LOYALTY MEASUREMENT AND ITS IMPLICATION FOR RETAIL GROCERY INDUSTRY

by

Sutapa Aditya
BBA, Institute of Business Administration, University of Dhaka 2002

PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF

MASTER OF BUSINESS ADMINISTRATION

In the
Faculty
of
Business Administration

© Sutapa Aditya 2004

SIMON FRASER UNIVERSITY

July 2004

All rights reserved. This work may not be reproduced in whole or in part, by photocopy or other means, without permission of the author.
Approval

Name: Sutapa Aditya

Degree: Master of Business Administration

Title of Project: Loyalty measurement and its implication for the retail grocery industry

Examining Committee:

Dr. Gary Mauser
First Reader
Professor of Marketing
Faculty of Business Administration
Simon Fraser University

Dr. Bert Schoner
Second Reader
Professor Emeritus and Project Coordinator
Faculty of Business Administration
Simon Fraser University

Date Approved: July 30, 2004
The author, whose copyright is declared on the title page of this work, has granted to Simon Fraser University the right to lend this thesis, project or extended essay to users of the Simon Fraser University Library, and to make partial or single copies only for such users or in response to a request from the library of any other university, or other educational institution, on its own behalf or for one of its users.

The author has further agreed that permission for multiple copying of this work for scholarly purposes may be granted by either the author or the Dean of Graduate Studies.

It is understood that copying or publication of this work for financial gain shall not be allowed without the author’s written permission.

The original Partial Copyright Licence attesting to these terms, and signed by this author, may be found in the original bound copy of this work, retained in the Simon Fraser University Archive.

Bennett Library
Simon Fraser University
Burnaby, BC, Canada
ABSTRACT

The aim of this paper is to review different measures (i.e. behavioural and/or attitudinal) of loyalty and understand the appropriateness of these measures in varied contexts. The study also applies a composite measure of loyalty in an industry to determine its applicability and appropriateness as a generalizable scale across industries. An extensive literature review was conducted to evaluate the existing measures of loyalty in current literature. The paper selected McMullan and Gilmore’s (2003) proposed scale. Retail grocery industry was selected for application of the scale, as there exists a huge confusion in current literature regarding an appropriate measure of loyalty for this industry. An empirical study, on graduate and postgraduate students, was conducted later to determine the scale’s applicability in this industry. The findings suggested that the selected composite measure, proposed by McMullan and Gilmore (2003), was not appropriate for the retail grocery industry. The customers were mostly split loyal and price was one of the most important reasons for selecting a particular grocery store. Brand commitment was not evident among the customers of this industry. In conclusion, it was stated that future research is needed to understand the particular characteristics of the retail grocery industry and determine whether a composite measure, incorporating both behavioural and attitudinal dimension of loyalty measurement, is at all needed for this industry or not. It is also worth asking whether loyalty can be developed in this particular industry and if yes, how it can be developed.
EXECUTIVE SUMMARY

Customer loyalty has become an important aspect of today's business. However, the construct is still going through a maturation process to achieve a well-accepted definition and method of measurement. There are numerous methods suggested by scholars in literature on how loyalty should be measured. The two most basic approaches are behavioural and attitudinal measures of loyalty. However, literatures currently supports that a composite measure of the constructs should take into account both of these approaches. Thus, the current paper studies recent literatures and evaluates the different measurement techniques suggested by scholars. It also selects the scale proposed by McMullan and Gilmore (2003) as one of the most composite measure of loyalty found in current literature. The study later applies this scale to retail grocery industry to evaluate its applicability in that industry. Retail grocery industry has been selected for this study for its unique characteristics in terms of customer loyalty. Many argue that true loyalty can never be developed in this industry, as it generates loyalty based on convenience or price. Thus, a composite measure, incorporating both behavioural and attitudinal measure, was applied on this industry to determine the validity of such prediction. The findings suggest that the composite measure, suggested by McMullan and Gilmore (2003), was not applicable for this industry. Rather, the behavioural measures could be more predictive of customer loyalty to the selected retail outlet. The paper recommends that extensive research should be conducted in future to, first, understand the specific nature of this industry and then, find out the drivers of loyalty for customers. Caution should be taken before applying any particular method of loyalty measurement. It is important first to understand what matter most to the customer and then measure those to determine their loyalty and implement strategies to build loyalty.
ACKNOWLEDGEMENTS

I would like to thank my first reader, Dr. Gary Mauser for his enthusiasm, encouragement and constant contribution throughout the project. I am also thankful to my second reader Dr. Bert Schoner for his valued input and advice. A very special thanks goes to Dr. Collin Dodd for her valuable time, support and guidance from time to time in helping me to structure the project. I would also like to thank Dr. Steven Kates, who gave his valuable guidance in generating the project idea and allowed me to start working on the literature review early. The participation of all the respondents is greatly appreciated. I am grateful to all my classmates and friends for their time and patience to help me to be successful in this endeavour.
# TABLE OF CONTENTS

Approval........................................................................................................................... ii
Abstract............................................................................................................................. iii
Executive Summary......................................................................................................... iv
Acknowledgements ......................................................................................................... v
Table of Contents.......................................................................................................... vi
List of Figures and Tables.............................................................................................. ix

1 LITERATURE REVIEW.............................................................................................. 1

1.1 Introduction ............................................................................................................. 1
1.2 What is brand loyalty? ............................................................................................ 2
1.3 Measurement of brand loyalty ............................................................................. 3
1.3.1 Some suggested measure of loyalty ................................................................... 5
1.3.2 McMullan & Gilmore's (2003) proposed measure of loyalty ......................... 8
1.4 Stages in loyalty development and their measurement ..................................... 9
1.4.1 Scale development ............................................................................................... 11
1.5 Why store loyalty? ................................................................................................. 12
1.5.1 The retail grocery industry ................................................................................ 14
1.6 Measuring store loyalty ......................................................................................... 15
1.6.1 Measuring store loyalty of retail grocery stores ............................................. 17
1.7 Scope for future research ....................................................................................... 18

2 THE PRESENT STUDY ............................................................................................ 19

2.1 The managerial problem ....................................................................................... 19
2.2 The research question ......................................................................................... 19
2.3 Hypotheses ........................................................................................................... 20
2.4 Information collection ......................................................................................... 21
2.5 Methodology ......................................................................................................... 23
2.5.1 Research design ................................................................................................. 23
2.5.2 Target audience ................................................................................................ 23
2.5.3 Sampling ............................................................................................................. 24
2.5.4 Data collection procedure ................................................................................ 25
2.5.5 Data operation .................................................................................................. 26
2.6 Analysis ................................................................................................................ 26

3 FINDINGS OF THE STUDY .................................................................................. 28

3.1 Respondents' profile ............................................................................................ 28
3.2 Grocery shopping habit of the respondents ....................................................... 28
3.2.1 Frequency of grocery shopping ....................................................................... 28
3.2.2 Amount spent on grocery shopping in a typical month .............. 28
3.2.3 Most visited grocery store .......................................................... 29
3.2.4 Preferred grocery shopping time .................................................. 29
3.3 Respondents’ shopping pattern in Canadian Superstore ................. 30
3.3.1 Share of wallet of Canadian Superstore ...................................... 30
3.3.2 Length of relation/Continuity of purchase ...................................... 31
3.3.3 Frequency of visit to Canadian Superstore ...................................... 31
3.3.4 Average spending at each grocery trip to Superstore ...................... 32
3.3.5 Reason for selecting Superstore for grocery shopping .................... 33
3.3.6 Intention to switch from Canadian Superstore ............................. 35
3.3.7 Overall loyalty to Superstore ...................................................... 37
3.4 Applicability of McMullan & Gilmore’s (2003) scale in retail grocery industry .......................................................... 41
3.5 Measure of reliability ................................................................... 43
3.6 Measure of validity ....................................................................... 43
3.7 Summary of the findings ................................................................. 43
4 IMPLICATION AND FUTURE RESEARCH ........................................ 46
4.1 Implication and conclusion ............................................................. 46
4.2 Limitations of the study .................................................................. 49
4.3 Future research ................................................................................ 49
APPENDICES .............................................................................. 51
Appendix 1: The sample scale of loyalty development measurement proposed by McMullan & Gilmore (2003) ...................................................... 51
Appendix 2: Questionnaire ................................................................. 52
Appendix 3: Code sheet ........................................................................ 57
Appendix 4: Respondents’ status in Canada ........................................... 61
Appendix 5: Gender of the respondents ................................................ 61
Appendix 6: Age of the respondents ...................................................... 61
Appendix 7: Ownership of vehicle ......................................................... 62
Appendix 8: Frequency of grocery shopping by respondents .................... 62
Appendix 9: Average amount spent on grocery shopping ....................... 63
Appendix 10: Most visited grocery store .............................................. 64
Appendix 11: Output of cross tabulation on ‘Most visited grocery store’ and ‘Status in Canada’ .......................................................... 65
Appendix 12: Respondents’ preferred grocery shopping time .................... 67
Appendix 13: Paired sample t-test on ‘Share of wallet’ of Canadian Superstore and Safeway .......................................................... 68
Appendix 14: Respondents’ share of wallet for different grocery stores .......... 69
Appendix 15: Statistical output of ANOVA test conducted between ‘Share of wallet’ of Superstore and ‘Frequency of grocery shopping’ .................. 70
Appendix 16: Length of relation/Continuity of purchase ......................... 71
Appendix 17: Frequency of visit to Canadian Superstore ......................... 73
Appendix 18: One sample t-test conducted on ‘Frequency of visit’ to Canadian Superstore ........................................................ 75
Appendix 19: Average amount spent at Canadian Superstore at each trip .... 77
Appendix 20: Statistical output of ANOVA test between ‘Average amount spent each time at Superstore’ and ‘Frequency of grocery shopping’ ..........................78
Appendix 21: Reason for selecting Canadian Superstore for grocery shopping .............................................79
Appendix 22: Cross tabulation output conducted between ‘Reason for selecting Superstore for grocery shopping’ and ‘Status in Canada’ ..........................................................80
Appendix 23: Cross tabulation output conducted between ‘Reason for selecting Superstore for grocery shopping’ and ‘Ownership of vehicle’ ..........................................................90
Appendix 24: Cross tabulation output conducted between ‘Ownership of vehicle’ and ‘Status in Canada’ ..........................................................................................................................99
Appendix 25: Respondents’ intention to switch from Canadian Superstore in different situations .................................................................................................................................101
Appendix 26: Cross tabulation between ‘Intention to switch’ in Situation 1 and 3 and ‘Ownership of vehicle’ ..............................................................................................................................102
Appendix 27: Cross tabulation between ‘Intention to switch’ in situation 1 and ‘Most important reason for selecting Superstore’ .................................................................................................106
Appendix 28: Cross tabulation between ‘Intention to switch’ in situation 2 and ‘Most visited grocery store’ ...........................................................................................................................................111
Appendix 29: Overall Loyalty towards Canadian Superstore .........................................................................................114
Appendix 30: One sample t-test on ‘Overall loyalty’ towards Superstore to measure the difference between sample means and scale’s midpoint ........................................................................115
Appendix 31: Overall loyalty (Cumulative loyalty score of the respondents) .................................................................116
Appendix 32: One sample t-test on ‘Overall loyalty’ (Cumulative loyalty score) towards Superstore to measure the difference between sample mean and scale’s midpoint .......................................................................................117
Appendix 33: Independent sample t-test carried out on ‘Intention to switch’ in different situations and ‘Overall loyalty’ ..................................................................................................................118
Appendix 34: Univariate ANOVA test conducted between ‘Overall loyalty’ and ‘Most visited grocery store’ ...........................................................................................................................................121
Appendix 35: Univariate ANOVA test conducted between ‘Overall loyalty’ and ‘Most important reason for choosing Superstore’ ..................................................................................................123
Appendix 36: Correlation between ‘Frequency of visit to Canadian Superstore’ and ‘Overall loyalty’ to the store ..........................................................................................................................124
Appendix 37: Correlation between ‘Share of wallet for Canadian Superstore’ and ‘Overall loyalty’ to the store ............................................................................................................................126
Appendix 38: Correlation between ‘Length of relation with Canadian Superstore’ and ‘Overall loyalty’ to the store ..........................................................................................................................128
Appendix 39: Correlation between ‘No. of patronized stores’ and ‘Overall loyalty’ to the store .............................................................................................................................................130
Appendix 40: Factor analysis output with all 28 item from the scale ..................................................................................131
Appendix 41: Factor analysis output after excluding the overlapping items ........................................................................140
Appendix 42: Component item list .....................................................................................................................................147
Appendix 43: Measure of reliability .....................................................................................................................................149
Appendix 44: Correlation between overall loyalty and cumulative loyalty score .................................................................................150

Reference List ..................................................................................................................................................151
LIST OF FIGURES AND TABLES

Figure 1 Four stages of loyalty development. Source: McMullan and Gilmore, 2003 (Used by kind permission of Dr. McMullan and the copyright holders, Henry Stewart Publications) .................................10

Figure 2 Interrelationship between 'Reason for selecting Superstore', 'Ownership of vehicle' and 'Status in Canada' ........................................................................................................35

Table 1 Characteristics of the four stages of loyalty development (McMullan and Gilmore, 2003) (Adapted by kind permission of Dr. McMullan and the copyright holders, Henry Stewart Publications) ........................................11
1 LITERATURE REVIEW

1.1 Introduction

The central thrust of the marketing activities of a firm is often viewed in terms of development, maintenance, or enhancement of customers' loyalty towards its product or services, in other words its brand (Dick & Basu, 1994). However, loyalty research suffers from problems of inadequate procedural regularities (Muncy, 1983). Although academic research on loyalty has received considerable attention, it has largely focused on different procedures of measuring the construct and the construct's correlation with customers' characteristics (Kahn, Kalwani & Morrison, 1986). Implicit in this research is the notion that brand loyalty plays a special role in generating repeat purchase (Dick & Basu, 1994). Even though many marketers have emphasized the need to define brand loyalty beyond operational measures (i.e. frequency of purchase, repeat purchase), the interrelationship between brand loyalty and behavioural theory still requires stronger integration. The construct is still undergoing a maturation process striving for theoretical legitimacy and practical usefulness.

The brand loyalty literature contains a plethora of measurement instruments (Jacoby and Chestnut, 1978). Traditionally, brand loyalty research has used various behavioural measures drawn from panel data. These measures include proportion of purchase, purchase sequence, probability of future purchase, etc (Neal, 2000). On the other hand, there is another group of scholars, who criticized the purely behavioural approach of measuring loyalty and suggested inclusion of attitudinal dimension (Jacoby & Chestnut, 1978). They argue that consideration of behavioural measure only lacks conceptual basis and ignores the influence of underlying reasons of repeat purchase. High repeat purchase may reflect situational constraints, such as availability
of certain brands, whereas low repeat purchase may simply indicate different usage situations, variety seeking or lack of brand preferences within buying unit. Thus the behavioural definitions (i.e. repeat purchase, frequency of purchase) are insufficient to explain how and why brand loyalty is developed and/or modified.

This paper explores the different existing schools of thoughts of loyalty measurement in published literature and attempts to study one comprehensive measurement scale of brand loyalty, which captures the construct in an effective way. The research later on applies the selected measurement in retail grocery industry. The retail grocery industry was chosen for the application of the selected scale, as this industry has always been characterized by superficial loyalty supported by convenience or price. Literature also presents doubt whether brand loyalty can at all be developed among the customers in this particular industry or not (Frank, 1967). Thus, this study attempts use the selected scale to take an attempt to clarify some of these uncertainties.

1.2 What is brand loyalty?

As mentioned above, most of the current literature links loyalty with purchase frequency. Neal (2000) defined loyalty as simple as buying a single brand all the time the category is purchased. Such definition is very narrow in scope, as it ignores the situational factors that may lead a customer to buy the same brand all the time. Many times this repeat purchase behaviour is induced by club membership into loyalty programs, which frequently offers nothing but discounts. But this practice develop a consumer base, who are superficially loyal to the reward, rather than to the company/brand and are very vulnerable to competitor's promotion or other situational influences.

The conceptual and most composite definition of brand loyalty, used in loyalty research, was first proposed by Jacob Jacoby. He defined brand loyalty as:

The biased (non-random) behavioural response (purchase) expressed over time by some decision-making unit with respect to one or more alternative brands out

However, Jacoby came up with another definition of brand loyalty few years later in his article with Chestnut, where they defined loyalty as:

The behavioural outcome of a consumer's preference for a particular brand, over a period of time, which importantly is the result of an evaluative decision making process. (Jacoby & Chestnut, 1978, p. 43)

This definition has been accepted widely by the scholars working in the field of loyalty research (McMullan, Gilmore, 2003). But Oliver (1999) believes these definitions ignore the intensity associated with different levels of loyalty, which is very important. He recognized this gap and suggested a definition, which includes the essential features of loyalty like commitment, preferences and consistency along with the situational and environmental influences. He defined loyalty as:

A deeply held commitment to rebuy or repatronize a preferred product/service consistently in the future, thereby causing repetitive same-brand or same-brand set purchasing, despite situational influences and marketing efforts having the potential to cause switching behaviour. (Oliver, 1999, p.34)

According to his definition, “ultimate loyalty” (Oliver, 1999, p. 39) is a stage, when a consumer ignores the promotional effort from competitors and stick to their own brand. Unlike other definitions, this one suggested by Oliver (1999), takes a more comprehensive approach and captures all possible factors affecting loyalty; such as behavioural, attitudinal, situational and environmental. Therefore, this paper will address loyalty based on this definition.

1.3 Measurement of brand loyalty

There is no consensus in marketing literature on how loyalty should be measured. In the real world, some companies even measure loyalty just by asking three magic questions on overall satisfaction, intention to recommend and intention to repurchase (Neal, 2000). But these are
actually measures of satisfaction. Intention to repurchase and recommend are usually asked in Customer Satisfaction Study to validate the measure from other items.

However, published literatures on brand loyalty could come to an agreement on the two dimensions of loyalty measurement, which are behavioural and attitudinal. But they are yet to agree on the importance of each dimension in measuring loyalty. Even for measuring each dimension, there is no consensus on how to measure them most accurately.

The attitudinal dimension of loyalty construct infers that consumers engage in extensive problem solving behaviour involving brand and attribute comparisons, leading to strong brand preference (Thiele & Bennett, 2001). Jacob Jacoby and Robert Chestnut, in their paper, defined this form of loyalty as:

...consumers’ predisposition towards a brand as a function of psychological processes. (Jacoby & Chestnut, 1978, p. 43)

This includes attitudinal preferences and commitment towards a brand. On the other hand, behavioural loyalty is the observable outcome of attitudinal loyalty. It is argued that without understanding the attitudinal loyalty it is not possible to influence behaviour in positive direction. Measuring and monitoring attitudinal loyalty can identify consumers, who are vulnerable in changing environment. Therefore, this paper suggests that consideration of both the dimensions, attitudinal and behavioural, is essential in measuring loyalty.

Attitudinal loyalty has been operationalized using two approaches: brand specific and individualistic (Thiele & Bennett, 2001). Individualistic measure has two dimensions. The first one is personality trait measure, which indicates the consumer's propensity to be brand loyal. The second one, on the other hand, is product category measure, which quantifies the brand loyalty measure for a particular product category. The individualistic approach assumes that a person is loyal or disloyal due to his/her personal characteristics to be consistent and thus not related to brand or product category. On the other hand, the brand specific approach assumes that brand
loyalty is derived consumers' perception regarding the overall performance of the brand and this is brand's property. It can be measured from purchase intention and brand commitment.

However, the two approaches were not found related measuring the same construct, which is attitudinal loyalty (Thiele & Bennett, 2001). Individual's propensity to be loyal was found different from attitudinal loyalty. Thus, it is considered that attitudinal loyalty is captured best in terms of cognitive, affective and conative brand specific factors, which will be discussed shortly.

On the other hand, behavioural loyalty has mainly been operationalized in terms of purchase behaviour and measured in terms of repeat purchase, intention to repurchase, past purchase behaviours, share of wallet in the category, etc.

Measure of loyalty also differs across market type (Thiele & Bennett, 2001). Brand loyalty can be classified into three groups based on market type, namely consumable goods markets including FMCG or consumables, durable goods markets, and service markets. Loyalty has also been categorized in current literature in terms of market specific context (i.e. service, store and vendor loyalty) and unit of measurement context (i.e. brand and customer loyalty) Finally, the markets can be categorized according to transaction value, frequency of purchase, end use, level of involvement, supplier source and purchase process. This paper addresses the measurement of loyalty in general first to identify an appropriate approach for measuring the construct. Later it applies the selected measure on retail grocery industry to evaluate its applicability in that particular sector.

1.3.1 Some suggested measure of loyalty

As already mentioned, there is no consensus yet reached among the scholars on one single most effective measure of loyalty. Literature proposed loyalty to be measured using Customer Loyalty Index (CLI) (Taylor, 1998). Two out of the three items making up most Customer Loyalty Indices (CLIs) are behaviour-based (such as, the "likelihood to recommend a
product or service to others" and "likelihood to repurchase the product or service"). The third element of a CLI is usually "overall satisfaction" itself. However, as previously mentioned, these measures can be misleading. Both the behavioural measure involves consumer’s opinion regarding future behaviour, which may not turn out to be true. As the index does not consider any attitudinal measure, like preference for the brand or commitment to the brand, there is not even any item to cross check their claim for future behaviour with their current attitude. Asking someone about their future intention can be misleading for other reasons too. Many times customers say ‘yes’ to these types of questions as they are hesitant to say ‘no’, they are not ready to think so much or they are not sure what they are going to do in future. And many times their actual behaviour differ from what they intended to do in the past.

The recent literatures also attempted to justify continuity of purchase over a long period of time as a measure of loyalty (Schulz, 1998). However, continuous purchase can be the outcome of inertia (also termed as ‘inertia loyalty’ by Kumar & Rakshit, 2003, p. 55) or indifference of preference to certain products/category and lack of interest among consumers to find a better supplier. It can also happen due to the absence of highly competitive environment in the industry and absence of a better supplier. In any case, situational influences like promotions from other existing competitors or even new entry of a stronger or better counterpart in the industry can change the situation and prove the loyalty to be superficial.

RFM analysis is another method regarded as a good measure of loyalty (Kumar & Rakshit, 2003). But the problem with this method is that it overemphasizes the customers who have bought recently from the company, made some frequent purchase and spent a lot. However, these characteristics can be attributed to a transient customer, who have very little loyalty to the company and is spending some money for a short period of time. Additionally, the measure is unable to capture the difference in purchasing cycle of different customers. So one consumer, who is not loyal to a particular brand or store, may turn out to be a heavy user of a
product/service because of the timing of conducting RFM analysis. Whereas, another customer, who is a loyal and a regular user of the product/service might be left out as he/she did not make any purchase recently.

Real loyalty measurement must be based on commitment to the brand/company, not purchase frequency or amount or even simple intention to re-patronize the brand/company in future (Schulz, 1998). Trevor Richards, writing in the European Society of Marketing and Research (ESOMAR), suggested that real loyalty must be based on commitment to the brand, where commitment has been defined as being composed of four elements. These are:

1. Needs satisfaction, or how well the product or service fulfils the customers' needs
2. Involvement in category, or the amount of interest and attention the particular product category has for the customers
3. Attraction to alternatives, or how interesting and viable other products might be or can be made to the customers; and
4. Intensity of ambivalence to change or alternatives, or how the customers ignore known alternatives.

McMullan & Gilmore (2003) proposed a measurement scale based upon the research done by Oliver in the field of loyalty measurement (1999). This scale attempts to measure loyalty in terms of brand commitment encompassing all the four factors mentioned above. It is one of the first reliable and validated measures of loyalty development, which incorporated both the behavioural and attitudinal dimension of loyalty as well as considered the situational and environmental factors. The following sections explore this measure of loyalty more elaborately and justify its superiority to other available measures.
1.3.2 McMullan & Gilmore's (2003) proposed measure of loyalty

The measure of loyalty development proposed by McMullan & Gilmore (2003) was developed upon Oliver's (1999) definition of loyalty, which defines the construct as a consistent commitment to repurchase a preferred brand despite situational influences to switch. This can be supported as a comprehensive measure of loyalty development, unlike other currently available measure, for the following reasons:

1. The measure takes both behavioural and attitudinal dimensions of loyalty into account, as they are complementary aspect of one construct.

2. It doesn't measure loyalty in terms of share of wallet or purchase frequency, which might be misleading or an incomplete measure of loyalty in some cases. It rather specifies the loyalty status in terms of four different stages [cognitive, affective, conative and action loyalty], as suggested by Oliver (1999), and measures the intensity of loyalty (high, medium or low) at each stage.

It is also helpful, as the measure segments the customer base in terms of stages of loyalty and derives the size of each segment. Looking at loyalty in terms of intensity helps the managers to gain a better understanding on the psychology and belief of the consumers regarding the brand/company and identifies areas of improvement.

3. The model not only considers the consumer’s internal attitude and beliefs, it also incorporates the influence of external variables environmental and situational factors, like competitor’s marketing efforts, service failure, etc.

4. The scale was developed through extensive qualitative study followed by quantitative stage to validate it.

5. It used the knowledge of many other established scales like ETCBS (Exploratory tendency in consumer behaviour scale), Oliver’s satisfaction scale, SERVQUAL, etc, to
develop a comprehensive one for loyalty development measurement. This effort to utilize existing knowledge base enhanced the quality of the measure.

1.4 Stages in loyalty development and their measurement

Quite a few numbers of studies have been conducted to distinguish between the behavioural and attitudinal dimension of loyalty (McMullan, Gilmore, 2003). But not much initiative has been taken to explore the interrelationship between these two dimensions. The dynamic process, which develops and sustains loyalty, has also been ignored by current literature. However, this understanding can also be very useful to develop a better measure of loyalty.

According to Oliver, there are four stages of loyalty development (McMullan & Gilmore, 2003; Oliver, 1999). The first three stages are cognitive, affective and conative stage. These three stages ultimately lead to the final stage of highest loyalty – the action loyalty stage. At this stage, the consumer becomes committed enough to ignore all the situational factors. The following diagram shows the four stages of loyalty and their interrelationships.
As suggested by Oliver's model, the customer makes choices about the brand in all four different stages in spite of all the situational and marketing influences (McMullan & Gilmore, 2003). The characteristics of each stage are described in the table in next page.
Table 1 Characteristics of the four stages of loyalty development (McMullan and Gilmore, 2003) (Adapted by kind permission of Dr. McMullan and the copyright holders, Henry Stewart Publications)

<table>
<thead>
<tr>
<th>Stage</th>
<th>Characteristics</th>
<th>Dimensions/Antecedents</th>
<th>Sustainers</th>
<th>Vulnerabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level 0</td>
<td>The customer holds no information and has not developed an attitude towards the product/service</td>
<td>Accessibility: Ease with which an attitude can be retrieved, the easier to retrieve the more loyal the consumer becomes</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Confidence: Level of certainty about an attitude/evaluation, influenced by credibility of source or brand information</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Centrality: Relation between attitude towards brand and value system</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Clarity: Relation between the clarity of attitude towards the product/service and competitor's offers. Presence of a clear distinction between these two to reduce level of choice</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level 1:</td>
<td>The customer has some information and a set of belief, which may indicate that the product/service is superior to competition.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cognitive</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phase</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level 2:</td>
<td>Customer develops a favourable or unfavourable attitude towards the products/service after trial</td>
<td>Satisfaction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Affective</td>
<td></td>
<td>Emotion/Mood: Mood is less intense than emotion; good mood recalls positive benefit of the product.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phase</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level 3:</td>
<td>This phase relates to individual's intention to behave, whether they will repurchase and how consistent they are with their belief.</td>
<td>Switching cost: Both monetary and non-monetary (psychological)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conative</td>
<td></td>
<td>Sunk Cost: Increases likelihood of repeat purchase</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phase</td>
<td></td>
<td>Expectations</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Level 4:</td>
<td>It relates to the customer's actual behaviour</td>
<td>Inertia: Consumer's commitment with a product/service to the degree that they have blocked themselves from further Information seeking on substitutes.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Action</td>
<td></td>
<td>Sunk Cost</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Phase</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1.4.1 Scale development

The measurement scale proposed by McMullan & Gilmore (2003) was developed basing upon this four-phase model shown in the table above. It aimed to test four individual phases, their
characteristics and mediating factors for each stage. The scale was developed after conducting extensive exploratory research in the field of loyalty research. As indicated in the table above, each stage has a number of characteristics including involvement, commitment, switching, quality and loyalty proneness. The scale included items to facilitate the measurement of each phase. It also included attitude statements that are negatively scored to allow for the testing of sustainers and vulnerabilities. After reviewing a number of existing scales, a pool of 122 items was generated. A panel of experts were employed to trim and refine the item list to bring the total number down to 28. Then the scale containing 28 items was piloted for face validity and reliability. As the scale was developed to measure the existence and intensity of all four stages in loyalty development, it consisted items to measure each stage. For example, there were six items on the scale tapping the cognitive stage, seven tapping the affective stage, nine tapping the conative stage and finally, six tapping the action stage. A sample of the scale, used in the pilot study, to measure loyalty development among customers of a restaurant-dining plan is shown in Appendix 1.

