

**IDENTIFYING FACTORS AFFECTING STORE TRAFFIC
TO ENABLE STORE MANAGERS IN MANIPULATING
THE CONTROLLABLE FACTORS TO OPTIMIZE
IN-STORE SALES**

by

Daniel Chandra
BBA, Trinity Western University, 2002

Ada Shuk Yun Lam
BA, Simon Fraser University, 2002

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Approval

Name: Daniel Chandra and Ada Shuk Yun Lam

Degree: Master of Business Administration

Title of Project: *Identifying Factors Affecting Store Traffic to Enable Store Managers in Manipulating the Controllable Factors to Optimize In-Store Sales*

Supervisory Committee:

Dr. Jennifer C. Chang
Senior Supervisor
Assistant Professor of Marketing
Faculty of Business Administration
Simon Fraser University

Dr. Gervase R. Bushe
Second Reader
Associate Professor of Management and Organization Studies
Faculty of Business Administration
Simon Fraser University

Date Approved: August 2, 2005

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Abstract

Store atmosphere – defined by Donovan and Rossiter (1982), and Kotler (1973) as variables within a store that contribute to the quality of the surroundings - has received a great amount of attention from academic researchers due to its ability to attract traffic. Previous studies have tested the number of store atmosphere's variables' effect on store traffic. This project is undertaken to test the effect of the number of store atmosphere's variables on store traffic for wireless telecommunications retail stores. In addition, the project identifies which of the variables affects traffic the most. The result of this project will help managers of wireless telecommunications retail stores in optimizing traffic. Moreover, the results also serve as a basis for future research by both the retail stores and the wireless telecommunications providers, which are responsible in providing guidelines for the design of the retail stores.

Executive Summary

The Canadian wireless telecommunications industry is still growing. Currently, there are more and more Canadians owning mobile telecommunications devices such as cellular phones. However, in spite of the attractiveness of the industry, the demands of wireless telecommunications services are only served by six wireless providers. The three providers that hold the majority of market are Rogers Wireless, Bell Wireless Alliance, and TELUS Mobility.

Due to its oligopolistic characteristic, the wireless telecommunications industry is very competitive. The competitiveness of the industry also takes place at the retail level. Not only must these wireless retail dealers compete with other stores of different service providers, but they also have to compete with other wireless retail dealers of the same wireless providers. This situation is very common for many TELUS Mobility dealers.

Due to the positioning of TELUS Mobility promotions, which are aimed toward creating differences against other wireless telecommunication providers, TELUS Mobility dealers are unsuccessful in creating significant differences amongst each other. In addition, the majority of the dealers, if not all, carry the same type of products, with minor differences in the after market accessories and other non cellular related products. Moreover, a number of TELUS mobility dealers are located within close proximity to each other or even with the dealers of other wireless telecommunication providers.

The unsuccessful attempts in creating significant differences amongst wireless telecommunications dealers of the same provider and the closely located wireless telecommunication retail stores lead to the issue of in-store traffic. In-store traffic has been seen as one of the factors affecting sales. For example, Bagley (2002) pointed out that mathematically, in-store traffic and sales can be formulated as follows:

$$\text{Traffic} \times \text{Closing Ratio} \times \text{Average Transaction Value} = \text{Sales}$$

Store traffic itself can be affected by a number of factors. One of the factors affecting the in-store traffic that serves as the main focus of this project and that also has received much attention from the academic environment is store atmosphere, which is defined as variables within a store that contribute to the quality of the surroundings

(Donovan and Rossiter, 1982; Kotler, 1973). The main theory consulted to support the focus of this project on store atmosphere is the Mehrabian-Russell (1974) environmental psychology approach.

This project tests seven variables of store atmosphere (music, scent, lighting, colour, signage, icons, flooring, and lighting) and their effect on store patronage intentions. In addition, this project also identifies which of the factors affects traffic the most. Based on the survey and observations done, we find that lighting and flooring affect in-store traffic the most. Specifically, we find that customers prefer bright lighting and non-expensive flooring.

One of the most notable limitations of this project is that even though we are able to identify which factors are significant in explaining the likelihood of shoppers in visiting the stores, we are not able to isolate the optimal level that these factors should be. For example, our study suggests that brighter lighting will help increase in-store traffic; however, we are not able to isolate at which level of brightness that the lighting should be. Future research should therefore further investigate the factors that are identified as significant to determine optimal results.

Dedication

This project is dedicated to the parents of Daniel Chandra (Johny and Lie Fie Jin) and the parents of Ada Shuk Yun Lam for their continuous support to the authors.

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1. INTRODUCTION

1.1 Brief Industry Analysis

Launched in 1985, the Canadian wireless telecommunications industry has continued to grow (Canadian Wireless Telecommunications Association, 2005). While only 15 million people or about half of the total population of Canada have mobile phones; there is room to grow for the wireless telecommunications industry (Canadian Wireless Telecommunications Association, 2005). The growth stage of the Canadian wireless telecommunications industry has made it an attractive industry.

However, in spite of this industry's attractiveness, the Canadian wireless telecommunications industry is more of an oligopoly market. Due to the high barrier of entry, there are only six wireless providers in Canada. And of those six carriers, only three are major players in the wireless industry. The first provider (which, with its acquisition of Microcell, has become the number one wireless provider in terms of subscribers) is Rogers Wireless with over 5.5 million subscribers. It is then followed by Bell Wireless Alliance, which includes Bell Mobility, Northern Tel Mobility, Télébec Mobility, and the proportionate share of the Virgin Mobile Canada joint venture, with over 4.3 million subscribers. The third position is TELUS Mobility with over 4 million subscribers (Canadian Wireless Telecommunications Association, 2005).

As a consequence of its growing stage and its oligopoly characteristic, the wireless telecommunications industry is very competitive. For example, there are almost

new rate plans or free phone promotions launched by each wireless telecommunications carrier every month competing for potential subscribers as well as for competitors' existing cellular subscribers. And, from time to time, just in order to stay competitive, the promotions are the same as what the competitors are currently offering.

The competitiveness of the wireless telecommunications industry does not only take place between the wireless telecommunications providers, but also between their retailers. For example, as TELUS Mobility products and services are distributed by mainly independent dealerships, these dealerships, thus, compete against each other for the potential TELUS Mobility service subscribers. In addition, as people tend to change their phones every few years, these dealerships also compete for the existing TELUS Mobility service subscribers.

Different from the competition at a higher level or between the wireless telecommunications providers - where each provider offers different product, service, and service quality - these dealers for each wireless telecommunications providers essentially offer the same product, at the same Manufacturer's Suggested Retail Price (MSRP), and with similar promotion, as set by the wireless telecommunications provider they are in business with. In addition, from time to time, these dealers, either for the same or different wireless telecommunications providers, are located in a close proximity with each other. This is especially true for mall-based wireless telecommunications stores.

1.2 The Project

With the struggle of creating a differential advantage using the four Ps of marketing (Product, Price, Promotion, and Placement or distribution), these wireless

telecommunications dealerships need to find another way to create a significant point of difference to compete with their competition. In doing so, Baker, Levy, and Grewal (1992) believe that when the four Ps of marketing failed to create a significant positive differentiation against the competitors, the store itself can be used to create a point of difference. In creating a point of difference for the store against those of the competitors', the store owners essentially expect to increase sales.

One factor of the store that has received a great deal of attention in the academic environment due to its effect on the store's performance is the store's atmosphere; store atmosphere is defined as variables within a store that contribute to the quality of the surroundings (Donovan and Rossiter, 1982; Kotler, 1973). Up until now, there has been much research done to prove the linkage between store atmosphere and the store sales, concluding that store atmosphere indeed affects sales (e.g., Babin and Darden, 1996; Baker et al., 1992; Baker, Parasuraman, Grewal, and Voss, 2002; Bitner, 1990; Bitner, 1992; Donovan and Rossiter, 1982; Donovan, Rossiter, Marcoolyn, and Nesdale, 1994; Korgaonkar, Lund, and Price, 1985; Kotler, 1973; Mano, 1999; Schlosser, 1998; Sharma and Stafford, 2000; Spies, Hesse, and Loesch, 1997; Turley and Milliman, 2000).

Previous studies show that store atmosphere can affect sales through increasing the store traffic flow (e.g., Baker et al., 1992; Baker et al., 2002; Bitner, 1992; Donovan and Rossiter, 1982; Donovan et al., 1994; Korgaonkar et al., 1985; Mano, 1999; Schlosser, 1998; Turley and Milliman, 2000). There are number of ways that store atmosphere can affect traffic. For example, store atmosphere can affect traffic through creating store loyalty (e.g., Volle, 2001; Woodside, 1973), lowering wait expectations (e.g., Grewal et al., 2003), and increasing the perceptions of service and merchandise quality of the store (e.g., Babakus, Bienstock, and Van Scotter, 2004). However, despite its importance, store traffic itself has been difficult to predict for many retail stores.

There are times when the mall is busy and yet few people enter the specific store. This unpredictable store traffic situation makes it difficult for the stores to optimize revenues due to difficulty faced by the store managers to do things such as staffing the store optimally and stocking the right amount of merchandise.

This project is undertaken to understand how store atmosphere affects the store patronage decision. Moreover, the project itself is sponsored by TELUS Mobility and is participated by two of its independent dealers which are located in the same mall.

Therefore, the goal of this study is first to help the two dealers understand the importance of store atmosphere and identify which variables of store atmosphere affect store traffic – which is defined as the number of people walking into the store, whether intentionally or by impulse - of mall based stores, built on the assumption that store traffic has a positive effect on sales. In addition, this project suggests areas of future research for TELUS Mobility and their independent dealers in the attempt to create a differential advantage to increase traffic, which essentially increases sales.

One reason why store atmosphere has become the focus of this project - in spite of previous studies' results which show that store atmosphere can affect sales - is that some of its variables can still be manipulated by the TELUS Mobility dealers. Even though TELUS Mobility provides certain guidelines of how the dealers' stores should be designed, there are still some factors that the dealers have the flexibility to change.

Specifically, the project aims to determine the variables of store atmosphere that influence store traffic in order to help the wireless telecommunications dealerships better optimizes traffic, which essentially will help them optimize sales. In addition, the project also aims to confirm previous studies done in this area.

The project and its findings are important for both TELUS Mobility and its independent dealers. For TELUS Mobility the retail store is where the interaction

between the wireless telecommunications provider and its potential and current service subscriber takes place. In other words, the retail store has become the forefront of TELUS Mobility in acquiring new service subscribers as well as servicing current ones. Should the retail stores fail to perform well, TELUS Mobility will be affected. As for the dealers, despite also generating revenue through outbound sales, the in-store sales still hold a very significant value in generating revenues for the company. In fact, one of the participating dealers does not generate any outbound sales and relies 100% of its revenue on the sales generated in-store, while the other participating dealer relies 80% of its revenue on in-store sales in 2004.

Furthermore, TELUS Mobility itself has been interested in helping the dealers in designing their stores. As mentioned earlier, TELUS Mobility provides a guideline for the dealer for store appearance. Therefore, this project will also aid TELUS Mobility in creating their store design guidelines for the TELUS Mobility independent dealers' stores.

As for the managerial perspective, identifying elements of store atmosphere that affect in-store traffic in a wireless telecommunications retail store can help the dealers create a better store atmosphere so as to optimize the in-store traffic, which essentially relates to an increase in sales and revenue for the dealers. In addition, the understanding of the in-store traffic and what affects it will help management in some areas of store operations, such as staffing, and inventory levels (Bagley 2002). Moreover, due to the controllable nature of store atmosphere by the wireless telecommunication dealers, store atmosphere is a viable factor that the dealers can and should experiment with.

In doing this project, we perform both primary research and secondary research. In the secondary research we consult previous work done in related topics to help in

creating the conceptual framework. In addition, due to the preliminary nature of this project, the secondary research also helps in understanding the greater picture of what affects traffic and to provide reasons as to why we choose store atmosphere as the focus of this project.

On the other hand, we conduct primary research in this project to put our framework to a test. The results of the primary research will help in providing solutions for TELUS Mobility and its independent dealers. In addition, the primary research will also help in identifying possible future research to be conducted by TELUS Mobility and its dealers.

The paper itself, which is the written report of this project, is organized like an inverted pyramid. It starts with a general topic such as the connection between in-store traffic and sales, followed by a discussion of factors affecting in-store traffic, to a more specific topic such as the Mehrabian - Russell (1974) environmental psychology model, which leads to the creation of the framework. In doing so, one can understand the big picture of the topic presented in this project, the importance of the topic for the participating dealers, the previous studies done relating to the project's topic, and the solution proposes in this paper. In other words, the paper is organized so that the topic presented can be understood clearly by anyone reading it.

