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IRRITANTS IN THE SOUTH AFRICAN RETAIL ENVIRONMENT THAT INFLUENCE YOUNG ADULT PURCHASING BEHAVIOUR

ABSTRACT
The retail environment affects purchase behavior, thus the potential of the retail environment to generate either a positive or a negative influence on purchases is an important consideration. This study examines which factors in the retail environments are perceived as irritants by young adults, as they are an economically and socially important customer group.

A two-stage design study was undertaken, using in-depth interviews to uncover major irritants, followed by survey research (n=200) using online questionnaires, to explore the initial findings and the effect of gender and ethnicity as mediating variables.

The key elements of the atmosphere in the retail environment which exert strong negative influences on consumers were similar to those found in earlier studies, indicating that the unique socio-cultural features of South Africa do not influence the tolerance of consumers towards different irritants. The study also confirmed earlier findings that irritants of an ambient or social nature generate higher irritation levels than irritants of a design nature.

Females were found to be generally more irritable than males, with the exception of social factors. Finally, it was found that customers of white ethnicity were significantly more irritated by ambient factors, while customers of coloured ethnicity were more irritated by social factors.

These findings present several implications for South African retailers, suggesting that changes in the manner in which retailers present themselves and that changes in aspects in the hiring and training of staff is needed.

Keywords: consumer behaviour; young adults; retail environment, irritants, survey, South Africa

INTRODUCTION
Today it is widely accepted that the shopping environment has a significant effect on consumer behavior, thus studying the shopping environment is an important consideration for marketers.

Studies have shown that the atmosphere in a store affects purchasing behaviour (Donovan, Rossiter, Marcooly, Nesdale, 1994), the perception of merchandise value (Baker, Parasuraman, Grewal & Voss, 2002), customer loyalty and patronage intention (Noble, Griffith & Adjei, 2006), and can even appease difficult customers (Michon & Chebat, N.D.).

Given the scope of the impact which the retail environment has been shown to have, it is not surprising that a significant amount of research has gone into how to improve the shopping environment and make it more attractive to the consumer. Studies concerning the emotional response triggered by pleasant aspects of the retail environment, the effect of the physical environment of a store, the effect of aspects such as music, the store staff, other consumers, as well as multiple environmental factors, have been investigated in various studies (Baker et al., 2002:120; Donovan et al., 1994:283; Grewal, Baker, Levy & Voss, 2003:1; Kumar & Karande, 2000:47).

Despite all of the attention given to aspects of the shopping environment which can be used to generate a positive consumer attitude toward the store, research focusing on the negative elements of the retail environment is relatively scarce. In South Africa no studies have yet been conducted on the potentially negative aspects of the shopping environment. Similar to factors which attract consumers, the elements which displease consumers are of great interest. The former tell managers what to strive for, whereas the latter informs managers what to avoid – which is often a good starting point. Further, although
studies on irritants in the retail environment have been undertaken in some Western countries, these may not apply to the South African setting.

In order to provide a deeper understanding of the impact and contribution of the retail environment in the unique South African context, this study seeks to examine factors which act as irritants in a shopping environment among young adults in South Africa. The study focuses on this emerging segment in order to attain an indication of the behaviour of consumers across various ethnic groups as well as across different genders. The main objectives of this study are thus to uncover major irritants applicable to young adult South African consumers, and to test these for mediating factors, namely ethnicity and gender.

**POSITIVE OR NEGATIVE EFFECT ON THE RETAIL ENVIRONMENT**

Research into the effect of the environment on purchasing decisions is not a new phenomenon. As early as 1973, Kotler discovered that the environment could potentially play a bigger role in the purchasing decision than the product itself. Research has shown that the retail environment can affect purchasing behaviour, perception of quality and even price sensitivity – and several studies have examined these phenomena from several different angles.

There appears to be a consensus among scholars that a positive in-store environment will increase the likelihood of purchase by consumers (Donovan et al., 1994; Kotler, 1973; Michon, Chebat & Turley, 2005). Previous studies have also shown that a negative in-store environment will decrease the likelihood of purchases (Babin & Darden, 1996; d’Astous, 2000).

Mediating variables which may influence the extent to which a positive or negative influence is exerted, exist. A number of mediating variables, such as age, gender and race exist (Baker et al., 2002; d’Astous, 2000; Latour, Henthorne & Williams, 2006).