1.5 Why store loyalty?

Although most marketing research on loyalty has focused on frequently purchased packaged goods (brand loyalty), the loyalty concept is also important for industrial goods (vendor loyalty), services (service loyalty) and retail establishments (store loyalty) (Dick & Basu, 1994). Store loyalty has been defined as:

The conscious buying behaviour of the customer expressed over time with respect to one store out of a set of stores, which is driven by commitment to the store, where commitment has been defined as the customer’s enduring desire to maintain relationship with the store. (Odekerken-Schroder, De Wulf, Kasper, Kleijnen, Hoekstra, & Commandeur, 2001, p. 309)
Nature of loyalty might not be similar across all industries (Oliver, 1999). It depends on both market type and situation, as characteristics of the products and market drive and shape loyalty (Thiele & Bennett, 2001). Distinguishing between market types is important because the very nature of markets indicates that the measures used to capture loyalty might be very different. A review of the loyalty literature has revealed that intensity and nature of loyalty and thus the measurements of loyalty are different for consumable, durable and services markets. This difference is largely attributable to the difference in market characteristics, namely brand switching tendency, purchase frequency, share of category, proportion of sole buyers, commitment, intention to purchase, perceived risk, consumer inertia, role of habitual purchase, satisfaction and involvement with the category. Therefore, a single loyalty measure for all market may not be possible to develop. However, to develop an appropriate context specific measure requires an appropriate generalizable model first, which captures all the relevant concepts to measure the construct. To find out the appropriate measure for each market, application of the general model in the market context is necessary. The framework suggested by Oliver (1999) on levels of loyalty development may not be applicable to for store loyalty measurement due to the unique nature of the industry or consumer’s low involvement with the product/service. For example, the highest level of loyalty (i.e. action loyalty or ultimate loyalty) may not exist or even may not be possible to attain due to the unique characteristics of the industry. Keng and Ehrenberg (1984) analyzed panel data to examine brand purchase behaviour and store loyalty simultaneously for a number of different grocery product categories. The findings suggested that consumers had low store loyalty and in some cases, shopping/switching process was found random. Uncles and Ehrenberg (1990) in their study also found similar result of low store loyalty and concluded that customers shop at a portfolio of stores. It was not even clearly established whether true loyalty, based on commitment to the store, is at all achievable in the retail sector or not. However, it should be noted that the measures taken in both of these studies considered only behavioural dimension of loyalty, which is unable to capture the construct completely. So it is
worth taking a look whether the model proposed by Oliver (1999) and the scale of loyalty measurement proposed by McMullan & Gilmore (2003) (basing upon Oliver’s model) is applicable or not in case of store loyalty. This will take the store loyalty research one-step ahead by considering both behavioural and attitudinal dimension and understanding influence of situational and environmental factors on store loyalty.

Retail markets are increasingly characterized by more demanding and knowledgeable customers, shortened product life cycles, crowded retail environments, undifferentiated product and pricing, intensified competition and market fragmentation (Woodruff, 1997; Zeithaml et al., 1996). It is becoming harder every day to develop loyalty among customers in such fragmented and competitive markets. However, the way in which consumers develop loyalty to a particular store and how this loyalty can be maintained are still unresolved issues for many retailers. It seems that, especially in the retail industry, there exist uncertainty and incorrect beliefs about what matters to customers most. So it is also required to develop a better understanding of the factors that drive store loyalty among customers.

1.5.1 The retail grocery industry

In recent years, retail competition has intensified generally as a consequence of new technologies, more sophisticated management practices and industry consolidation (Sirohi, McLaughlin & Wittink, 1998). These trends have been particularly pronounced in the food channel. For example, Wal-Mart and Kmart have added grocery sections to their outlets in many regional markets. Supermarket profits have been flat or declining for nearly a decade (Progressive Grocer Annual Report, 1996). In this environment, it is essential for firms to focus on the right customers. In the face of slow growth and highly competitive markets, a good defence is critical (Fornell, 1992). Marketing tools, such as coupons and promotions, are not only often minimally effective, but also attract the wrong customers by adverse selection (Reichheld, 1996). For example, temporary price cuts and coupons tend to attract cherry pickers, whose purchases often
actually detract from profits. Uncertainty and incorrect beliefs about what matters to customers seem to be present, especially in the grocery retail industry. For example, it has been found that executives in this industry tend to overestimate the proportion of consumers, who actively search and respond to price promotions (Urbany et al., 1996). Thus, it is not only essential to measure the level of loyalty among grocery store’s customer base to identify the most profitable sources of business, it is also important to understand the importance of the two dimensions (behavioural and attitudinal) in measuring loyalty to gain a better understanding of the construct and take the optimal actions.

1.6 Measuring store loyalty

As already mentioned, there is no consensus yet among the published literature on the most appropriate measure of loyalty in general. Same confusion and uncertainty exist for measurement of store loyalty. Store loyalty has been measured by the current literature by using the following methods:

1. Share of wallet allocated to the store during a particular time period
2. No of stores patronized during the time period
3. No of switches or changes in store to which loyalty is exhibited

Enis & Paul, (1970) defined store loyalty as customer’s inclination to patronize a given store during a specified period of time. They proposed that store loyalty can be measured by an index ranging from 0 (indication no patronization or no loyalty) to 100 (indicating complete loyalty) and argued that it is directly related to firm’s profitability. The higher the loyalty of consumers on the index, the more profitable the firm is.

Some current literature suggests that more loyal customers spent considerably higher proportion of their budget to their first priority store than less loyal customers (Enis & Paul,
So the amount spent by consumers was found to be positively related, but not directly proportional to the level of loyalty. Store loyalty is thus related to store’s success.

However, all these measures are again focused on purchase behaviour and capture only one dimension of store loyalty. Repeat store visit or percentage of purchase of a specific product category from the store is different from store loyalty (Bloemer & de Ruyter, 1998). They only capture behavioural conceptualization, which is not sufficient for measuring and explaining store loyalty. As already mentioned above, the repeat visit or purchase is the outcome of some decision process where the attitude towards the store, the past experience and many other variables play a determining role. On the other hand, store loyalty is considered an outcome of store commitment, without which a superficial loyalty might be created due to inertia. And store commitment is the pledging/binding of an individual to his/her store choice. A customer becomes committed to a store as a result of an extensive and explicit decision-making and evaluative process. Consumers not having a commitment towards a store still might be attracted towards its attributes, but can easily be lured away by competition through incentive.

Some literatures have attempted to measure store loyalty considering both attitudinal and behavioural dimension. Bloemer & de Ruyter (1998) in their study suggested inclusion of both behavioural and attitudinal dimension in the measurement and proposed to measure store loyalty level on a continuum having true loyalty at one end and spurious loyalty with no commitment at the other hand. Others have measured store loyalty based on both strength of attitude and repeat purchase behaviour (Macintosh & Lockshin, 1997). This included three concepts: 1. Loyalty as an attitude, 2. Purchase intention and 3. Store’s share of wallet. However, none of these approaches have gained enough legitimacy to be accepted as a standard measure of loyalty. Thus, it is worth exploring McMullan and Gilmore’s (2003) approach to evaluate its appropriateness in retail setting.
1.6.1 Measuring store loyalty of retail grocery stores

Defining the category of grocery chain stores in terms of product or service for loyalty measurement is a bit complicated. For grocery stores, it is a combination of retail service and consumable goods. While the consumable goods are the reason for consumers to go to any grocery store, it is not the only reason to choose a particular store or be loyal to that one. Several other characteristics make it a unique combination of goods and service. However, few characteristics of service and consumable goods market do not apply for retail grocery stores. For example: consumable good market usually involves low transaction amount, which might not be the case for retail grocery stores (Thiele & Bennett, 2001). In many cases, consumers purchase in bulk amount the packaged goods. On the other hand, it is assumed that buyers usually do not share their wallet with two brands in service market, which may not be true for grocery stores again. In many cases, the consumers split their grocery expenditure to more than one store depending on situational and environmental factors. In consumable markets, where the market is stable and where there is high switching and low involvement and risk, behavioural measures are appropriate for predicting brand loyalty levels. However, where the market is not stable, there is a propensity towards sole brands and there is high involvement and risk, then attitudinal measures may be better predictors of future behaviour. In a particular geographical market, the grocery chain industry may not be highly competitive and one or two players might dominate the whole market. Thus, tracing only the purchase behaviour may lead us to depend on spurious loyalty due to absence of better accessible alternative. The level of loyalty frequently changes in these situations when a new competitor steps in with better offering. However, in terms of involvement as well, not all the product carried in a store requires same level of involvement with all customers. Some of them are low involvement, whereas some demands high involvement from some customers. Thus, for retail grocery, a combination of attitudinal and behavioural approach may be more appropriate than taking either of the two. Moreover, the measure should also consider the influence of situational (e.g. absence of a better accessible alternative) and
environmental (e.g. price promotions, competitor’s promotion, etc) factors on loyalty development to derive more accurate measure.

1.7 **Scope for future research**

It is very evident from the discussion above that there exists a huge gap in loyalty research. There is yet no measure for loyalty, which is well accepted by majority of the scholars, working in the field of marketing research. Debate is still going on the appropriateness of different approaches for measuring loyalty and which approach produces the most appropriate and accurate indicator of company’s performance. So there is no single measure yet developed, which can be applied to different industries for determining its applicability. However, it is more or less accepted by the scholars that consideration of both behavioural and attitudinal dimension is necessary to get better indication of loyalty. But it is worth mentioning that even the role of both dimensions in loyalty measurement might not be same across all industries. Some industries may demand only a behavioural measure because of its inability to develop a highly committed customer base. Thus, there is scope for research to understand whether both attitudinal and behavioural dimension is necessary for determining store loyalty in retail grocery industry and whether different levels of loyalty exist among store customers in this sector.

In this backdrop, the next section presents the detail of the present research, which applied the loyalty measurement scale developed by McMullan and Gilmore (2003) to evaluate its applicability in retail grocery industry.
2 THE PRESENT STUDY

2.1 The managerial problem

Understanding loyalty means understanding customer retention (Taylor, 1998). A little increase in customer retention can influence profitability. Gaining an understanding of the level of loyalty of each customer adds competitive advantage for a company and helps them to develop effective one-to-one marketing strategy (McMullan, Gilmore, 2003). Consumers at different level of loyalty need different motivations to be more loyal. By measuring the size of the consumer segments at each stage of the loyalty development process, a company can determine where each consumer stands. They can develop a profile of each segment from the different stages to cater focused marketing effort for them. It can also track the changes in consumers' depth of loyalty by monitoring their movement across different stages.

Thus, the managerial problem this study addresses is to evaluate whether such segmentation of a company’s customer base, in terms of intensity of loyalty, is possible or not in the retail grocery industry to cater focused marketing effort for each segment. The research will also help the management to gain a better understanding on loyalty development process and the relationship of purchase behaviour with customer loyalty in the selected industry.

2.2 The research question

As already mentioned, the measurement scale proposed by McMullan & Gilmore (2003) is one of the most comprehensive scales available from current literatures for measuring brand loyalty. The scale not only considers both behavioural and attitudinal dimensions, it also considers the situational and environmental factors influencing loyalty. Moreover, it attempts to
identify the four stages of loyalty developments suggested by Oliver (1999) to segment the
customer base in terms of intensity of loyalty. Thus the primary research question was:

**Is the measurement scale proposed by McMullan & Gilmore (2003) applicable for measuring loyalty among customers of retail grocery industry?**

To answer this primary research question, the following secondary research questions was addressed:

1. Is the scale suitable for clearly identifying the levels of loyalty from the customer base of retail grocery? Or in other words, is the scale appropriate for retail grocery?
2. Do all four level of loyalty suggested by Oliver (1999) and addressed by the scale exist among customers of retail grocery industry?
3. Is it possible to derive the relative size of each group of loyalty segment (i.e. the size of the segment in each stage of the loyalty development process: cognitive, affective, conative and action) from the customer base of a retail grocery shop by applying this scale?
4. Is the scale reliable?
5. Is the scale valid and measures the construct appropriately?
6. Is there any relationship between behavioural measures of loyalty and the loyalty measured by the scale?

### 2.3 Hypotheses

To achieve the above mentioned objectives of the study, the following hypotheses was formulated:

1. The scale is suitable or appropriate for clearly identifying stages of loyalty development process of the customer base from retail grocery industry.
2. All four levels of loyalty suggested by Oliver (1999) and address by the scale exist among the customers of retail grocery industry.

3. It is possible to derive the relative size of each group of loyalty segment (i.e. the size of the segment in each stage of the loyalty development process: cognitive, affective, conative and action) from the customer base of a retail grocery shop by applying this scale.

4. The scale is reliable.

5. The scale is valid and measures the construct appropriately.

6. There is a relationship between behavioural measures of loyalty and the loyalty measured by the scale.

2.4 Information collection

To test the above-mentioned hypotheses, the study collected the following information:

Information collected by using the scale:

1. Knowledge about the store

2. Importance of and interest in store selection

3. Value perception

4. Sensitivity to price, physical features, service

5. Satisfaction/Enjoyment/Fulfilment of expectation

6. Continuity of purchase/consistency

7. Preference/Liking/Feeling

8. Tendency to switch
In addition to the scale, some behavioural data were collected in the study for two purposes:

1. To testify the 6th and final hypothesis and see whether any relationship exists between purchase behaviour (or behavioural measure of loyalty) and the loyalty measured by the scale.

2. To support the behavioural measures incorporated in the scale. The scale had both behavioural and attitudinal dimension inbuilt in it. However, the scale measures behavioural variables like continuity of purchase and intention to switch by using a 7 point attitudinal scale, with the each point labelled from ‘Strongly agree’ to ‘Strongly disagree’. The statements on these variables were also formed in such a way that they measure attitude more and behaviour less (please refer to Appendix 1). This might not be the most appropriate way of measuring behavioural variables. Thus separate behavioural measures were included in the study.

The information collected on behavioural dimension was as follows:

1. Frequency of grocery shopping

2. Share of wallet

3. Length of relation/Continuity of purchase

4. Frequency of visit to Canadian Superstore

5. Average amount spent in grocery in Superstore

6. Reason behind selection of Canadian Superstore as a store of choice

7. Preferred shopping time

8. Behavioural responses in different future situations

In addition, overall loyalty was measured to test the validity of the scale.
Limited information was also collected on the demographic information of the respondents. They were as follows:

1. Status in Canada
2. Gender
3. Age
4. Ownership of vehicle
5. Average amount spent on grocery in a typical month

2.5 Methodology

2.5.1 Research design

The study had two parts. In the first part an exploratory research, which was primarily an extensive literature review, was carried out on current research publications on Loyalty measurement. This literature review was conducted to gain understanding on loyalty measurement and learn about the currently proposed models of measurement. This literature review helped the researcher to find out the scale develop by McMullan and Gilmore (2003), which is quite contemporary in the field of loyalty research.

In the second phase, a quantitative study was carried out to achieve the objective of the research project and test the hypotheses.

2.5.2 Target audience

The study was conducted on grocery shoppers in the greater Vancouver region, who buy grocery items for themselves form supermarkets. The research only considered grocery shopping from supermarkets as 68% of the expenditure on food in the Vancouver went to supermarkets in 2001 (Statistics Canada, 2001, Food Expenditure in Canada, p. 53). On the other hand, only 12%
went to food specialty stores, 1% to convenience store and 7% to other types of stores. The study defined supermarkets as big stores offering wide variety of most grocery items (both food and non-food). Retail co-operatives were also included here. The present study selected supermarket customers not only for the segment’s majority share in food expenditure, but also for its considerable contribution in the economy. In 2003, supermarkets and grocery stores in British Columbia generated 9495.6 million dollars of sales (Statistics Canada, February 2004, Retail Trade, p. 16). There were 17 supermarkets and grocery chains in BC in 1998, which had 448 stores (Statistics Canada, 1998, Retail Chain and Departmental Sources, p. 25). Of these, 181 stores were in Vancouver. Thus, it is evident that supermarkets represent majority of the business in retail grocery industry. So, the study selected one particular supermarket, which can represent the supermarket industry of Vancouver well and analyzed its customers in depth.

2.5.3 Sampling

2.5.3.1 Store selection

Canadian Superstore was selected to represent the supermarket industry of Vancouver in retail grocery. This particular store was selected as they have a very wide variety of almost all grocery items and have a very multicultural customer base.

2.5.3.2 Sample selection

A pool of 100 Canadian Superstore customers was generated for this study. These customers shopped food items at Superstore at least once in last 2 months for their own consumption. A time limit of 2 months was determined to gather data from a variety of customers who shop there at different frequency. In this way, the study was able to collect information from customers, who go there for grocery shopping every week; to customers, who have been to the store only once in last 2 months. The samples were from Simon Fraser University, either graduate or postgraduate students, who live on their own.
2.5.3.3 Sampling technique

Convenience sampling technique was adopted to collect information.

2.5.4 Data collection procedure

Data was collected using a semi-structured questionnaire. As the study adapted a convenience sampling technique, the researcher personally distributed the questionnaires among her friends, classmates, in campus residences, during class and in the cafeteria area.

2.5.4.1 The questionnaire

The questionnaire included one screening question at the beginning to ensure that all the respondents have shopped at any outlet of Canadian Superstore in last 2 months to purchase food items for personal consumption.

To evaluate the loyalty development stages of the customers, the scale proposed by McMullan & Gilmore (2003) was used after minimum adaptation. The scale contains 28 statements representing different stages of the loyalty development process. A sample scale on restaurant’s dining plan was provided in their article (McMullan & Gilmore, 2003). The scale used in the present study incorporated all 28 statements from the original after some minor changes to make it relevant for the retail grocery industry. The statements were measured on a 7 point scale with each points labelled. Besides, behavioural measures were also included in it. Overall loyalty was measured on a 7-point scale with only the end points labelled as ‘Very disloyal’ and ‘Very loyal’

All the questions were close ended, with a very few having an open ended option. There was no open-ended question asking for opinion from the respondents. A sample blank questionnaire used for the present study is provided in Appendix 2.
2.5.5 Data operation

After completion of collection, data was coded using a structured code sheet (Please refer to the Appendix 3 for the code sheet). Data was entered then into a SPSS spreadsheet for further statistical analysis. Before running statistical tests, non-responses were recoded as system missing. Besides, age data were recoded to the interval’s mid point.

2.5.5.1 Calculating the cumulative loyalty score

As mentioned earlier, data was collected by using the scale of loyalty measurement, which contained 28 items. Though for determining the applicability of the scale on grocery industry, statistical test, like factor analysis, was conducted on the data, a ‘Cumulative loyalty score’ was also calculated by adding a respondent’s rating on all 28 items of the scale to get a derived overall loyalty score from each respondent. Most of the statements in the scale is structured is such a way that it asks about attitude, intention or behaviour regarding grocery shopping or shopping in Canadian Superstore. The higher the rating is on a 7-point scale on these statements, the higher is the probability of being more loyal to the store. However, some of the (9 out of 28) statements in the scale are formed in such a way that they measure loyalty in negative way. For example, one statement is “Canadian Superstore, as a choice of grocery store, has not worked out as well as I thought it would”. So a rating of strongly agree would count as negative towards measurement of loyalty. So the responses of these 9 statements were recoded before adding them up with other ratings for ‘Cumulative loyalty score’. The percentage value of the cumulative loyalty score was also calculated for further analysis.

2.6 Analysis

The following statistical analysis was conducted for testing the hypotheses. .
1. Factor analysis with the Principal Component method was applied on the data gathered by using the loyalty scale to determine the scale's applicability and find out whether the four different stages proposed by Oliver (1999) exist in the retail grocery industry or not.

2. To measure the reliability of the scale, Cronbach alpha value was derived by using SPSS.

3. To measure the convergent validity of the scale, correlation between the scale item scores and overall loyalty was conducted.

Besides, one sample t-test, independent sample t-test, paired sample t-test, cross tabulations, correlations and regression analyses was conducted among the behavioural variables and with the scale item data to develop understanding on the interdependence between behavioural dimension and the scale's measurement of loyalty.

A detail analysis of the findings from these statistical tests is presented in the next section.
3 FINDINGS OF THE STUDY

3.1 Respondents' profile

Out of the 100 respondents, all of whom were graduate or postgraduate students of Simon Fraser University, majority were on Visa (48%). Nearly another 20% were either permanent resident or landed immigrant. Thus, nearly 70% of the respondents were not Canadian citizens and were from multicultural background. The sample was thus pretty representative of the Canadian diverse population. Detail data on respondent’s status in Canada is given in Appendix 4.

The majority (57%) were female respondents and young in age. Nearly 85% of them were from 21 to 30 years of age bracket. More than 65% mentioned that they do not own a vehicle. Please refer to Appendixes 5, 6 and 7 for detail information on respondent’s profile.

3.2 Grocery shopping habit of the respondents

3.2.1 Frequency of grocery shopping

When the respondents were asked how frequently they went for grocery shopping in last six months, majority (53%) of them mentioned that they went at least once a week. However, 87% of the respondents in the study mentioned about going to grocery shopping at least once in two weeks or more. Thus it is evident that, the respondents are quite frequent shoppers. Please refer to Appendix 8 for more information.

3.2.2 Amount spent on grocery shopping in a typical month

The average amount spent by the 100 respondents of the study on grocery in a typical month was nearly 215 CAD. However, majority spent around 100 to 210 dollars per month
during last six months. The study also included some heavy shoppers, who spend around 400 CAD on grocery per month. Please refer to Appendix 9 for more information.

3.2.3 Most visited grocery store

Majority (73%) of the respondents mentioned that they went to either Canadian Superstore (38%) or Safeway (35%) most for grocery shopping in last 6 months. Though it is obvious that those (35% of the respondents), who went to Safeway most of the times, also went to Superstore, as they would not have been considered eligible for the study if they did not shop in Canadian Superstore. However, out of the 38 respondents who went to Superstore most, only 24 mentioned that they also went to Safeway for grocery shopping during this period in a typical month. Thus, it is evident that the shoppers of Canadian Superstore were less interested to split their share of wallet into Superstore and Safeway.

The rest 25% of the respondents mentioned about other grocery stores in the shopping mall or other convenience stores as their most visited store in last 6 month for grocery shopping. Please refer to Appendix 10 for detail information.

A cross tabulation was conducted between ‘The most visited grocery store’ and ‘Respondent’s status in Canada’ to see whether selection of grocery store was independent of respondent’s status or not. It was revealed that the two variables are not independent. Thus, it can be inferred that the selection of grocery store is dependent on the person’s status in Canada. The data also showed that the ratio of respondents holding different status (Citizen, Permanent resident or visa) was very similar among shoppers of Canadian Superstore and Safeway. Please refer to the tables in Appendix 11 for details.

3.2.4 Preferred grocery shopping time

When the respondents were asked about their preferred grocery shopping time, majority (52%) mentioned that they mostly went for grocery shopping during weekends. On the other
hand, only 18% mentioned that they went for grocery shopping on their way back from school/work. However, it should be kept in mind that a big portion of the data was collected from respondents, who live on campus of Simon Fraser University and there is no convenience store on campus from where they can buy their grocery. This may lead majority (82%) of the respondents to go for grocery during weekend or any other time they find suitable. So, it is possible that this data would be totally different for a sample that is not drawn from students only. The table in Appendix 12 provides detail information.

3.3 Respondents' shopping pattern in Canadian Superstore

As already mentioned above, the Canadian Superstore was found to be the most visited grocery store (mentioned by 38%) among the respondents of the study. The other information collected in the study on shopping pattern to Superstore is summarized below.

3.3.1 Share of wallet of Canadian Superstore

The study collected information on share of grocery spending to different stores in a typical month. It was found that only 3 respondents out of 38, who shop most in Canadian Superstore, did not split their grocery budget into a portfolio of stores and thus spent the 100% in Canadian Superstore. However, 14% of all respondents mentioned that they spend 80% or more their grocery budget in Superstore. On the other hand, 40% of the respondents claimed that they spend 25% or even less of their shopping budget in Superstore. Thus, the proportion of respondents being true loyal in terms of share of wallet was found much lower than that of split loyal. When the same proportions were calculated for Safeway, it was found that 11% of all the respondents spend 80% or more of their grocery budget in Safeway. On the other hand, 34% of them claimed to spend 25% or less of their budget in Safeway. Though Canadian Superstore was found to have higher proportion of split loyal, a pared sample T-test was conducted to determine whether the share of wallet for Canadian Superstore was significantly different from that of
Safeway or not. The statistical test indicated that at 95% level of confidence, the average amount spent by the respondents on Canadian Superstore (32.52% of monthly grocery budget) and Safeway (41.62% of monthly grocery budget) was not significantly different from each other. However, a separate paired sample t-test was conducted between share of wallet of Superstore and each of the different types of stores. None of them were found to have a significantly different share of wallet than Superstore. This paper only shows the statistical output of one test conducted with Safeway's data. Please refer to Appendix 13 and 14 for detail analysis.

ANOVA test was also conducted using the Univariate General Linear model between ‘Share of wallet’ of Canadian Superstore and ‘Frequency of grocery shopping’ to determine whether share of wallet for the store was influenced by the shopping frequency or not. Statistical test did not reject the null hypothesis of equal mean share of wallet at different frequency of shopping. Thus no relation between the two variables was found. Please refer to the Appendix 15 for detail analysis.

3.3.2 Length of relation/ Continuity of purchase

Nearly 56% of the respondents mentioned that they have been to Canadian Superstore in last 2 weeks or even earlier. When they were asked when they have first been to the store, the average length of relation was found to be around 27 month (2.25 years). Though the study found respondents who have been shopping in superstore for last 10 years, the proportion of such respondents were found very low. Only 7% of the respondents claimed that they have been shopping to Superstore for last 5 years or more. Please refer to Appendix 16 for detail analysis.

3.3.3 Frequency of visit to Canadian Superstore

The average number of visit paid to Canadian Superstore for grocery shopping was found quite low. The respondents were asked to indicate a number from 1 to 10 to represent the frequency of shopping in Superstore in last 6 months. The average was found 4.67%, which is
not even 50% of the times. This again indicates that the percentage of split loyal of Canadian Superstore is quite high.

One sample t-test was conducted to test whether the average frequency of visit was significantly below 50% (5 times out of 10). Statistical test indicated that the mean (4.61) was not significantly below 50% (i.e. 5.0). However, it was significantly below 60%, which indicates going to Superstore 6 times out of 10. Only 32% of the respondents mentioned that they went to Canadian Superstore 6 times or more out of 10 grocery trips in last six months. Detail statistical analysis is provided in Appendices 17 and 18.

3.3.4 Average spending at each grocery trip to Superstore

The average amount spent at each trip to Superstore by the respondents of this study was found to be around 52 CAD, which is moderate for students. However, 15% of the respondents mentioned that they spent 100 CAD or more at each time they have been to superstore. When the frequency of grocery shopping of these 15% was checked, it was found that they went for grocery shopping once is every 2 weeks to once a month. Nearly 10% of them also mentioned they go to Superstore most for grocery. Because of this lower frequency of grocery shopping and higher share of the store in wallet, the average spending at each trip was found higher for these respondents (Please refer to Appendix 19).