2. SECONDARY RESEARCH: IN-STORE TRAFFIC

In-store traffic has received great attention in the academic world. Based on previous studies done in this area, we find that in-store traffic relates to sales. In addition, we also find that there are number of factors affecting in-store traffic. This section will show how in-store traffic relates to sales and what the factors affecting in-store traffic - as identified by number of studies – are.

2.1 In-Store Traffic and Sales

The importance of in-store traffic in sales has been recognized in the retail industry. Walters (1988) argues that store traffic and sales have a straight and positive relationship. Furthermore, many retailers also attribute their sales performance to in-store traffic. For example, lower traffic in the retail industry has been attributed to lower sales. As Agins, Merrick, and Branch (2003) point out, sales numbers for many retailers were lower during the US assault on Iraq as many people were staying at home and watching the news on television. In addition, Borders Group Inc. posted a fiscal third quarter loss in 2004 due to light store traffic (“Borders Group Inc”).

Despite the attribution of lower sales performance to traffic, higher sales performance is also attributed to traffic; higher traffic, that is. An example of this is the story of Walgreens. Recognizing the importance of traffic in the success of the company, Walgreens opened up stores in high traffic areas, which contributed to

Walgreens' amazing performance record with its increased sales and earnings every year for the past 30 years (Boyle 2005).

The correlation of in-store traffic and sales can also be seen in the Retail Equation. Bagley (2002) points out that, mathematically, in-store traffic and sales can be formulated as follows:

$$\text{Traffic} \times \text{Closing Ratio} \times \text{Average Transaction Value} = \text{Sales}$$

As one can see in the equation, even though it is not the only factor affecting sales, traffic has direct effect on sales.

Furthermore, to ensure that in-store traffic does correlate with sales – as the basis of this project – we conduct observations in four different time periods. In each time period the number of traffic and the number of sales are noted. We will discuss the details of the observations in the appropriate section later in the paper.

2.2 Factors Affecting In-Store Traffic

There are number of factors affecting in-store traffic identified by researchers. Factors such as promotion (e.g., Gijsbrechts, Campo, and Goossens, 2003; Valentino, 2005; Volle, 2001; Walters, 1988), location (e.g., Arnold, Oum, and Tigert, 1983; Nicholls et al., 2002), time and day of the week (Retail Traffic, 2003), store loyalty (e.g., Volle, 2001; Woodside, 1973), wait expectations (e.g., Grewal et al., 2003), perceptions of service and merchandise quality (e.g., Babakus et al., 2004; Cronin, Brady, and Hult, 2000), and last but not the least, store atmosphere (e.g., Baker et al., 1992; Baker et al., 2002; Bitner, 1992; Donovan and Rossiter, 1982; Donovan et al., 1994; Korgaonkar et al., 1985; Mano, 1999; Schlosser, 1998; Turley and Milliman, 2000) have been identified as factors affecting in-store traffic.

All of the variables mentioned have indeed been considered to be the focus of our project. However, based on our findings in regard to each variable - as discussed throughout the rest of this section – we strongly feel that we have made a right choice in focusing our project on store atmosphere. Therefore, the rest of this section has been arranged to discuss each identified factor that affects in-store traffic and why each of these factors is not the main focus of this project.

2.2.1 Promotion

Promotion, as identified by a number of academic researchers, works in increasing store traffic (e.g., Gijbrecchts et al., 2003; Valentino, 2005; Volle, 2001; Walters, 1988). However, as TELUS Mobility dealers are not in the same situation as the stores the researchers are working with, promotion does not work as well as intended. First, TELUS Mobility takes control over the promotions of its product, such as the phones and the rate plans, not the dealers. Even though the dealers are allowed to entice potential or current customers to come into the store by doing their own promotion on the cellular phone accessories or other product not related to cellular phones, TELUS Mobility promotions are still the main promotions in comparison to theirs. Second, TELUS Mobility dealers are competing not only with the dealers of other wireless telecommunications providers, but also amongst themselves.

Despite this internal competition between its dealers, TELUS Mobility, having the control of the marketing campaign for its products, positions its promotion to compete only with other wireless telecommunications providers. Therefore, TELUS Mobility promotions are successful in only bringing traffic to random TELUS Mobility stores as it does not create a significant point of difference between TELUS Mobility dealers. In

other words, TELUS Mobility promotions only work for TELUS Mobility in creating significant differences and not for its independent dealers.

Realizing that promotion does affect traffic, we recognize the importance of promotion in affecting traffic. However, based on the fact that TELUS Mobility manages the promotion for its product, and the fact that the promotion itself fails to create significant difference between each TELUS Mobility dealer, we do not consider promotion a factor of focus for this project in helping TELUS Mobility dealers optimize traffic.

2.2.2 Location

Location, identified as one of the factors affecting traffic (e.g., Arnold et al., 1983; Nicholls et al., 2002), is somewhat limited in its ability to generate in-store traffic for TELUS mobility dealers. There are more and more wireless telecommunications dealers these days. Every so often, there is more than one dealer within close proximity - such as in a mall. These dealers are not only from different wireless telecommunications providers, but also from the same ones. For example, the two TELUS Mobility dealers participating in this project are located within the same mall. In addition to these two stores, there are four other wireless telecommunications stores representing other wireless telecommunication providers, as well as a retail chain electronic store which sells Rogers Wireless products in the same mall. As one can realize, not only do the TELUS Mobility dealerships compete against each other for traffic, but they also have to compete with five others.

Therefore, although a wireless telecommunications dealer may have a great location, the fact that it will have to compete with a number of other dealers located within close proximity makes the location a less significant factor to be considered in

optimizing in-store traffic. In addition, due to the focus of the project in optimizing in-store traffic of existing stores - in which their locations have been fixed as they are renting their location from the mall in yearlong lease (which could be either one, two, three, or even five year lease) - focusing the project on the factor of location is not a feasible solution.

2.2.3 Time and Day of the Week

Time and day of the week play an important role toward in-store traffic. For example, 11.6% of Americans are out shopping between 2 to 4 PM every weekend (Saturday and Sunday) (Retail Traffic, 2003). For a complete summary of traffic patterns according to time and day of the week, refer to Table 1.

Table 1. Percent of Americans Who Are Out Shopping During Indicated Times of the Day

Time	Weekends	Weekdays
6 - 8 AM	< 0.5%	0.50%
8 - 10 AM	2.90%	1.60%
10 - Noon	7.70%	5.20%
Noon - 2 PM	11.20%	6.20%
2 - 4 PM	11.60%	6.10%
4 -6 PM	7.30%	4.70%
6 - 8 PM	4.60%	4.10%
8 - 10 PM	1.90%	2.30%
10 - Midnight	< 0.5%	0.50%
Midnight - 2 AM	< 0.5%	< 0.5%
2 - 4 AM	< 0.5%	< 0.5%
4 - 6 AM	< 0.5%	< 0.5%

Data Source: Retail Traffic, 2003.

Despite its effect on traffic, time and day are not controllable by the wireless telecommunications providers and their dealers. Business days for the dealers are Monday to Saturday and even on Sunday for many of them, especially those located at a mall. Their business hours range from 8:30 AM to 5:30 PM, or 9:30 AM to 6 PM or 9 PM. Therefore we do not focus our project in time and day of the week because it is not feasible for us to recommend the time and day the dealer should have an open business. One solution that this subject can provide to the wireless telecommunications dealers is how to schedule the staffing of the store.

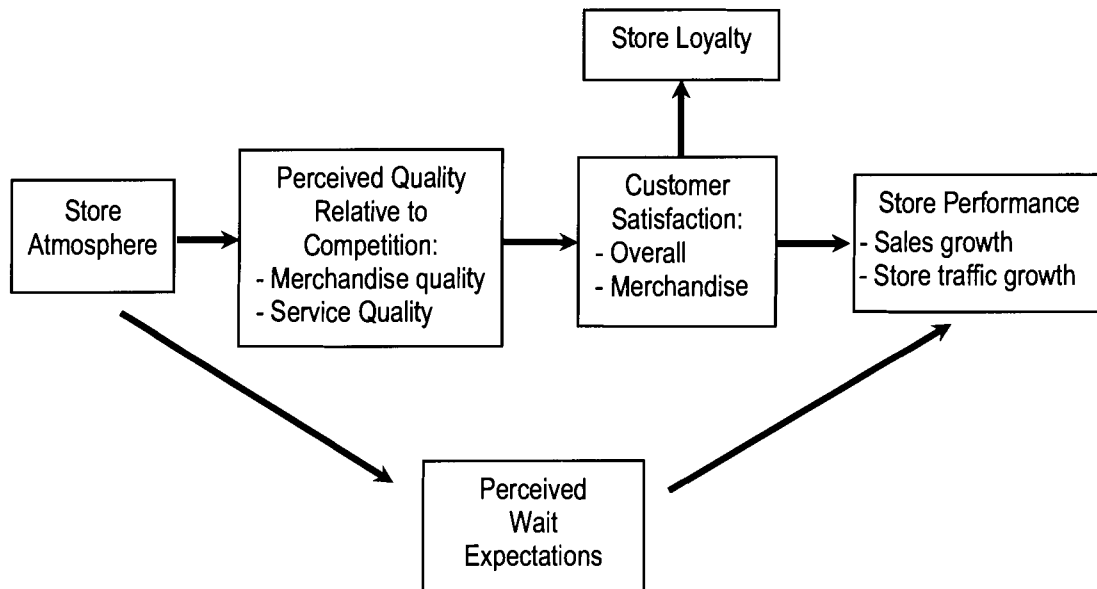
Due to the competitiveness of the industry, the lower a wireless telecommunication dealer can bring its cost down, the better its position will be. And staffing is one of the ways a retail store can bring its cost down. The issue of both overstaffing and understaffing add cost to the store. For example, in overstaffing, the dealers will have to pay extra money to excess sales people who may not put in a sufficient level of contribution to the store's revenue as there are not enough customers to keep them busy. On the other hand, the dealers may lose possible revenue from people who do not want to wait for service from busy sales people, which is a likely consequence of understaffing.

Taking into account how important traffic patterns (as per Table 1) are, we are doing our observation – which will be discussed at a later section in the paper - based on the traffic patterns provided by Retail Traffic (2003). In doing so, we plan to test the accuracy of this information and to provide the wireless telecommunications dealers with information that can be taken into consideration in staffing its stores.

2.2.4 Store Loyalty, Wait Expectations, and Perceptions of Service and Merchandise Quality

Despite affecting store traffic, store loyalty (e.g., Volle, 2001; Woodside, 1973), wait expectations (e.g., Baker and Cameron, 1996; Grewal et al., 2003), and perceptions of service and merchandise quality (e.g., Babakus et al., 2004; Cronin et al., 2000) have one other thing in common. All of them are affected by store atmosphere (See Figure 1).

Figure 1. Relations Between Store Atmosphere with Store Loyalty, Wait Expectations, and Perceptions of Service and Merchandise Quality



Adapted from Babakus et al., 2004; Baker and Cameron, 1996; Baker et al., 2002; Grewal et al., 2003, and Woodside, 1973.

Based on Figure 1, one can see that store atmosphere indeed affects a number of factors relating to store traffic. This notion is confirmed by Darden et al. (1983), who found that store atmosphere correlates more to customers' patronage intention than do

other factors such as “merchandise quality, general price level, selection, and six other store/product beliefs” (as cited in Baker et al., 1992). Due to this relationship where store loyalty, wait expectations, and perceptions of service and merchandise quality are all affected by store atmosphere, we decided not to focus on these variables in our project in helping TELUS Mobility and its independent dealers optimize in-store traffic. It will be best to focus on the main factor which affects all factors affecting traffic - store atmosphere.

As we can see, due to number of reasons, all the factors affecting in-store traffic discussed in this section (promotion, location, time and day of the week, store loyalty, wait expectations, and perceptions of service and merchandise quality) are not chosen to be the focus of this project. The reasons can either be that they are not feasible factors that the project should focus on (promotion, location, time and day of the week), or they are in a way affected by store atmosphere (store loyalty, wait expectations, and perceptions of service and merchandise quality). Therefore, the project concentrates on store atmosphere, which will be discussed more thoroughly in the following section of the paper.

3. SECONDARY RESEARCH: STORE ATMOSPHERE

3.1 What Is Store Atmosphere?

As mentioned earlier at the beginning of this paper, store atmosphere has received the attention of many researchers. Some of the studies performed in regard to store atmosphere are: ambient (such as music and lighting) and social (such as number and availability of retail sales people) factors of store atmosphere on consumers' pleasure, arousal, and willingness to buy (e.g., Baker et al., 1992), store atmosphere's impact on customers and employees (e.g., Bitner, 1992), the relation between store atmosphere and shopping motives (e.g., Dawson, Bloch, and Ridgway, 1990), store atmosphere and its effects on shopping behaviour within the store (e.g., Donovan and Rossiter, 1982), the correlation between store atmosphere and pre-existing negative affect, and their effect on store patronage (e.g., Mano, 1999), store atmosphere's effect on social and utilitarian products (e.g., Schlosser, 1998), store atmosphere's effect on the level of retail salespersons' persuasion (e.g., Sharma and Stafford, 2000), and store atmosphere's impact on mood and customers' purchasing behaviour (e.g., Spies et al., 1997).

