acquaintances to get information or advice concerning clothing and clothing styles?		Mean: 4.08	SD: 5.90
Clothing expenditure	In an average year, how much do you spend on clothes (please check the appropriate category)?			Mode: \$1001–\$1500
	Less than \$500	—		
	\$501–\$1000	—		
	\$1001–\$1500	—		
	\$1501–\$2000	—		
	More than \$2000	—		
AGE	— years		Mean: 20.7	SD: 1.42
SEX	Male 63 Female 66			
Number of years lived in local area			Mean: 10.75	SD: 7.82

Appendix B. Pearson correlation coefficients is shown in Table 3

Table 3

	PROMO (rPROMO)	MERCH (rMERCH)	IMAGE (rIMAGE)	FASHION (rFASHION)	FIT (rFIT)
PROMO (rPROMO)	1.00				
MERCH (rMERCH)	0.52 ^a	1.00			
IMAGE (rIMAGE)	0.43 ^a	0.61 ^a	1.00		
FASHION (rFASHION)	0.44 ^a	0.44 ^a	0.48 ^a	1.00	
FIT (rFIT)	0.24 ^a	0.43 ^a	0.56 ^a	0.48 ^a	1.00
	−0.12	0.08	0.24 ^a	0.22 ^a	1.00

^a $p < 0.05$.

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