However, an ANOVA test was conducted using the Univariate General Linear model between ‘Average amount spent each time at Canadian Superstore’ and ‘Frequency of grocery shopping’ to determine whether the amount spent at each trip was influenced by the shopping frequency or not. The null hypothesis of equal mean amount spent at different frequency of shopping could not be rejected by the statistical test. Thus, it can be inferred that though the data showed that the respondents spending higher amount each time were less frequent grocery
shopper, the relation between these two variables was not significant. Please refer to the Appendix 20 for detail analysis.

3.3.5 **Reason for selecting Superstore for grocery shopping**

The respondents were given a pool of reasons from where they are asked to rank the 3 most important ones. They also had option to add a reason in the pool and rank it if it was not there. Many times, it is assumed that the grocery stores are chosen on the basis of location convenience. However, it was interesting to note that the two most important reason of selecting Superstore was found to be price and variety of products and not location convenience. Out of 100, 94 respondents mention that they go to Superstore for reasonable price of its products. Of these 94 respondents, 67 ranked ‘Reasonable price’ as the 1st reason (rank 1) for selection. And another 21 mentioned it as the 2nd most important reason. On the other hand, ‘Variety of products’ was mentioned by 80% of the respondents as a reason for selecting Superstore. Of them, 52% mentioned it as the second most important reason. Location convenience related factors, like ‘On my way to home/work/school’ or ‘Close to my home’ gained only limited response. These were mentioned, as a reason for selection (any rank), by 18% and 23% of the respondents, respectively. However, ‘Close to bus stop or sky train station’ gained 33% response as a reason for selection (any rank). Of them, 24% mentioned it as the 3rd most important response. Nearly one fifth (21%) of the respondents did not mention about any ‘3rd most important reason’ as they did not have any (please refer to Appendix 21 for the summarized table).

A number of statistical test were conducted to explain the reason behind such data. As nearly 70% of the respondents were either on visa or permanent resident, and were from different ethnicity and cultural background, the variety of products were quite important for them to have their own cuisine. The Superstore has a very wide variety of products starting from Asian spices to real Canadian food. It was already found that the most visited grocery store was influenced by
respondent’s status in Canada. Another cross tabulation was now run to find out whether the
variation in reason for selection was dependent on the respondents’ status in Canada or not. The
chi-square test could not prove any significant interdependence between the two variables (Please
refer to Appendix 22). However, it was revealed that higher percentage of the Citizens and
Immigrants selected Superstore (ranked as the most important reason) for ‘Reasonable price’,
whereas higher percentage of the visa students selected the store for ‘Variety of products’, though
these findings were not statistically significant.

Cross tabulations were also conducted to find out whether the ‘Reasons for selecting
Superstore’ had any interrelationship with ‘Ownership of vehicle’. It was found that though
respondent’s ownership of vehicle did not have any influence on the most important reason (rank
1) for selection, it had significant influence on the selection of second and third most important
reason (rank 2 and 3). Thus the second and third most important reasons for selecting Superstore
were significantly different across respondents who owned and did not own a vehicle. If we
consider the third most important reason for selecting Superstore, it was found that ‘Variety of
products’ received highest response from vehicle owners, whereas ‘Close to bus stop or sky train
station’ received the highest response among those who did not own a vehicle. However, for the
second most important reason, the proportion of respondents not owning a vehicle mentioned
more about reasonable price and variety of products that those who did not own a vehicle. Please
refer to Appendix 23 for detail analysis.

Another very interesting insight was derived from cross tabulation. The ‘Ownership of
vehicle’ variable was found significantly different across different status holders (citizen,
permanent resident or visa holder). It was found that rate of ownership of vehicles was much
higher among citizens than among visa holders or permanent residents. Thus, though the
respondent’s status in Canada was not found significantly related with his/her reasons for
selecting Superstore, the reason were found interrelated with ownership of vehicle and ownership
of vehicle in turn was found related with respondents' status in Canada. The interrelationships are shown in the diagram below:

**Figure 2 Interrelationship between 'Reason for selecting Superstore', 'Ownership of vehicle' and 'Status in Canada'**

The statistical output of the above mentioned cross tabulations are given in Appendix 24.

### 3.3.6 Intention to switch from Canadian Superstore

The respondents were given three different situations and asked about their intention to switch at each one.

In the first situation (situation 1), the respondents were asked whether they will switch to an alternate or reduce frequency of shopping at Canadian superstore, given the alternate store offers same quality of product and service. Out of 100, 89 respondents mentioned that they want to switch to the alternate store (Please refer to Appendix 25).

In the second situation (situation 2), the respondents were asked whether they want to switch to an alternate store, if the alternate store offers lower price for a month on their product, which is exactly of same quality as in Superstore. In this situation, 91% of the respondents showed their interest to switch to the alternate store.
In the third situation (situation 3), the respondents were asked, whether they will take an effort to come to a distance to shop in Superstore, if they move their home to a new location, no outlet of Superstore is found nearby and other convenience store are available in their locality. Out of 100, 76 respondents mentioned that they are not interested to take the effort to come to Superstore.

The above information indicates that the Superstore customers are, as a whole, very price sensitive, and less loyal. A number of statistical analyses were conducted to see whether the intention to switch or continue purchase in Superstore was related with other variables. The findings from the tests are summarized below:

1. A cross tabulation was generated on ‘Intention to switch’ in situation 1 and 3 and ‘Ownership of vehicle’ to see whether the intention to switch/continue was dependent on vehicle ownership or not. Though the situations cited about location convenience, response to the situation was not found significantly related to ownership of vehicle. Intention to switch was higher irrespective of respondent’s ownership of vehicle. Please refer to Appendix 26 for detail analysis.

2. A cross tabulation was generated to see whether respondent’s intention to switch varied with their most important reason to choose Canadian Superstore at the very first place or not. Similar result was found. The respondents’ intention to switch was not dependent on most important reason to choose Canadian Superstore for grocery shopping. Cross tabulation output for one situation is given as a sample in the Appendix 27.

3. The third cross tabulation was conducted to determine whether the intention to switch from Superstore differed with respondents’ ‘Most visited grocery store’ or not. The aim was to find out whether the intention to switch was different if Canadian Superstore was not the most visited store by the respondent. Interestingly, it was found that the intention to switch differed significantly among respondents with different ‘Most visited grocery
store' in situation 2. This situation asked about intention to switch if a lower priced alternative was found for a month. It was found that the customers, who visited Safeway most, were more inclined to switch in situation 2 than customers, who visited other stores most. Thus, it can be inferred that customers’ intention to switch differs significantly depending on where they shop most of the time. However, no significant interdependence was found in case of situation 1 and 3. The Appendix 28 shows detail analysis on situation 2.

3.3.7 Overall loyalty to Superstore

The loyalty of the respondents to Superstore was measured in two ways. They were:

1. By asking the respondents about their overall loyalty towards Superstore on a 7-point scale. Thus, this was more of perceived loyalty by the respondents, rather than actual loyalty measured by using any scale.

2. By using McMullan and Gilmore’s (2003) scale, with 28 items in it. This measured the actual loyalty. Thus, in order to measure the actual loyalty, a ‘cumulative loyalty score’ (both in absolute number and percentage) was calculated by using the procedure mentioned in Data operations section of the paper. Though the scale’s applicability was measured later by factor analysis, this cumulative score gave an overall understanding of the loyalty of the respondents towards Canadian Superstore.

The study indicated that the respondents perceived themselves as quite low in loyalty towards Superstore. The mean overall loyalty score by the respondents was found to be around 3.5 out of 7 (Please refer to Appendix 29). A one-sample t-test was conducted to see whether the mean was significantly different from the scale’s midpoint (i.e. 4 on a 7-point scale). Statistical test showed that the mean was not equal to the mid point (Please refer to Appendix 30). Thus, the
mean overall loyalty was significantly below the scale’s mid point and the overall perceived loyalty was quite low.

When the percentage cumulative loyalty score was considered, the average was found to be around 60% (Please refer to Appendix 31). The distribution of loyalty score was very close to normal distribution. One sample t-test was conducted to determine whether the average score was significantly higher than the mid level, which is 50%. Statistical test showed that the average cumulative percentage score was significantly different from 50% and it was higher (Please refer to Appendix 32).

A number of statistical tests were conducted with these two variables. The following section summarizes them.

1. An independent sample t-test was conducted between the overall perceived loyalty and the intention of respondents to switch at different situations. As already mentioned above, the respondents were given 3 different situations and were asked about their intention to switch. Independent sample t test was conducted on each situation to see whether the overall loyalty varied with intention to switch.

It was found that the overall perceived loyalty varied significantly among respondents with their intention to switch in situation 2 and 3. No significant interrelationship was found in situation 1. Although a very insignificant proportion (only 9%) of the respondents denied that they would switch, even if a lower priced option is available for a month (in situation 1), the mean overall loyalty of this small group was significantly higher than those majority (more than 9%), who wanted to switch. Same result was found when the independent sample t test was conducted between ‘Cumulative percentage loyalty score’ and ‘Intention to switch’ in situation 2. Similar result was also found in case of situation 3. Again, a smaller proportion of the respondents (24%) mentioned that they would take an effort to come to a distance to shop at Canadian Superstore (situation
3). The overall loyalty of this group to Canadian Superstore was found significantly higher than those, who refused to take an effort to go to Superstore. Same result was found when the test was carried out on ‘Cumulative percentage loyalty score’ and ‘Intention to switch’ in situation 3. Please refer to Appendix 33 for detail analysis.

2. Univariate ANOVA test was conducted between ‘Overall loyalty’ and ‘Most visited grocery store’ to see whether the overall loyalty varied with Canadian Superstore being or not being the most visited store. It was found that the mean overall loyalty was found significantly different across different ‘Most visited store’ and it was significantly higher among those respondents, who visited Canadian Superstore most for grocery shopping. Thus, it can be inferred that the overall loyalty was found dependent on the respondent’s choice of most visited store. Same result was found when the test was run on cumulative percentage loyalty score. Please refer to Appendix 34 for detail analysis.

3. Univariate ANOVA was also conducted to see whether the ‘Overall loyalty’ varied with different ‘Most important reason for choosing Superstore’. The test showed that there was no significant interdependence between these two variables. Similar result was found in case of ‘Cumulative percentage loyalty score’. Please refer to the Appendix 35 for detail analysis.

4. Correlation value was derived to see whether respondents’ ‘Frequency of visit to Canadian Superstore’ was correlated to their ‘Overall loyalty’ to the store. The test of correlation showed the two variables were correlated with each other. It was found that the variables had moderate positive correlation (from Pearson correlation value of 0.602) with each other. Thus, increase in frequency of visit to Canadian Superstore led to higher level of loyalty among respondents. Similar result was found when the test was conducted with ‘Cumulative percentage loyalty score’. However, the strength of
correlation (expressed by the Pearson Correlation value of 0.457) was found comparatively lower with this variable. Detail analysis is given in Appendix 36.

5. Correlation test was also conducted between ‘Share of wallet’ for Canadian Superstore and the respondents’ loyalty rating. Significant positive correlation was again found between these two variables. Thus, the loyalty to Canadian Superstore varied positively with the respondents’ share of wallet of respondents for the store. Same result was found when the correlation test was run with ‘Cumulative percentage loyalty score’. However, as before, the correlation with ‘Overall loyalty’ was found stronger (0.677) than that with the ‘Cumulative percentage loyalty score’ (0.59). Please refer to the Appendix 37 for detail analysis.

6. Similar correlation test was also conducted between ‘Length of relation’ with Canadian Superstore and ‘Overall loyalty’ to determine whether continuity of purchase for a longer period of time led to a higher level of loyalty or not. The test did not reveal any significant correlation between the two variables, though the Pearson correlation value showed negative relationship (-0.157) between the variables. Thus, the loyalty seemed to go down with longer relationship with the store among the respondents of the study. However, this relation was not significant. Similar result (-0.07) was found when the study was conducted with ‘Cumulative percentage loyalty score’. Please refer to the Appendix 38 for detail analysis.

7. The last correlation test on ‘Overall loyalty’ was conducted with ‘No of stores patronized’ in a month to determine whether the overall loyalty of the respondents varied with the number of stores they patronize each month. It was found that the ‘Overall loyalty’ of the respondents had a significantly negative correlation with the ‘No. of stores patronized’. Thus, the overall perceived loyalty went down with increasing number of stores patronized by the respondents. It was also found that on an average, the
respondents patronized around 3 stores in a month for their grocery shopping. The Appendix 39 shows detail analysis.

3.4 Applicability of McMullan & Gilmore’s (2003) scale in retail grocery industry

The applicability of the scale was tested by conducting factor analysis on the item scores. As already mentioned, the scale had 28 items to measure each of the 4 different stages in loyalty development process and each item was measured on a 7-point scale. A factor analysis was run to determine whether all 4 different stages of loyalty development were evident among the customers of Superstore. The KMO and Bartlett’s test derived a sig. value lower than 0.05 at 95% level of confidence and thus suggested a factor analysis on the data (Please refer to Appendix 40 for detail analysis). The test also derived a moderate correlation value of nearly 0.6 among the items. The component matrix derived 10 factors with eigenvalue over 1, and they all together explained 76% of the variance in the data. Thus, the existence of 4 levels of loyalty development was not clearly evident. Varimax Rotation was specified in order to increase the interpretability of factors. Factors were rotated to maximise the loadings of some of the items and to identify the conceptual meaning of the factors. However, even the rotated component matrix derived 10 underlying factors from the 28 items. Majority of the items did not even have a very high loading value to the components in rotated matrix. Out of the 28 items, only 11 items had loading value around 0.7 or 0.8 to the identified factor in rotated component matrix. There were also some overlapping variables, which did not have acceptable loading (0.5 or above) in any of the 10 factors. Thus it shows that the data generated form the scale did not clearly have any underlying factor, which can be identified as the different levels of loyalty development. This was more clarified when the items under each factor was studies from the rotated matrix. None of the factors included items from a single stage of loyalty. Rather each of them had a mix of items measuring different stages. When the item list under each component was studied closely, no
particular pattern could be identified from the list. The components did not even combine items on the basis of sustainers or vulnerabilities of the loyalty development stages. For example, in component 2 of the factor output, items like ‘I would change the grocery store, if the alternative store offered increased status for me/suits more with my self-image’ and ‘Canadian Superstore is a store I can talk about for a long time’ coexisted. Please refer to Appendix 42 for detail analysis.

Factor analysis was run again excluding the variables, which had overlapping low loading in more than one factor (Please refer to Appendix 41 for detail analysis). However, the result was not improved much. The test generated 7 factors after rotation, which all together explained around 67% of the variance in the data. Though the item-factor correlation was found much better after exclusion of these variables, the derived factors did not prove any incidence of any of the 4 stages of loyalty development process. Analyzing the items under each factor made it clearer. Again no one factor had a loading of items measuring a particular stage. Each of then had a set of item from very different stages (Please refer to Appendix 42).

For further assurance, four cumulative loyalty score for each stage of the loyalty development process was calculated (by adding the ratings of the statements measuring each stage) for each respondent to find any pattern of loyalty development. In literature, the loyalty development process was suggested to have 4 consecutive levels, which maintained order. Thus, it is assumed that it is not possible for a customer to achieve the conative or action loyalty stage of the process, without achieving intensity of loyalty in previous stages. The cumulative loyalty score calculated for each customer suggested that such order was not very clear in the data. There were customers, who scored only around 40% in cognitive or affective stage, but had a very higher score of around 85% on items measuring action loyalty. This shows an inconsistency with the model and supports the inappropriateness of the scale for this sample.
3.5 Measure of reliability

Though the scale could not identify any of the four stages of loyalty distinctively, reliability test was conducted on the items. Cronbach alpha value was derived to measure reliability of the scale. The test showed that alpha value was not very high (0.66) showing a poor reliability of the scale. Thus the scale was not found very reliable for the industry. Reliability of the factors derived was not calculated any more, as the factor analysis could not give any clear indication of dimensionality of the scale. Please refer to the Appendix 43 for detail information.

3.6 Measure of validity

Statistical test was also conducted to measure the validity of the data. Convergent validity of the scale was measured by deriving the correlation value between the item scores and the ‘Overall loyalty’. To calculate the correlation value between the scale items and ‘Overall loyalty’, the cumulative loyalty score was considered. The statistical test showed significant correlation of the item’s score with ‘Overall Loyalty’ (Please refer to Appendix 44 for detail analysis).

However, in absolute terms, the Pearson correlation was not found very high (0.6). In conclusion, the correlation test though indicates positive measure of validity; the previous analysis and the low correlation value did not support the scale as a valid measure of loyalty for grocery industry.

3.7 Summary of the findings

1. Majority of the respondents shopped at either Superstore or Safeway most during last 6 months. However, selection of most visited grocery store was found to be dependent on respondent’s status in Canada. The present study had a high concentration of visa students and immigrants.

2. Majority (more than 95%) of the respondents were split loyal and shopped at a portfolio of stores, rather than going to a single one all the time
3. Share of wallet and average spending at each trip to Canadian Superstore was not found dependent on the respondent's frequency of grocery shopping.

4. Reasonable price and variety of products were found to be the two most important reasons for choosing Canadian Superstore for grocery shopping.

5. Reason for choosing Superstore was found dependent on respondent's ownership of vehicle. Ownership of vehicle was again found dependent on respondent's status in Canada. However, the reason for choosing Superstore did not have any significant relation with respondent's status in Canada.

6. Majority of the respondents expressed positive intention to switch from Canadian Superstore to an alternative, if lower price and/or more convenient location are offered by the alternative. However, it was found that the intention to switch differed significantly across different 'Most visited grocery store' in situation 2, where lower price alternative was made available. Respondents visiting Safeway most was found to be more inclined to switch to alternative, if reasonable price was offered.

7. Overall loyalty towards Superstore was found quite low. However, the overall loyalty was found significantly correlated with the following variables

- Respondents' intention to switch in different situations.

- Customers' choice of the 'Most visited grocery store'. (Customers who visited Canadian Superstore most were found to have a significantly higher loyalty than those who did not go to Superstore most.)

- Frequency of visit to Canadian Superstore (found positive correlation)

- Share of wallet for Canadian Superstore (found positive correlation)

- No. of stores patronized in a month for grocery shopping (found negative correlation)
8. The four different stages of loyalty could not be identified distinctively after repetitive factor analysis. Thus the first two hypotheses on distinctive existence of the 4 levels of loyalty were rejected. The third hypothesis on determining the size of each level of loyalty was also rejected, as the four levels could not be identified from the data.

9. The scale was not found reliable for retail grocery on the sample comprising of graduate and postgraduate students.

10. The scale item values had a significant correlation with overall loyalty supporting convergent validity of the measure. However, the correlation was not found very high and the scale could not identify any of the 4 levels of customer loyalty development process.
4 IMPLICATION AND FUTURE RESEARCH

4.1 Implication and conclusion

In the literature, it was found that behavioural measures of loyalty are not comprehensive enough to capture the 'loyalty' construct most effectively. Thus scholars are reviewing the existing measures of loyalty and working hard to find a comprehensive measure, which encompass both behavioural and attitudinal dimension of loyalty. However, it should be kept in mind that the appropriateness of each dimension is not the same across all industries. The findings in this study revealed that the behavioural dimensions were more relevant and qualified measures of loyalty that attitudinal dimension or a composite measure. When the relationship between overall loyalty and the behavioural dimension was measured, it was again found that the behavioural measures like past purchase behaviour, share of wallet, frequency of visit could measure the loyalty in the same direction showing a high correlation. On the other hand, the composite measure proposed by McMullan and Gilmore (2003) could not identify the levels of loyalty in the sample.

It was also evident from the data that loyalty among grocery shoppers is very rare. Most shoppers distribute their grocery shopping budget among a set of grocery stores. When the respondents were asked about their intention to switch from Superstore, majority of them showed intention to switch, if a competitor offers better price or more convenient location. Even those, who had a quite high proportion of share of wallet devoted to Superstore, did not want to continue purchasing from Superstore. Though overall loyalty was found significantly correlated with respondents' intention to switch and their share of wallet, very insignificant proportion of the respondents were found highly loyal to superstore and denied to switch even when better alternation is found in terms of price and location. These findings deliver two understanding
1. It is probably not possible to develop a higher level of loyalty among customers in retain grocery industry.

2. Even if higher loyalty is not possible to develop, it is evident from the findings that the behavioural measures of loyalty (e.g. share of wallet, intention to switch, frequency of visit) are capable of capturing the ‘loyalty’ construct comprehensively as there is little or no role of the attitudinal dimension to develop loyalty in retail grocery industry.

The literature review revealed that true loyalty is developed through commitment and thus loyalty should be measured by measuring brand commitment. As already mentioned, ESOMAR (European Society of Marketing and Research) suggests that brand commitment should be measured on the basis of 4 factors – customer need, involvement in the category, attraction to alternatives and intensity of ambivalence to change. If we consider the findings of the current study it is clear that none of these factors are present for grocery industry. Let's consider one by one:

1. The customer need is not very clear for grocery industry. When the respondents were asked why they chose Canadian Superstore, they hardly mentioned about quality of the product or service. Rather the reasons were reasonable price and variety of products. When price is one of the needs to be fulfilled, it is hard to develop commitment with one supplier.

2. The involvement with grocery shopping was also not found very high. It should be mentioned that the study did not include any measure for determining the level of involvement. However, if ratings on two items on the scale are considered, some idea might be gained. The items are: “It is important that when choosing a grocery store, I make the right choice from all the options available” and “When choosing a grocery store, I compare prices of different grocery stores to be sure I get the best value for money”. Around 40% of the respondents had a rating of 4 or even lower on a 7-point
scale with 1 labelled as 'Strongly disagree' and 7 labelled as 'Strongly agree'. This indicates that the respondents probably do not prefer to spend a lot of time to evaluate the alternatives available to get the most value out of the money. This indicates a low involvement from the consumer's side.

3. Attraction to alternatives and intention to switch were highly evident, when the respondents were given different situations. Besides, high attraction to alternatives is also evident from their split loyalty. Majority of the respondents patronize a number of stores each month for grocery shopping. Data showed that 73% of the respondents patronize 3 to 6 stores each month for grocery.

Thus it is evident from the above analysis that brand commitment might not be possible to develop among the customers of grocery stores because of their low involvement and high attraction to alternatives. It also indicates that measuring loyalty from brand commitment might not be the most appropriate approach for this particular industry. The scale proposed by McMullan and Gilmore (2003) takes such an approach. It might not be appropriate to conclude that the scale is not a composite one or an effective one. Rather, it is important to judge the industry's characteristics first and decide whether such a composite measure is at all needed or not. Literature also suggested that in markets, where there is high switching and low involvement, behavioural measures are found more appropriate to measure loyalty. This was proved in this study as well. However, if one or two players dominate the market, behavioural measure may give wrong indication. But the retail grocery industry in Vancouver is highly fragmented. Thus, such possibilities might also be discarded. To conclude, it is evident that more research needs to be done in different industries to determine the effectiveness of the scale proposed by McMullan and Gilmore (2003). However, it is evident that retail grocery industry has some particular characteristics, which allows behavioural measures to deliver better measure of loyalty.
4.2 Limitations of the study

The present study had a number of limitations. They are listed below:

1. Though the scale was not proved appropriate for the retail grocery industry. It was not properly adopted as well. The scale, developed by the scholars, was initially applied on the customers of a restaurant dining club. When the scale was adopted for this research, it just replaced the word ‘restaurant’ with ‘grocery store’ from the item list and had very limited adaptation. This might be one of the reasons for the scale’s ineffectiveness in this study. When the scale was used once again in a different industry by McMullan (n.d), the item list was thoroughly reviewed for adaptability to the selected industry and extensive qualitative research was conducted before using it in the questionnaire. As an academic project, such extensive work was out of the scope for this research.

2. Another major limitation of the study was its sample. Data was collected on only one store. Thus, the findings might be relevant to the customers of Canadian Superstore only. The sample was also a convenience one, with 100% of them being student. Besides, majority of them are residents of a particular campus. Thus, there might be some kind of biasness in the findings due to this convenience sampling.

4.3 Future research

A number of concerns were raised by this study, which needs to be clarified through future research. They are as follows:

1. It is important to understand now whether ‘true’ loyalty is at all possible to develop among customers of retail grocery. It is also important, at the same time, to define loyalty for retail grocery customers and determine whether loyalty is repeat purchase or any particular attitude towards the store. Studying the factors that drive loyalty might help to resolve this question. The present study gave an indication that split and superficial
loyalty, based on price and convenience, is one of the most evident characteristics of
retail grocery industry. However, extensive study on larger samples is necessary to reach
this conclusion.

2. It is also important to understand whether attitudinal measure of loyalty is at all needed
for all the industries or not. If not, then what particular characteristics the industry should
posses to apply attitudinal dimension and a more composite measure of loyalty? Studies
should be conducted across different industries to understand the importance of
behavioural and attitudinal dimension for loyalty measurement.

3. It is true that the scale was not found appropriate for grocery industry. However, more
extensive qualitative research should be conducted for adapting the scale for retail
grocery and then apply it again on the customers of more than one grocery store to reach
a decision about its applicability in the industry.

However, it is also worth to ask whether any standardized composite measure is possible
to develop, which will need minimum adaptation for application across industries. In
business world, a measure, which requires extensive research to adapt into an industry,
might not be an attractive one to the managers due to higher cost, time and lack of
specialized knowledge/skill of corporations to adapt the scale each time.
APPENDICES

Appendix 1: The sample scale of loyalty development measurement proposed by McMullan & Gilmore (2003)

The following is a sample of the proposed scale used on the customers of a restaurant-dining plan (The scale was used by kind permission of the author Dr. McMullan)

Pilot loyalty scale

<p>| | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>C.1</td>
<td>I understand the features of Restaurant X well enough to evaluate it against other restaurants</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C.2</td>
<td>It is important that when choosing to eat out, I make the right choice of restaurant</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A.3</td>
<td>Restaurant X is a restaurant that interests me</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C.4</td>
<td>When deciding on a restaurant, I am not interested in bargain-seeking</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C.5</td>
<td>When choosing a restaurant, I compare prices of different restaurants to be sure I get the best value for money</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C.6</td>
<td>Restaurant X has up-to-date equipment</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C.7</td>
<td>Restaurant X's facilities are visually appealing</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A.8</td>
<td>Restaurant X is exactly what I need from a restaurant</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A.9</td>
<td>Restaurant X as a choice of restaurant has not worked out as well as I thought it would</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AC.10</td>
<td>If I could do it over again, I'd choose an alternative restaurant to Restaurant X</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CO.11</td>
<td>I truly have enjoyed dining in Restaurant X</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A.12</td>
<td>Restaurants should not be expected to give customers individual attention</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A.13</td>
<td>Restaurant X is a restaurant that I could talk about for a long time</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A.14</td>
<td>I have a preference for Restaurant X in this locality</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CO.15</td>
<td>Restaurant X is more than a mere restaurant</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CO.16</td>
<td>I would try an alternative restaurant if it was 25% less expensive than Restaurant X</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CO.17</td>
<td>I would try an alternative restaurant if the alternative restaurant offered increased facilities than Restaurant X</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CO.18</td>
<td>I would change restaurant if the alternative offered increased status</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CO.19</td>
<td>I would change restaurant if the alternative's staff were more friendly</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AC.20</td>
<td>When I see a new restaurant somewhat different from the usual, I investigate it</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AC.21</td>
<td>I usually dine in the same restaurant within a locality</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A.22</td>
<td>Dining in Restaurant X says a lot about who I am</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CO.23</td>
<td>I care a lot about Restaurant X</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CO.24</td>
<td>I consider myself to be highly loyal to Restaurant X</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CO.25</td>
<td>I would get tired of eating in Restaurant X every time I eat out</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AC.26</td>
<td>When I go to a restaurant, I feel it is safer to order dishes I am familiar with</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AC.27</td>
<td>If I like a restaurant, I rarely switch from it just to try something different</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AC.28</td>
<td>I get bored with buying the same brands even if they are good</td>
<td>1 2 3 4 5 6 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 = strongly disagree, 2 = moderately disagree, 3 = disagree, 4 = no opinion, 5 = agree, 6 = moderately agree, 7 = strongly agree. C = cognitive item, A = affective item, CO = conative item, AC = action
Appendix 2: Questionnaire

Measuring Loyalty to Canadian Superstore

Questionnaire

Dear Participant,

Good morning/afternoon/evening. Thank you for taking your time to participate in this survey. This survey is part of the SMBA research project at Simon Fraser University, under the supervision of Dr. Gary Mauser.