What is store atmosphere? Store atmosphere is used to describe variables within a store that contribute to the quality of the surroundings (Donovan and Rossiter, 1982; Kotler, 1973). As within store variables, Baker (1986) divided store atmosphere into three different dimensions: ambient factors (such as lighting, music, and scents),

social factors (such as employees and customers in the store premises), and design factors (such as architecture, style, and layout) (as cited in Baker et al., 1992). Baker and Cameron (1996, p.340) further explain that:

1. Ambient elements are intangible background conditions that tend to affect the non-visual senses and in some cases may have a relatively subconscious effect.
2. Design elements represent the components of the environment that tend to be visual and more tangible in nature.
3. Social elements are the people (customers and employees) in the service setting.

Bitner (1990) argues that consumers who have no experience with a particular store will evaluate it through its atmosphere. This notion is supported by Schlosser (1998, p. 345) who notes that the “consumer’s first impression of a store, based on what can be seen or heard from outside the store: the displays, the lighting, the music, the color scheme, and the arrangement of space,” leads to their store patronage decision. Furthermore, Berry and Clark (1986), and Shostack (1977) argue that it is something that consumers evaluate prior to engaging in a business transaction with a business establishment (as cited in Bitner, 1992).

Store atmosphere itself is divided into two different distinctions: intended atmosphere and perceived atmosphere (Kotler, 1973). As indicated by the name, intended atmosphere is what a store wants to instil on its patrons, while the perceived atmosphere is what the patrons sense of the store atmosphere (Kotler, 1973). In order for store atmosphere to work effectively for the store, the intended atmosphere needs to be the same as the perceived atmosphere.

Kotler (1973) suggests a number of reasons why store atmosphere is an important factor to be aware of by the retailers. Those reasons are:

1. Atmospheric is a relevant marketing tool mainly in situations (a) where the product is purchased or consumed; and (b)where the seller has design options.
2. Atmospheric becomes a more relevant marketing tool as the number of competitive outlets increase.
3. Atmospheric is a more relevant marketing tool in industries where product and/or price differences are small.

Atmospheric is a more relevant marketing tool when product entries are aimed at distinct social classes or life style buyer groups.

(Kotler 1973, p. 52-53)

In addition, Kotler (1973) notes that store atmosphere affects purchase behaviour at least in three different ways:

1. Atmosphere may serve as an attention-creating medium
2. Atmosphere may serve as a message-creating medium
3. Atmosphere may serve as an affect-creating medium.

(p. 54)

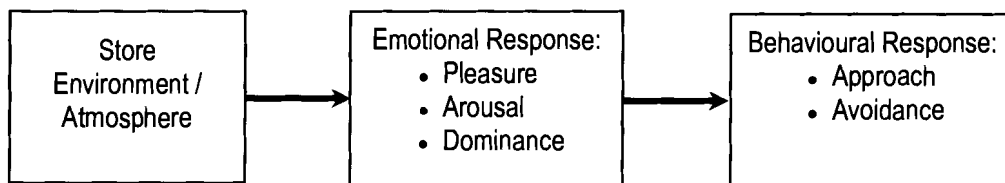
Furthermore, Buckley (1987, p.568) argues that “a store’s atmosphere has both affective and cognitive components.” In addition, Donovan and Rossiter (1982), and Mehrabian and Russell (1974) explain that “the affective components are pleasure (i.e. contented, happy, satisfied), arousal (i.e. stimulated, excited, jittery), and dominance (i.e. controlling, dominant, influential), and the cognitive component is the information rate (i.e. novelty, variety, density, size)” (as cited in Buckley, 1987, p.568).

One of the most known theories in the area of atmosphere/environment is the Mehrabian-Russell (1974) environmental psychology model. Recognizing its adaptability in many different types of atmosphere, such as home, office, and store, this framework is used as the basis of this project.

3.2 Mehrabian-Russell Environmental Psychology Model

The Mehrabian-Russell environmental psychology framework shows that “physical or social stimuli in the environment directly affect the emotional state of a person, thereby influencing his behaviour in it” (Mehrabian and Russell 1974, p.8). See Figure 2.

Figure 2. Mehrabian – Russell Environmental Psychology Model



Source: Based on Mehrabian and Russell (1974).

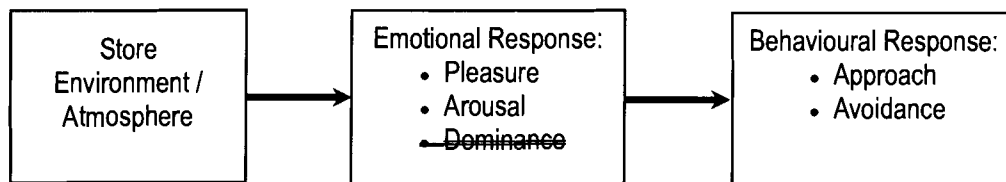
The Mehrabian-Russell framework has been used by many researchers regarding the topic of store atmosphere. Those researchers test the Mehrabian-Russell environmental psychology framework and find it to be true (Baker et al., 1992; Bitner, 1992; Donovan and Rossiter, 1982; Donovan et al., 1994; Schlosser, 1998).

Proving the Mehrabian and Russell (1974) model, Baker et al. (1992) find that consumers' pleasure and arousal, that mediate the effect of store atmosphere on consumers, are positively related to their willingness to buy. However, it is found that pleasure, caused by store atmosphere, is positively connected with consumers' willingness to buy, while arousal affects the time consumers spend in store and their motivation to interact with sales people (Donovan and Rossiter, 1982; Donovan et al., 1994). Furthermore, Donovan et al. (1994) and Mano (1999) find that to be positively

related with consumers' willingness to buy, arousal must take place in a pleasant environment.

However, six years after the framework was invented, it received a slight modification by one of its inventors. Russell and Pratt (1980) believe that pleasure and arousal are adequate in indicating subjects' affective response to many types of atmosphere, hence the modified model of Mehrabian-Russell is proposed (see Figure 3). In addition, Russell and Pratt (1980) argue that dominance requires more of cognitive interpretations, hence it does not really fit in with the other two emotional response of Mehrabian-Russell framework, which are more affective in nature. This finding is confirmed by Donovan and Rossiter (1982).

Figure 3. Modified Mehrabian – Russell Environmental Psychology Model



Source: Based on Russell and Pratt (1980).

As one can see, the Mehrabian and Russell environmental psychology model shows that all behavioural responses can only be that of either approach or avoidance.

Moreover, approach-avoidance behaviour itself consists of four different aspects:

1. A desire physically to stay in (approach) or to get out of (avoid) the environment
2. A desire or willingness to look around and to explore the environment (approach) versus a tendency to avoid moving through or interacting with the environment or a tendency to remain inanimate in the environment (avoidance)
3. A desire or willingness to communicate with others in the environment (approach) as opposed to a tendency to avoid

interacting with others or to ignore communication attempts from others (avoidance)

4. The degree of enhancement (approach) or hindrance (avoidance) of performance and satisfaction with task performances
(Donovan and Rossiter, 1982, p. 37)

In addition, Donovan and Rossiter (1982) point out that:

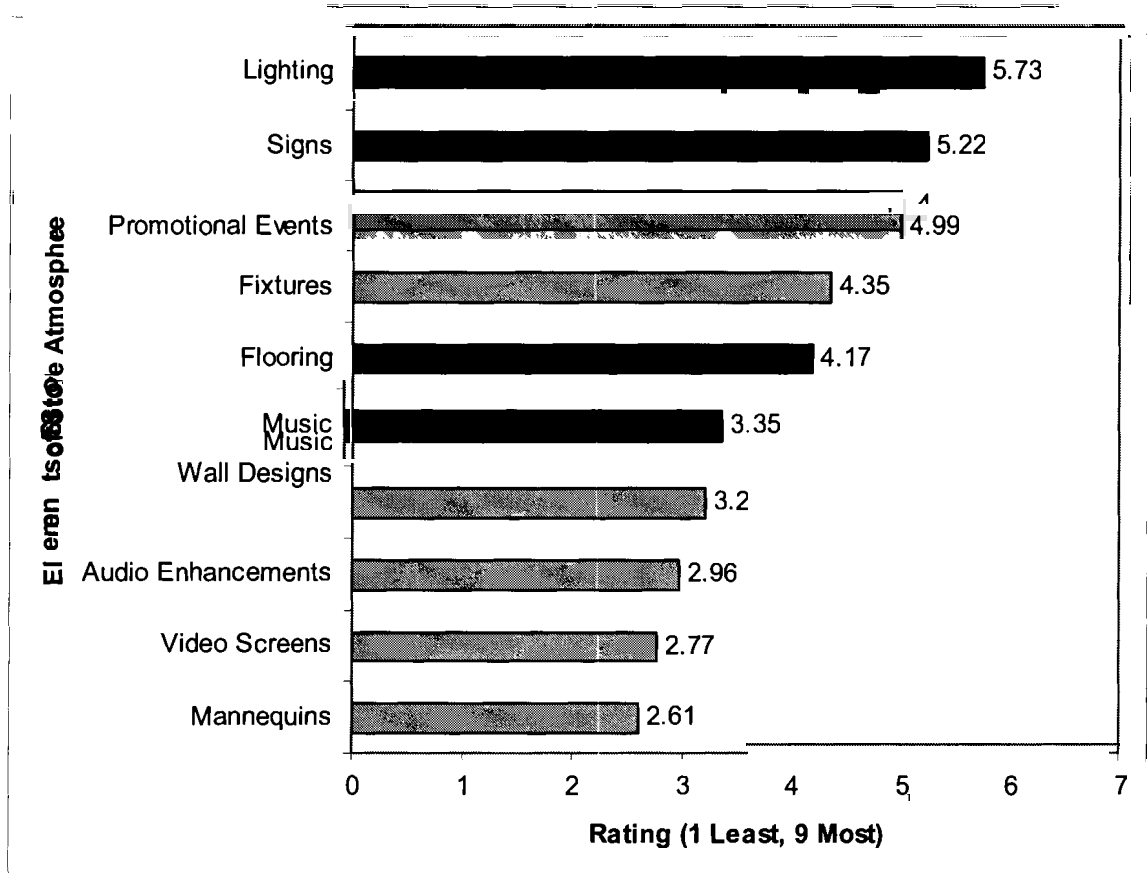
Physical approach and avoidance (1) can be related to store patronage intentions at a basic level. Exploratory approach and avoidance (2) can be related to in-store search and exposure to a broad or narrow range of retail offerings. Communication approach and avoidance (3) can be related to interaction with sales personnel and floor staff. Performance and satisfaction approach and avoidance (4) can be related to repeat-shopping frequency as well as reinforcement of time and money expenditures in the store. (p. 37)

3.3 Store Atmosphere Variables for the Project

The store atmosphere variables tested in this project fall under both ambient and design elements of Baker (1986) framework of environmental factors (as cited in Baker et al., 1992). We decide not to test the social factor as not only it is a different set of topics that will not fit into the time frame of this project and it is also a complex topic that needs a project of its own. The store atmosphere variables we choose to look at are lighting, music, and scent, which are the ambient elements, and colour, signage, icons, and flooring, which are the design elements.

Our choices of store atmosphere elements to be tested in this project are supported by previous study done in "Measuring Shopper Response" (2004). As one can see in Figure 4, four out of those seven elements we test in this project are rated on the top six of the atmospheric elements level of importance ("Measuring Shopper Response," 2004).

Figure 4. Importance of Atmosphere Elements



Source: Based on "Measuring Shopper Response" (2004).

Despite being controllable by the stores and a more feasible factor to experiment on, the importance of these seven variables we test in this project as parts of elements of store atmosphere have been recognized by many researchers. For example, a number of researchers believe that music is an important part of store atmosphere (e.g., Areni and Kim, 1994; Baker et al., 2002; Bruner, 1990; Chebat, Chebat, Vaillant, 2001; Dubé and Chebat, 1995; Hui, Dubé, and Chebat, 1997; Milliman, 1982; Wakefield and Baker, 1998; Yalch and Spangenberg, 1990). In addition, Bruner (1990, p.99-100) says the importance of music is because:

1. The components of music are capable of having main as well as interaction effects on moods, cognitions, and behaviours of interest in marketers.
2. The emotions perceived to be expressed in musical stimuli are capable of evoking corresponding affective reactions in listeners.
3. The influence of music on persuasiveness is greatest under conditions of peripheral route processing and low cognitive involvement.