**Evidence of influence on the retail environment**

In 1994, an Australian study showed that pleasure derived from store atmosphere was “a significant predictor of extra time spent in the store and actual incremental spending” (Donovan et al., 1994). More recently, Turley and Milliman (2000) reviewed 60 experiments that manipulated the shopping environment and found that every single one of them showed a significant statistical relationship between the environment and shopping behavior, whereby a positive environment increased the likelihood of purchase, while a negative environment decreased purchase likelihood.

A 2003 study by Grewal et al. (2003), confirmed that “the two strongest predictors of store patronage intentions were store atmosphere perceptions and wait expectations”. Thus previous research has well established that a pleasant shopping environment is crucial for the retailer. Equally important then, is to avoid an environment that contains within it irritants that make the retail environment unpleasant and discourage purchases.

However, the positive or negative effects of the retail environment are not merely restricted to affecting purchasing decisions. For instance, a 2002 study by Hightower, Brady and Baker (2002) found a statistically significant positive relationship between positive environmental cues and perception of service quality. A study by Reimer and Kuehn (2005) in Switzerland found that the retail environment is not “only a cue for the expected service quality, but also influences customers’ evaluations of other factors determining perceived service quality”. The opposite of these findings also applies; a negative environment will lead to a perception of a low quality product and service (Hightower et al., 2002; Reimer & Kuehn, 2005).

Furthermore, a study conducted by Grewal and Baker (1994) found that overall, the environment plays a role in shaping price perceptions and that a positive environment provides a perception of better value and leads to less price sensitivity. A more recent study reported the same results among American and Korean students (Jin & Sternquist, 2003).

**Explaining these phenomena**

Many studies have focused on individual factors of
the retail environment that have either a positive or a negative effect on consumers. Popular factors include music and noise (Areni, 2003, Milliman, 1986; Yalch & Spangenberg, 1990), scent and odours (Chebat & Michon, 2003, Mattila & Wirtz, 2001), people and crowding (Dion, 2004; Erglou, Machleit & Barr, 2005).

For the purposes of this study, however, a framework was needed that would explain the entire retail environment, and not only individual factors or elements in the retail environment. One such conceptualisation of the shopping environment is Kotler’s (1973) classification scheme. Nonetheless, this conceptualisation does not account for the influence of social factors such as crowding – which has already been shown to play an important role in the shopping environment (Dion, 2004).

A more comprehensive framework was found in Baker’s (1986) classification of the shopping environment. The model divides the physical environment into three components (d’Astous, 2000):

- Ambient factors, that is, background features that may or may not be consciously perceived but that affect human senses (e.g., scent, music);
- Design factors, that is, features that are directly perceptible by consumers; and
- Social factors, that is, people in the environment.

Baker’s (1986) typology has been used in several studies including those by Baker et al. (2002), d’Astous (2000), Grewal and Baker (1994) and Grewalet al. (2003). This conceptualisation was therefore selected as the encompassing model for this study, and will be used to categorise the factors that act as irritants in the retail environment.

**MEDIATING VARIABLES**

The positive effects described above are not, however, equal for every consumer. There are several mediating variables that play a role in shaping consumer perception of the retail environment. In order for marketers and retailers to be able to develop effective strategies to improve the retail environment, the effect of mediating variables such as gender, age, race and social class have to be considered. Existing research concerning these mediating variables (in the context of Baker’s (1986) typology) are discussed in the paragraphs to follow.

**The role of gender**

Studies have identified several aspects in which men and women differ with regards to their reactions to the retail environment. For instance, a study conducted among 1015 Canadian shoppers found that women are more affected by environmental factors such as product availability and ease of access, than men (Raajpoot, Sharma & Chebat, 2008). Another study found that women have a stronger emotional involvement during the shopping experience, often seeking social interaction and browsing (Noble et al. 2006). A third study found that men are more willing to wait for service (Grewal, Baker, Levy & Voss, 2002). Overall, these findings appear to be in agreement with that of d’Astous (2000) who found that “overall, women appear to be more irritated than men by displeasing features of the shopping environment”, especially by heat, poor layout and lack of mirrors.

**The role of age**

Studies have shown that customers of different age groups react differently to different environmental stimuli. A study by Yalch and Spangenberg (2000: regarding the effect of music on shoppers, found that younger customers have a preference for foreground music (music with lyrics), while older customers (over the age of 50) preferred background music (music with no lyrics) and often complained about the music being too loud.