The study is about grocery shopping at Canadian Superstore. The questionnaire is voluntary, confidential and anonymous. The participants should be post graduate and graduate level students of Simon Fraser University, who have shopped for food items at any outlet of Canadian Superstore in last 60 days for personal consumption. There is no right or wrong answer. Your valuable opinion on this subject would help me to identify the appropriateness of the selective measure used in this study.

I would like to assure you that your opinion will be kept strictly confidential and only aggregate results will be presented in the report. This survey is NOT for any commercial use.

If you have any comments or concerns, you may contact the supervisor of this project, Dr. Gary Mauser (mauser@sfu.ca). Completion of this questionnaire will be taken as consent to participate in this study.

I would appreciate if you kindly take a few minutes to fill out this brief questionnaire.

Thank you once again for your time and cooperation.

With regards,

Sutapa Aditya
MBA Candidate
Simon Fraser University

Participant's Eligibility: Have you been to any outlet of Canadian Superstore in last 60 days to buy any type of food item for your personal consumption?

☐ Yes  (Please Continue)
☐ No (Please got to the ‘Respondent’s Profile’ section at the end of this questionnaire in page 4)

Q1. During the past 6 months, how frequently did you go for grocery shopping (buying any kind of food item)?

☐ Twice a week or more  ☐ Once a week  ☐ Once in every 2 weeks
☐ Once is every 3 weeks  ☐ Once a month  ☐ Less that once a month
Q2. From which store did you buy most of your grocery in last 6 months?

☐ Canadian Superstore  ☐ Safeway
☐ Save on food  ☐ Costco
☐ Other grocery store in shopping mall  ☐ Other convenience stores

Q3. The following is a list of grocery stores. If you were given $100, how would you allocate it among these stores to represent your shopping pattern in last 6 months? (Please allocate $100 as such that the total is 100 when the amounts are added back)

Amount allocated

☐ Canadian Superstore
☐ Safeway
☐ Save on food
☐ Costco
☐ Other grocery store in shopping mall
☐ Other convenience stores

Total: $100

Q4. When did you last visit any outlet of Canadian Superstore to buy food item for personal consumption?

☐ In last week  ☐ In last 2 weeks  ☐ In last 3 weeks
☐ In last 4 weeks  ☐ In last 6 weeks  ☐ In last 8 weeks

Q5. When did you visit Canadian Superstore for the first time? Month/Year ____________________________

Q6. Suppose you went for grocery shopping (i.e. for buying any kind of food item, including snack and milk) 10 times, on an average, in each month during the last 6 months. How many times would you say you went to Canadian Superstore out of this 10 times for buying food items? (Please select the answer that best represents your frequency of grocery shopping at Canadian Superstore)

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
</table>

Q7. On an average, how much money did you spend during the last 6 months on grocery shopping in Canadian Superstore each time you went there? ____________________________ (Approx.)

Q8. If you think of grocery shopping in last six months, why did you go to Canadian Superstore? Which reasons are most important to you for selecting this store? (Please tick all applicable and rank only three most important ones)

☐ On my way to home/work/school  ☐ Reasonable price  ☐ Variety of products
☐ Close to my home  ☐ Close to bus stop or sky train station  ☐ Good quality of products
☐ Good service  ☐ Others (Please specify) ____________________________

Rank

Rank

Rank

Rank

Rank

Rank

Rank

Rank

Rank

Rank

Rank

Rank

Rank

Rank

Rank

Rank
Q9. The following table lists some statements to measure your attitude towards Canadian Superstore. Please circle the number that expresses your opinion best. (Please **DO NOT** consider Canadian Superstore as a departmental store for the time being and give your opinion considering it as a *grocery store* you visit. Please use the following scale and circle a number against each statement listed.)

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Moderately Disagree</th>
<th>Disagree</th>
<th>No Opinion</th>
<th>Agree</th>
<th>Moderately Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

- I understand the features of Canadian Superstore well enough to evaluate it against other grocery stores
- It is important that when choosing a grocery store, I make the right choice from all the options available
- Canadian Superstore is a grocery store that interests me/I consider for me for grocery shopping
- When deciding on a grocery store, I am NOT interested in bargain-seeking
- When choosing a grocery store, I compare prices of different grocery stores to be sure I get the best value for money
- Canadian Superstore has up-to-date equipment
- Canadian Superstore’s facilities are visually appealing
- Canadian Superstore is exactly what I need from a grocery store
- Canadian Superstore, as a choice of grocery stores, has NOT worked out as well as I thought it would
- If I could do it over again, I would choose an alternative grocery store to Canadian Superstore
- I truly enjoy grocery shopping in Canadian Superstore
- Grocery stores should NOT be expected to give customers individualized attention
- Canadian Superstore is a store that I can talk about for a long time
- I have a preference for Canadian Superstore
- The Canadian Superstore is more than just a grocery store for me
- I would try an alternate grocery store if it was 25% less expensive than Canadian Superstore
- I would try an alternative grocery store if the alternative store offered better facilities than Canadian Superstore
- I would change the grocery store, if the alternative store offered increased status for me/suits more with my self-image.
- I would change the grocery store, if the alternative store’s staff were more friendly
- When I see a new grocery store somewhat different form the usual, I investigate it
- I usually shop at the same grocery store within a locality

54
Grocery shopping in Canadian Superstore says a lot about who I am

<table>
<thead>
<tr>
<th>I care a lot about Canadian Superstore</th>
<th>1 2 3 4 5 6 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>I consider myself to be highly loyal to Canadian Superstore</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>I would get bored of shopping at Canadian Superstore every time I do grocery shopping</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>When I go to a grocery store, I feel it is safer to buy items that I am familiar with</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>If I like a grocery store, I rarely switch from it to try something different</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>I get bored with buying the same brand even if they are good</td>
<td>1 2 3 4 5 6 7</td>
</tr>
</tbody>
</table>

Q10. As a whole, how loyal do you consider yourself to Canadian Superstore?

<table>
<thead>
<tr>
<th>Very Disloyal</th>
<th>Very Loyal</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2 3 4 5 6 7</td>
</tr>
</tbody>
</table>

Q11. Please consider the following situations and give your opinion on your probable actions in each case.

A. If another grocery store opens a new outlet in a more convenient location for you than the current location of Canadian Superstore outlets where you go, and offers the same service and product, would you switch to that new grocery store OR reduce frequency of visiting to Canadian Superstore?

☐ Yes ☐ No

B. If another grocery store offers lower price (through discounts) for their product for a month and offers the same quality of product and service as Canadian Superstore, would you switch to that grocery store offering discount on that particular month?

☐ Yes ☐ No

C. If you shift your home to a different locality and you don’t find any Canadian Superstore nearby your new neighbourhood, would you take the effort to come to a distance to buy your grocery from Canadian Superstore even if you have other convenience stores in your locality?

☐ Yes ☐ No

Q12. During the last 6 months, when did you usually go for grocery shopping? Please rank the shopping patterns in terms of their occurrence in your life in a typical month during the last 6 months. (Please tick all applicable and rank the options according to the way they best describe your shopping behaviour)

Rank
☐ During weekend
☐ On my way back to home from school/work
☐ Whenever I find some time
Respondent’s Profile

In order to best interpret the responses you have provided, we’d like to know a few non-identifying characteristics of respondents. This information will be treated confidentially and will not be used to identify you.

What is your status in Canada?

☐ Citizen  ☐ Permanent Resident
☐ Landed Immigrant  ☐ On Visa

What is your gender?

☐ Male  ☐ Female

What is your age?

☐ 21 – 25 yrs  ☐ 26 – 30 yrs  ☐ 31 – 35 yrs
☐ 36 – 40 yrs  ☐ 40 & above

Do you own a vehicle?

☐ Yes  ☐ No

On an average, how much money did you spend on grocery shopping in a typical month, during the last 6 months period? CAD____________________ (approx.)

Thank you once again for your co-operation. Your input is extremely important.
Appendix 3: Code sheet

Participant's Eligibility: Have you been to any outlet of Canadian Superstore in last 60 days to buy any type of food item for your personal consumption?
1 = Yes
2 = No

Q1. During the past 6 months, how frequently did you go for grocery shopping (buying any kind of food item)?

6 = Twice a week or more
5 = Once a week
4 = Once in every 2 weeks
3 = Once is every 3 weeks
2 = Once a month
1 = Less that once a month

Q2. From which store did you buy most of your grocery in last 6 months?

1 = Canadian Superstore
2 = Safeway
3 = Save on food
4 = Costco
5 = Other grocery store in shopping mall
6 = Other convenience stores

Q3. The following is a list of grocery stores. If you were given $100, how would you allocate it among these stores to represent your shopping pattern in last 6 months? (Please allocate $100 as such that the total is 100 when the amounts are added back)

Q3A = Canadian Superstore
Q3B = Safeway
Q3C = Save on food
Q3D = Costco
Q3E = Other grocery store in shopping mall
Q3F = Other convenience stores

Q4. When did you last visit any outlet of Canadian Superstore to buy food item for personal consumption?

6 = In last week
5 = In last 2 weeks
4 = In last 3 weeks
3 = In last 4 weeks
2 = In last 6 weeks
1 = In last 8 weeks

Q8. If you think of grocery shopping in last six months, why did you go to Canadian Superstore? Which reasons are most important to you for selecting this store? (Please tick all applicable and rank only three most important ones)
1 = On my way to home/work/school
2 = Reasonable price
3 = Variety of products
4 = Close to my home
5 = Close to bus stop or sky train station
6 = Good quality of products
7 = Good service
8 = Location – in a shopping mall
9 = bulk products
10 = Good sales
Others (Please specify)

Ranking: Q8Rnk1, Q8Rnk2, Q8Rnk3

Q9. The following table lists some statements to measure your attitude towards Canadian Superstore. Please circle the number that expresses your opinion best. (Please DO NOT consider Canadian Superstore as a departmental store for the time being and give your opinion considering it as a grocery store you visit. Please use the following scale and circle a number against each statement listed.)

<table>
<thead>
<tr>
<th>Strongly Disagree</th>
<th>Moderately Disagree</th>
<th>Disagree</th>
<th>No Opinion</th>
<th>Agree</th>
<th>Moderately Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

Q91 I understand the features of Canadian Superstore well enough to evaluate it against other grocery stores
Q92 It is important that when choosing a grocery store, I make the right choice from all the options available
Q93 Canadian Superstore is a grocery store that interests me/I consider for me for grocery shopping
Q94 When deciding on a grocery store, I am NOT interested in bargain-seeking
Q95 When choosing a grocery store, I compare prices of different grocery stores to be sure I get the best value for money
Q96 Canadian Superstore has up-to-date equipment
Q97 Canadian Superstore’s facilities are visually appealing
Q98 Canadian Superstore is exactly what I need from a grocery store
Q99 Canadian Superstore, as a choice of grocery stores, has NOT worked out as well as I thought it would
Q10 If I could do it over again, I would choose an alternative grocery store to Canadian Superstore
Q11 I truly enjoy grocery shopping in Canadian Superstore
Q12 Grocery stores should NOT be expected to give customers individualized attention
Q13 Canadian Superstore is a store that I can talk about for a long time
Q14 I have a preference for Canadian Superstore
Q15 The Canadian Superstore is more than just a grocery store for me
Q16 I would try an alternate grocery store if it was 25% less expensive than Canadian Superstore
Q17 I would try an alternative grocery store if the alternative store offered better facilities than Canadian Superstore
Q918 I would change the grocery store, if the alternative store offered increased status for me/suits more with my self-image.
Q919 I would change the grocery store, if the alternative store’s staff were more friendly
Q920 When I see a new grocery store somewhat different form the usual, I investigate it
Q921 I usually shop at the same grocery store within a locality
Q922 Grocery shopping in Canadian Superstore says a lot about who I am
Q923 I care a lot about Canadian Superstore
Q924 I consider myself to be highly loyal to Canadian Superstore
Q925 I would get bored of shopping at Canadian Superstore every time I do grocery shopping
Q926 When I go to a grocery store, I feel it is safer to buy items that I am familiar with
Q927 If I like a grocery store, I rarely switch from it to try something different
Q928 I get bored with buying the same brand even if they are good

Q11. Please consider the following situations and give your opinion on your probable actions in each case.

Q11A. If another grocery store opens a new outlet in a more convenient location for you than the current location of Canadian Superstore outlets where you go, and offers the same service and product, would you switch to that new grocery store OR reduce frequency of visiting to Canadian Superstore?
1 = Yes
2 = No

Q11B. If another grocery store offers lower price (through discounts) for their product for a month and offers the same quality of product and service as Canadian Superstore, would you switch to that grocery store offering discount on that particular month?
1 = Yes
2 = No

Q11C. If you shift your home to a different locality and you don’t find any Canadian Superstore nearby your new neighbourhood, would you take the effort to come to a distance to buy your grocery from Canadian Superstore even if you have other convenience stores in your locality?
1 = Yes
2 = No

Q12. During the last 6 months, when did you usually go for grocery shopping? Please rank the shopping patterns in terms of their occurrence in your life in a typical month during the last 6 months. (Please tick all applicable and rank the options according to the way they best describe your shopping behaviour)
1= During weekend
2 = On my way back to home from school/work
3 = Whenever I find some time

Ranking: Q12Rnk1 Q12Rnk2 Q12Rnk3
Respondent's Profile

RPA  What is your status in Canada?
1 = Citizen
2 = Permanent Resident
3 = Landed Immigrant
4 = On Visa

RPB  What is your gender?
1 = Male
2 = Female

RPC  What is your age?
1 = 21 – 25 yrs
2 = 26 – 30 yrs
3 = 31 – 35 yrs
4 = 36 – 40 yrs
5 = 40 & above

RPD  Do you own a vehicle?
1 = Yes
2 = No
Appendix 4: Respondents’ status in Canada

<table>
<thead>
<tr>
<th>Status in Canada</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid Citizen</td>
<td>33</td>
<td>33.0</td>
<td>33.0</td>
<td>33.0</td>
</tr>
<tr>
<td>Permanent Resident</td>
<td>13</td>
<td>13.0</td>
<td>13.0</td>
<td>46.0</td>
</tr>
<tr>
<td>Landed Immigrant</td>
<td>6</td>
<td>6.0</td>
<td>6.0</td>
<td>52.0</td>
</tr>
<tr>
<td>On Visa</td>
<td>48</td>
<td>48.0</td>
<td>48.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Appendix 5: Gender of the respondents

<table>
<thead>
<tr>
<th>Gender of the respondents</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid Male</td>
<td>43</td>
<td>43.0</td>
<td>43.0</td>
<td>43.0</td>
</tr>
<tr>
<td>Female</td>
<td>57</td>
<td>57.0</td>
<td>57.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Appendix 6: Age of the respondents

<table>
<thead>
<tr>
<th>Age of the respondents</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid 21 to 25 years</td>
<td>44</td>
<td>44.0</td>
<td>44.0</td>
<td>44.0</td>
</tr>
<tr>
<td>26 to 30 years</td>
<td>41</td>
<td>41.0</td>
<td>41.0</td>
<td>85.0</td>
</tr>
<tr>
<td>31 to 35 years</td>
<td>10</td>
<td>10.0</td>
<td>10.0</td>
<td>95.0</td>
</tr>
<tr>
<td>36 to 40 years</td>
<td>3</td>
<td>3.0</td>
<td>3.0</td>
<td>98.0</td>
</tr>
<tr>
<td>Above 40 years</td>
<td>2</td>
<td>2.0</td>
<td>2.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>
Appendix 7: Ownership of vehicle

Ownership of a vehicle

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>34</td>
<td>34.0</td>
<td>34.0</td>
<td>34.0</td>
</tr>
<tr>
<td>No</td>
<td>66</td>
<td>66.0</td>
<td>66.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Appendix 8: Frequency of grocery shopping by respondents

Frequency of grocery shopping during last 6 months

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Twice a week or more</td>
<td>14</td>
<td>14.0</td>
<td>14.0</td>
<td>14.0</td>
</tr>
<tr>
<td>Once a week</td>
<td>53</td>
<td>53.0</td>
<td>53.0</td>
<td>67.0</td>
</tr>
<tr>
<td>Once in every 2 weeks</td>
<td>20</td>
<td>20.0</td>
<td>20.0</td>
<td>87.0</td>
</tr>
<tr>
<td>Once in every 3 weeks</td>
<td>5</td>
<td>5.0</td>
<td>5.0</td>
<td>92.0</td>
</tr>
<tr>
<td>Once a month</td>
<td>7</td>
<td>7.0</td>
<td>7.0</td>
<td>99.0</td>
</tr>
<tr>
<td>Less than once a month</td>
<td>1</td>
<td>1.0</td>
<td>1.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>
Appendix 9: Average amount spent on grocery shopping

Average amount spent on grocery in a typical month during last 6 months (in CAD)

<table>
<thead>
<tr>
<th>N</th>
<th>Valid</th>
<th>Missing</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>98</td>
<td>2</td>
</tr>
<tr>
<td>Mean</td>
<td>213.78</td>
<td></td>
</tr>
<tr>
<td>Median</td>
<td>200.00</td>
<td></td>
</tr>
<tr>
<td>Skewness</td>
<td>.622</td>
<td></td>
</tr>
<tr>
<td>Std. Error of Skewness</td>
<td>.244</td>
<td></td>
</tr>
<tr>
<td>Minimum</td>
<td>80</td>
<td></td>
</tr>
<tr>
<td>Maximum</td>
<td>450</td>
<td></td>
</tr>
</tbody>
</table>

Average amount spent on grocery in a typical month

![Histogram showing average amount spent on groceries with mean = 213.8, std. dev = 98.32, and N = 98.00.]
Appendix 10: Most visited grocery store

Most visited grocery store during last 6 months

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other convenience stores</td>
<td>6</td>
<td>6.0</td>
<td>6.0</td>
<td>6.0</td>
</tr>
<tr>
<td>Other grocery stores in shopping mall</td>
<td>19</td>
<td>19.0</td>
<td>19.0</td>
<td>25.0</td>
</tr>
<tr>
<td>Save on food</td>
<td>2</td>
<td>2.0</td>
<td>2.0</td>
<td>27.0</td>
</tr>
<tr>
<td>Safeway</td>
<td>35</td>
<td>35.0</td>
<td>35.0</td>
<td>62.0</td>
</tr>
<tr>
<td>Canadian Superstore</td>
<td>38</td>
<td>38.0</td>
<td>38.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Grocery stores getting the most business

- Other convenience stores
- Other grocery stores in shopping mall
- Save on food
- Safeway
- Canadian Superstore
Appendix 11: Output of cross tabulation on ‘Most visited grocery store’ and ‘Status in Canada’

H0: The two variables are independent

### Case Processing Summary

<table>
<thead>
<tr>
<th>Cases</th>
<th>Valid</th>
<th>Missing</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>Percent</td>
<td>N</td>
</tr>
<tr>
<td>Status in Canada * The most visited grocery store in last 6 months</td>
<td>100</td>
<td>100.0%</td>
<td>0</td>
</tr>
</tbody>
</table>

### The most visited grocery store in last 6 months * Status in Canada Cross tabulation

<table>
<thead>
<tr>
<th>The most visited grocery store in last 6 months</th>
<th>Status in Canada</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Citizen</td>
<td>Permanent Resident</td>
</tr>
<tr>
<td>Canadian Superstore</td>
<td>Count</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>% within The most visited grocery store in last 6 months</td>
<td>39.5%</td>
</tr>
<tr>
<td></td>
<td>% within Status in Canada</td>
<td>45.5%</td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>15.0%</td>
</tr>
<tr>
<td>Safeway</td>
<td>Count</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>% within The most visited grocery store in last 6 months</td>
<td>40.0%</td>
</tr>
<tr>
<td></td>
<td>% within Status in Canada</td>
<td>42.4%</td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>14.0%</td>
</tr>
<tr>
<td>Save of food</td>
<td>Count</td>
<td>2</td>
</tr>
<tr>
<td>Total Status in Canada</td>
<td>Citizen</td>
<td>Permanent Resident</td>
</tr>
<tr>
<td>-----------------------</td>
<td>---------</td>
<td>--------------------</td>
</tr>
<tr>
<td>% within The most visited grocery store in last 6 months</td>
<td>100.0%</td>
<td>.0%</td>
</tr>
<tr>
<td>% within Status in Canada</td>
<td>6.1%</td>
<td>.0%</td>
</tr>
<tr>
<td>% of Total</td>
<td>2.0%</td>
<td>.0%</td>
</tr>
<tr>
<td>Other grocery stores in shopping mall</td>
<td>Count</td>
<td>1</td>
</tr>
<tr>
<td>% within The most visited grocery store in last 6 months</td>
<td>5.3%</td>
<td>10.5%</td>
</tr>
<tr>
<td>% within Status in Canada</td>
<td>3.0%</td>
<td>15.4%</td>
</tr>
<tr>
<td>% of Total</td>
<td>1.0%</td>
<td>2.0%</td>
</tr>
<tr>
<td>Other convenience stores</td>
<td>Count</td>
<td>1</td>
</tr>
<tr>
<td>% within The most visited grocery store in last 6 months</td>
<td>16.7%</td>
<td>33.3%</td>
</tr>
<tr>
<td>% within Status in Canada</td>
<td>3.0%</td>
<td>15.4%</td>
</tr>
<tr>
<td>% of Total</td>
<td>1.0%</td>
<td>2.0%</td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
<td>33</td>
</tr>
<tr>
<td>% within The most visited grocery store in last 6 months</td>
<td>33.0%</td>
<td>13.0%</td>
</tr>
<tr>
<td>% within Status in Canada</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>% of Total</td>
<td>33.0%</td>
<td>13.0%</td>
</tr>
</tbody>
</table>


Chi-Square Tests

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>28.881(a)</td>
<td>12</td>
<td>.004</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>27.800</td>
<td>12</td>
<td>.006</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>3.473</td>
<td>1</td>
<td>.062</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>100</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

14 cells (70.0%) have expected count less than 5. The minimum expected count is .12.

**Interpretation:** As evident from the table above, the sig. value from Pearson Chi Square test that it is below 0.05 at 95% confidence interval. So the null hypothesis of no interaction between the two variables is rejected. Thus the ‘most visited grocery store’ and ‘status in Canada’ are not independent.

Appendix 12: Respondents’ preferred grocery shopping time

<table>
<thead>
<tr>
<th></th>
<th>Most preferred option</th>
<th>Second most preferred option</th>
<th>Third most preferred option</th>
</tr>
</thead>
<tbody>
<tr>
<td>During weekend</td>
<td>52%</td>
<td>20%</td>
<td>28%</td>
</tr>
<tr>
<td>On way back from school/work</td>
<td>18%</td>
<td>49%</td>
<td>33%</td>
</tr>
<tr>
<td>Whenever time is available</td>
<td>30%</td>
<td>31%</td>
<td>39%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>
Appendix 13: Paired sample t-test on ‘Share of wallet’ of Canadian Superstore and Safeway

Ho: The mean share of wallet for Canadian Superstore is equal to the mean share of wallet for Safeway

Paired Samples Statistics

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>N</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pair 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amount allocated to Canadian Superstore out of 100 dollar spent on grocery</td>
<td>32.52</td>
<td>75</td>
<td>24.443</td>
<td>2.822</td>
</tr>
<tr>
<td>Amount allocated to Safeway out of 100 dollar spent on grocery</td>
<td>41.16</td>
<td>75</td>
<td>29.048</td>
<td>3.354</td>
</tr>
</tbody>
</table>

Paired Samples Correlations

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Correlation</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pair 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amount allocated to Canadian Superstore out of 100 dollar spent on grocery &amp; Amount allocated to Safeway out of 100 dollar spent on grocery</td>
<td>75</td>
<td>-.566</td>
<td>.000</td>
</tr>
</tbody>
</table>

Paired Samples Test

<table>
<thead>
<tr>
<th></th>
<th>Paired Differences</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Std. Deviation</td>
<td>Std. Error Mean</td>
<td>95% Confidence Interval of the Difference</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pair 1</td>
<td>Amount allocated to Canadian Superstore out of 100 dollar spent on grocery - Amount allocated to Safeway out of 100 dollar spent on grocery</td>
<td>-8.64</td>
<td>47.382</td>
<td>5.471</td>
</tr>
</tbody>
</table>
**Interpretation:** As found in the above table, the sig. value at 95% confidence interval is 0.119, which is greater than 0.05. Thus the null of equal mean fails to be rejected.

**Appendix 14: Respondents' share of wallet for different grocery stores**

<table>
<thead>
<tr>
<th></th>
<th>Amount allocated to Canadian Superstore out of 100 dollar spent on grocery</th>
<th>Amount allocated to Safeway out of 100 dollar spent on grocery</th>
<th>Amount allocated to Save on food out of 100 dollar spent on grocery</th>
<th>Amount allocated to Costco out of 100 dollar spent on grocery</th>
<th>Amount allocated to other grocery stores in shopping mall out of 100 dollar spent on grocery</th>
<th>Amount allocated to other convenience store out of 100 dollar spent on grocery</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>100</td>
<td>75</td>
<td>25</td>
<td>11</td>
<td>49</td>
<td>34</td>
</tr>
<tr>
<td>Missing</td>
<td>0</td>
<td>25</td>
<td>75</td>
<td>89</td>
<td>51</td>
<td>66</td>
</tr>
<tr>
<td>Mean</td>
<td>38.44</td>
<td>41.16</td>
<td>17.68</td>
<td>20.09</td>
<td>31.20</td>
<td>26.09</td>
</tr>
<tr>
<td>Median</td>
<td>35.00</td>
<td>30.00</td>
<td>15.00</td>
<td>20.00</td>
<td>30.00</td>
<td>20.00</td>
</tr>
<tr>
<td>Minimum</td>
<td>2</td>
<td>5</td>
<td>2</td>
<td>5</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Maximum</td>
<td>100</td>
<td>95</td>
<td>80</td>
<td>40</td>
<td>80</td>
<td>85</td>
</tr>
<tr>
<td>Percentiles</td>
<td>25</td>
<td>15.00</td>
<td>15.00</td>
<td>5.00</td>
<td>6.00</td>
<td>10.00</td>
</tr>
<tr>
<td></td>
<td>50</td>
<td>35.00</td>
<td>30.00</td>
<td>15.00</td>
<td>20.00</td>
<td>30.00</td>
</tr>
<tr>
<td></td>
<td>75</td>
<td>53.75</td>
<td>70.00</td>
<td>20.00</td>
<td>30.00</td>
<td>45.00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Percentage of total respondents spending 80% or more of grocery budget in a month</th>
<th>Percentage of total respondents spending 25% or less of grocery budget in a month</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canadian Superstore</td>
<td>14</td>
<td>40</td>
</tr>
<tr>
<td>Safeway</td>
<td>11</td>
<td>34</td>
</tr>
<tr>
<td>Save on foods</td>
<td>1</td>
<td>21</td>
</tr>
<tr>
<td>Costco</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>Other grocery stores in shopping mall</td>
<td>1</td>
<td>23</td>
</tr>
<tr>
<td>Other convenience store</td>
<td>2</td>
<td>24</td>
</tr>
</tbody>
</table>

69
Appendix 15: Statistical output of ANOVA test conducted between ‘Share of wallet’ of Superstore and ‘Frequency of grocery shopping’

Ho: Mean share of wallet for Superstore across each different frequency of shopping is equal.