Scents or olfactory is also seen as an important part of store atmosphere (e.g., Chebat and Michon, 2003; Ellen and Bone, 1998; Michon, Chebat, and Turley, 2005; Mitchell, Kahn, and Knasko, 1995; Spangenberg, Crowley, and Henderson, 1996). For example, Spangenberg et al. (1996, p.77) argue that "the presence of an inoffensive scent in a store is an inexpensive and effective way to enhance consumer reactions to the store and its merchandise." In addition, Chebat and Michon (2003) point out that scents have substantial impact on consumers' perception towards product quality and shopping atmosphere.

In addition of being the most important store atmosphere element in the top 10 list of atmospheric elements level of importance ("Measuring Shopper Response," 2004), lighting is also recognized to be an important variable by a number of researchers (e.g., Babin, Hardesty, and Suter, 2003; Baker and Cameron, 1996; Wakefield and Baker, 1998). However, different from the other two ambient elements discussed earlier, the effect of lighting seems to be connected with other elements in both the ambient and design category (Babin et al., 2003). For example, Baker et al. (1994) find that a store with "a combination of bright, fluorescent lights (soft, incandescent lights) and popular (classical) background music causes consumers reaction consistent with a discount (prestige) image (as cited in Babin et al., 2003). In addition, Baker et al. (1992) find that

a store with the combination of bright fluorescent (soft) lights and warm (cool) colours represent a discount (prestige) type store.

Colour itself has been recognized by a number of researchers as part of store atmosphere (Babin et al., 2003; Baker and Cameron, 1996; Bellizzi, Crowley, and Hasty, 1983; Bellizzi and Hite, 1992). Bellizzi et al. (1983, p.21) find that “color can physically attract shoppers toward a retail display and have certain perceptual qualities that affect store and merchandise image.”

The last three variables we look at are signage (Retail Traffic, 1997), icons (Blackman, 1999), and flooring (Ondovcsik, 1998). Even though they have not received a lot of attention in the academic world, the last three variables mentioned earlier are also recognized as part of store atmosphere. For example, signage is part of the store atmosphere due to its ability to influence people to come into the store (Retail Traffic, 1997). In addition, the article also recognizes signage “as consumers' square one in forming impressions and in making important decisions on where to shop” (Retail Traffic, 1997).

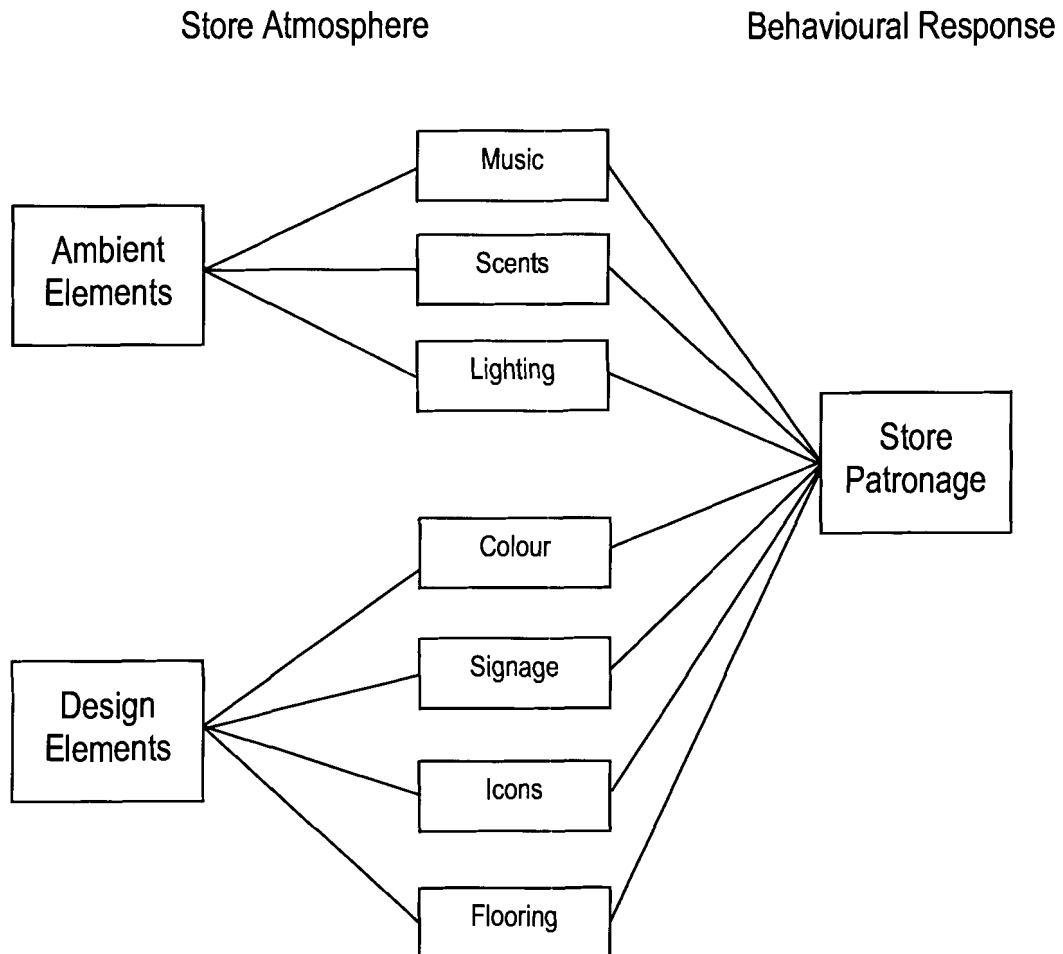
3.4 Conceptual Models for the Project

As mentioned earlier at the beginning of the paper, we conduct the project based on the assumption that store atmosphere affects traffic. Therefore we test these seven variables (lighting, music, scent, colour, signage, icons, and flooring) of store atmosphere on their ability to affect traffic. We believe that consumers' perceptions of each store atmosphere's variable affect consumers' store patronage intention.

The framework in which the primary research of our project is based upon suggests that lighting, music, and scent, which are the ambient elements, and colour,

signage, icons, and flooring, which are the design elements, affect store patronage (See Figure 5). In addition, the framework, in its bigger picture, also suggests that store atmosphere affects behavioural response of consumers.

Figure 5. Conceptual Model of Store Atmosphere



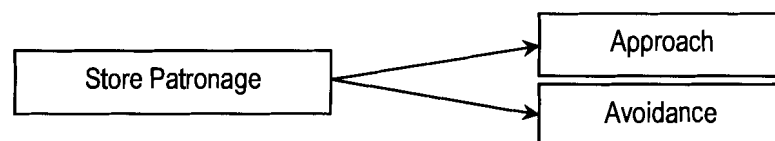
The conceptual framework of the project is based upon the Mehrabian – Russell (1974) environmental psychology model, which proposes that store atmosphere affects an emotional response and emotional response affects a behavioural response. In addition, the conceptual framework also utilizes the Baker (1986) framework of

environmental factors, which divides store atmosphere into three different elements: ambient, design, and social.

Our conceptual framework for store atmosphere is somewhat different from Mehrabian – Russell (1974) environmental psychology model that in the primary data collection of our project, we do not measure the subjects' emotional response towards the store environment. Due to the preliminary nature of this project and the complex topic of emotion, we do not measure the subjects' emotional measure in this project. Instead, we ask the subjects' opinions on the variables relating to store atmosphere and their likelihood of visiting the store (See Appendix E for the sample of questionnaire).

In addition, instead of measuring an approach or avoidance behavioural response towards the store atmosphere, we feel that it is more suitable to measure their store patronage intentions (See Figure 6). We feel that an approach or avoidance behavioural response is too extreme to measure. In addition, we also feel that measuring approach or avoidance behavioural response will bring a skewed result, as the subjects can only choose either one of them. On the other hand, measuring behavioural response in store patronage attention, with a 7-point semantic scales as discussed in a latter section of the paper, captures a more accurate response. Therefore we operationalize the approach and avoidance behavioural response into store patronage (as per Figure 6).

Figure 6. *The Relationship between Store Patronage and Approach/ Avoidance Behavioural Response*

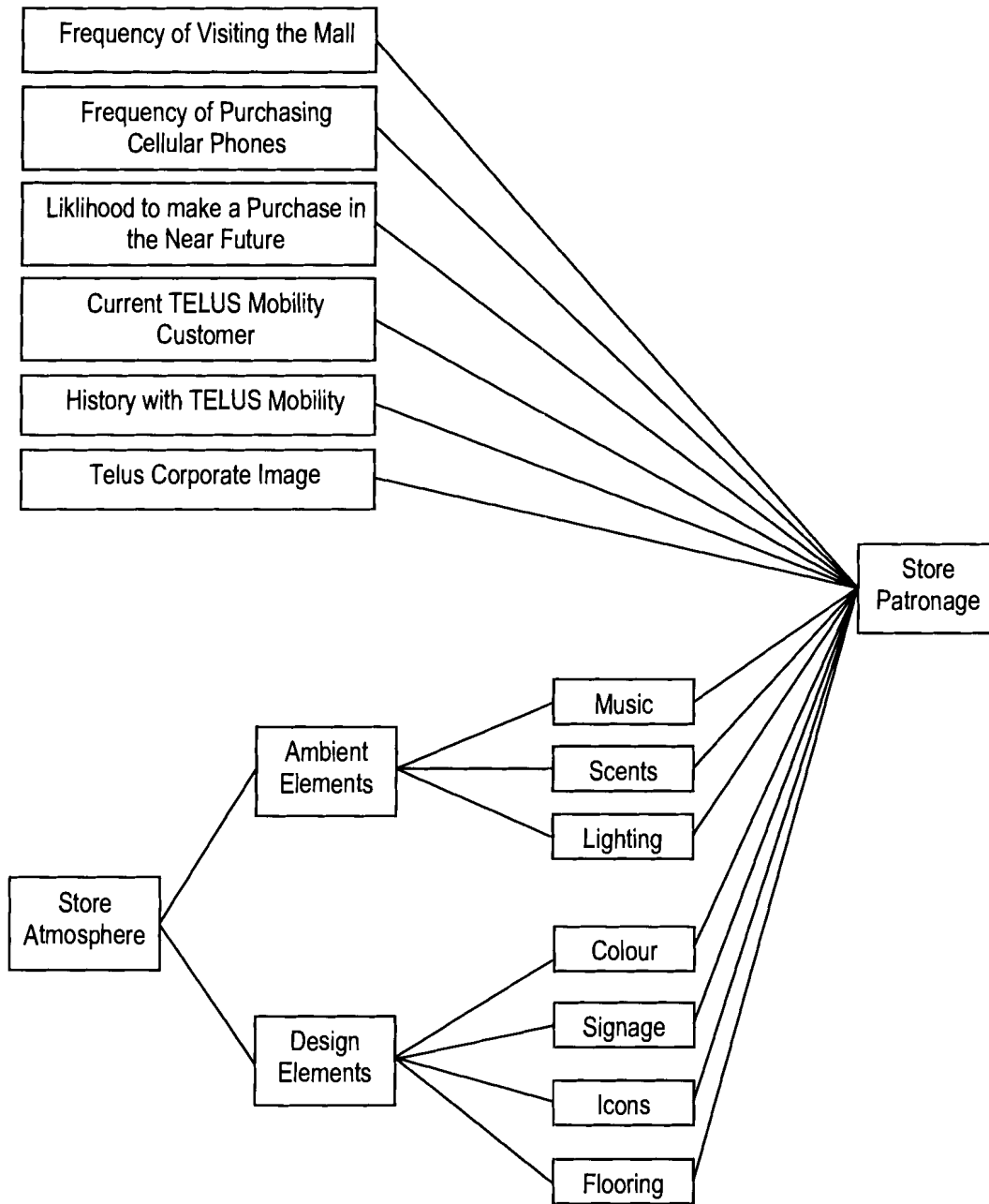


As mentioned earlier, we utilize Baker (1986) framework of environmental factors in defining the store atmosphere variable of Mehrabian – Russell (1974) environmental psychology model. Due to the number of store atmosphere variable, Baker (1986) framework of environmental factors helps us in simplifying those factors into two different factors: ambient and design.

The conceptual framework itself helps us in conducting the primary research. It serves as a guidance of what needs to be measured. In addition, it also provides an overview of what the project is all about.

Furthermore, our project also determines which variable has the most effect on store patronage. In doing so, we measure the seven atmosphere variables shown in our conceptual framework of store atmosphere, as shown in Figure 5. In addition to that, we also incorporate other variables that we believe affect the likelihood of visiting the store (store patronage). Those variables are frequency of visiting the mall, frequency of purchasing cellular phone, likelihood to make a purchase in the near future, whether or not the respondent is an existing TELUS Mobility customer, the respondents' history with TELUS Mobility, and the respondents' perception of TELUS corporate image. See Figure 7 for the relationship between those variables, store atmosphere, and store patronage. We feel that in order to accurately determine how store atmosphere affects store patronage, we need to take these variables into account as well.