Another study showed that older consumers usually shop during low-peak times, possibly pay more attention to the shopping environment and are thus more affected by it (Michonet et al., 2005). The study conducted by d’Astous (2000) found that different age groups experienced a negative (e.g., unclean store) or a positive (e.g., loud music) relationship with the retail environment and that their irritability perceptions depended on the nature of the source of irritation.

It was therefore of interest to determine how irritants are perceived by young adults in South Africa.
The role of race and culture

A topic that is addressed less commonly, but is perhaps of added importance in a heterogeneous country like South Africa is that of race and culture. Lee (2000), found that African customers often perceive irritants in the sense that they feel ‘shadowed’ and ‘watched’ by store personnel – this phenomena was not found in Caucasian customers. Lee’s findings are supported by the findings of a 2006 study by Latour et al. (2006), where 450 shoppers of different races were surveyed regarding their perceptions of the retail environment. The study showed that significant differences existed between members of differing races.

RESEARCH OBJECTIVES AND HYPOTHESES

The main purpose of this study was to determine which factors of the retail environment act as irritants to young adults in South Africa and to identify how the effect of these irritants were mediated by factors such as gender and ethnicity. More specifically, the research aimed to achieve the following specific research objectives: (a) to determine whether females will be more irritated by displeasing aspects of the retail environment than males, and (b) to determine whether there will be a significant difference in irritation patterns among different consumer race groups.

To address the objectives, the following hypotheses were formulated:

H₁ (null): There are no differences between the mean perceptions of male and female young adults and aspects that they find irritating or displeasing in the retail environment.

H₁ (alt): There are differences between the mean perceptions of male and female young adults and aspects that they find irritating or displeasing in the retail environment.

H₂ (null): There are no differences between the mean perceptions of different race groups and aspects that they find irritating or displeasing in the retail environment.

H₂ (alt): There are differences between the mean perceptions of different race groups and aspects that they find irritating or displeasing in the retail environment.

RESEARCH METHODOLOGY

Sampling

The sample population selected for this study was young adults, aged 18 to 26. Studies conducted in South Africa have shown that young adults are becoming an increasingly important consumer group. The 2009 Generation Next study conducted by the Sunday Times newspaper showed that 51% of South African youths visit retail environments once a week, with 84% of them typically spending over two hours in the retail environment. The same study showed that 73.6% of young adults consider a ‘vibey atmosphere’ to be very important in a shopping environment (HDI, 2009).

Thus studying young adults was deemed to be of both academic and managerial value, so as to determine which factors act as irritants to this important economic segment.

Five in-depth interviews were conducted, followed by snowball sampling, during which 177 useable responses were collected. A further 23 responses were collected by means of intercept interviews, thus the total sample size was 205. Snowball sampling allows the researcher to access new respondents through referrals from an initial set of identified respondents (Bajpai, 2010). Snowball sampling is a convenient method when information is not directly available to the researcher, nonetheless, it is a non-probability sampling method and so has weaknesses, one of which is questionable representativeness of the sample (Babbie, 2008).

New media, particularly social networks, have been gaining momentum as one of the main communication channels used by today’s young adults (Stone, Stanton, Kirkham & Pyne, 2001). The study took advantage of social networks by using snowball sampling to generate referrals to the online survey used in the second phase of the research. Survey participants fitting the age criteria were asked to complete the survey, as well as to forward it to friends and family who matched the criteria.

Measuring instrument

The study was conducted in two phases. The first phase was an exploratory, qualitative study using in-
depth interviews. Respondents were sourced using convenience sampling, given that a representative sample was not the aim, but rather to adapt and improve the list of irritants and the questionnaire used in the d’Astous (2000) study. The findings of this phase were incorporated in the second phase which used quantitative research, snowball sampling and made use of survey research.

Although no pre-testing of the data collection instrument took place among respondents, the questionnaire was peer-reviewed by other researchers and the suggestions arising from the peer-review process were incorporated.

The survey questionnaire used a set of Likert scales in order to assess the extent to which different irritants affected respondents, while gender, age and ethnic group were used as grouping variables, in order to compare responses across different groups.

An online survey was selected as the most appropriate data collection method for this study, given the demographics of the target population. The young South African segment is well-versed on the use of the Internet and thus accessible through this convenient and inexpensive medium (HDI, 2009).