**Between-Subjects Factors**

<table>
<thead>
<tr>
<th>Frequency of grocery shopping during last 6 months</th>
<th>Value Label</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Less than once a month</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Once a month</td>
<td>7</td>
</tr>
<tr>
<td>3</td>
<td>Once in every 3 weeks</td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td>Once in every 2 weeks</td>
<td>20</td>
</tr>
<tr>
<td>5</td>
<td>Once a week</td>
<td>53</td>
</tr>
<tr>
<td>6</td>
<td>Twice a week or more</td>
<td>14</td>
</tr>
</tbody>
</table>

**Levene's Test of Equality of Error Variances (a)**

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Corrected Model</td>
<td>5</td>
<td>663.414</td>
<td>.860</td>
<td>.511</td>
</tr>
<tr>
<td></td>
<td>Intercept</td>
<td>1</td>
<td>25769.582</td>
<td>33.424</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Q1</td>
<td>5</td>
<td>663.414</td>
<td>.860</td>
<td>.511</td>
</tr>
<tr>
<td></td>
<td>Error</td>
<td>94</td>
<td>770.995</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Corrected Total</td>
<td>99</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a Design: Intercept+Q1

**Interpretation:** As found in the table above, the sig. value from the ANOVA test was found 0.511. At 95% confidence interval level, it is above 0.05. Thus the null hypothesis of equal mean share of wallet of Superstore across different frequency of shopping could not be rejected.
Thus, it can be interpreted that the share of wallet of Superstore is not dependent on frequency of shopping.

Appendix 16: Length of relation/Continuity of purchase

Time of last visit to Canadian Superstore to buy food item

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In last 8 weeks</td>
<td>15</td>
<td>15.0</td>
<td>15.0</td>
<td>15.0</td>
</tr>
<tr>
<td>In last 6 weeks</td>
<td>9</td>
<td>9.0</td>
<td>9.0</td>
<td>24.0</td>
</tr>
<tr>
<td>In last 4 weeks</td>
<td>8</td>
<td>8.0</td>
<td>8.0</td>
<td>32.0</td>
</tr>
<tr>
<td>In last 3 weeks</td>
<td>12</td>
<td>12.0</td>
<td>12.0</td>
<td>44.0</td>
</tr>
<tr>
<td>In last 2 weeks</td>
<td>21</td>
<td>21.0</td>
<td>21.0</td>
<td>65.0</td>
</tr>
<tr>
<td>In last week</td>
<td>35</td>
<td>35.0</td>
<td>35.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Length of relation with Canadian Superstore in months (calculated from the time of first visit to Canadian Superstore)

<table>
<thead>
<tr>
<th></th>
<th>Valid</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td></td>
<td>85</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Missing</td>
<td></td>
<td>15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td></td>
<td>26.84</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Median</td>
<td></td>
<td>15.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skewness</td>
<td></td>
<td>2.038</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Std. Error of Skewness</td>
<td>.261</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minimum</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maximum</td>
<td></td>
<td>137</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Length of relation with Canadian Superstore

![Histogram showing the length of relation in months with mean, standard deviation, and sample size labeled.]
Appendix 17: Frequency of visit to Canadian Superstore.

Frequency of visit to Canadian Superstore to buy grocery in last 6 months

<table>
<thead>
<tr>
<th>N</th>
<th>Valid</th>
<th>Missing</th>
<th>Mean</th>
<th>Median</th>
<th>Skewness</th>
<th>Std. Error of Skewness</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>100</td>
<td>0</td>
<td>4.61</td>
<td>4.00</td>
<td>.503</td>
<td>.241</td>
<td>1</td>
<td>10</td>
</tr>
</tbody>
</table>

Frequency of visit to Canadian Superstore to buy grocery in last 6 months

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 out of 10 times</td>
<td>14</td>
<td>14.0</td>
<td>14.0</td>
<td>14.0</td>
</tr>
<tr>
<td>2 out of 10 times</td>
<td>15</td>
<td>15.0</td>
<td>15.0</td>
<td>29.0</td>
</tr>
<tr>
<td>3 out of 10 times</td>
<td>10</td>
<td>10.0</td>
<td>10.0</td>
<td>39.0</td>
</tr>
<tr>
<td>4 out of 10 times</td>
<td>13</td>
<td>13.0</td>
<td>13.0</td>
<td>52.0</td>
</tr>
<tr>
<td>5 out of 10 times</td>
<td>16</td>
<td>16.0</td>
<td>16.0</td>
<td>68.0</td>
</tr>
<tr>
<td>6 out of 10 times</td>
<td>10</td>
<td>10.0</td>
<td>10.0</td>
<td>78.0</td>
</tr>
<tr>
<td>7 out of 10 times</td>
<td>2</td>
<td>2.0</td>
<td>2.0</td>
<td>80.0</td>
</tr>
<tr>
<td>8 out of 10 times</td>
<td>7</td>
<td>7.0</td>
<td>7.0</td>
<td>87.0</td>
</tr>
<tr>
<td>9 out of 10 times</td>
<td>5</td>
<td>5.0</td>
<td>5.0</td>
<td>92.0</td>
</tr>
<tr>
<td>10 out of 10 times</td>
<td>8</td>
<td>8.0</td>
<td>8.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>
Frequency of visit to Canadian Superstore

Frequency of visit out of 10 times
Appendix 18: One sample t-test conducted on ‘Frequency of visit’ to Canadian Superstore

One-Sample Statistics

<table>
<thead>
<tr>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>4.61</td>
<td>2.767</td>
<td>.277</td>
</tr>
</tbody>
</table>

Ho: Average frequency of visit to Canadian superstore is 5 out of 10 times

One-Sample Test

<table>
<thead>
<tr>
<th>T</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
<th>Mean Difference</th>
<th>95% Confidence Interval of the Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower</td>
</tr>
<tr>
<td>-1.410</td>
<td>99</td>
<td>.162</td>
<td>-.39</td>
<td>-.94</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Upper</td>
</tr>
<tr>
<td>.16</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Interpretation:** At 95% level of significance, the sig. value was found to be 0.162, which is grater than 0.05. Thus the null of mean equal to 5 out of 10 times could not be rejected. It indicates that the mean frequency of visit was not significantly different than 5 times out of 10.

One-Sample Test

<table>
<thead>
<tr>
<th>T</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
<th>Mean Difference</th>
<th>95% Confidence Interval of the Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower</td>
</tr>
<tr>
<td>-5.024</td>
<td>99</td>
<td>.000</td>
<td>-1.39</td>
<td>-1.94</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Upper</td>
</tr>
<tr>
<td>- .84</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Interpretation:** At 95% level of significance, the sig. value was found to be 0, which is less than 0.05. Thus the null of mean equal to 6 out of 10 times could be rejected. It indicates that the mean frequency of visit was significantly different than 6 times out of 10.

**Average amount spent each time in Superstore**

![Histogram showing the distribution of average amount spent]

- Std. Dev = 36.03
- Mean = 51.7
- N = 96.00

**Average amount spent**
Appendix 19: Average amount spent at Canadian Superstore at each trip

Average amount spent on grocery at each time in Canadian Superstore during last 6 months

<table>
<thead>
<tr>
<th>N</th>
<th>Valid</th>
<th>Missing</th>
<th>Mean</th>
<th>Median</th>
<th>Skewness</th>
<th>Std. Error of Skewness</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>96</td>
<td>4</td>
<td>51.72</td>
<td>.246</td>
<td>10</td>
<td>200</td>
</tr>
</tbody>
</table>

Average amount spent each time in Superstore

Std. Dev = 36.03
Mean = 51.7
N = 96.00

Average amount spent
Appendix 20: Statistical output of ANOVA test between ‘Average amount spent each time at Superstore’ and ‘Frequency of grocery shopping’

Ho: Mean amount spent each time at Canadian Superstore is same across different frequency of grocery shopping

**Between-Subjects Factors**

<table>
<thead>
<tr>
<th>Frequency of grocery shopping during last 6 months</th>
<th>Value Label</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Less than once a month</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Once a month</td>
<td>7</td>
</tr>
<tr>
<td>3</td>
<td>Once in every 3 weeks</td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td>Once in every 2 weeks</td>
<td>19</td>
</tr>
<tr>
<td>5</td>
<td>Once a week</td>
<td>50</td>
</tr>
<tr>
<td>6</td>
<td>Twice a week or more</td>
<td>14</td>
</tr>
</tbody>
</table>

**Levene’s Test of Equality of Error Variances (a)**

Dependent Variable: Average amount spent on grocery at each time in Canadian Superstore during last 6 months

<table>
<thead>
<tr>
<th>F</th>
<th>df1</th>
<th>df2</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.813</td>
<td>5</td>
<td>90</td>
<td>.021</td>
</tr>
</tbody>
</table>

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.
a Design: Intercept+Q1

**Tests of Between-Subjects Effects**

Dependent Variable: Average amount spent on grocery at each time in Canadian Superstore during last 6 months

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected Model</td>
<td>10859.105(a)</td>
<td>5</td>
<td>2171.821</td>
<td>1.739</td>
<td>.134</td>
</tr>
<tr>
<td>Intercept</td>
<td>49846.902</td>
<td>1</td>
<td>49846.902</td>
<td>39.902</td>
<td>.000</td>
</tr>
<tr>
<td>Q1</td>
<td>10859.105</td>
<td>5</td>
<td>2171.821</td>
<td>1.739</td>
<td>.134</td>
</tr>
<tr>
<td>Error</td>
<td>112432.301</td>
<td>90</td>
<td>1249.248</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>380075.000</td>
<td>96</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>123291.406</td>
<td>95</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a R Squared = .088 (Adjusted R Squared = .037)
**Interpretation:** It is evident from the table above that the sig. value at 95% confidence interval is above 0.05. Thus we fail to reject the null hypothesis of equal mean across different frequency of shopping. Thus it can be inferred that the amount spent each time at superstore is not dependent on or influenced by frequency of grocery shopping.

**Appendix 21: Reason for selecting Canadian Superstore for grocery shopping**

<table>
<thead>
<tr>
<th>Reason</th>
<th>In percentage of response</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Rank 1</td>
</tr>
<tr>
<td>On my way to home/work/school</td>
<td>9</td>
</tr>
<tr>
<td>Reasonable price</td>
<td>67</td>
</tr>
<tr>
<td>Variety of products</td>
<td>14</td>
</tr>
<tr>
<td>Close to my home</td>
<td>3</td>
</tr>
<tr>
<td>Close to buss stop or sky train station</td>
<td>3</td>
</tr>
<tr>
<td>Good quality of products</td>
<td>-</td>
</tr>
<tr>
<td>Good service</td>
<td>-</td>
</tr>
<tr>
<td>Location (in shopping mall)</td>
<td>1</td>
</tr>
<tr>
<td>Sell bulk products</td>
<td>2</td>
</tr>
<tr>
<td>Good sales/discounts</td>
<td>-</td>
</tr>
<tr>
<td>No response</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
</tr>
</tbody>
</table>
Appendix 22: Cross tabulation output conducted between ‘Reason for selecting Superstore for grocery shopping’ and ‘Status in Canada’

Cross tabulation A: ‘Most important (rank 1) reason for selecting Superstore for grocery shopping’ and ‘Status in Canada’

Ho: The most important reason for selecting Superstore is not different across respondent’s status in Canada

Case Processing Summary

<table>
<thead>
<tr>
<th>Cases</th>
<th>Valid</th>
<th>Missing</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>Percent</td>
</tr>
<tr>
<td>Most important reason (rank 1) for selecting Superstore * Status in Canada</td>
<td>99</td>
<td>99.0%</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>1.0%</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Most important reason (rank 1) for selecting Superstore * Status in Canada Cross tabulation

<table>
<thead>
<tr>
<th>Most important reason (rank 1) for selecting Superstore</th>
<th>On my way to home/work/school</th>
<th>Count</th>
<th>Status in Canada</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Citizen</td>
<td></td>
<td>Permanent Resident</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>4</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Landed Immigrant</td>
<td>0</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>On Visa</td>
<td>4</td>
<td>9</td>
<td>9</td>
</tr>
</tbody>
</table>

% within Most important reason (rank 1) for selecting Superstore

<table>
<thead>
<tr>
<th>Most important reason (rank 1) for selecting Superstore</th>
<th>Count</th>
<th>Status in Canada</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>44.4%</td>
<td>11.1%</td>
<td>44.4%</td>
</tr>
<tr>
<td></td>
<td>.0%</td>
<td>.0%</td>
<td>.0%</td>
</tr>
<tr>
<td></td>
<td>44.4%</td>
<td>100.0%</td>
<td></td>
</tr>
</tbody>
</table>

% within Status in Canada

<table>
<thead>
<tr>
<th>Most important reason (rank 1) for selecting Superstore</th>
<th>Count</th>
<th>Status in Canada</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>12.1%</td>
<td>8.3%</td>
<td>8.3%</td>
</tr>
<tr>
<td></td>
<td>.0%</td>
<td>.0%</td>
<td>.0%</td>
</tr>
<tr>
<td></td>
<td>8.3%</td>
<td>9.1%</td>
<td></td>
</tr>
</tbody>
</table>

% of Total

<table>
<thead>
<tr>
<th>Most important reason (rank 1) for selecting Superstore</th>
<th>Count</th>
<th>Status in Canada</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4.0%</td>
<td>1.0%</td>
<td>4.0%</td>
</tr>
<tr>
<td></td>
<td>.0%</td>
<td>.0%</td>
<td>.0%</td>
</tr>
<tr>
<td></td>
<td>4.0%</td>
<td>9.1%</td>
<td></td>
</tr>
</tbody>
</table>

Reasonable price

<table>
<thead>
<tr>
<th>Count</th>
<th>Status in Canada</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>24</td>
<td>10</td>
<td>4</td>
</tr>
<tr>
<td>6</td>
<td>29</td>
<td>67</td>
</tr>
<tr>
<td></td>
<td>Status in Canada</td>
<td></td>
</tr>
<tr>
<td>-----------------------------</td>
<td>-----------------</td>
<td>----------</td>
</tr>
<tr>
<td></td>
<td>Citizen</td>
<td>Permanent Resident</td>
</tr>
<tr>
<td>% within Most important reason (rank 1) for selecting Superstore</td>
<td>35.8%</td>
<td>14.9%</td>
</tr>
<tr>
<td>% within Status in Canada</td>
<td>72.7%</td>
<td>83.3%</td>
</tr>
<tr>
<td>% of Total</td>
<td>24.2%</td>
<td>10.1%</td>
</tr>
<tr>
<td>Variety of products</td>
<td>Count</td>
<td>3</td>
</tr>
<tr>
<td>% within Most important reason (rank 1) for selecting Superstore</td>
<td>21.4%</td>
<td>.0%</td>
</tr>
<tr>
<td>% within Status in Canada</td>
<td>9.1%</td>
<td>.0%</td>
</tr>
<tr>
<td>% of Total</td>
<td>3.0%</td>
<td>.0%</td>
</tr>
<tr>
<td>Close to my home</td>
<td>Count</td>
<td>1</td>
</tr>
<tr>
<td>% within Most important reason (rank 1) for selecting Superstore</td>
<td>33.3%</td>
<td>.0%</td>
</tr>
<tr>
<td>% within Status in Canada</td>
<td>3.0%</td>
<td>.0%</td>
</tr>
<tr>
<td>% of Total</td>
<td>1.0%</td>
<td>.0%</td>
</tr>
<tr>
<td>Close to buss stop/sky train</td>
<td>Count</td>
<td>1</td>
</tr>
<tr>
<td>% within Most important reason (rank 1) for selecting Superstore</td>
<td>33.3%</td>
<td>33.3%</td>
</tr>
<tr>
<td>% within Status in Canada</td>
<td>3.0%</td>
<td>8.3%</td>
</tr>
<tr>
<td>% of Total</td>
<td>1.0%</td>
<td>1.0%</td>
</tr>
<tr>
<td>Location in mall</td>
<td>Count</td>
<td>0</td>
</tr>
<tr>
<td>Status in Canada</td>
<td>Total</td>
<td></td>
</tr>
<tr>
<td>-----------------</td>
<td>-------</td>
<td></td>
</tr>
<tr>
<td>% within Most important reason (rank 1) for selecting Superstore</td>
<td>Permanent Resident</td>
<td>Landed Immigrant</td>
</tr>
<tr>
<td>Citizen</td>
<td>.0%</td>
<td>.0%</td>
</tr>
<tr>
<td>Permanent Resident</td>
<td>.0%</td>
<td>.0%</td>
</tr>
<tr>
<td>Landed Immigrant</td>
<td>.0%</td>
<td>.0%</td>
</tr>
<tr>
<td>On Visa</td>
<td>.0%</td>
<td>.0%</td>
</tr>
<tr>
<td>% of Total</td>
<td>.0%</td>
<td>.0%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sell bulk products</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>% within Most important reason (rank 1) for selecting Superstore</td>
<td>Count</td>
</tr>
<tr>
<td>% within Status in Canada</td>
<td>Count</td>
</tr>
<tr>
<td>% of Total</td>
<td>Count</td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
</tr>
<tr>
<td>% within Most important reason (rank 1) for selecting Superstore</td>
<td>Count</td>
</tr>
<tr>
<td>% within Status in Canada</td>
<td>Count</td>
</tr>
<tr>
<td>% of Total</td>
<td>Count</td>
</tr>
</tbody>
</table>

### Chi-Square Tests

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>21.230(a)</td>
<td>18</td>
<td>.268</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>22.752</td>
<td>18</td>
<td>.200</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>2.886</td>
<td>1</td>
<td>.089</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>99</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a 24 cells (85.7%) have expected count less than 5. The minimum expected count is .06.

**Interpretation:** The Pearson Chi-Square sig. value is greater than 0.05 at 95% confidence interval. Thus we fail to reject the null hypothesis of independence.
Cross tabulation B: ‘Second most important (rank 2) reason for selecting Superstore for grocery shopping’ and ‘Status in Canada’

Ho: The second most important reason for selecting Superstore is not different across respondent’s status in Canada

Case Processing Summary

<table>
<thead>
<tr>
<th>Most important reason (rank 2) for selecting Superstore * Status in Canada</th>
<th>Valid</th>
<th>Missing</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>Percent</td>
<td>N</td>
</tr>
<tr>
<td>Most important reason (rank 2) for selecting Superstore * Status in Canada</td>
<td>93</td>
<td>93.0%</td>
<td>7</td>
</tr>
</tbody>
</table>

Most important reason (rank 2) for selecting Superstore * Status in Canada Cross tabulation

<table>
<thead>
<tr>
<th>Most important reason (rank 2) for selecting Superstore</th>
<th>Status in Canada</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Citizen</td>
<td>Permanent Resident</td>
</tr>
<tr>
<td>On my way to home/work/school</td>
<td>Count</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>% within Most important reason (rank 2) for selecting Superstore</td>
<td>40.0%</td>
<td>.0%</td>
</tr>
<tr>
<td>% within Status in Canada</td>
<td>6.9%</td>
<td>.0%</td>
</tr>
<tr>
<td>% of Total</td>
<td>2.2%</td>
<td>.0%</td>
</tr>
<tr>
<td>Reasonable price</td>
<td>Count</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Status in Canada</td>
<td>Total</td>
</tr>
<tr>
<td>---------------------------</td>
<td>-----------------</td>
<td>-------</td>
</tr>
<tr>
<td></td>
<td>Citizen</td>
<td>Permanent Resident</td>
</tr>
<tr>
<td>% within Most important reason (rank 2) for selecting Superstore</td>
<td>28.6%</td>
<td>4.8%</td>
</tr>
<tr>
<td>% within Status in Canada</td>
<td>20.7%</td>
<td>9.1%</td>
</tr>
<tr>
<td>% of Total</td>
<td>6.5%</td>
<td>1.1%</td>
</tr>
<tr>
<td>Variety of products Count</td>
<td>17</td>
<td>8</td>
</tr>
<tr>
<td>% within Most important reason (rank 2) for selecting Superstore</td>
<td>32.7%</td>
<td>15.4%</td>
</tr>
<tr>
<td>% within Status in Canada</td>
<td>58.6%</td>
<td>72.7%</td>
</tr>
<tr>
<td>% of Total</td>
<td>18.3%</td>
<td>8.6%</td>
</tr>
<tr>
<td>Close to my home Count</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>% within Most important reason (rank 2) for selecting Superstore</td>
<td>37.5%</td>
<td>25.0%</td>
</tr>
<tr>
<td>% within Status in Canada</td>
<td>10.3%</td>
<td>18.2%</td>
</tr>
<tr>
<td>% of Total</td>
<td>3.2%</td>
<td>2.2%</td>
</tr>
<tr>
<td>Close to buss stop/sky train Count</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>% within Most important reason (rank 2) for selecting Superstore</td>
<td>16.7%</td>
<td>.0%</td>
</tr>
<tr>
<td>% within Status in Canada</td>
<td>3.4%</td>
<td>.0%</td>
</tr>
<tr>
<td>Good quality of products</td>
<td>Status in Canada</td>
<td>Total</td>
</tr>
<tr>
<td>-------------------------</td>
<td>-----------------</td>
<td>-------</td>
</tr>
<tr>
<td></td>
<td>Citizen</td>
<td>Permanent Resident</td>
</tr>
<tr>
<td>% of Total</td>
<td>1.1%</td>
<td>.0%</td>
</tr>
<tr>
<td>Count</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>% within Most important reason (rank 2) for selecting Superstore</td>
<td>.0%</td>
<td>.0%</td>
</tr>
<tr>
<td>% within Status in Canada</td>
<td>.0%</td>
<td>.0%</td>
</tr>
<tr>
<td>% of Total</td>
<td>.0%</td>
<td>.0%</td>
</tr>
<tr>
<td>Total</td>
<td>29</td>
<td>11</td>
</tr>
<tr>
<td>% within Most important reason (rank 2) for selecting Superstore</td>
<td>31.2%</td>
<td>11.8%</td>
</tr>
<tr>
<td>% within Status in Canada</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>% of Total</td>
<td>31.2%</td>
<td>11.8%</td>
</tr>
</tbody>
</table>
Chi-Square Tests

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>15.109(a)</td>
<td>15</td>
<td>.444</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>16.450</td>
<td>15</td>
<td>.353</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>.030</td>
<td>1</td>
<td>.863</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>93</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* 19 cells (79.2%) have expected count less than 5. The minimum expected count is .06.

**Interpretation:** The Pearson Chi-Square sig. value is greater than 0.05 at 95% confidence interval. Thus we fail to reject the null hypothesis of independence.

Cross tabulation C: ‘Third most important (rank 3) reason for selecting Superstore for grocery shopping’ and ‘Status in Canada’

Ho: The third most important reason for selecting Superstore is not different across respondent’s status in Canada

**Case Processing Summary**

<table>
<thead>
<tr>
<th></th>
<th>Valid</th>
<th>Missing</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>Percent</td>
<td>N</td>
</tr>
<tr>
<td>Most important reason (rank 3) for selecting Superstore * Status in Canada</td>
<td>79</td>
<td>79.0%</td>
<td>21</td>
</tr>
</tbody>
</table>
Most important reason (rank 3) for selecting Superstore * Status in Canada Cross tabulation

<table>
<thead>
<tr>
<th>Most important reason (rank 3) for selecting Superstore</th>
<th>Status in Canada</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>On my way to home/work/school</td>
<td>Citizen</td>
<td>Permanent Resident</td>
</tr>
<tr>
<td>Count</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>% within Most important reason (rank 3) for selecting Superstore</td>
<td>25.0%</td>
<td>.0%</td>
</tr>
<tr>
<td>% within Status in Canada</td>
<td>5.0%</td>
<td>.0%</td>
</tr>
<tr>
<td>% of Total</td>
<td>1.3%</td>
<td>.0%</td>
</tr>
<tr>
<td>Reasonable price</td>
<td>Count</td>
<td>2</td>
</tr>
<tr>
<td>% within Most important reason (rank 3) for selecting Superstore</td>
<td>33.3%</td>
<td>.0%</td>
</tr>
<tr>
<td>% within Status in Canada</td>
<td>10.0%</td>
<td>.0%</td>
</tr>
<tr>
<td>% of Total</td>
<td>2.5%</td>
<td>.0%</td>
</tr>
<tr>
<td>Variety of products</td>
<td>Count</td>
<td>4</td>
</tr>
<tr>
<td>% within Most important reason (rank 3) for selecting Superstore</td>
<td>28.6%</td>
<td>21.4%</td>
</tr>
<tr>
<td>% within Status in Canada</td>
<td>20.0%</td>
<td>27.3%</td>
</tr>
<tr>
<td>% of Total</td>
<td>5.1%</td>
<td>3.8%</td>
</tr>
<tr>
<td>Close to my home</td>
<td>Count</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Status in Canada</td>
<td>Total</td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>------------------</td>
<td>-------</td>
</tr>
<tr>
<td></td>
<td>Citizen</td>
<td>Permanent Resident</td>
</tr>
<tr>
<td>% within Most important reason (rank 3) for selecting Superstore</td>
<td>33.3%</td>
<td>8.3%</td>
</tr>
<tr>
<td>% within Status in Canada</td>
<td>20.0%</td>
<td>9.1%</td>
</tr>
<tr>
<td>% of Total</td>
<td>5.1%</td>
<td>1.3%</td>
</tr>
<tr>
<td>Close to buss stop/sky train</td>
<td>Count</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>% within Most important reason (rank 3) for selecting Superstore</td>
<td>29.2%</td>
</tr>
<tr>
<td>% within Status in Canada</td>
<td>35.0%</td>
<td>45.5%</td>
</tr>
<tr>
<td>% of Total</td>
<td>8.9%</td>
<td>6.3%</td>
</tr>
<tr>
<td>Good quality of products</td>
<td>Count</td>
<td>1</td>
</tr>
<tr>
<td>% within Most important reason (rank 3) for selecting Superstore</td>
<td>8.3%</td>
<td>16.7%</td>
</tr>
<tr>
<td>% within Status in Canada</td>
<td>5.0%</td>
<td>18.2%</td>
</tr>
<tr>
<td>% of Total</td>
<td>1.3%</td>
<td>2.5%</td>
</tr>
<tr>
<td>Good service</td>
<td>Count</td>
<td>0</td>
</tr>
<tr>
<td>% within Most important reason (rank 3) for selecting Superstore</td>
<td>.0%</td>
<td>.0%</td>
</tr>
<tr>
<td>% within Status in Canada</td>
<td>.0%</td>
<td>.0%</td>
</tr>
<tr>
<td>Location in mall</td>
<td>Count</td>
<td>% within Most important reason (rank 3) for selecting Superstore</td>
</tr>
<tr>
<td>------------------</td>
<td>-------</td>
<td>---------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>.0%</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>.0%</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>.0%</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>.0%</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>.0%</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>100.0%</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>.0%</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Good sales/discount</th>
<th>Count</th>
<th>% within Most important reason (rank 3) for selecting Superstore</th>
<th>% within Status in Canada</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>100.0%</td>
<td>5.0%</td>
<td>5.0%</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>.0%</td>
<td>.0%</td>
<td>.0%</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>100.0%</td>
<td>1.3%</td>
<td>1.3%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total</th>
<th>Count</th>
<th>% within Most important reason (rank 3) for selecting Superstore</th>
<th>% within Status in Canada</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>11</td>
<td>25.3%</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>7.6%</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td></td>
<td>42</td>
<td>53.2%</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

| % of Total | 25.3% | 13.9% | 7.6% | 53.2% | 100.0% |
Chi-Square Tests

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>19.586(a)</td>
<td>24</td>
<td>.720</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>24.876</td>
<td>24</td>
<td>.413</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>.656</td>
<td>1</td>
<td>.418</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>79</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

31 cells (86.1%) have expected count less than 5. The minimum expected count is .08.

**Interpretation:** The Pearson Chi-Square sig. value is greater than 0.05 at 95% confidence interval. Thus we fail to reject the null hypothesis of independence.