Figure 7. General Model for This Project



4. PRIMARY RESEARCH

As discussed in the previous section, store atmospheric settings have important implications related to marketing. In addition to the variety of research conducted by others, we would like to confirm the theories of our framework, as depicted in Figure 7, by collecting new data through our primary research. There are two objectives for conducting primary research. The first is to validate that there is an association between in-store traffic and sales revenue. The latter is to identify factors in regard to store settings that affect in-store traffic. For the purpose of this study, we focus on the telecommunications industry, specifically, on TELUS Mobility stores.

The first study involves observations by the two authors of this project. Each author collects data regarding in-store traffic, sales revenue, and number of transactions taking place during a specific time slot. This data help validate whether there is an association between in-store traffic and sales. The second study is in the form of a survey, which aims to gather information on shoppers' perception of the present store settings in the two TELUS dealerships we have selected. Based on the responses of each of the seven store atmospheric variables (Figure 6), we hope to identify certain features that are significant in affecting in-store traffic. The results of these two studies can help TELUS Mobility adjust certain factors to increase in-store traffic, which will ultimately affect sales revenues.

For this project, we select two independent TELUS Mobility dealerships to determine whether store settings affect in-store traffic. Although these two stores both

sell TELUS Mobility products, store settings differ significantly between them. Since we are interested in the various aspects of store atmosphere, it is worthwhile first to look at the differences between each of these stores. We are also aware that product offerings and special promotions on certain products may affect in-store traffic; therefore, our discussion will also include details regarding what products each dealer carries and any special promotions that take place during the course of this project.

4.1 Background of Each of TELUS Mobility Stores

Both of the independent TELUS dealerships we look at are located in the same shopping centre, which is the Willowbrook Shopping Centre located in Langley, BC, Canada. We purposefully select two stores in the same location so that the location will not be a differentiating factor influencing store patronage or store traffic since the traffic in the mall is the same for both stores.

Before we begin our discussion of the studies, the following sections will provide detailed background information about the physical store settings, product offerings and in-store promotions of the two dealerships, which are Harmen Communications & Security and Cell1 Communications. This information was collected by the authors of this study on June 4th, 2005.

4.1.1 *Physical Store Settings*

Harmen Communications & Security is located near Zellers, a lower-end department store; its neighbouring shops include a salon, a legal office, a flower shop and a non-TELUS Mobility cell phone store (See Appendix A for the layout of Harmen Communications & Security and its neighbouring stores in the Willowbrook Mall). It is a

smaller store compared to Cell1; thus Harmen employs a “teller-style” set-up, which allows for minimal sitting area for both employees as well as customers. This means that only counters are present, with stools. These stools are placed in front of the counters where the sales representatives stand behind while talking to the customers. The colour of the walls and floor is mostly white. Most of the area is covered with ceramic tiles with the exception of some carpeting near the walls. The store is lit with typical office style lighting with some spotlights focusing on certain display cases and posters. The store-front sign not only showcases “TELUS Mobility” but also “Harmen Communications & Security”. The majority of the posters inside the stores are provided by TELUS Mobility and StarChoice. Other signs include those of the cell phone manufactures such as Audiovox, Motorola, Nokia, etc., as well as information regarding each phone model. The icons found in this store consist of dummy phones. The purpose of these non-functional phones is to provide customers some ideas as to how the phones are supposed to look. The store itself does not play music in the background; however, it has a TV. Sometimes the TV is on mute, but at other times, sounds from the TV are audible. Furthermore, music and other noises from neighbouring stores can also be heard. Please see Figure 8 and Appendix B for photographs of Harmen’s store settings.

Figure 8. Harmen Communications & Security



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The other dealer, Cell1 Communications, is located near The Bay, one of Canada's major department stores, along with neighbouring stores such as two gift shops, two optical shops, and a couple of clothing stores (See Appendix C for the layout of Cell 1 Communications and its neighbouring stores in the Willowbrook Mall). Cell1 only displays "TELUS" on its store-front. The name of the dealer is posted near the ceiling inside. Other visible signs include posters from TELUS Mobility as well as signs indicating special promotions which will be discussed in the subsequent section. The colour scheme it employs is consistent with TELUS's colours. The floor is mostly covered by carpet except for a small area near the front of the store which is covered by tile. In comparison to Harmen, Cell1 has sitting areas in addition to the counters for

sales representatives to sit down with customers for longer discussions. The store relies mainly on spotlights for lighting within the store along with brightly back-lit displays of TELUS's logo. It also has green and blue back-lit displays for its merchandise. Icons found here not only include the dummy phones on display but also various stuffed animals that TELUS extensively uses throughout its advertising campaign. (Please see Figure 9 and Appendix D for photographs of Cell1's store settings)

Figure 9. Cell1 Communications



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4.1.2 Product Offerings

Harmen carries TELUS Mobility's PCS as well as MIKE phones; PCS are regular cell phones and MIKE runs on a different network and has the ability to do a long range digital two-way radio as well as working as a pager in addition to its phone function.

For TELUS Mobility's data services, Harmen offers pocket PCs, Blackberries and ADSL internet. Harmen also sells both TELUS Mobility as well as third party aftermarket cell phone accessories. Furthermore, it carries StarChoice Satellite TV services.

Cell1 has all of the products and services as Harmen does with the exception of the StarChoice Satellite TV. It does, however, offer satellite phone rental services, which is unavailable at Harmen.

Essentially, the product offerings by both stores are the same because much of the offerings are dictated by TELUS Mobility; yet the two stores sell different types of accessories as well as non-cell phone related products. This might affect in-store traffic as shoppers might have intentions to purchase certain products found only in one of the dealerships and not in the other. Despite the role that this variable may play in regard to in-store traffic, we are not including this in our analysis because the main objective of our study revolves around the actual physical setting of the stores. Yet we believe it is important to acknowledge that the differences in product offerings can be a factor.

4.1.3 In-Store Promotions

In-store promotions across the two stores are somewhat similar as it is determined by TELUS Mobility. As mentioned, we collected information about the two stores on June 4th, 2005. It was close to Fathers' Day. There was a Fathers' Day sale in both stores. In addition, both stores also have new cellular phone model offerings.

Aside from the offers from TELUS Mobility, which is consistent across the two dealerships, there are other types of promotions that were taking place. One notable difference of promotion between the two stores is that Harmen was giving away a free StarChoice Satellite system with phone activation.

As stated in Section 2.2.1 of this paper, in-store promotion has been found to be a factor associated with in-store traffic (Gijsbrechts et al. 2003; Valentino 2005; Volle 2001; Walters 1988). However, similar to the reasons given for excluding product offerings in our study, we do not include this in our analysis either.

4.2 Study 1 – Observations

The results from our observations help confirm the findings to those of Walters (1988), Agins et al. (2003), and Bagley (2002). All of these studies argue that there is an association between in-store traffic and sales. Our results not only allow us to reinforce this association, but also detect the directions of this association. In other words, we can identify when the stores can expect higher traffic, sales revenues, and number of transactions. These findings can provide insights to how the stores can better allocate and optimize their resources effectively.

4.2.1 Conducting Observations

Our first study involves observation of traffic patterns in each of the two stores during various periods during the day as well as on different days of the week. Since both of these stores are located in a shopping centre, weather can have an impact on mall-traffic since it is likely that many people are more inclined to be shopping in malls when the weather is not as optimal (e.g. low temperature, rain, snow, etc.). Thus, it is

probably preferred to be shopping indoors with these weather conditions as opposed to good weather conditions. The rationale behind this is that these people might prefer to do outdoor activities when the weather is more pleasant. Moreover, shoppers are also faced with more choices between where to shop if the weather is good. Aside from indoor shopping malls, customers can also choose to shop outdoors like certain markets and fairs or shop in boutiques located on streets such as Robson Street, Vancouver, BC and West 4th Avenue, Vancouver, BC. Therefore, by having both stores in the same location will control for the effects caused by this variable. Because of this, we collect the data from each store on the same days so that any differences in traffic between the two stores will not be caused by weather, but rather by other variables that we have identified.

Based on the findings regarding traffic patterns by Retail Traffic (2003), we conduct two days of observations, accounting for a day with high traffic patterns as well as a day with low traffic patterns (See Table 1), a Saturday and a Monday, respectively. Furthermore, for each of these days, we also span our observation periods across times with lower traffic as well as higher traffic, which is from 10 AM to 12 PM and from 12 PM to 2 PM, respectively.

We record number of shoppers who enter the stores for each of the observed periods. In addition, we obtain sales data for each store for the given periods. These include both the number of transactions as well as the dollar sales in revenue. Having access to this data has several implications. First, this allows us to confirm whether our findings regarding traffic patterns given the specific time of day and the day of week are consistent with those obtained by Retail Traffic (2003). Second, this also allows us to determine whether or not there is a significant association between in-store traffic and sales.

These observations are done by the two authors of this project. Each author is responsible for observing a particular dealership. We are only simply present in the stores to observe the traffic flow and have not interfered with the normal activities of the stores. These observations are conducted on June 4th, 2005 (Saturday) and June 13th, 2005 (Monday).

On the Saturday, there are three sales representatives along with one observer (the author) in the Harmen store for the entire four-hour period. Meanwhile, Cell1 has two sales representatives from 10 AM to 11 AM, three sales representatives from 11 AM to 1 PM, and four sales representatives from 1 PM to 2 PM along with one observer (the author).

On the Monday of observation, Harmen again, has three sales representatives and an observer for the four-hour period. Cell1, on the other hand, has one sales representative from 10 AM to 11 AM and two from 11 AM to 2 PM plus an observer.

For ease of discussion, we have organized our observations into four periods as outlined in Table 2.

Table 2. Periods of Observation

	Low Traffic	High Traffic
Low Traffic	Monday: 10 AM to 12 PM	Monday: 12 PM to 2 PM
High Traffic	Saturday: 10 AM to 12 PM	Saturday: 12 PM to 2 PM

Based on previous study done by Retail Traffic (2003).

4.2.2 Results

The data for both stores with regard to in-store traffic, sales revenue, and number of transactions are collected for all four of the periods as mentioned in Table 2. Table 3

summarizes this information. We measure in-store traffic by counting the number of people visiting the stores in the given period. Sales revenue is measured by the dollar amount of the total transaction. Number of transactions is the total number of sales taking place in the periods outlined.

Table 3. Comparisons of In-Store Traffic, Sales & Transactions Between the Two Stores

	Number of People Visiting	Sales Revenue	Number of Transactions
Harmen			
1. Mon: 10am-12pm	23	\$149.37	4
2. Mon: 12pm-2pm	41	\$1,744.70	6
3. Sat: 10am-12pm	32	\$1,194.59	4
4. Sat: 12pm-2pm	41	\$1,222.31	3
Cell1			
1. Mon: 10am-12pm	10	\$809.95	4
2. Mon: 12pm-2pm	14	\$174.94	5
3. Sat: 10am-12pm	23	\$775.28	4
4. Sat: 12pm-2pm	51	\$2,022.10	7

Source: Data obtained from observations done on June 4, 2005 (Saturday) and June 13, 2005 (Monday).

As one can see in Table 4 below, the in-store traffic, as indicated by number of people visiting, are consistent with those published by Retail Traffic (2003); traffic is slower in periods 1 and 3 (10 AM to 12 PM) and busier in periods 2 and 4 (12 PM to 2 PM). Furthermore, traffic is consistently higher across the stores on Saturday compared to Monday, which also supports the findings from the Retail Traffic (2003) study. The arrows indicate the direction of traffic increase. These figures are calculated by adding the number of people visiting (as presented in Table 3) each store in a particular period.

Table 4. Combined In-Store Traffic (Number of People Visiting) of the Two Stores

	Low Traffic Hours (10am-12pm)	High Traffic Hours (12pm-2pm)
Low Traffic Day (Monday)	33	55
High Traffic Day (Saturday)	55	92

Source: Data obtained from observations done on June 4, 2005 (Saturday) and June 13, 2005 (Monday).

Table 5 illustrates that sales revenue is consistently higher in periods 2 and 4 (12 PM to 2 PM) compared to periods 1 and 3 (10 AM to 12 PM) across both stores. Sales revenue is much higher in periods 3 and 4 compared to periods 1 and 2. In other words, total sales revenue is consistently higher on Saturday as compared to Monday across both stores. The arrows show the same pattern of increase as with the patterns for in-store traffic. This pattern implies that there is a positive association between in-store traffic and sales. The figures presented in Table 5 are obtained by summing the sales revenue (as presented in Table 3) of each store in a particular period.