The self-completion online surveys reduced a variety of survey errors such as errors in data entry, while providing the resulting data in an opportune format which was easily accessible for data analysis and manipulation.

EMPIRICAL RESULTS

The factors identified that caused the most irritation were unclean stores and deceitful sales personnel, as well as bad smells and sales staff that ignore customers. These findings are consistent with those of d’Astous (2000) with his Canadian audience. Overall the ambient and social categories are seen to cause more irritation than design, once again consistent with d’Astous (2000).

Table 1 shows the demographic breakdown of the respondents of this study. The considerable skew towards respondents of white ethnicity, and the comparative under-representation of coloured and Indian respondents was a result of the snowball sampling method employed and is acknowledged as a limitation of this study.

<table>
<thead>
<tr>
<th>Table 1: Gender and Ethnicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
</tr>
<tr>
<td>------</td>
</tr>
<tr>
<td>Male</td>
</tr>
<tr>
<td>Female</td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td>Ethnicity</td>
</tr>
<tr>
<td>African</td>
</tr>
<tr>
<td>Coloured</td>
</tr>
<tr>
<td>Indian</td>
</tr>
<tr>
<td>White</td>
</tr>
<tr>
<td>Other</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

Gender

Overall, women were found to be more irritable than men with regards to elements in the retail environment. This is consistent with the findings of d’Astous (2000). However, statistically significant differences were found in only four of the fifteen irritant areas examined. Furthermore, men were equally or more affected than women with regards to social factors (with the exception of being able to handle pressure selling better). Men were considerably more irritated than women by noisy children and babies, a possible reason being that men lack the maternal patience displayed by women.

Table 2 shows the results of a t-test for two independent samples procedure conducted to examine the differences between gender groups along all three areas of Baker’s (1986) retail environment typology. A Levene’s test was conducted and showed that equal variances could be assumed.
### TABLE 2: THE DIFFERENCES BETWEEN GENDER GROUPS

<table>
<thead>
<tr>
<th></th>
<th>89 Males, 111 Females</th>
<th>Combined Mean</th>
<th>Male Mean</th>
<th>Female Mean</th>
<th>T-test</th>
<th>p-value (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ambient Factors</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>When there is a bad smell in the store.</td>
<td>4.36</td>
<td>4.22</td>
<td>4.47</td>
<td>-2.060</td>
<td>.041**</td>
<td></td>
</tr>
<tr>
<td>When the store is not clean.</td>
<td>4.54</td>
<td>4.51</td>
<td>4.56</td>
<td>-0.443</td>
<td>.658</td>
<td></td>
</tr>
<tr>
<td>When it is too hot inside the store.</td>
<td>4.16</td>
<td>4.05</td>
<td>4.31</td>
<td>-1.712</td>
<td>.089*</td>
<td></td>
</tr>
<tr>
<td>When the music inside the store is too loud.</td>
<td>3.89</td>
<td>3.78</td>
<td>4.00</td>
<td>-1.206</td>
<td>.230</td>
<td></td>
</tr>
<tr>
<td><strong>Design Factors</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>When I am unable to find what I need.</td>
<td>3.93</td>
<td><strong>4.02</strong></td>
<td>3.91</td>
<td>0.726</td>
<td>.469</td>
<td></td>
</tr>
<tr>
<td>When the arrangement of items has changed.</td>
<td>3.27</td>
<td>3.22</td>
<td><strong>3.31</strong></td>
<td>-0.503</td>
<td>.615</td>
<td></td>
</tr>
<tr>
<td>When the store is too small.</td>
<td>3.23</td>
<td>3.22</td>
<td><strong>3.27</strong></td>
<td>-0.291</td>
<td>.771</td>
<td></td>
</tr>
<tr>
<td>When the directions or signs within the store are not clear.</td>
<td>1.80</td>
<td><strong>1.83</strong></td>
<td>1.74</td>
<td>0.459</td>
<td>.647</td>
<td></td>
</tr>
<tr>
<td>When there is no mirror in the dressing room.</td>
<td>3.82</td>
<td>3.56</td>
<td><strong>3.95</strong></td>
<td>-1.881</td>
<td>.062*</td>
<td></td>
</tr>
<tr>
<td>When it is hard to find my way around a large shopping mall.</td>
<td>3.47</td>
<td>3.50</td>
<td><strong>3.55</strong></td>
<td>-0.268</td>
<td>.789</td>
<td></td>
</tr>
<tr>
<td><strong>Social Factors</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>When the store is crowded.</td>
<td>3.89</td>
<td>3.92</td>
<td>3.91</td>
<td>0.102</td>
<td>.919</td>
<td></td>
</tr>
<tr>
<td>When there are noisy kids/babies around</td>
<td>3.09</td>
<td><strong>3.28</strong></td>
<td>2.99</td>
<td>0.144</td>
<td>.292</td>
<td></td>
</tr>
<tr>
<td>When I am being deceived by a sales person.</td>
<td>4.53</td>
<td>4.55</td>
<td>4.54</td>
<td>0.100</td>
<td>.920</td>
<td></td>
</tr>
<tr>
<td>When the sales personnel ignore me.</td>
<td>4.24</td>
<td>4.23</td>
<td>4.25</td>
<td>-0.149</td>
<td>.882</td>
<td></td>
</tr>
</tbody>
</table>