Appendix 23: Cross tabulation output conducted between ‘Reason for selecting Superstore for grocery shopping’ and ‘Ownership of vehicle’

Cross tabulation A: ‘Most important (rank 1) reason for selecting Superstore for grocery shopping’ and ‘Ownership of vehicle’

Ho: The most important reason for selecting Superstore is not different across respondent’s ownership of vehicle

**Case Processing Summary**

<table>
<thead>
<tr>
<th>Cases</th>
<th>Valid</th>
<th>Missing</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>Percent</td>
<td>N</td>
</tr>
<tr>
<td>Most important reason (rank 1) for selecting Superstore * Ownership of a vehicle</td>
<td>99</td>
<td>99.0%</td>
<td>1</td>
</tr>
</tbody>
</table>
Most important reason (rank 1) for selecting Superstore * Ownership of a vehicle Cross tabulation

<table>
<thead>
<tr>
<th>Most important reason (rank 1) for selecting Superstore</th>
<th>Ownership of a vehicle</th>
<th></th>
<th></th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
<td></td>
<td></td>
</tr>
<tr>
<td>On my way to home/work/school</td>
<td>Count</td>
<td>3</td>
<td>6</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>% within Most important reason (rank 1) for selecting Superstore</td>
<td>33.3%</td>
<td>66.7%</td>
<td>100.0%</td>
</tr>
<tr>
<td></td>
<td>% within Ownership of a vehicle</td>
<td>9.1%</td>
<td>9.1%</td>
<td>9.1%</td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>3.0%</td>
<td>6.1%</td>
<td>9.1%</td>
</tr>
<tr>
<td>Reasonable price</td>
<td>Count</td>
<td>25</td>
<td>41</td>
<td>67</td>
</tr>
<tr>
<td></td>
<td>% within Most important reason (rank 1) for selecting Superstore</td>
<td>38.8%</td>
<td>61.2%</td>
<td>100.0%</td>
</tr>
<tr>
<td></td>
<td>% within Ownership of a vehicle</td>
<td>78.8%</td>
<td>62.1%</td>
<td>67.7%</td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>26.3%</td>
<td>41.4%</td>
<td>67.7%</td>
</tr>
<tr>
<td>Variety of products</td>
<td>Count</td>
<td>1</td>
<td>13</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>% within Most important reason (rank 1) for selecting Superstore</td>
<td>7.1%</td>
<td>92.9%</td>
<td>100.0%</td>
</tr>
<tr>
<td></td>
<td>% within Ownership of a vehicle</td>
<td>3.0%</td>
<td>19.7%</td>
<td>14.1%</td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>1.0%</td>
<td>13.1%</td>
<td>14.1%</td>
</tr>
<tr>
<td>Close to my home</td>
<td>Count</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>% within Most important reason (rank 1) for selecting Superstore</td>
<td>33.3%</td>
<td>66.7%</td>
<td>100.0%</td>
</tr>
<tr>
<td></td>
<td>% within Ownership of a vehicle</td>
<td>3.0%</td>
<td>3.0%</td>
<td>3.0%</td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>1.0%</td>
<td>2.0%</td>
<td>3.0%</td>
</tr>
<tr>
<td>Close to buss stop/sky train</td>
<td>Count</td>
<td>0</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>% within Most important reason (rank 1) for selecting Superstore</td>
<td>.0%</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td></td>
<td>Ownership of a vehicle</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>------------------------------</td>
<td>------------------------</td>
<td>-------</td>
<td>-------</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
<td>Total</td>
<td></td>
</tr>
<tr>
<td>% within Ownership of a vehicle</td>
<td>.0%</td>
<td>4.5%</td>
<td>3.0%</td>
<td></td>
</tr>
<tr>
<td>% of Total</td>
<td>.0%</td>
<td>3.0%</td>
<td>3.0%</td>
<td></td>
</tr>
<tr>
<td>Location in mall</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>0</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>% within Most important reason (rank 1) for selecting Superstore</td>
<td>.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>% within Ownership of a vehicle</td>
<td>.0%</td>
<td>1.5%</td>
<td>1.0%</td>
<td></td>
</tr>
<tr>
<td>% of Total</td>
<td>.0%</td>
<td>1.0%</td>
<td>1.0%</td>
<td></td>
</tr>
<tr>
<td>Sell bulk products</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>% within Most important reason (rank 1) for selecting Superstore</td>
<td>100.0%</td>
<td>.0%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>% within Ownership of a vehicle</td>
<td>6.1%</td>
<td>.0%</td>
<td>2.0%</td>
<td></td>
</tr>
<tr>
<td>% of Total</td>
<td>2.0%</td>
<td>.0%</td>
<td>2.0%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>33</td>
<td>66</td>
<td>99</td>
<td></td>
</tr>
<tr>
<td>% within Most important reason (rank 1) for selecting Superstore</td>
<td>33.3%</td>
<td>66.7%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>% within Ownership of a vehicle</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>% of Total</td>
<td>33.3%</td>
<td>66.7%</td>
<td>100.0%</td>
<td></td>
</tr>
</tbody>
</table>
Chi-Square Tests

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>11.224(a)</td>
<td>6</td>
<td>.082</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>14.054</td>
<td>6</td>
<td>.029</td>
</tr>
<tr>
<td>Linear-by-Linear Assoc.</td>
<td>.011</td>
<td>1</td>
<td>.916</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>99</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

10 cells (71.4%) have expected count less than 5. The minimum expected count is .33.

**Interpretation:** The Pearson Chi-Square sig. value is greater than 0.05 at 95% confidence interval. Thus we fail to reject the null hypothesis of independence.

Cross tabulation B: ‘Second most important (rank 2) reason for selecting Superstore for grocery shopping’ and ‘Ownership of vehicle’

Ho: The second most important reason for selecting Superstore is not different across respondent’s ownership of vehicle

**Case Processing Summary**

<table>
<thead>
<tr>
<th>Cases</th>
<th>Valid</th>
<th>Missing</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid cases</td>
<td>N</td>
<td>Percent</td>
<td>N</td>
</tr>
<tr>
<td>Most important reason (rank 2) for selecting Superstore * Ownership of a vehicle</td>
<td>93</td>
<td>93.0%</td>
<td>7</td>
</tr>
</tbody>
</table>
**Most important reason (rank 2) for selecting Superstore * Ownership of a vehicle Cross tabulation**

<table>
<thead>
<tr>
<th>Most important reason (rank 2) for selecting Superstore</th>
<th>Ownership of a vehicle</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>On my way to home/work/school</td>
<td>Count</td>
</tr>
<tr>
<td></td>
<td>% within Most important reason (rank 2) for selecting Superstore</td>
</tr>
<tr>
<td></td>
<td>% within Ownership of a vehicle</td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
</tr>
<tr>
<td>Reasonable price</td>
<td>Count</td>
</tr>
<tr>
<td></td>
<td>% within Most important reason (rank 2) for selecting Superstore</td>
</tr>
<tr>
<td></td>
<td>% within Ownership of a vehicle</td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
</tr>
<tr>
<td>Variety of products</td>
<td>Count</td>
</tr>
<tr>
<td></td>
<td>% within Most important reason (rank 2) for selecting Superstore</td>
</tr>
<tr>
<td></td>
<td>% within Ownership of a vehicle</td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
</tr>
<tr>
<td>Close to my home</td>
<td>Count</td>
</tr>
<tr>
<td></td>
<td>% within Most important reason (rank 2) for selecting Superstore</td>
</tr>
<tr>
<td></td>
<td>% within Ownership of a vehicle</td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
</tr>
<tr>
<td>Close to buss stop/sky train</td>
<td>Count</td>
</tr>
<tr>
<td></td>
<td>% within Most important reason (rank 2) for selecting Superstore</td>
</tr>
<tr>
<td>Good quality of products</td>
<td>Ownership of a vehicle</td>
</tr>
<tr>
<td>-------------------------</td>
<td>------------------------</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
</tr>
<tr>
<td>Ownership of a vehicle</td>
<td>3.6%</td>
</tr>
<tr>
<td>% of Total</td>
<td>1.1%</td>
</tr>
<tr>
<td>Count</td>
<td>0</td>
</tr>
<tr>
<td>% within Most important reason (rank 2) for selecting Superstore</td>
<td>.0%</td>
</tr>
<tr>
<td>% within Ownership of a vehicle</td>
<td>.0%</td>
</tr>
<tr>
<td>% of Total</td>
<td>.0%</td>
</tr>
<tr>
<td>Count</td>
<td>28</td>
</tr>
<tr>
<td>% within Most important reason (rank 2) for selecting Superstore</td>
<td>30.1%</td>
</tr>
<tr>
<td>% within Ownership of a vehicle</td>
<td>100.0%</td>
</tr>
<tr>
<td>% of Total</td>
<td>30.1%</td>
</tr>
</tbody>
</table>

**Chi-Square Tests**

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>24.083(a)</td>
<td>5</td>
<td>.000</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>25.021</td>
<td>5</td>
<td>.000</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>.335</td>
<td>1</td>
<td>.562</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>93</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*a 7 cells (58.3%) have expected count less than 5. The minimum expected count is .30.

**Interpretation:** The Pearson Chi-Square sig. value is less than 0.05 at 95% confidence interval. Thus we reject the null hypothesis of independence. Thus it can be inferred that the second most important reason for selecting Superstore varies with ownership of vehicle.
Cross tabulation C: ‘Third most important (rank 3) reason for selecting Superstore for grocery shopping’ and ‘Ownership of vehicle’

Ho: The third most important reason for selecting Superstore is not different across respondent’s ownership of vehicle

**Case Processing Summary**

<table>
<thead>
<tr>
<th></th>
<th>Valid</th>
<th></th>
<th>Missing</th>
<th></th>
<th>Total</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>Percent</td>
<td>N</td>
<td>Percent</td>
<td>N</td>
<td>Percent</td>
</tr>
<tr>
<td><strong>Most important reason (rank 3) for selecting Superstore * Ownership of a vehicle</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>79</td>
<td>79.0%</td>
<td>21</td>
<td>21.0%</td>
<td>100</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

**Most important reason (rank 3) for selecting Superstore * Ownership of a vehicle Cross tabulation**

<table>
<thead>
<tr>
<th>Ownership of a vehicle</th>
<th>Yes</th>
<th>No</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>On my way to home/work/school</strong></td>
<td>Count</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>25.0%</td>
<td>75.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td></td>
<td>5.0%</td>
<td>5.1%</td>
<td>5.1%</td>
</tr>
<tr>
<td></td>
<td>1.3%</td>
<td>3.8%</td>
<td>5.1%</td>
</tr>
<tr>
<td><strong>Reasonable price</strong></td>
<td>Count</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>33.3%</td>
<td>66.7%</td>
<td>100.0%</td>
</tr>
<tr>
<td></td>
<td>10.0%</td>
<td>6.8%</td>
<td>7.6%</td>
</tr>
<tr>
<td></td>
<td>2.5%</td>
<td>5.1%</td>
<td>7.6%</td>
</tr>
<tr>
<td><strong>Variety of products</strong></td>
<td>Count</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>9</td>
<td>5</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>64.3%</td>
<td>35.7%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Ownership of a vehicle</td>
<td>Yes</td>
<td>No</td>
<td>Total</td>
</tr>
<tr>
<td>------------------------</td>
<td>------</td>
<td>------</td>
<td>-------</td>
</tr>
<tr>
<td>% within</td>
<td>45.0%</td>
<td>8.5%</td>
<td>17.7%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Close to my home</th>
<th>Count</th>
<th>% within Most important reason (rank 3) for selecting Superstore</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>25.0%</td>
<td>11.4%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Close to buss stop/sky train</th>
<th>Count</th>
<th>% within Most important reason (rank 3) for selecting Superstore</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2</td>
<td>8.3%</td>
<td>2.5%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Good quality of products</th>
<th>Count</th>
<th>% within Most important reason (rank 3) for selecting Superstore</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>------------------------------</td>
<td>2</td>
<td>16.7%</td>
<td>2.5%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Good service</th>
<th>Count</th>
<th>% within Most important reason (rank 3) for selecting Superstore</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>.0%</td>
<td>.0%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Location in mall</th>
<th>Count</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>5.1%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Good service</th>
<th>Count</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4</td>
<td>5.1%</td>
</tr>
<tr>
<td>Good sales/discount</td>
<td>Ownership of a vehicle</td>
<td>Total</td>
</tr>
<tr>
<td>---------------------</td>
<td>------------------------</td>
<td>-------</td>
</tr>
<tr>
<td>% within Most important reason (rank 3) for selecting Superstore</td>
<td>100.0%</td>
<td>.0%</td>
</tr>
<tr>
<td>% within Ownership of a vehicle</td>
<td>5.0%</td>
<td>.0%</td>
</tr>
<tr>
<td>% of Total</td>
<td>1.3%</td>
<td>.0%</td>
</tr>
<tr>
<td>Count</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total</th>
<th>% within Most important reason (rank 3) for selecting Superstore</th>
<th>% within Ownership of a vehicle</th>
<th>% of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Count</td>
<td>20</td>
<td>74.7%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

**Chi-Square Tests**

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>20.569(a)</td>
<td>8</td>
<td>.008</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>20.930</td>
<td>8</td>
<td>.007</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>3.845</td>
<td>1</td>
<td>.050</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>79</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a 13 cells (72.2%) have expected count less than 5. The minimum expected count is .25.

**Interpretation:** The Pearson Chi-Square sig. value is less than 0.05 at 95% confidence interval. Thus we reject the null hypothesis of independence. Thus it can be inferred that the third most important reason for selecting Superstore varies with ownership of vehicle.
Appendix 24: Cross tabulation output conducted between ‘Ownership of vehicle’ and ‘Status in Canada’

Ho: Respondent’s ownership of vehicle is not different across respondent’s status in Canada

<table>
<thead>
<tr>
<th>Case Processing Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cases</strong></td>
</tr>
<tr>
<td><strong>Valid</strong></td>
</tr>
<tr>
<td>N</td>
</tr>
<tr>
<td>Status in Canada * Ownership of a vehicle</td>
</tr>
<tr>
<td>100</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Status in Canada * Ownership of a vehicle Cross tabulation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ownership of a vehicle</strong></td>
</tr>
<tr>
<td><strong>Status in Canada</strong></td>
</tr>
<tr>
<td>Citizen</td>
</tr>
<tr>
<td>Permanent Resident</td>
</tr>
<tr>
<td>Landed Immigrant</td>
</tr>
<tr>
<td>On Visa</td>
</tr>
</tbody>
</table>

% within Status in Canada % within Ownership of a vehicle % of Total

| Citizen | 63.6% | 36.4% | 100.0% |
| Permanent Resident | 30.8% | 69.2% | 100.0% |
| Landed Immigrant | 50.0% | 50.0% | 100.0% |
| On Visa | 12.5% | 87.5% | 100.0% |

% within Ownership of a vehicle % of Total

| Citizen | 61.8% | 18.2% | 33.0% |
| Permanent Resident | 11.8% | 13.6% | 13.0% |
| Landed Immigrant | 8.8% | 4.5% | 6.0% |
| On Visa | 17.6% | 63.6% | 48.0% |

% of Total

<p>| Citizen | 21.0% | 12.0% | 33.0% |
| Permanent Resident | 4.0% | 9.0% | 13.0% |
| Landed Immigrant | 3.0% | 3.0% | 6.0% |
| On Visa | 6.0% | 42.0% | 48.0% |</p>
<table>
<thead>
<tr>
<th>Total</th>
<th>Count</th>
<th>34</th>
<th>66</th>
<th>100</th>
</tr>
</thead>
<tbody>
<tr>
<td>% within Status in Canada</td>
<td>34.0%</td>
<td>66.0%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>% within Ownership of a vehicle</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
<td></td>
</tr>
<tr>
<td>% of Total</td>
<td>34.0%</td>
<td>66.0%</td>
<td>100.0%</td>
<td></td>
</tr>
</tbody>
</table>

### Chi-Square Tests

<table>
<thead>
<tr>
<th>Test</th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>23.549(a)</td>
<td>3</td>
<td>.000</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>24.409</td>
<td>3</td>
<td>.000</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>20.879</td>
<td>1</td>
<td>.000</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>100</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a 3 cells (37.5%) have expected count less than 5. The minimum expected count is 2.04.

**Interpretation:** The Pearson Chi-Square sig. value is less than 0.05 at 95% confidence interval. Thus we reject the null hypothesis of independence. Thus it can be inferred that the ownership of vehicle varies with respondent's status in Canada.
Appendix 25: Respondents’ intention to switch from Canadian Superstore in different situations

Situation 1: Interest to switch to other store if more convenient location is offered with same product and/or service

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>89</td>
<td>89.0</td>
<td>89.0</td>
<td>89.0</td>
</tr>
<tr>
<td>No</td>
<td>11</td>
<td>11.0</td>
<td>11.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Situation 2: Interest to switch to other store if lower price is offered with same product and/or service

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>91</td>
<td>91.0</td>
<td>91.0</td>
<td>91.0</td>
</tr>
<tr>
<td>No</td>
<td>9</td>
<td>9.0</td>
<td>9.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Situation 3: Interest to continue shopping at Superstore even when no outlet is found nearby

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>24</td>
<td>24.0</td>
<td>24.0</td>
<td>24.0</td>
</tr>
<tr>
<td>No</td>
<td>76</td>
<td>76.0</td>
<td>76.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>
Appendix 26: Cross tabulation between ‘Intention to switch’ in Situation 1 and 3 and ‘Ownership of vehicle’

Ho: ‘Intention to switch’ in situation 1 and ‘ownership of vehicle’ is independent of each other.

Case Processing Summary

<table>
<thead>
<tr>
<th>Cases</th>
<th>Valid</th>
<th>Missing</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>Percent</td>
<td>N</td>
</tr>
<tr>
<td>Situation 1: Interest to switch to other store if more convenient location is offered with same product and/or service * Ownership of a vehicle</td>
<td>100</td>
<td>100.0%</td>
<td>0</td>
</tr>
</tbody>
</table>

Situation 1: Interest to switch to other store if more convenient location is offered with same product and/or service * Ownership of a vehicle Cross tabulation

<table>
<thead>
<tr>
<th>Ownership of a vehicle</th>
<th>Yes</th>
<th>No</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Count</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Situation 1: Interest to switch to other store if more convenient location is offered with same product and/or service</td>
<td>30</td>
<td>59</td>
<td>89</td>
</tr>
<tr>
<td>% within Situation 1: Interest to switch to other store if more convenient location is offered with same product and/or service</td>
<td>33.7%</td>
<td>66.3%</td>
<td>100.0%</td>
</tr>
<tr>
<td>% within Ownership of a vehicle</td>
<td>88.2%</td>
<td>89.4%</td>
<td>89.0%</td>
</tr>
<tr>
<td>% of Total</td>
<td>30.0%</td>
<td>59.0%</td>
<td>89.0%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ownership of a vehicle</th>
<th>Yes</th>
<th>No</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Count</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>4</td>
<td>7</td>
<td>11</td>
</tr>
<tr>
<td>% within Situation 1: Interest to switch to other store if more convenient location is offered with same product and/or service</td>
<td>36.4%</td>
<td>63.6%</td>
<td>100.0%</td>
</tr>
<tr>
<td>% within Ownership of a vehicle</td>
<td>11.8%</td>
<td>10.6%</td>
<td>11.0%</td>
</tr>
<tr>
<td>% of Total</td>
<td>Ownership of a vehicle</td>
<td>Total</td>
<td></td>
</tr>
<tr>
<td>------------</td>
<td>-----------------------</td>
<td>-------</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>% within Situation 1: Interest to switch to other store if more convenient location is offered with same product and/or service</td>
<td>34.0%</td>
<td>66.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>% within Ownership of a vehicle</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>% of Total</td>
<td>34.0%</td>
<td>66.0%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

**Chi-Square Tests**

<table>
<thead>
<tr>
<th>Test</th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
<th>Exact Sig. (2-sided)</th>
<th>Exact Sig. (1-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>.031(b)</td>
<td>1</td>
<td>.861</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Continuity Correction(a)</td>
<td>.000</td>
<td>1</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>.030</td>
<td>1</td>
<td>.861</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fisher’s Exact Test</td>
<td></td>
<td></td>
<td>1.000</td>
<td>.552</td>
<td></td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>.030</td>
<td>1</td>
<td>.861</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a Computed only for a 2x2 table
b 1 cells (25.0%) have expected count less than 5. The minimum expected count is 3.74.

**Interpretation:** At 95% level of confidence, as the Pearson chi-square sig. value is greater than 0.05, we fail to reject the null hypothesis of independence.

Ho: ‘Intention to switch’ in situation 3 and ‘Ownership of vehicle’ is independent of each other.

**Case Processing Summary**

<table>
<thead>
<tr>
<th>Cases</th>
<th>Valid</th>
<th>Missing</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>Percent</td>
<td>N</td>
<td>Percent</td>
</tr>
<tr>
<td>Situation 3: Interest to continue shopping at Superstore even when no outlet is found nearby * Ownership of a vehicle</td>
<td>100</td>
<td>100.0%</td>
<td>0</td>
</tr>
</tbody>
</table>

103
### Situation 3: Interest to continue shopping at Superstore even when no outlet is found nearby *Ownership of a vehicle Cross tabulation*

<table>
<thead>
<tr>
<th>Ownership of a vehicle</th>
<th>Yes</th>
<th>No</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Situation 3:</strong> Interest to continue shopping at Superstore even when no outlet is found nearby</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>10</td>
<td>14</td>
<td>24</td>
</tr>
<tr>
<td>% within Situation 3: Interest to continue shopping at Superstore even when no outlet is found nearby</td>
<td>41.7%</td>
<td>58.3%</td>
<td>100.0%</td>
</tr>
<tr>
<td>% within Ownership of a vehicle</td>
<td>29.4%</td>
<td>21.2%</td>
<td>24.0%</td>
</tr>
<tr>
<td>% of Total</td>
<td>10.0%</td>
<td>14.0%</td>
<td>24.0%</td>
</tr>
<tr>
<td>No</td>
<td>24</td>
<td>52</td>
<td>76</td>
</tr>
<tr>
<td>% within Situation 3: Interest to continue shopping at Superstore even when no outlet is found nearby</td>
<td>31.6%</td>
<td>68.4%</td>
<td>100.0%</td>
</tr>
<tr>
<td>% within Ownership of a vehicle</td>
<td>70.6%</td>
<td>78.8%</td>
<td>76.0%</td>
</tr>
<tr>
<td>% of Total</td>
<td>24.0%</td>
<td>52.0%</td>
<td>76.0%</td>
</tr>
<tr>
<td>Total</td>
<td>34</td>
<td>66</td>
<td>100</td>
</tr>
<tr>
<td>% within Situation 3: Interest to continue shopping at Superstore even when no outlet is found nearby</td>
<td>34.0%</td>
<td>66.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>% within Ownership of a vehicle</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>% of Total</td>
<td>34.0%</td>
<td>66.0%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>
Chi-Square Tests

<table>
<thead>
<tr>
<th>Test</th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
<th>Exact Sig. (2-sided)</th>
<th>Exact Sig. (1-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>.827(b)</td>
<td>1</td>
<td>.363</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Continuity Correction(a)</td>
<td>.439</td>
<td>1</td>
<td>.508</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>.810</td>
<td>1</td>
<td>.368</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fisher's Exact Test</td>
<td></td>
<td></td>
<td>.459</td>
<td>.252</td>
<td></td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>.819</td>
<td>1</td>
<td>.366</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*a Computed only for a 2x2 table
b 0 cells (.0%) have expected count less than 5. The minimum expected count is 8.16.

**Interpretation:** At 95% level of confidence, as the Pearson chi-square sig. value is greater than 0.05, we fail to reject the null hypothesis of independence.
Appendix 27: Cross tabulation between ‘Intention to switch’ in situation 1 and ‘Most important reason for selecting Superstore’

Ho: ‘Intention to switch’ in situation 1 and ‘most important reason for selecting Superstore’ is independent of each other.

Case Processing Summary

<table>
<thead>
<tr>
<th>Most important reason (rank 1) for selecting Superstore * Situation 1: Interest to switch to other store if more convenient location is offered with same product and/or service</th>
<th>N</th>
<th>Percent</th>
<th>N</th>
<th>Percent</th>
<th>N</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>99</td>
<td>99.0%</td>
<td>1</td>
<td>1.0%</td>
<td>100</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Most important reason (rank 1) for selecting Superstore * Situation 1: Interest to switch to other store if more convenient location is offered with same product and/or service Cross tabulation

<table>
<thead>
<tr>
<th>Most important reason (rank 1) for selecting Superstore</th>
<th>On my way to home/work/school</th>
<th>Count</th>
<th>Yes</th>
<th>No</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>% within Most important reason (rank 1) for selecting Superstore</td>
<td></td>
<td>100.0%</td>
<td>.0%</td>
<td>100.0%</td>
<td></td>
</tr>
</tbody>
</table>

% within Situation 1: Interest to switch to other store if more convenient location is offered with same product and/or service

<p>| % within Situation 1: Interest to switch to other store if more convenient location is offered with same product and/or service | 10.2% | .0% | 9.1% |</p>
<table>
<thead>
<tr>
<th>Situation 1: Interest to switch to other store if more convenient location is offered with same product and/or service</th>
<th>Yes</th>
<th>No</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of Total</td>
<td>9.1%</td>
<td>.0%</td>
<td>9.1%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Reasonable price</th>
<th>Count</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>% within Most important reason (rank 1) for selecting Superstore</td>
<td>85.1%</td>
<td>14.9%</td>
<td>100.0%</td>
</tr>
<tr>
<td>% within Situation 1: Interest to switch to other store if more convenient location is offered with same product and/or service</td>
<td>64.8%</td>
<td>90.9%</td>
<td>67.7%</td>
</tr>
<tr>
<td>% of Total</td>
<td>57.6%</td>
<td>10.1%</td>
<td>67.7%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Variety of products</th>
<th>Count</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>% within Most important reason (rank 1) for selecting Superstore</td>
<td>92.9%</td>
<td>7.1%</td>
<td>100.0%</td>
</tr>
<tr>
<td>% within Situation 1: Interest to switch to other store if more convenient location is offered with same product and/or service</td>
<td>14.8%</td>
<td>9.1%</td>
<td>14.1%</td>
</tr>
<tr>
<td>% of Total</td>
<td>13.1%</td>
<td>1.0%</td>
<td>14.1%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Close to my home</th>
<th>Count</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>% within Most important reason (rank 1) for selecting Superstore</td>
<td>100.0%</td>
<td>.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>Location</td>
<td>Count</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------------------</td>
<td>-------</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Close to buss stop/sky train</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Location in mall</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Sell bulk products</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Situation 1: Interest to switch to other store if more convenient location is offered with same product and/or service</th>
<th>Yes</th>
<th>No</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>% within Situation 1: Interest to switch to other store if more convenient location is offered with same product and/or service</td>
<td>3.4%</td>
<td>.0%</td>
<td>3.0%</td>
</tr>
<tr>
<td>% of Total</td>
<td>3.0%</td>
<td>.0%</td>
<td>3.0%</td>
</tr>
<tr>
<td>Count</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>% within Most important reason (rank 1) for selecting Superstore</td>
<td>100.0%</td>
<td>.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>% within Situation 1: Interest to switch to other store if more convenient location is offered with same product and/or service</td>
<td>3.4%</td>
<td>.0%</td>
<td>3.0%</td>
</tr>
<tr>
<td>% of Total</td>
<td>3.0%</td>
<td>.0%</td>
<td>3.0%</td>
</tr>
<tr>
<td>Count</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>% within Most important reason (rank 1) for selecting Superstore</td>
<td>100.0%</td>
<td>.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>% within Situation 1: Interest to switch to other store if more convenient location is offered with same product and/or service</td>
<td>1.1%</td>
<td>.0%</td>
<td>1.0%</td>
</tr>
<tr>
<td>% of Total</td>
<td>1.0%</td>
<td>.0%</td>
<td>1.0%</td>
</tr>
<tr>
<td>Count</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>% within Most important reason (rank 1) for selecting Superstore</td>
<td>Yes</td>
<td>No</td>
<td>Total</td>
</tr>
<tr>
<td>---------------------------------------------------------------</td>
<td>-----</td>
<td>----</td>
<td>-------</td>
</tr>
<tr>
<td>% within Situation 1: Interest to switch to other store if more convenient location is offered with same product and/or service</td>
<td>100.0%</td>
<td>.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>% of Total</td>
<td>2.0%</td>
<td>.0%</td>
<td>2.0%</td>
</tr>
</tbody>
</table>

### Total

<table>
<thead>
<tr>
<th>Count</th>
<th>88</th>
<th>11</th>
<th>99</th>
</tr>
</thead>
<tbody>
<tr>
<td>% within Most important reason (rank 1) for selecting Superstore</td>
<td>88.9%</td>
<td>11.1%</td>
<td>100.0%</td>
</tr>
<tr>
<td>% within Situation 1: Interest to switch to other store if more convenient location is offered with same product and/or service</td>
<td>100.0%</td>
<td>100.0%</td>
<td>100.0%</td>
</tr>
<tr>
<td>% of Total</td>
<td>88.9%</td>
<td>11.1%</td>
<td>100.0%</td>
</tr>
</tbody>
</table>
Chi-square Tests

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>Df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>3.460(a)</td>
<td>6</td>
<td>.749</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>5.395</td>
<td>6</td>
<td>.494</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>.661</td>
<td>1</td>
<td>.416</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>99</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*a 10 cells (71.4%) have expected count less than 5. The minimum expected count is .11.