Table 5. Combined Sales Revenue of the Two Stores

	Low Traffic Hours (10am-12pm)	High Traffic Hours (12pm-2pm)
Low Traffic Day (Monday)	\$959.32	\$1,919.64
High Traffic Day (Saturday)	\$1,969.87	\$3,244.41

Source: Data obtained from observations done on June 4, 2005 (Saturday) and June 13, 2005 (Monday).

The combined number of transactions is presented in Table 6. The number of transaction taking place in periods 1 and 3 are lower than those of periods 2 and 4. This is consistent with the trend found in traffic and sales. However, the combined number of sales on the low traffic day is not significantly different than that on the high traffic day.

Table 6. Combined Number of Transactions of the Two Stores

	Low Traffic Hours (10am-12pm)	High Traffic Hours (12pm-2pm)
Low Traffic Day (Monday)	8	11
High Traffic Day (Saturday)	8	10



Source: Data obtained from observations done on June 4, 2005 (Saturday) and June 13, 2005 (Monday).

Next, in order to test whether there is significant association between in-store traffic and sales revenue, we perform a correlations test based on the eight entries from Table 3. The evidence summarized in Table 7 shows a significantly strong positive correlation between in-store traffic and sales, with a p-value less than 0.01. This clearly supports our prior assumption that indeed, there is a positive association between in-store traffic and sales. Moreover, this also supports the equation formulated by Bagley (2002), which is "Traffic x Closing Ratio x Average Transaction Value = Sales". In-store traffic, in fact, is definitely one of the components that affect sales.

Table 7. Correlation amongst In-Store Traffic, Sales & Transaction

	In-Store Traffic	Sales Revenue	Number of Transactions
In-Store Traffic	1	0.845**	0.468
Sales Revenue	0.845**	1	0.562
# of Transactions	0.468	0.562	1

** p-value < 0.01 (2-tailed)

Source: Data obtained from observations done on June 4, 2005 (Saturday) and June 13, 2005 (Monday).

4.3 Study 2 – Survey

4.3.1 Construction of the Survey

Based on our secondary research of the factors that affect sales and in-store traffic, we develop a nine-question survey that is designed to gather data on shoppers' perception of the store settings (store atmosphere) of two dealerships (See Appendix E). The perception of the store settings are measured on a 7-point semantic scale. Descriptors on each end of the scale are based on the ones used by other researchers in the various previous studies. For example, the descriptors for colour (warm and cool) have been used in studies conducted by Bellizzi et al. (1983), Bellizzi and Hite (1992), Babin et al. (2003) and Buckley (1987). The lighting descriptors (soft and bright) have been used in studies by Babin et al. (2003) and Baker et al. (1992). Adjectives such as pleasant and unpleasant have been used to describe scent in studies conducted by Ellen and Bone (1998) and Mitchell et al. (1995).

Aside from questions that specifically focus on the stores' atmospheric settings, we include questions measuring other factors that we believe are equally important in

affecting in-store traffic. These factors are frequency of visiting the mall, frequency of purchasing cellular phones, frequency of switching mobile providers, respondents' likelihood to make purchase in the near future, respondents' current mobile providers, respondents' history with TELUS Mobility, and respondents' perception of TELUS's corporate image. It is necessary to account for these factors alongside store settings because we believe these factors have an influence on in-store traffic. For instance, the frequency of the respondent in visiting Willowbrook Shopping Centre, which is operationalized as the average frequency of visiting the mall per month, may have an impact on his or her likelihood of visiting the stores. Customers' frequency of purchasing cellular phones may affect how likely they are going to visit a telecommunications store. Furthermore, their loyalty to certain mobile service provider may affect their likelihood of visiting a TELUS Mobility store. In addition, if they are existing TELUS customers, the chances of these people visiting the stores will be higher than customers of other wireless telecommunications providers.

We also measure the respondents' perception of the TELUS's corporate image. This is because that we believe there might be an association between TELUS Mobility and TELUS's other business sectors such as TELUS landlines and TELUS's ADSL internet. This association might be caused by preconceived perceptions the customers have of the other business sectors. Negative perceptions might have a negative impact on the likelihood of these people to enter a TELUS Mobility store. Furthermore, the interconnectivity of these business units might offer certain incentives such as TELUS's bundled packages that provide convenience and savings for customers, making them more inclined to become a TELUS Mobility customer.

As one can see, the other factors beside store atmosphere have one thing in common: they affect consumers' visits to a TELUS Mobility store. However, they do not

affect which particular store the consumers should visit. But due to the nature of the product that the wireless telecommunications dealers are selling, these factors need to be measured.

4.3.2 Sampling

Prior to conducting the survey, a pre-test consisting five respondents helps us fine-tune the survey. These respondents provide feedback on questions or wording that are ambiguous. After incorporating these changes in our final version, we collect a total of 36 surveys from the two stores combined. Twenty are collected from Harmen and sixteen from Cell1.

4.3.3 Results – Descriptive Statistics

Descriptive results from the store-setting data collected from this survey are summarized in Table 8 below. In general, respondents currently perceive that the colour scheme is cooler, the lighting is brighter, the signage is relatively eye-catching, the icons are relatively interesting, the scent is more pleasant, and the colour and lighting combination is more likable than neutral, which is a score of 4. However, respondents perceive that the flooring is relatively cheap and the music is softer than neutral for both stores (Please see Appendix F for details of the survey coding scheme).

Table 8. Descriptive Statistics for Store Setting Variables

Combined	Colour	Lighting	Signage	Icons	Flooring	Music	Scent	Colour & Lighting Combination
Mean	4.58	4.89	5.31	4.69	3.03	2.2	4.25	4.86
Std. Deviation	1.32	1.6	1.35	1.65	1.22	1.43	1.03	1.22

Source: Data obtained from question 6 of survey (Appendix E).

A closer look at the statistics from each individual store in Table 9 shows respondents' perception of each individual store setting variable for both Harmen and Cell1. The variations for each item follow the similar trend pointed out in Table 8. However, the data suggests that Cell1 has a cooler colour scheme, brighter lighting, a more pleasant scent as well as a more likable colour and lighting combination as compared to those of the Harmen store. Yet, the Harmen store has more eye-catching signage and more interesting icons than those of the Cell1 store.

Table 9. Descriptive Statistics of Store Setting Variables for Harmen and Cell1

	Colour	Lighting	Signage	Icons	Flooring	Music	Scent	Colour & Lighting Combination
Harmen								
Mean	4.5	4.6	5.35	4.85	3	2.21	4.04	4.35
Std. Deviation	1.15	1.57	1.46	1.5	1.26	1.32	1.05	1.18
Cell1								
Mean	4.69	5.25	5.25	4.5	3.06	2.19	4.5	5.5
Std. Deviation	1.54	1.61	1.24	1.86	1.24	1.6	0.97	0.97

Source: Data obtained from question 6 on survey (Appendix E).

Table 10 shows a breakdown of the type of customers visiting the TELUS stores. Of the 36 respondents, fifty percent have been and still are TELUS Mobility customers.

Fourteen percent of the respondents are current customers, but have not been with TELUS Mobility previously. Eight percent of the respondents have been with TELUS Mobility before, but they are no longer TELUS Mobility's customers. The remaining 28% are non-customers; this means that these shoppers have never used TELUS Mobility's services before.

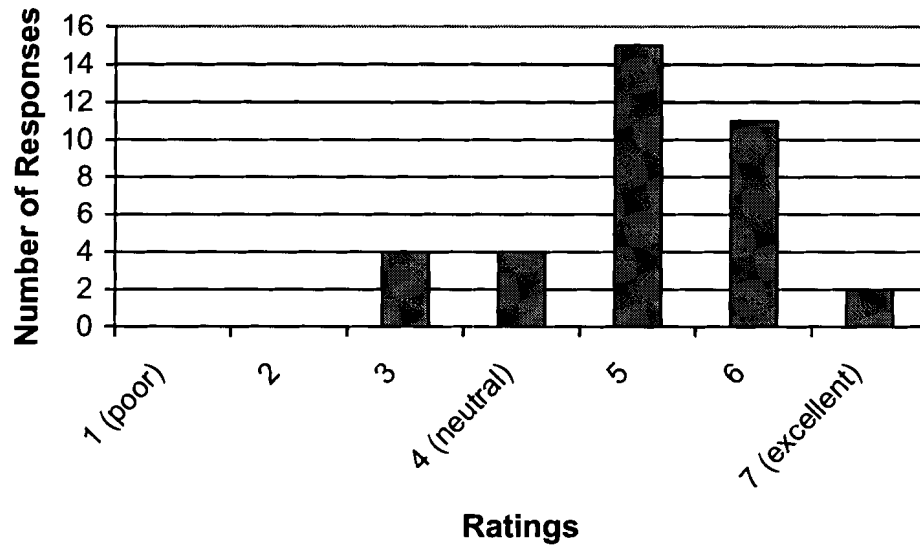
Table 10. Composition of Customer Base

	Count	Percentage
Previous & Current TELUS Customers	18	50%
Current TELUS Customers	5	14%
Previous Customers	3	8%
Non-Customer	10	28%
Total	36	100%

Source: Data obtained from questions 7 and 8 of survey (Appendix E).

Figure 10 shows the distribution of the responses regarding the perception of TELUS's corporate image. The results indicate a mean of 5.08 on a 7-point scale. This implies that the TELUS's image is better than neutral in the eyes of the respondents.

Figure 10. Perception of TELUS's Corporate Image



Source: Data obtained from question 9 of survey (Appendix E).

4.3.4 Results – Linear Regression

Using the collected data from our survey, we perform a linear regression analysis to determine which of the factors we identify are associated with store traffic. Since we want to determine which variables are associated with in-store traffic, the dependent variable for this regression is obtained from question 5 of the survey (Appendix E), which measures the likelihood to visit the store.

The independent variables in this regression are: LIKELIHOOD OF PURCHASE (question 4 of survey), COLOUR, LIGHTING, SIGNAGE, ICONS, FLOORING, MUSIC, SCENTS, COLOUR & LIGHTING COMBINATION (question 6 of survey), EXISTING CUSTOMER (question 7 of survey), PRIOR CUSTOMER (question 8 of survey), PERCEPTION OF TELUS'S IMAGE (question 9 of survey) and NUMBER OF VISITS TO MALL (question 1 of survey; this variable represents the average frequency of

visiting the mall per month). The reason to include independent variables such as COLOUR, LIGHTING, SIGNAGE, ICONS, FLOORING, MUSIC, SCENTS, COLOUR & LIGHTING COMBINATION is obvious since our primary objective of this study is to measure customers' perception of the store atmospheric variables and how they affect in-store traffic, as depicted in our conceptual model of store atmosphere in Figure 5 in Section 3.3. In addition, as mentioned in Section 4.3.1. and Section 3.3 (See Figure 7), we feel that it is also important to incorporate other variables such as LIKELIHOOD OF PURCHASE, EXISTING CUSTOMER, PRIOR CUSTOMER, PERCEPTION OF TELUS'S IMAGE, and NUMBER OF VISITS TO MALL in this regression model because we acknowledge that these may also play a factor in affecting in-store traffic. Although these additional variables are not what we are mostly interested in focusing on, but including them in the regression model provides more accurate measure of the association between the store atmosphere variables and in-store traffic, which is operationalized as the likelihood to visit the store.

This regression analysis has a R^2 of 0.784 with a p-value of 0.001. In other words, these explanatory variables together help explain 78.4% of the variation of the dependent variable, likelihood to visit the store. The p-value of 0.001 suggests the significance and robustness of this model (See Table 11).

Table 11. Regression Model for Respondents' Intention of Visiting the Stores

Model	R	R Square	p-value
1	0.885	0.784	0.001**
(Constant)	0.214	0.103	0.919
Colour	-0.249	-1.138	0.269
Lighting	0.324	1.82	0.085**
Signage	-0.032	-0.141	0.889
Icons	-0.162	-0.642	0.529
Flooring	-0.401	-1.753	0.096**
Music	0.331	1.351	0.193
Scent	0.155	0.5	0.623
Colour & lighting combination	-0.326	-1.119	0.277
Likelihood of purchase	0.35	2.564	0.019**
Number of visits to mall	0.801	3.429	0.003**
Existing customer	0.454	0.648	0.525
Prior customer	0.616	0.774	0.448
Perception of TELUS's image	0.201	0.705	0.489

**p-value < 0.10

Source: Data obtained from questions 1, 4, 5, 6, 7, 8, 9 of survey (Appendix E).

As Table 11 also illustrates, four factors are significant in explaining shoppers' intention for visiting the stores at a p-value < 0.10 level. These are LIGHTING (p-value = 0.085), FLOORING (p-value = 0.096), LIKELIHOOD OF PURCHASE (p-value = 0.019), and NUMBER OF VISITS TO MALL (p-value = 0.003). The coefficient beta explains how these factors help to predict our dependent variable. The results in Table 11 indicate that shoppers are more likely to visit stores with brighter lighting and less expensive flooring. The likelihood to visit the stores is also significantly related to the number of times customers visit this particular shopping centre; the more frequently they visit the mall, the more likely they are to visit the stores. Moreover, the likelihood of

purchase is significantly related to in-store traffic. This means that the more likely they are to purchase a mobile phone, mobile phone accessories, or sign a contract in the near future, the more likely they will visit the stores.

5. CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

5.1.1 Study 1 - Observation

This section of our study yields some interesting findings. First, our findings regarding traffic patterns are consistent to those of Retail Traffic (2003). In other words, certain periods during a day and certain days in a week have higher store traffic as compared to other times. More notably, traffic is higher from 12 PM to 2 PM on both weekdays and weekends compared to the period from 10 AM to 12 PM. Table 4 also exhibit the trend that traffic is higher on Saturdays as compared to Mondays regardless of the time of the day. These findings imply that the stores can anticipate varying levels of traffic according to the store traffic patterns.

Alongside the pattern for in-store traffic, Table 5 and Table 6 show evidence that sales revenue and numbers of transactions also follow a similar trend. The direction of increase for sales revenue is consistent with those for store traffic. In other words, sales are higher from 12 PM to 2 PM on both weekdays and weekends compared to the period from 10 AM to 12 PM. Not considering the time of day, sales are constantly higher on a Saturday than on a Monday. On the other hand, although the number of transactions do not differ significantly between days with high traffic and low traffic as

defined by Retail Traffic (2003), there is a visible trend of increase from low traffic periods to high traffic periods within the day (See Table 6).

The equation formulated by Bagley (2002) is further confirmed by these results. According to Bagley, sales can be calculated by multiplying traffic, closing ratio, and average transaction value. The positive relationship between traffic and sales in our study confirms the validity of these two components in the equation, that indeed, higher traffic leads to higher sales.

Table 7 confirms that there is a significant relationship between store traffic and sales in revenue with the correlation test. Store traffic and sales are highly and significantly correlated. This relationship helps to reinforce the validity of the premise of our project topic. Because the objective of our study is to investigate how store atmosphere affect store traffic, we need to first prove the fact that more in-store traffic will result in higher revenue and we have proven that relationship with our results.

5.1.2 Study 2 - Survey

Our findings in Study 2 provide the perception of the current store atmospheric settings for the two stores. These findings can help managers of each store to gain a better understanding of what the customers' perception of the current store setting is. As Table 9 summarizes, the descriptive ratings for Harmen show that the colour scheme is cooler, the lighting is brighter, the signage is more eye-catching, the icons are more interesting, the flooring is less expensive looking, and the scent is not as pleasant compared to neutral. As for Cell1, the colour scheme is perceived to be cooler, the lighter to be brighter, the signage to be eye-catching, the icons to be more interesting, the flooring to be less expensive looking, and scent to be more pleasant in comparison to neutral. The music variable are essential the same across both stores.

Study 2 also allows us to determine the number of current as well as prior TELUS customers who entered the stores. The data in Table 10 shows the composition of the type of customers who enter the stores. Of the 36 respondents, fifty percent have been and still are TELUS customers, fourteen percent of these respondents have not been with TELUS before, but are currently TELUS customers, and eight percent of the respondents who entered the stores are no longer TELUS customers, but have had previous experience with TELUS. The remaining twenty-eight percent are non-customers, meaning that they have never used TELUS. Looking at the bigger picture, this means that 21 of the respondents are current customers compared to 15 who are not using TELUS's services.

In addition, not only are we able to identify factors that affect in-store traffic, but Table 11 illustrates a robust model that explains close to 80% of customers' likelihood to visit a store. Of the thirteen variables, four have significant parameters. Once again, these are LIGHTING, FLOORING, LIKELIHOOD OF PURCHASING, and NUMBER OF VISITS TO MALL. A brighter lighting scheme is associated with a higher likelihood of customers visiting the store. Customers' likelihood to visit is increased by less expensive type of flooring. Customers' with a higher intention to make purchases or sign a contract in the near future are more likely to enter the stores. Lastly, the more frequent the customers visit this particular shopping centre, the more likely they will visit the stores.

5.2 Recommendations

The results from our two-part study of this project provide a number of implications not only for the specific TELUS dealerships we look at, but also retail stores in different industries aside from the telecommunications industry.

The most important thing we have to keep in mind for the following discussion is that our hypothesis about the association between in-store traffic and sales revenue is validated. Thus, whatever factors we identify in this project to affect in-store traffic will ultimately affect sales as well.

First, the location of the store can be critical. The number of visits to mall, one of the significant explanatory variables identified in Study 2, has a significant positive relationship with in-store traffic. Although the location of the stores we investigate in this study is already fixed, this finding is useful for selecting the location for future stores. Thus, it is worthwhile for managers to select locations with high traffic in the future when planning to open new stores because it will have a positive effect on sales revenue. Before deciding to open a new store in a particular shopping mall, managers should first gain an understanding of the traffic of the mall itself because of the number of people visiting the mall will have a direct impact on the number of people who are likely to visit the store.

Our study identifies two aspects of the physical store settings that managers have the ability to manipulate. Once again, these two variables are lighting and flooring. We find that lighting is a significant factor and brighter lighting results in a higher number of visits. This is consistent with the results from "Measuring Shopper Response" (2004) as well as others studies such as the ones by Babin et al. (2003), Baker and Cameron (1996), and Wakefield and Baker (1998). In other words, customers are more likely to

visit the stores if the store employs a brighter lighting scheme. Thus, in order to increase in-store traffic, one of the things managers can do is to adjust the current settings to something with brighter lighting.

Furthermore, the type of flooring also affects store traffic. According to our regression, the cheaper the floor, the more likely the respondents are to visit the store. Thus, we do not recommend that managers from these two TELUS dealerships to adjust their stores' flooring to more upscale ones. Although no changes are needed currently, this variable might be worthwhile to managers to keep the flooring variable in mind because it significantly affects in-store traffic. For example, when renovating a store or decorating a new store, managers do not have to spend excessive amount on the type of flooring and can better allocate these resources for better use. However, the type of flooring should still be perceived to be aligned with the overall store image. As suggested by Ondovcsik (1998), no one single type of flooring is preferred over another under all circumstances. For example, when customers are looking for value, these customers will not think that upscale marble flooring is an appropriate match. They might feel that upscale flooring would imply that the products are expensive; yet this is definitely not what they are looking for in a TELUS store. Thus, less expensive flooring might be a better fit for the TELUS Mobility stores as compared to more expensive floorings.

Another implication is that we find out of the people who visit the TELUS stores, 36% of them are not current TELUS customers. This highlights opportunities for TELUS because non-customers are almost as likely to enter the store as current customers. This means that TELUS Mobility has the opportunity to convert this group into their customers to grow its customer base. This is really an advantage towards TELUS Mobility because these non-customers are already visiting the stores, which is already

one step closer to getting them to switch to TELUS. There are many reasons that might explain why they are entering the stores, but one might be because of the positive image that TELUS has. Our respondents rate their perception of TELUS's corporate image as 5.08 on a 7-point scale, with a score of 4 being neutral. This means that TELUS is doing well in forming a positive perception of the entire corporate image in the minds of consumers. Thus, TELUS can divert some of its efforts towards getting these consumers to use TELUS's services.

In order to convert this group to TELUS customers, managers at the dealership level should better allocate resources such as the number of sales staff working on the floor at a particular time. Managers should ensure that the number of sales staff is sufficient in serving all incoming customers during times that we identify to exhibit high store traffic. By ensuring that staffing is adequate, sales representatives will be able to serve all customers so that sales will not be lost. For example, if customers have to wait for a long time for the next available sales representative, customers may simply leave the store and go to another one. Furthermore, TELUS can arrange for more staff during high traffic periods so that extra attention can be given to the group of current non-customers. We think that this effort will help TELUS increase its customer base and revenue. On the other hand, during the periods we identify to have a lighter flow of store traffic, managers can reduce the number of sales staff accordingly so that the stores do not incur additional costs that do not result in additional increase in revenue.

6. LIMITATIONS AND FUTURE RESEARCH

Although our project provides some insightful results, it has several limitations. First, is that even though we confirm validity of the traffic patterns in malls, due to the scope of our study, we are only able to observe four distinct periods. By observing more periods, one can yield more robust confirmation. For example, future studies can look at the traffic patterns in malls by observing more periods throughout the week and even design the studies so that repeated observations are done for the some periods across a few weeks to confirm the trend.

Second, we only look at two stores located in one particular shopping centre. Therefore, it might be sceptical to generalize these results across all types of shopping centres in Canada. The results we find might not be applicable for different types of malls such as strip malls and mega shopping centres. Thus, future research can investigate whether the patterns and results from our study are also relevant to various types of shopping centres by conducting studies that look at stores located in different malls.

Third, although we have reasons for investigating two stores of the same nature to control for certain factors such as product offerings, the results might be limited to being applicable for the telecommunications industry and not relevant across other product categories. Further research should also look at other types of stores to determine whether the factors we identified are also relevant in other product categories.

Fourth, we are only able to identify which factors are significant in explaining the likelihood of shoppers visiting the stores, we are not able to isolate the optimal level that these factors should be. Our study suggests that brighter lighting will help increase in-store traffic; however, we are not able to isolate at which level of brightness that the lighting should be and thus, unable to provide any recommendations of how the lighting should be adjusted. Also, we know that cheaper flooring is better at increasing traffic, but we do not know what type of flooring would be better since there are many types of floorings that are perceived to be relatively inexpensive. For example, concrete and tiles are both perceived to be relatively cheap type of floorings, yet the results of our study do not give an indication as to which type of flooring will be a better match for TELUS in affecting traffic. Future research should therefore further investigate the factors that are identified as significant to determine the optimal levels. For example, studies can be designed to test which level of brightness is optimal in affecting in-store traffic as well as which type of flooring would be a good match.

Fifth, the two TELUS dealerships we study offer mostly similar TELUS products such as mobile handsets, but there are also differences in regards to after market accessories and satellite television subscriptions. These variations in product offerings may affect the level of in-store traffic. To address this issue, future research should study stores that offer exactly the same products or take product offering into account in data analysis.

Sixth, although the two dealerships offer essentially the same in-store promotions, the Harmen store was giving away free StarChoice Satellite systems with phone activation. Differences in promotions may affect shoppers' intentions to visit the stores. Future research should compare stores that offer the same promotions to control for any effects caused by this factor.

Seventh, we rely on shoppers' self-reports with regards to their perception of each specific store-setting variable. The information we gather is mainly from what the customers are reporting. However, as suggested by Donovan and Rossiter (1982), the effects each individual aspect that makes up the store atmosphere may be difficult to evaluate. In other words, sometimes customers might not be able to correctly report their perception of each variable. Thus, future research should employ other data collection methods such as observations or experiments in addition to what we used in this study. These experiments can be designed so that only one aspect of the physical store setting is manipulated at one time to isolate the direct effect of the variable being looked at. This will help to validate that the self-response ratings are consistent with the customer's actual perception and provide much more accurate results.

Last, our sample size of 36 is relatively small due to the scope of our project. The data analysis results may vary had we used a much larger sample because our relatively small sample size might not be reflective of the general population. Thus, we should be conservative in applying our findings across retail environments without conducting further research with a larger sample size. Regardless of which future research is going to be conducted by following our prior suggestions, we recommend that the researchers first calculate the ideal sample size and use that sample size for their research.