** significant at \( \alpha = 0.05 \)
* significant at \( \alpha = 0.10 \)

It is important to note that both genders showed to be strongly affected by irritants stemming from personnel behaviour, essentially confirming the importance of good customer service.

This suggests that extra care should be taken to train and educate staff, as they once again have been shown to have a strong effect on customer satisfaction.

While these findings tend to support \( H_1 \), it is not possible to fully reject the null hypothesis, as there is only partial support for \( H_1 \).

### Ethnicity

Ethnicity was shown to play a role in influencing retail environment irritability. Irritation was often higher in one group than in the others. However, statistically significant differences were observed in only three cases out of the total fifteen. Table 3 shows the mean irritability of the various shopping environment factors, divided into the various ethnic groups of the respondents. An ANOVA procedure was carried out to identify significant differences in the means. A post hoc Tukey test was conducted to determine the exact sources of statistical difference.
The study revealed that South Africans of white ethnicity were strongly affected by ambient factors, especially heat and loud music. Since this segment is of Caucasian European descent the high irritation caused by excessive heat in the store or shopping environment is perhaps not surprising. However, it would not be wise to assume this to be the main reason, since customers of African ethnicity were almost as irritated by excessive heat. Customers of coloured and Indian ethnicity on the other hand, were less irritated by this factor.

Coloured customers showed the most irritation stemming from social factors, but found ambient and design factors the least irritable. Further research will be necessary in order to determine why this disparity in irritability is present. An interesting and perhaps surprising finding was that customers of African and white ethnicity were often quite similar in terms of irritation. While white customers tended to be more irritable, customers of African ethnicity were mostly similar in their reaction. Conversely, coloured and Indian customers were very different to their African and white counterparts.

Overall, there would appear to be enough support for $H_2$ for the null hypothesis to be rejected, but more research should be conducted with a more representative sample before $H_2$ can be fully proven.

**MANAGERIAL IMPLICATIONS AND RECOMMENDATIONS**

A number of managerial implications can be drawn from the current study. Most importantly, there is a need to focus efforts on ambient and social factors, since design factors were shown to cause less irritation. Within social
factors, sales staff driven problems were shown to be the most irritable, which suggests that there is a need for effective training of the sales force and front line personnel.

In an age where many retailers have extensive customer profiling and targeting initiatives it is important for retailers to be aware of the fact that white customers are strongly affected by ambient factors, especially heat and loud music. Retailers targeting white young adult customers should be careful to avoid these problem areas.

LIMITATIONS AND FUTURE RESEARCH

The study had two related but important limitations. Firstly, a non representative sampling technique (snowball sampling) was used, which means that the findings cannot be generalised. Secondly, due to the decreased control over the respondent profiles (as a result of snowball sampling), there has been an under-representation of customers of coloured and Indian ethnicity. Future studies should address these shortcomings.

Future studies should also probe some of the findings of this study, such as the finding that men are equally or even more affected than women by social factors and investigate why that is so. Also, the finding that customers of coloured ethnicity (who are consistently the least irritable of all ethnic groups) are so strongly irritated by social factors, should be further investigated.

REFERENCES


• Michon, R. & Chebat, J. N.D. *Living happily ever after? How mall atmospherics trigger hedonic values and approach behaviours even among the most difficult shoppers.*