**Interpretation:** At 95% level of confidence, as the Pearson chi-square sig. value is greater than 0.05, we fail to reject the null hypothesis of independence.
Appendix 28: Cross tabulation between ‘Intention to switch’ in situation 2 and ‘Most visited grocery store’

Case Processing Summary

<table>
<thead>
<tr>
<th>Cases</th>
<th>Valid</th>
<th>Missing</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>Percent</td>
<td>N</td>
</tr>
<tr>
<td>The most visited grocery store in last 6 months * Situation 2: Interest to switch to other store if lower price is offered with same product and/or service</td>
<td>100</td>
<td>100.0%</td>
<td>0</td>
</tr>
</tbody>
</table>

The most visited grocery store in last 6 months * Situation 2: Interest to switch to other store if lower price is offered with same product and/or service Cross tabulation

<table>
<thead>
<tr>
<th>The most visited grocery store in last 6 months</th>
<th>Canadian Superstore</th>
<th>Situation 2: Interest to switch to other store if lower price is offered with same product and/or service</th>
</tr>
</thead>
<tbody>
<tr>
<td>Count</td>
<td>31</td>
<td>81.6% 18.4% 100.0%</td>
</tr>
<tr>
<td>% within The most visited grocery store in last 6 months</td>
<td></td>
<td>34.1% 77.8% 38.0%</td>
</tr>
<tr>
<td>% of Total</td>
<td>31.0% 7.0% 38.0%</td>
<td></td>
</tr>
<tr>
<td>Safeway</td>
<td>Count</td>
<td>34 1 35</td>
</tr>
<tr>
<td>% within The most visited grocery store in last 6 months</td>
<td></td>
<td>97.1% 2.9% 100.0%</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>------</td>
<td>------</td>
</tr>
<tr>
<td><strong>Situation 2: Interest to switch to other store if lower price is offered with same product and/or service</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% within Situation 2: Interest to switch to other store if lower price is offered with same product and/or service</td>
<td>37.4%</td>
<td>11.1%</td>
</tr>
<tr>
<td>% of Total</td>
<td>34.0%</td>
<td>1.0%</td>
</tr>
<tr>
<td><strong>Save on food</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>% within The most visited grocery store in last 6 months</td>
<td>50.0%</td>
<td>50.0%</td>
</tr>
<tr>
<td>% within Situation 2: Interest to switch to other store if lower price is offered with same product and/or service</td>
<td>1.1%</td>
<td>11.1%</td>
</tr>
<tr>
<td>% of Total</td>
<td>1.0%</td>
<td>1.0%</td>
</tr>
<tr>
<td><strong>Other grocery stores in shopping mall</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>19</td>
<td>0</td>
</tr>
<tr>
<td>% within The most visited grocery store in last 6 months</td>
<td>100.0%</td>
<td>.0%</td>
</tr>
<tr>
<td>% within Situation 2: Interest to switch to other store if lower price is offered with same product and/or service</td>
<td>20.9%</td>
<td>.0%</td>
</tr>
<tr>
<td>% of Total</td>
<td>19.0%</td>
<td>.0%</td>
</tr>
<tr>
<td><strong>Other convenience stores</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>% within The most visited grocery store in last 6 months</td>
<td>100.0%</td>
<td>.0%</td>
</tr>
</tbody>
</table>
### Chi-Square Tests

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>12.308(a)</td>
<td>4</td>
<td>.015</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>12.347</td>
<td>4</td>
<td>.015</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>4.258</td>
<td>1</td>
<td>.039</td>
</tr>
<tr>
<td>N of Valid Cases</td>
<td>100</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*a* 6 cells (60.0%) have expected count less than 5. The minimum expected count is .18.

**Interpretation:** At 95% level of confidence, the Pearson chi-square sig. value is less than 0.05. Thus we reject the null hypothesis of independence.
Appendix 29: Overall Loyalty towards Canadian Superstore

Statistics

<table>
<thead>
<tr>
<th>N</th>
<th>Valid</th>
<th>Missing</th>
<th></th>
<th></th>
<th>Mean</th>
<th>Median</th>
<th>Skewness</th>
<th>Std. Error of Skewness</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>100</td>
<td>0</td>
<td></td>
<td></td>
<td>3.47</td>
<td>4.00</td>
<td>.031</td>
<td>.241</td>
<td>1</td>
<td>7</td>
</tr>
</tbody>
</table>

Overall loyalty towards Canadian Superstore

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>11</td>
<td>11.0</td>
<td>11.0</td>
</tr>
<tr>
<td>2</td>
<td>19</td>
<td>19.0</td>
<td>30.0</td>
</tr>
<tr>
<td>3</td>
<td>19</td>
<td>19.0</td>
<td>49.0</td>
</tr>
<tr>
<td>4</td>
<td>22</td>
<td>22.0</td>
<td>71.0</td>
</tr>
<tr>
<td>5</td>
<td>23</td>
<td>23.0</td>
<td>94.0</td>
</tr>
<tr>
<td>6</td>
<td>4</td>
<td>4.0</td>
<td>98.0</td>
</tr>
<tr>
<td>7</td>
<td>2</td>
<td>2.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>
Appendix 30: One sample t-test on ‘Overall loyalty’ towards Superstore to measure the difference between sample means and scale’s midpoint.

Ho: Mean overall loyalty perceived by respondents is = 4

One-Sample Statistics

<table>
<thead>
<tr>
<th>Overall loyalty towards Canadian Superstore</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall loyalty towards Canadian Superstore</td>
<td>100</td>
<td>3.47</td>
<td>1.501</td>
<td>.150</td>
</tr>
</tbody>
</table>

One-Sample Test

<table>
<thead>
<tr>
<th>Overall loyalty towards Canadian Superstore</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
<th>Mean Difference</th>
<th>95% Confidence Interval of the Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall loyalty towards Canadian Superstore</td>
<td>-3.532</td>
<td>99</td>
<td>.001</td>
<td>-.53</td>
<td>-.83 to -.23</td>
</tr>
</tbody>
</table>

**Interpretation:** The sig. value at 95% level of confidence was found to be below 0.05. Thus we reject the null hypothesis that the mean is equal to 4.
Appendix 31: Overall loyalty (Cumulative loyalty score of the respondents)

<table>
<thead>
<tr>
<th>Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
</tr>
<tr>
<td>94</td>
</tr>
<tr>
<td>Mean</td>
</tr>
<tr>
<td>Median</td>
</tr>
<tr>
<td>Std. Deviation</td>
</tr>
<tr>
<td>Minimum</td>
</tr>
<tr>
<td>Maximum</td>
</tr>
<tr>
<td>Percentiles</td>
</tr>
<tr>
<td>53.5714</td>
</tr>
</tbody>
</table>

Cumulative loyalty score in percentage

Cumulative loyalty score

Std. Dev = 6.98
Mean = 58.9
N = 94.00

Cumulative loyalty score
Appendix 32: One sample t-test on ‘Overall loyalty’ (Cumulative loyalty score) towards Superstore to measure the difference between sample mean and scale’s midpoint

Ho: The average cumulative percentage score = 50%

One-Sample Statistics

<table>
<thead>
<tr>
<th>Cumulative loyalty score in percentage</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cumulative loyalty score in percentage</td>
<td>94</td>
<td>58.88</td>
<td>6.982</td>
<td>.720</td>
</tr>
</tbody>
</table>

One-Sample Test

<table>
<thead>
<tr>
<th>Cumulative loyalty score in percentage</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
<th>Mean Difference</th>
<th>95% Confidence Interval of the Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>12.331</td>
<td>93</td>
<td>.000</td>
<td>8.88</td>
<td>7.45 to 10.31</td>
</tr>
</tbody>
</table>

**Interpretation:** The sig. value at 95% level of confidence was found to be below 0.05.

Thus we reject the null hypothesis that the mean is equal to 50%.
Appendix 33: Independent sample t test carried out on ‘Intention to switch’ in different situations and ‘Overall loyalty’

Ho: The mean overall loyalty is same across intention to switch in situation 1

Ho: The variances across groups are equal

**Group Statistics**

<table>
<thead>
<tr>
<th>Situation 1: Interest to switch to other store if more convenient location is offered with same product and/or service</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall loyalty towards Canadian Superstore</td>
<td>Yes</td>
<td>89</td>
<td>3.39</td>
<td>1.512</td>
</tr>
<tr>
<td>Overall loyalty towards Canadian Superstore</td>
<td>No</td>
<td>11</td>
<td>4.09</td>
<td>1.300</td>
</tr>
</tbody>
</table>

**Independent Samples Test**

<table>
<thead>
<tr>
<th>Equal variances assumed</th>
<th>Levene’s Test for Equality of Variances</th>
<th>t-test for Equality of Means</th>
</tr>
</thead>
<tbody>
<tr>
<td>F</td>
<td>Sig.</td>
<td>t</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Overall loyalty towards Canadian Superstore</td>
<td>.223</td>
<td>.638</td>
</tr>
<tr>
<td>Equal variances not assumed</td>
<td>-1.647</td>
<td>13.579</td>
</tr>
</tbody>
</table>

Interpretation: As the Levene’s test of equality derived a sig. value of 0.638, we fail reject the null hypothesis of equal variance. With equal variance assumed, at 95% level of confidence, the sig. value is derived to be 0.147, which is greater than 0.05. Thus we fail to reject the null hypothesis of equal mean overall loyalty across intention to switch in situation 1.
Ho: The mean overall loyalty is same across intention to switch in situation 2

Ho: The variances across groups are equal

**Group Statistics**

<table>
<thead>
<tr>
<th>Situation 2: Interest to switch to other store if lower price is offered with same product and/or service</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall loyalty towards Canadian Superstore (Yes)</td>
<td>91</td>
<td>3.34</td>
<td>1.408</td>
<td>.148</td>
</tr>
<tr>
<td>Overall loyalty towards Canadian Superstore (No)</td>
<td>9</td>
<td>4.78</td>
<td>1.856</td>
<td>.619</td>
</tr>
</tbody>
</table>

**Independent Samples Test**

<table>
<thead>
<tr>
<th>Levene's Test for Equality of Variances</th>
<th>t-test for Equality of Means</th>
<th>95% Confidence Interval of the Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>F</td>
<td>t</td>
<td>df</td>
</tr>
<tr>
<td>Overall loyalty towards Canadian Superstore (Equal variances assumed)</td>
<td>.009</td>
<td>.925</td>
</tr>
<tr>
<td>Equal variances not assumed</td>
<td>-2.260</td>
<td>8.934</td>
</tr>
</tbody>
</table>

**Interpretation:** As the Levene’s test of equality derived a sig. value of 0.925; we fail to reject the null hypothesis of equal variance. With equal variance assumed, at 95% level of confidence, the sig. value is derived to be 0.006, which is less than 0.05. Thus we reject the null hypothesis of equal mean overall loyalty across intention to switch in situation 2.
Ho: The mean overall loyalty is same across intention to switch in situation 3

Ho: The variances across groups are equal

**Group Statistics**

<table>
<thead>
<tr>
<th>Situation 3: Interest to switch to other store if shifted and no Canadian Superstore is found nearby</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall loyalty towards Canadian Superstore: Yes</td>
<td>24</td>
<td>4.00</td>
<td>1.063</td>
<td>.217</td>
</tr>
<tr>
<td>Overall loyalty towards Canadian Superstore: No</td>
<td>76</td>
<td>3.30</td>
<td>1.583</td>
<td>.182</td>
</tr>
</tbody>
</table>

**Independent Samples Test**

<table>
<thead>
<tr>
<th>Overall loyalty towards Canadian Superstore: Equal variances assumed</th>
<th>F</th>
<th>Sig.</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
<th>Mean Difference</th>
<th>Std. Error Difference</th>
<th>95% Confidence Interval of the Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>7.238</td>
<td>.008</td>
<td>2.015</td>
<td>98</td>
<td>.047</td>
<td>.70</td>
<td>.346</td>
<td>.011 - 1.384</td>
</tr>
</tbody>
</table>

| Overall loyalty towards Canadian Superstore: Equal variances not assumed | 2.464| 57.805| .017| .70 | .283           | .131             | 1.264                |

**Interpretation:** As the Levene’s test of equality derived a sig. value of 0.008; we reject the null hypothesis of equal variance. With equal variance not assumed, at 95% level of confidence, the sig. value is derived to be 0.017, which is less than 0.05. Thus we reject the null hypothesis of equal mean overall loyalty across intention to switch in situation 3.
Appendix 34: Univariate ANOVA test conducted between ‘Overall loyalty’ and ‘Most visited grocery store’

Ho: The mean overall loyalty is same across most visited grocery store.

<table>
<thead>
<tr>
<th>Between-Subjects Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value Label</td>
</tr>
<tr>
<td>The most visited grocery store in last 6 months</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

Levene's Test of Equality of Error Variances (a)

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>dff</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected Model</td>
<td>98.007(a)</td>
<td>4</td>
<td>24.502</td>
<td>18.636</td>
<td>.000</td>
</tr>
<tr>
<td>Intercept</td>
<td>234.850</td>
<td>1</td>
<td>234.850</td>
<td>178.625</td>
<td>.000</td>
</tr>
<tr>
<td>Q2</td>
<td>98.007</td>
<td>4</td>
<td>24.502</td>
<td>18.636</td>
<td>.000</td>
</tr>
<tr>
<td>Error</td>
<td>124.903</td>
<td>95</td>
<td>1.315</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1427.000</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>222.910</td>
<td>99</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a Design: Intercept+Q2

R Squared = .440 (Adjusted R Squared = .416)
The most visited grocery store in last 6 months

Dependent Variable: Overall loyalty towards Canadian Superstore

<table>
<thead>
<tr>
<th>The most visited grocery store in last 6 months</th>
<th>Mean</th>
<th>Std. Error</th>
<th>95% Confidence Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canadian Superstore</td>
<td>4.553</td>
<td>.186</td>
<td>4.183</td>
</tr>
<tr>
<td>Safeway</td>
<td>2.686</td>
<td>.194</td>
<td>2.301</td>
</tr>
<tr>
<td>Save on food</td>
<td>1.000</td>
<td>.811</td>
<td>-1.610</td>
</tr>
<tr>
<td>Other grocery stores in shopping mall</td>
<td>3.579</td>
<td>.263</td>
<td>3.057</td>
</tr>
<tr>
<td>Other convenience stores</td>
<td>1.667</td>
<td>.468</td>
<td>.737</td>
</tr>
</tbody>
</table>

The most visited grocery store in last 6 months

Interpretation: at 95% confidence level, the sig. value was found to be 0, which is less than 0.05. Thus we reject the null hypothesis of equal mean overall loyalty across different most visited grocery stores.
Appendix 35: Univariate ANOVA test conducted between ‘Overall loyalty’ and ‘Most important reason for choosing Superstore’

Ho: The mean overall loyalty is same across different reason for choosing Superstore.

**Between-Subjects Factors**

<table>
<thead>
<tr>
<th>Most important reason (rank 1) for selecting Superstore</th>
<th>Value Label</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>On my way to home/work/school</td>
<td>9</td>
</tr>
<tr>
<td>2</td>
<td>Reasonable price</td>
<td>67</td>
</tr>
<tr>
<td>3</td>
<td>Variety of products</td>
<td>14</td>
</tr>
<tr>
<td>4</td>
<td>Close to my home</td>
<td>3</td>
</tr>
<tr>
<td>5</td>
<td>Close to buss stop/sky train</td>
<td>3</td>
</tr>
<tr>
<td>8</td>
<td>Location in mall</td>
<td>1</td>
</tr>
<tr>
<td>9</td>
<td>Sell bulk products</td>
<td>2</td>
</tr>
</tbody>
</table>

**Levene’s Test of Equality of Error Variances (a)**

Dependent Variable: Overall loyalty towards Canadian Superstore

<table>
<thead>
<tr>
<th>F</th>
<th>df1</th>
<th>df2</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.469</td>
<td>6</td>
<td>92</td>
<td>.029</td>
</tr>
</tbody>
</table>

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a Design: Intercept+Q8RK1

**Tests of Between-Subjects Effects**

Dependent Variable: Overall loyalty towards Canadian Superstore

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected Model</td>
<td>13.047(a)</td>
<td>6</td>
<td>2.174</td>
<td>.982</td>
<td>.442</td>
</tr>
<tr>
<td>Intercept</td>
<td>236.574</td>
<td>1</td>
<td>236.574</td>
<td>106.847</td>
<td>.000</td>
</tr>
<tr>
<td>Q8RK1</td>
<td>13.047</td>
<td>6</td>
<td>2.174</td>
<td>.982</td>
<td>.442</td>
</tr>
<tr>
<td>Error</td>
<td>203.701</td>
<td>92</td>
<td>2.214</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1426.000</td>
<td>99</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>216.747</td>
<td>98</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a R Squared = .060 (Adjusted R Squared = -.001)
Interpretation: At 95% confidence level, the sig. value was found to be 0.442, which is greater than 0.05. Thus we fail to reject the null hypothesis of equal mean overall loyalty across different reasons for choosing Superstore.

Appendix 36: Correlation between ‘Frequency of visit to Canadian Superstore’ and ‘Overall loyalty’ to the store.

Ho: there is no correlation between frequency of visit to Canadian Superstore and overall loyalty

Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency of visit to Canadian Superstore to buy grocery in last 6 months</td>
<td>4.61</td>
<td>2.767</td>
<td>100</td>
</tr>
<tr>
<td>Overall loyalty towards Canadian Superstore</td>
<td>3.47</td>
<td>1.501</td>
<td>100</td>
</tr>
</tbody>
</table>

Correlations(a)

<table>
<thead>
<tr>
<th></th>
<th>Frequency of visit to Canadian Superstore to buy grocery in last 6 months</th>
<th>Overall loyalty towards Canadian Superstore</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency of visit to Canadian Superstore to buy grocery in last 6 months</td>
<td>Pearson Correlation 1</td>
<td>.602</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td>.000</td>
</tr>
<tr>
<td>Sum of Squares and Cross-products</td>
<td>757.790</td>
<td>247.330</td>
</tr>
<tr>
<td>Covariance</td>
<td>7.654</td>
<td>2.498</td>
</tr>
<tr>
<td>Overall loyalty towards Canadian Superstore</td>
<td>Pearson Correlation .602</td>
<td>1</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.</td>
</tr>
<tr>
<td>Sum of Squares and Cross-products</td>
<td>247.330</td>
<td>222.910</td>
</tr>
<tr>
<td>Covariance</td>
<td>2.498</td>
<td>2.252</td>
</tr>
</tbody>
</table>

a Listwise N=100
**Interpretation:** at 95% confidence interval, the sig. value derived from the correlation test is 0 and it is less than 0.05. Thus we reject the null hypothesis of no correlation.

Ho: there is no correlation between frequency of visit to Canadian Superstore and cumulative percentage loyalty score

**Descriptive Statistics**

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency of visit to Canadian Superstore to buy grocery in last 6 months</td>
<td>4.63</td>
<td>2.782</td>
<td>94</td>
</tr>
<tr>
<td>Cumulative loyalty score in percentage</td>
<td>58.88</td>
<td>6.982</td>
<td>94</td>
</tr>
</tbody>
</table>

**Correlations (a)**

<table>
<thead>
<tr>
<th></th>
<th>Frequency of visit to Canadian Superstore to buy grocery in last 6 months</th>
<th>Cumulative loyalty score in percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency of visit to Canadian Superstore to buy grocery in last 6 months</td>
<td>Pearson Correlation 1 .457</td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>Sum of Squares and Cross-products</td>
<td>719.968</td>
<td>825.076</td>
</tr>
<tr>
<td>Covariance</td>
<td>7.742</td>
<td>8.872</td>
</tr>
<tr>
<td>Cumulative loyalty score in percentage</td>
<td>Pearson Correlation .457 1</td>
<td></td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>Sum of Squares and Cross-products</td>
<td>825.076</td>
<td>4533.173</td>
</tr>
<tr>
<td>Covariance</td>
<td>8.872</td>
<td>48.744</td>
</tr>
</tbody>
</table>

*a Listwise N=94*

**Interpretation:** at 95% confidence interval, the sig. value derived from the correlation test is 0 and it is less than 0.05. Thus we reject the null hypothesis of no correlation.
Appendix 37: Correlation between ‘Share of wallet for Canadian Superstore’ and ‘Overall loyalty’ to the store

Ho: there is no correlation between share of wallet for Canadian Superstore and overall loyalty

Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount allocated to Canadian Superstore out of 100 dollar spent on grocery</td>
<td>38.44</td>
<td>27.669</td>
<td>100</td>
</tr>
<tr>
<td>Overall loyalty towards Canadian Superstore</td>
<td>3.47</td>
<td>1.501</td>
<td>100</td>
</tr>
</tbody>
</table>

Correlations(a)

<table>
<thead>
<tr>
<th></th>
<th>Amount allocated to Canadian Superstore out of 100 dollar spent on grocery</th>
<th>Overall loyalty towards Canadian Superstore</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amount allocated to Canadian Superstore out of 100 dollar spent on grocery</td>
<td>Pearson Correlation: 1.000</td>
<td>.677</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>Sum of Squares and Cross-products</td>
<td>75790.640</td>
<td>2782.320</td>
</tr>
<tr>
<td>Covariance</td>
<td>765.562</td>
<td>28.104</td>
</tr>
<tr>
<td>Overall loyalty towards Canadian Superstore</td>
<td>Pearson Correlation: .677</td>
<td>1.000</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>Sum of Squares and Cross-products</td>
<td>2782.320</td>
<td>222.910</td>
</tr>
<tr>
<td>Covariance</td>
<td>28.104</td>
<td>2.252</td>
</tr>
</tbody>
</table>

Interpretation: at 95% confidence interval, the sig. value derived form the correlation test is 0 and it is less than 0.05. Thus we reject the null hypothesis of no correlation.
Ho: there is no correlation between share of wallet for Canadian Superstore and cumulative percentage loyalty score

**Descriptive Statistics**

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cumulative loyalty score in percentage</td>
<td>58.88</td>
<td>6.982</td>
<td>94</td>
</tr>
<tr>
<td>Amount allocated to Canadian Superstore out of 100 dollar spent on grocery</td>
<td>38.39</td>
<td>27.962</td>
<td>94</td>
</tr>
</tbody>
</table>

**Correlations(a)**

<table>
<thead>
<tr>
<th></th>
<th>Cumulative loyalty score in percentage</th>
<th>Amount allocated to Canadian Superstore out of 100 dollar spent on grocery</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cumulative loyalty score in percentage</td>
<td>Pearson Correlation</td>
<td>1</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.</td>
<td>.000</td>
</tr>
<tr>
<td>Sum of Squares and Cross-products</td>
<td>4533.173</td>
<td>10731.144</td>
</tr>
<tr>
<td>Covariance</td>
<td>48.744</td>
<td>115.389</td>
</tr>
<tr>
<td>Amount allocated to Canadian Superstore out of 100 dollar spent on grocery</td>
<td>Pearson Correlation</td>
<td>.591</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
</tr>
<tr>
<td>Sum of Squares and Cross-products</td>
<td>10731.144</td>
<td>72716.436</td>
</tr>
<tr>
<td>Covariance</td>
<td>115.389</td>
<td>781.897</td>
</tr>
</tbody>
</table>

a Listwise N=94

**Interpretation:** at 95% confidence interval, the sig. value derived from the correlation test is 0 and it is less than 0.05. Thus we reject the null hypothesis of no correlation.
Appendix 38: Correlation between ‘Length of relation with Canadian Superstore’ and ‘Overall loyalty’ to the store.

Ho: there is no correlation between length of relation with Canadian Superstore and overall loyalty

Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length of relation with Canadian Superstore in months (calculated from the time of first visit to Canadian Superstore)</td>
<td>26.84</td>
<td>28.551</td>
<td>85</td>
</tr>
<tr>
<td>Overall loyalty towards Canadian Superstore</td>
<td>3.31</td>
<td>1.520</td>
<td>85</td>
</tr>
</tbody>
</table>

Correlations(a)

<table>
<thead>
<tr>
<th></th>
<th>Length of relation with Canadian Superstore in months (calculated from the time of first visit to Canadian Superstore)</th>
<th>Overall loyalty towards Canadian Superstore</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>1</td>
<td>-.158</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.</td>
<td>.147</td>
</tr>
<tr>
<td>Sum of Squares and Cross-products</td>
<td>68475.694</td>
<td>-577.718</td>
</tr>
<tr>
<td>Covariance</td>
<td>815.187</td>
<td>-6.878</td>
</tr>
<tr>
<td>Overall loyalty towards Canadian Superstore</td>
<td>-158</td>
<td>1</td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.147</td>
<td>.</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.</td>
<td></td>
</tr>
<tr>
<td>Sum of Squares and Cross-products</td>
<td>-577.718</td>
<td>194.047</td>
</tr>
<tr>
<td>Covariance</td>
<td>-6.878</td>
<td>2.310</td>
</tr>
</tbody>
</table>

a Listwise N=85

**Interpretation:** at 95% confidence interval, the sig. value derived form the correlation test is .147 and it is greater than 0.05. Thus we fail to reject the null hypothesis of no correlation.
Ho: there is no correlation between length of relation with Canadian Superstore and cumulative percentage loyalty score

Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cumulative loyalty score in percentage</td>
<td>58.82</td>
<td>6.993</td>
<td>81</td>
</tr>
<tr>
<td>Length of relation with Canadian Superstore in months (calculated from the time of first visit to Canadian Superstore)</td>
<td>26.46</td>
<td>28.070</td>
<td>81</td>
</tr>
</tbody>
</table>

Correlations(a)

<table>
<thead>
<tr>
<th></th>
<th>Cumulative loyalty score in percentage</th>
<th>Length of relation with Canadian Superstore in months (calculated from the time of first visit to Canadian Superstore)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cumulative loyalty score in percentage</td>
<td>Pearson Correlation</td>
<td>1</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.</td>
<td>.532</td>
</tr>
<tr>
<td>Sum of Squares and Cross-products</td>
<td>3912.554</td>
<td>-1105.360</td>
</tr>
<tr>
<td>Covariance</td>
<td>48.907</td>
<td>-13.817</td>
</tr>
<tr>
<td>Length of relation with Canadian Superstore in months (calculated from the time of first visit to Canadian Superstore)</td>
<td>Pearson Correlation</td>
<td>-.070</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.532</td>
<td>.</td>
</tr>
<tr>
<td>Sum of Squares and Cross-products</td>
<td>-1105.360</td>
<td>63036.099</td>
</tr>
<tr>
<td>Covariance</td>
<td>-13.817</td>
<td>787.951</td>
</tr>
</tbody>
</table>

Interpretation: at 95% confidence interval, the sig. value derived from the correlation test is 0.532 and it is greater than 0.05. Thus we fail to reject the null hypothesis of no correlation.
Appendix 39: Correlation between ‘No. of patronized stores’ and ‘Overall loyalty’ to the store.