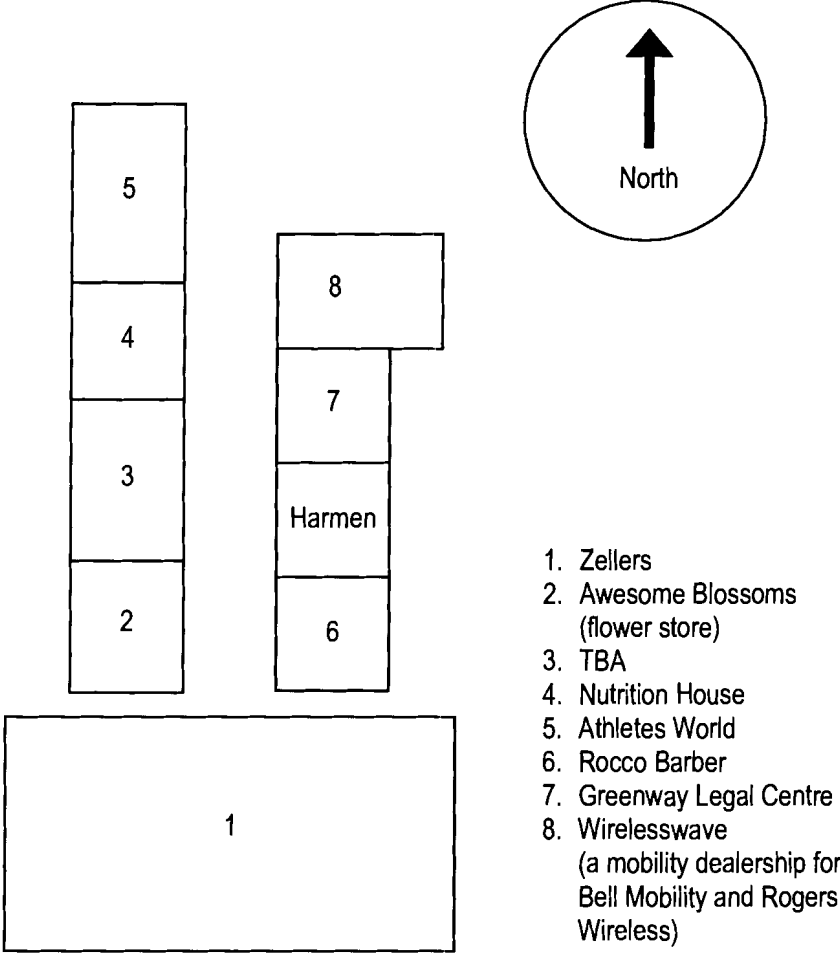
Despite of the list of limitations above, our project provides valuable insights for TELUS Mobility dealers so that they can make adjustments to certain physical setting variables in order to increase sales revenue. This project will be useful as the bases for future research that will further investigate into issues we identify to be of importance in our study. Moreover, since the emphasis of our project has been placed on physical store settings, there are other factors that are known to have an influence on store

traffic. Thus, this research is also useful to be used together with studies that look at these other aspects. For example, it will be insightful to look at the effects of people such as employees and other customers on the overall store atmosphere. In other words, the number of people in the store can be a factor in affecting the perceived store atmosphere. Also, physical settings surrounding the stores might play a role in affecting the customers' perception. Would shoppers have a more positive feeling towards the store if it is located around some particular types of stores? On the other hand, would certain types of neighbouring stores form undesirable associations to the store itself? Since physical store settings is only one part of store atmosphere, studying the effects of the number of people as well as the effects of surrounding stores could give rise to a more comprehensive store atmospheric framework that will have many implications in the field of marketing and retail.

APPENDICES

Appendix A.

The Layout of Harmen Communications and Security and Its Neighbouring Stores in the Willowbrook Mall



Appendix B.

Harmen Store Photos

Front display with handsets, accessories and signage: Harmen



© Daniel Chandra and Ada Lam, 2005.

Display cases and counters: Harmen



© Daniel Chandra and Ada Lam, 2005.

Cashier area: Harmen



© Daniel Chandra and Ada Lam, 2005.

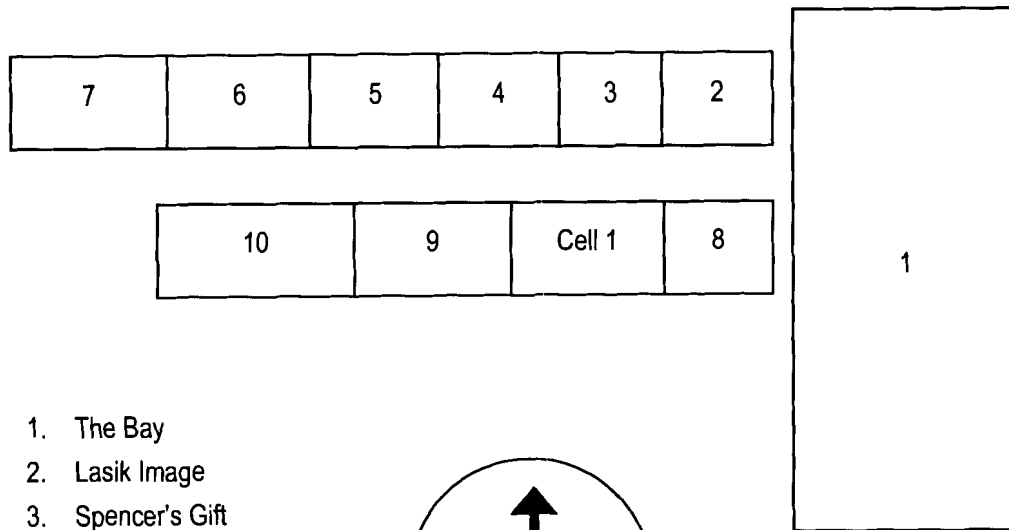
Front-view of store from mall area: Harmen



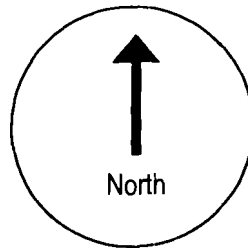
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Appendix C.

The Layout of Cell 1 Communications and Its Neighbouring Stores in the Willowbrook Mall



1. The Bay
2. Lasik Image
3. Spencer's Gift
4. Science & Nature
5. NA (tba)
6. Dudek Shoes
7. Cotton Ginny
8. Pearle Vision
9. Bluenotes
10. GAP



Appendix D.

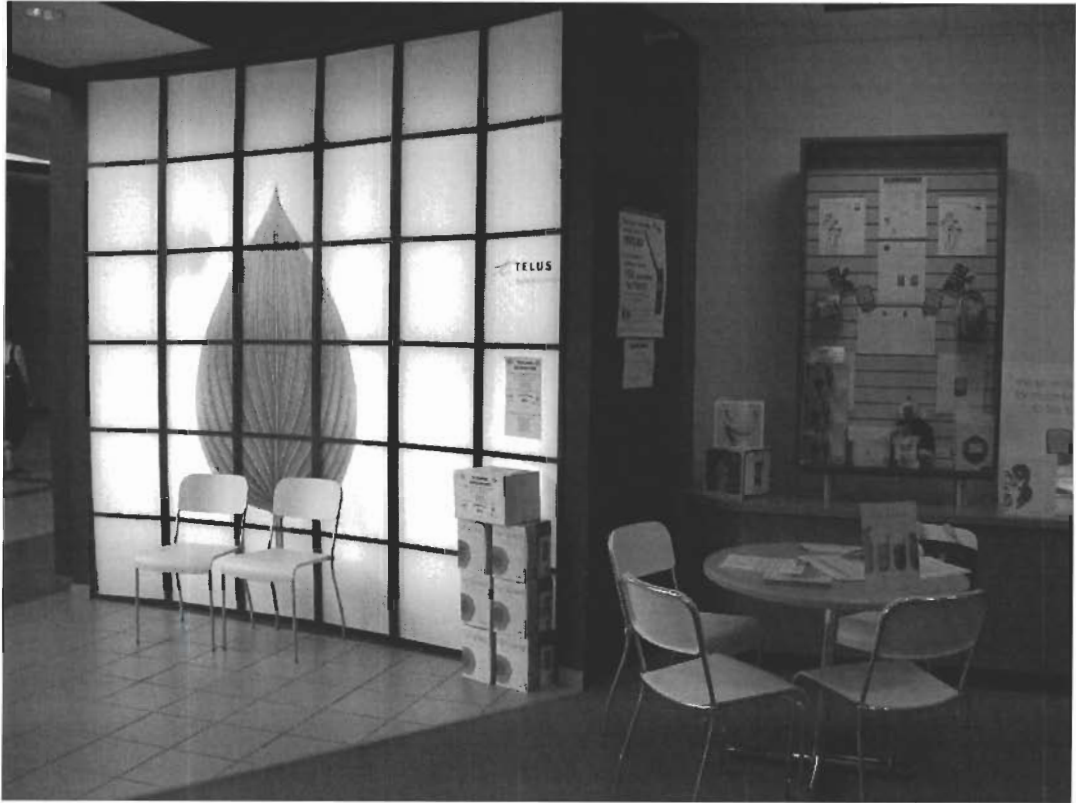
Cell1 Communications' Store Photos

Display rack and cases of handsets and accessories: Cell1



© Daniel Chandra and Ada Lam, 2005.

Front backlit display and sitting area: Cell1



© Daniel Chandra and Ada Lam, 2005.

Front backlit display and service counter: Cell1



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Appendix E.

Questionnaire

STORE-SETTING TRAFFIC SURVEY

This survey is conducted to gain a better understanding of your perception of this store. This survey will take approximately two minutes of your time. *There are no right or wrong answers.* We would just like to find out about your opinion on these issues.

Your participation in this study is voluntary; however, you need to be of age 19 or over to participate. You are free to withdraw at any time. We will be adhering to the ethical conduct of research to ensure the protection of your interests, comfort, and safety at all times. All information provided by you will be kept confidential and anonymous. You will not be asked to identify yourself and no personal data will be collected.

If you have any immediate questions or concerns about the survey, please ask the project managers, Ada Lam or Daniel Chandra on site or contact them at aslam@sfu.ca and dchandra@sfu.ca. If you have further questions regarding the research purpose, please redirect them to the project supervisor, Dr. Jennifer Chang at jennifer_chang@sfu.ca.

Please check the one answer that is closest to your opinion for each of the following question.

1. How often will you visit the Willowbrook Shopping Center within the next month?

- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 0 | 1 time | 2 times | 3 times | 4 or more times |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

2. How often do you change mobile phones?

- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|------------------------------|
| Once every month | Once every 3 months | Once every 6 months | Once every year | Once every 2 years or longer |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

3. How often do you change mobile service providers?

- | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|------------------------------|
| Once every month | Once every 3 months | Once every 6 months | Once every year | Once every 2 years or longer |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

4. How likely are you to purchase a mobile phone, accessories (i.e.: cover/pouch, hands-free set, etc) or sign a contract within the next month? The more likely, the higher number you should check.

- | | | | | | | |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Not at all | | | | | | Definitely |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

5. How likely are you to visit this Telus Mobility dealer store within the next month assuming the store settings do not change? The more likely, the higher number you should check.

Not at all							Definitely
	1	2	3	4	5	6	7
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6. How would you describe the following aspects of this store? Please check the box that is closest to the descriptor to what your perception is.

		Very		Neutral			Very			
		1	2	3	4	5	6	7		
a. Colour:	Warm	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Cool	
b. Lighting:	Soft	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Bright	
c. Signs: (i.e.: store sign, posters)	Subtle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Eye-catching	
d. Icons: (i.e.: stuff animals, dummy phones)	Uninteresting	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Interesting	
e. Flooring:	Cheap	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Up-scale	
f. Music:	Soft	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Upbeat	
g. Scent:	Unpleasant	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Pleasant	
h. Colour & lighting	Do not like it at all	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Like it very much	

7. Are you an existing Telus Mobility customer?

No

Yes

8. Have you ever purchased a Telus Mobility mobile phone?

No

Yes

9. How do you perceive Telus's corporate image?

Poor

1

2

3

4

5

6

Excellent

7

Thank you for your participation. Have a nice day.

Appendix F.

Questionnaire Coding Guide

Question 1	Question 6 (continued)
v1 Frequency of visiting the mall 1 = "0 time" 2 = "1 time" 3 = "2 times" 4 = "3 times" 5 = "4 or more times"	v8 Signage 1 = "Very subtle" 4 = "Neutral" 7 = "Very eye-catching"
Question 2	v9 Icons 1 = "Very uninteresting" 4 = "Neutral" 7 = "Very interesting"
v2 Frequency of switching phones 1 = "Once every month" 2 = "Once every three months" 3 = "Once every six months" 4 = "Once every year" 5 = "Once every 2 years or more"	v10 Flooring 1 = "Very cheap" 4 = "Neutral" 7 = "Very up-scale"
Question 3	v11 Music 1 = "Very soft" 4 = "Neutral" 7 = "Very upbeat"
v3 Frequency of switching providers 1 = "Once every month" 2 = "Once every three months" 3 = "Once every six months" 4 = "Once every year" 5 = "Once every 2 years or more"	v12 Scent 1 = "Very unpleasant" 4 = "Neutral" 7 = "Very pleasant"
Question 4	v13 Colour & Lighting combination 1 = "Do not like it at all" 4 = "Neutral" 7 = "Like it very much"
v4 Likelihood of purchasing 1 = "Not at all" 4 = "Neutral" 7 = "Very likely"	
Question 5	Question 7
v5 Likelihood of visiting particular store 1 = "Not at all" 4 = "Neutral" 7 = "Very likely"	v14 Existing TELUS customer 0 = "No" 1 = "Yes"
Question 6	Question 8
v6 Colour 1 = "Very warm" 4 = "Neutral" 7 = "Very cool"	v15 Prior TELUS customer 0 = "No" 1 = "Yes"
v7 Lighting 1 = "Very soft" 4 = "Neutral" 7 = "Very bright"	Question 9
	v16 Perception of TELUS's image 1 = "Poor" 4 = "Neutral" 7 = "Excellent"

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