Descriptive Statistics

<table>
<thead>
<tr>
<th>No. of store patronized in a month</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.95</td>
<td>.847</td>
<td>94</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cumulative loyalty score in percentage</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>58.88</td>
<td>6.982</td>
<td>94</td>
<td></td>
</tr>
</tbody>
</table>

Correlations(a)

<table>
<thead>
<tr>
<th>No. of store patronized in a month</th>
<th>Pearson Correlation</th>
<th>Optional label 1</th>
<th>Optional label 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sig. (2-tailed)</td>
<td>1</td>
<td>-.183</td>
<td></td>
</tr>
<tr>
<td>Sum of Squares and Cross-products</td>
<td>.718</td>
<td>-.100.499</td>
<td></td>
</tr>
<tr>
<td>Covariance</td>
<td>.078</td>
<td>-.1.081</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Cumulative loyalty score in percentage</th>
<th>Pearson Correlation</th>
<th>Optional label 1</th>
<th>Optional label 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sig. (2-tailed)</td>
<td>-.183</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Sum of Squares and Cross-products</td>
<td>.078</td>
<td>4533.173</td>
<td></td>
</tr>
<tr>
<td>Covariance</td>
<td>-.1.081</td>
<td>48.744</td>
<td></td>
</tr>
</tbody>
</table>

a Listwise N=94
Appendix 40: Factor analysis output with all 28 item from the scale

KMO and Bartlett's Test

| Kaiser-Meyer-Olkin Measure of Sampling Adequacy. | .579 |
| Bartlett's Test of Sphericity | Approx. Chi-Square | 1368.319 |
| df | 378 |
| Sig. | .000 |

Communalities

<table>
<thead>
<tr>
<th>Item</th>
<th>Initial</th>
<th>Extraction</th>
</tr>
</thead>
<tbody>
<tr>
<td>I understand the features of Canadian Superstore well enough to evaluate it against other grocery stores</td>
<td>1.000</td>
<td>.735</td>
</tr>
<tr>
<td>It is important that when choosing a grocery store, I make the right choice from all the options available</td>
<td>1.000</td>
<td>.840</td>
</tr>
<tr>
<td>Canadian Superstore is a grocery store that interests me/I consider for me for grocery shopping</td>
<td>1.000</td>
<td>.732</td>
</tr>
<tr>
<td>When deciding on a grocery store, I am NOT interested in bargain-seeking</td>
<td>1.000</td>
<td>.773</td>
</tr>
<tr>
<td>When choosing a grocery store, I compare prices of different grocery stores to be sure I get the best value for money</td>
<td>1.000</td>
<td>.789</td>
</tr>
<tr>
<td>Canadian Superstore has up-to-date equipment</td>
<td>1.000</td>
<td>.789</td>
</tr>
<tr>
<td>Canadian Superstore's facilities are visually appealing</td>
<td>1.000</td>
<td>.816</td>
</tr>
<tr>
<td>Canadian Superstore is exactly what I need from a grocery store</td>
<td>1.000</td>
<td>.716</td>
</tr>
<tr>
<td>Canadian Superstore, as a choice of grocery stores, has NOT worked out as well as I thought it would</td>
<td>1.000</td>
<td>.807</td>
</tr>
<tr>
<td>If I could do it over again, I would choose an alternative grocery store to Canadian Superstore</td>
<td>1.000</td>
<td>.873</td>
</tr>
<tr>
<td>I truly enjoy grocery shopping in Canadian Superstore</td>
<td>1.000</td>
<td>.807</td>
</tr>
<tr>
<td>Grocery stores should NOT be expected to give customers individualized attention</td>
<td>1.000</td>
<td>.810</td>
</tr>
<tr>
<td>Canadian Superstore is a store that I can talk about for a long time</td>
<td>1.000</td>
<td>.673</td>
</tr>
<tr>
<td>I have a preference for Canadian Superstore</td>
<td>1.000</td>
<td>.782</td>
</tr>
<tr>
<td>The Canadian Superstore is more than just a grocery store for me</td>
<td>1.000</td>
<td>.730</td>
</tr>
<tr>
<td>I would try an alternate grocery store if it was 25% less expensive than Canadian Superstore</td>
<td>1.000</td>
<td>.771</td>
</tr>
<tr>
<td>I would try an alternative grocery store if the alternative store offered better facilities than Canadian Superstore</td>
<td>1.000</td>
<td>.772</td>
</tr>
<tr>
<td>I would change the grocery store, if the alternative store offered increased status for me/suits more with my self-image.</td>
<td>1.000</td>
<td>.669</td>
</tr>
<tr>
<td>I would change the grocery store, if the alternative store's staff were more friendly</td>
<td>1.000</td>
<td>.757</td>
</tr>
</tbody>
</table>
When I see a new grocery store somewhat different from the usual, I investigate it 1.000 .661
I usually shop at the same grocery store within a locality 1.000 .724
Grocery shopping in Canadian Superstore says a lot about who I am 1.000 .677
I care a lot about Canadian Superstore 1.000 .788
I consider myself to be highly loyal to Canadian Superstore 1.000 .753
I would get bored of shopping at Canadian Superstore every time I do grocery shopping 1.000 .734
When I go to a grocery store, I feel it is safer to buy items that I am familiar with 1.000 .791
If I like a grocery store, I rarely switch from it to try something different 1.000 .772
I get bored with buying the same brand even if they are good 1.000 .770

Extraction Method: Principal Component Analysis.

**Total Variance Explained**

<table>
<thead>
<tr>
<th>Component</th>
<th>Initial Eigenvalues</th>
<th>Extraction Sums of Squared Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>% of Variance</td>
</tr>
<tr>
<td>1</td>
<td>5.264</td>
<td>18.801</td>
</tr>
<tr>
<td>4</td>
<td>2.072</td>
<td>7.401</td>
</tr>
<tr>
<td>5</td>
<td>1.803</td>
<td>6.440</td>
</tr>
<tr>
<td>6</td>
<td>1.574</td>
<td>5.620</td>
</tr>
<tr>
<td>7</td>
<td>1.364</td>
<td>4.870</td>
</tr>
<tr>
<td>8</td>
<td>1.287</td>
<td>4.596</td>
</tr>
<tr>
<td>9</td>
<td>1.144</td>
<td>4.087</td>
</tr>
<tr>
<td>10</td>
<td>1.028</td>
<td>3.672</td>
</tr>
<tr>
<td>11</td>
<td>.900</td>
<td>3.215</td>
</tr>
<tr>
<td>12</td>
<td>.745</td>
<td>2.662</td>
</tr>
<tr>
<td>13</td>
<td>.648</td>
<td>2.314</td>
</tr>
<tr>
<td>14</td>
<td>.630</td>
<td>2.250</td>
</tr>
<tr>
<td>15</td>
<td>.605</td>
<td>2.160</td>
</tr>
<tr>
<td>16</td>
<td>.489</td>
<td>1.746</td>
</tr>
<tr>
<td>17</td>
<td>.427</td>
<td>1.527</td>
</tr>
<tr>
<td>18</td>
<td>.369</td>
<td>1.319</td>
</tr>
<tr>
<td>19</td>
<td>.336</td>
<td>1.200</td>
</tr>
<tr>
<td>20</td>
<td>.284</td>
<td>1.015</td>
</tr>
<tr>
<td>21</td>
<td>.253</td>
<td>.939</td>
</tr>
<tr>
<td>22</td>
<td>.246</td>
<td>.880</td>
</tr>
<tr>
<td>23</td>
<td>.197</td>
<td>.704</td>
</tr>
<tr>
<td>24</td>
<td>.157</td>
<td>.559</td>
</tr>
<tr>
<td>25</td>
<td>.141</td>
<td>.505</td>
</tr>
<tr>
<td>Component</td>
<td>Initial Eigenvalues</td>
<td>Extraction Sums of Squared Loadings</td>
</tr>
<tr>
<td>-----------</td>
<td>---------------------</td>
<td>-------------------------------------</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>% of Variance</td>
</tr>
<tr>
<td>26</td>
<td>.106</td>
<td>.380</td>
</tr>
<tr>
<td>27</td>
<td>.077</td>
<td>.275</td>
</tr>
<tr>
<td>28</td>
<td>.067</td>
<td>.238</td>
</tr>
</tbody>
</table>

Extraction Method: Principal Component Analysis.

**Total Variance Explained**

<table>
<thead>
<tr>
<th>Component</th>
<th>Rotation Sums of Squared Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
</tr>
<tr>
<td>1</td>
<td>3.835</td>
</tr>
<tr>
<td>2</td>
<td>2.532</td>
</tr>
<tr>
<td>3</td>
<td>2.308</td>
</tr>
<tr>
<td>4</td>
<td>2.104</td>
</tr>
<tr>
<td>5</td>
<td>2.012</td>
</tr>
<tr>
<td>6</td>
<td>1.859</td>
</tr>
<tr>
<td>7</td>
<td>1.757</td>
</tr>
<tr>
<td>8</td>
<td>1.757</td>
</tr>
<tr>
<td>9</td>
<td>1.754</td>
</tr>
<tr>
<td>10</td>
<td>1.392</td>
</tr>
<tr>
<td>11</td>
<td>12</td>
</tr>
</tbody>
</table>

Extraction Method: Principal Component Analysis.
I have a preference for Canadian Superstore .807
I truly enjoy grocery shopping in Canadian Superstore .742
I consider myself to be highly loyal to Canadian Superstore .707
The Canadian Superstore is more than just a grocery store for me .697
Canadian Superstore is a grocery store that interests me/I consider for me for grocery shopping .683
Canadian Superstore is exactly what I need from a grocery store .634 .401
I care a lot about Canadian Superstore .611
<table>
<thead>
<tr>
<th>Statements</th>
<th>Component</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canadian Superstore, as a choice of grocery stores, has NOT worked out as well as I thought it would</td>
<td>1 -5.99</td>
</tr>
<tr>
<td>-5.99</td>
<td>4 6</td>
</tr>
<tr>
<td>If I could do it over again, I would choose an alternative grocery store to Canadian Superstore</td>
<td>-5.38 .525</td>
</tr>
<tr>
<td>I would change the grocery store, if the alternative store offered increased status for me/ suits more with my self-image.</td>
<td>.667</td>
</tr>
<tr>
<td>When I see a new grocery store somewhat different form the usual, I investigate it</td>
<td>.631</td>
</tr>
<tr>
<td>Grocery shopping in Canadian Superstore says a lot about who I am</td>
<td>.572</td>
</tr>
<tr>
<td>I would try an alternate grocery store if it was 25% less expensive than Canadian Superstore .</td>
<td>.645</td>
</tr>
<tr>
<td>If I like a grocery store, I rarely switch from it to try something different</td>
<td>.553 .499</td>
</tr>
<tr>
<td>When choosing a grocery store, I compare prices of different grocery stores to be sure I get the best value for money</td>
<td>.459 .456 .495</td>
</tr>
<tr>
<td>I understand the features of Canadian Superstore well enough to evaluate it against other grocery stores</td>
<td>.487</td>
</tr>
<tr>
<td>Canadian Superstore is a store that I can talk about for a long time</td>
<td>.401 .464</td>
</tr>
<tr>
<td>I get bored with buying the same brand even if they are good</td>
<td>-5.26</td>
</tr>
<tr>
<td>I would get bored of shopping at Canadian Superstore every time I do grocery shopping</td>
<td>-5.32</td>
</tr>
</tbody>
</table>

135
<table>
<thead>
<tr>
<th></th>
<th>Component</th>
</tr>
</thead>
<tbody>
<tr>
<td>I would change the grocery store, if the alternative store's staff were more friendly</td>
<td>.463</td>
</tr>
<tr>
<td>Canadian Superstore has up-to-date equipment</td>
<td>.643</td>
</tr>
<tr>
<td>.441</td>
<td>.529</td>
</tr>
<tr>
<td>Canadian Superstore's facilities are visually appealing</td>
<td>.514</td>
</tr>
<tr>
<td>.441</td>
<td>.483</td>
</tr>
<tr>
<td>I usually shop at the same grocery store within a locality</td>
<td>.714</td>
</tr>
<tr>
<td>When I go to a grocery store, I feel it is safer to buy items that I am familiar with</td>
<td>.416</td>
</tr>
<tr>
<td>When deciding on a grocery store, I am NOT interested in bargain-seeking</td>
<td>.616</td>
</tr>
<tr>
<td>I would try an alternative grocery store if the alternative store offered better facilities than Canadian Superstore</td>
<td>- .437</td>
</tr>
<tr>
<td>It is important that when choosing a grocery store, I make the right choice from all the options available</td>
<td>.419</td>
</tr>
<tr>
<td>Grocery stores should NOT be expected to give customers individualized attention</td>
<td>.522</td>
</tr>
</tbody>
</table>

Extraction Method: Principal Component Analysis.

10 components extracted.
### Rotated Component Matrix (a)

<table>
<thead>
<tr>
<th>If I could do it over again, I would choose an alternative grocery store to Canadian Superstore</th>
<th>Component 1</th>
<th>Component 2</th>
<th>Component 3</th>
<th>Component 4</th>
<th>Component 5</th>
<th>Component 6</th>
<th>Component 7</th>
<th>Component 8</th>
<th>Component 9</th>
<th>Component 10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canadian Superstore, as a choice of grocery stores, has NOT worked out as well as I thought it would</td>
<td>-0.869</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have a preference for Canadian Superstore</td>
<td>0.713</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Canadian Superstore is a grocery store that interests me / I consider for me for grocery shopping</td>
<td>0.591</td>
<td>0.479</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I consider myself to be highly loyal to Canadian Superstore</td>
<td>0.517</td>
<td></td>
<td>0.494</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I care a lot about Canadian Superstore</td>
<td>0.495</td>
<td>0.459</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grocery shopping in Canadian Superstore says a lot about who I am</td>
<td>0.769</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I would change the grocery store, if the alternative store offered increased status for me / suits more with my self-image.</td>
<td>0.560</td>
<td></td>
<td>0.403</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>When choosing a grocery store, I compare prices of different grocery stores to be sure I get the best value for money</td>
<td>0.552</td>
<td>0.478</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>When I see a new grocery store somewhat different form the usual, I investigate it</td>
<td>0.517</td>
<td></td>
<td>0.497</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Canadian Superstore is a store that I can talk about for a long time</td>
<td>0.490</td>
<td>0.438</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I would try an alternate grocery store if it was 25% less expensive than Canadian Superstore</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.821</td>
<td></td>
</tr>
<tr>
<td>I understand the features of Canadian Superstore well enough to evaluate it against other grocery stores</td>
<td>Component</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Canadian Superstore's facilities are visually appealing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I would try an alternative grocery store if the alternative store offered better facilities than Canadian Superstore</td>
<td>.538</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I get bored with buying the same brand even if they are good</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I would get bored of shopping at Canadian Superstore every time I do grocery shopping</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Canadian Superstore is exactly what I need from a grocery store</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>When I go to a grocery store, I feel it is safer to buy items that I am familiar with</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I usually shop at the same grocery store within a locality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I would change the grocery store, if the alternative store's staff were more friendly</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grocery stores should NOT be expected to give customers individualized attention</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I truly enjoy grocery shopping in Canadian Superstore</td>
<td>.414</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Canadian Superstore is more than just a grocery store for me</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>When deciding on a grocery store, I am NOT interested in bargain-seeking</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

138
If I like a grocery store, I rarely switch from it to try something different  

- .618

It is important that when choosing a grocery store, I make the right choice from all the options available  

- .863

a  Rotation converged in 22 iterations.

**Component Transformation Matrix**

<table>
<thead>
<tr>
<th>Component</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.740</td>
<td>.226</td>
<td>.257</td>
<td>.354</td>
<td>-.166</td>
<td>.152</td>
<td>.110</td>
<td>.353</td>
<td>-.072</td>
<td>.132</td>
</tr>
<tr>
<td>2</td>
<td>-.315</td>
<td>.711</td>
<td>-.020</td>
<td>.017</td>
<td>.216</td>
<td>.445</td>
<td>.333</td>
<td>-.040</td>
<td>.084</td>
<td>.174</td>
</tr>
<tr>
<td>3</td>
<td>-.169</td>
<td>.077</td>
<td>.754</td>
<td>-.157</td>
<td>-.105</td>
<td>-.058</td>
<td>-.074</td>
<td>-.236</td>
<td>-.534</td>
<td>.104</td>
</tr>
<tr>
<td>4</td>
<td>-.384</td>
<td>-.093</td>
<td>.122</td>
<td>.147</td>
<td>-.784</td>
<td>.015</td>
<td>.190</td>
<td>.199</td>
<td>.306</td>
<td>.154</td>
</tr>
<tr>
<td>5</td>
<td>-.287</td>
<td>.076</td>
<td>.156</td>
<td>.723</td>
<td>.214</td>
<td>-.053</td>
<td>-.547</td>
<td>.041</td>
<td>.127</td>
<td>-.022</td>
</tr>
<tr>
<td>6</td>
<td>.079</td>
<td>-.408</td>
<td>-.013</td>
<td>-.065</td>
<td>.012</td>
<td>.687</td>
<td>-.269</td>
<td>-.202</td>
<td>.062</td>
<td>.483</td>
</tr>
<tr>
<td>7</td>
<td>-.001</td>
<td>-.175</td>
<td>.537</td>
<td>-.250</td>
<td>.396</td>
<td>-.072</td>
<td>.121</td>
<td>.266</td>
<td>.609</td>
<td>.027</td>
</tr>
<tr>
<td>8</td>
<td>.109</td>
<td>.428</td>
<td>-.008</td>
<td>-.463</td>
<td>-.269</td>
<td>.064</td>
<td>-.660</td>
<td>.117</td>
<td>.209</td>
<td>-.149</td>
</tr>
<tr>
<td>9</td>
<td>.173</td>
<td>.205</td>
<td>-.075</td>
<td>.010</td>
<td>-.021</td>
<td>-.513</td>
<td>-.031</td>
<td>-.423</td>
<td>.243</td>
<td>.548</td>
</tr>
<tr>
<td>10</td>
<td>-.217</td>
<td>-.025</td>
<td>-.175</td>
<td>-.158</td>
<td>.158</td>
<td>-.169</td>
<td>-.117</td>
<td>.688</td>
<td>-.340</td>
<td>.491</td>
</tr>
</tbody>
</table>

Appendix 41: Factor analysis output after excluding the overlapping items

KMO and Bartlett's Test

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Kaiser-Meyer-Olkin</td>
<td>.565</td>
</tr>
<tr>
<td>Measure of Sampling</td>
<td></td>
</tr>
<tr>
<td>Adequacy.</td>
<td></td>
</tr>
<tr>
<td>Bartlett's Test</td>
<td></td>
</tr>
<tr>
<td>of Sphericity</td>
<td></td>
</tr>
<tr>
<td>Approx. Chi-Square</td>
<td>584.520</td>
</tr>
<tr>
<td>df</td>
<td>190</td>
</tr>
<tr>
<td>Sig.</td>
<td>.000</td>
</tr>
</tbody>
</table>

Communalities

<table>
<thead>
<tr>
<th></th>
<th>Initial</th>
<th>Extraction</th>
</tr>
</thead>
<tbody>
<tr>
<td>I understand the features of Canadian Superstore well enough to</td>
<td>1.000</td>
<td>.792</td>
</tr>
<tr>
<td>evaluate it against other grocery stores</td>
<td></td>
<td></td>
</tr>
<tr>
<td>It is important that when choosing a grocery store, I make the</td>
<td>1.000</td>
<td>.606</td>
</tr>
<tr>
<td>right choice from all the options available</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Canadian Superstore is a grocery store that interests me/I</td>
<td>1.000</td>
<td>.708</td>
</tr>
<tr>
<td>consider for me for grocery shopping</td>
<td></td>
<td></td>
</tr>
<tr>
<td>When deciding on a grocery store, I am NOT interested in</td>
<td>1.000</td>
<td>.646</td>
</tr>
<tr>
<td>bargain-seeking</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Canadian Superstore's facilities are visually appealing</td>
<td>1.000</td>
<td>.742</td>
</tr>
<tr>
<td>Canadian Superstore is exactly what I need from a grocery store</td>
<td>1.000</td>
<td>.738</td>
</tr>
<tr>
<td>Canadian Superstore, as a choice of grocery stores, has NOT</td>
<td>1.000</td>
<td>.607</td>
</tr>
<tr>
<td>worked out as well as I thought it would</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grocery stores should NOT be expected to give customers</td>
<td>1.000</td>
<td>.554</td>
</tr>
<tr>
<td>individualized attention</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Canadian Superstore is a store that I can talk about for a long</td>
<td>1.000</td>
<td>.672</td>
</tr>
<tr>
<td>time</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I have a preference for Canadian Superstore</td>
<td>1.000</td>
<td>.764</td>
</tr>
<tr>
<td>The Canadian Superstore is more than just a grocery store for</td>
<td>1.000</td>
<td>.595</td>
</tr>
<tr>
<td>me</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I would try an alternative grocery store if the alternative</td>
<td>1.000</td>
<td>.716</td>
</tr>
<tr>
<td>store offered better facilities than Canadian Superstore</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I would change the grocery store, if the alternative store</td>
<td>1.000</td>
<td>.622</td>
</tr>
<tr>
<td>offered increased status for me/ suits more with my self-image.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>When I see a new grocery store somewhat different form the</td>
<td>1.000</td>
<td>.587</td>
</tr>
<tr>
<td>usual, I investigate it</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I usually shop at the same grocery store within a locality</td>
<td>1.000</td>
<td>.482</td>
</tr>
<tr>
<td>Grocery shopping in Canadian Superstore says a lot about who I</td>
<td>1.000</td>
<td>.699</td>
</tr>
<tr>
<td>am</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I care a lot about Canadian Superstore</td>
<td>1.000</td>
<td>.604</td>
</tr>
<tr>
<td>When I go to a grocery store, I feel it is safer to buy items</td>
<td>1.000</td>
<td>.795</td>
</tr>
<tr>
<td>that I am familiar with</td>
<td></td>
<td></td>
</tr>
<tr>
<td>If I like a grocery store, I rarely switch from it to try something different</td>
<td>1.000</td>
<td>.712</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>I get bored with buying the same brand even if they are good</td>
<td>1.000</td>
<td>.762</td>
</tr>
</tbody>
</table>

Extraction Method: Principal Component Analysis.

### Total Variance Explained

<table>
<thead>
<tr>
<th>Component</th>
<th>Initial Eigenvalues</th>
<th>Extraction Sums of Squared Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>% of Variance</td>
</tr>
<tr>
<td>1</td>
<td>3.611</td>
<td>18.053</td>
</tr>
<tr>
<td>2</td>
<td>2.558</td>
<td>12.792</td>
</tr>
<tr>
<td>3</td>
<td>1.929</td>
<td>9.647</td>
</tr>
<tr>
<td>5</td>
<td>1.352</td>
<td>6.759</td>
</tr>
<tr>
<td>6</td>
<td>1.210</td>
<td>6.052</td>
</tr>
<tr>
<td>7</td>
<td>1.155</td>
<td>5.775</td>
</tr>
<tr>
<td>8</td>
<td>.991</td>
<td>4.955</td>
</tr>
<tr>
<td>9</td>
<td>.872</td>
<td>4.358</td>
</tr>
<tr>
<td>10</td>
<td>.754</td>
<td>3.771</td>
</tr>
<tr>
<td>11</td>
<td>.690</td>
<td>3.450</td>
</tr>
<tr>
<td>12</td>
<td>.602</td>
<td>3.011</td>
</tr>
<tr>
<td>13</td>
<td>.581</td>
<td>2.904</td>
</tr>
<tr>
<td>14</td>
<td>.448</td>
<td>2.239</td>
</tr>
<tr>
<td>15</td>
<td>.411</td>
<td>2.054</td>
</tr>
<tr>
<td>16</td>
<td>.351</td>
<td>1.756</td>
</tr>
<tr>
<td>17</td>
<td>.295</td>
<td>1.476</td>
</tr>
<tr>
<td>18</td>
<td>.244</td>
<td>1.219</td>
</tr>
<tr>
<td>19</td>
<td>.190</td>
<td>.951</td>
</tr>
<tr>
<td>20</td>
<td>.169</td>
<td>.845</td>
</tr>
</tbody>
</table>

Extraction Method: Principal Component Analysis.
**Total Variance Explained**

<table>
<thead>
<tr>
<th>Component</th>
<th>Rotation Sums of Squared Loadings</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>% of Variance</strong></td>
</tr>
<tr>
<td>1</td>
<td>3.039</td>
<td>15.195</td>
</tr>
<tr>
<td>2</td>
<td>2.315</td>
<td>11.577</td>
</tr>
<tr>
<td>3</td>
<td>1.869</td>
<td>9.347</td>
</tr>
<tr>
<td>4</td>
<td>1.695</td>
<td>8.477</td>
</tr>
<tr>
<td>5</td>
<td>1.606</td>
<td>8.030</td>
</tr>
<tr>
<td>6</td>
<td>1.451</td>
<td>7.254</td>
</tr>
<tr>
<td>7</td>
<td>1.426</td>
<td>7.131</td>
</tr>
</tbody>
</table>

Extraction Method: Principal Component Analysis.

**Scree Plot**

![Scree Plot](image)
### Component Matrix(a)

<table>
<thead>
<tr>
<th>Component</th>
<th>Component</th>
</tr>
</thead>
<tbody>
<tr>
<td>I have a preference for Canadian Superstore</td>
<td>.794</td>
</tr>
<tr>
<td>The Canadian Superstore is more than just a grocery store for me</td>
<td>.742</td>
</tr>
<tr>
<td>Canadian Superstore is a grocery store that interests me/I consider for me for grocery shopping</td>
<td>.664</td>
</tr>
<tr>
<td>Canadian Superstore is exactly what I need from a grocery store</td>
<td>.663</td>
</tr>
<tr>
<td>I care a lot about Canadian Superstore</td>
<td>.611 .434</td>
</tr>
<tr>
<td>Canadian Superstore, as a choice of grocery stores, has NOT worked out as well as I thought it would</td>
<td>-.594</td>
</tr>
<tr>
<td>I would change the grocery store, if the alternative store offered increased status for me/suits more with my self-image.</td>
<td>.733</td>
</tr>
<tr>
<td>Grocery shopping in Canadian Superstore says a lot about who I am</td>
<td>.615</td>
</tr>
<tr>
<td>Canadian Superstore is a store that I can talk about for a long time</td>
<td>.542 -.446</td>
</tr>
<tr>
<td>If I like a grocery store, I rarely switch from it to try something different</td>
<td>-.577 .527</td>
</tr>
<tr>
<td>When I see a new grocery store somewhat different form the usual, I investigate it</td>
<td>.509 .562</td>
</tr>
<tr>
<td>When deciding on a grocery store, I am NOT interested in bargain-seeking</td>
<td>-.544</td>
</tr>
<tr>
<td>Grocery stores should NOT be expected to give customers individualized attention</td>
<td>-.421</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>When I go to a grocery store, I feel it is safer to buy items that I am familiar with</td>
<td>.622</td>
</tr>
<tr>
<td>It is important that when choosing a grocery store, I make the right choice from all the options available</td>
<td>.405</td>
</tr>
<tr>
<td>I would try an alternative grocery store if the alternative store offered better facilities than Canadian Superstore</td>
<td></td>
</tr>
<tr>
<td>I get bored with buying the same brand even if they are good</td>
<td>-.465</td>
</tr>
<tr>
<td>Canadian Superstore's facilities are visually appealing</td>
<td>.458</td>
</tr>
<tr>
<td>I usually shop at the same grocery store within a locality</td>
<td></td>
</tr>
<tr>
<td>I understand the features of Canadian Superstore well enough to evaluate it against other grocery stores</td>
<td></td>
</tr>
</tbody>
</table>

Extraction Method: Principal Component Analysis.
7 components extracted.
## Rotated Component Matrix(a)

<table>
<thead>
<tr>
<th>Component</th>
<th>Component 1</th>
<th>Component 2</th>
<th>Component 3</th>
<th>Component 4</th>
<th>Component 5</th>
<th>Component 6</th>
<th>Component 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>I have a preference for Canadian Superstore</td>
<td>.841</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Canadian Superstore is a grocery store that interests me/I consider for me for grocery shopping</td>
<td></td>
<td>.698</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Canadian Superstore, as a choice of grocery stores, has NOT worked out as well as I thought it would</td>
<td></td>
<td></td>
<td>-.651</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Canadian Superstore is more than just a grocery store for me</td>
<td></td>
<td></td>
<td></td>
<td>.643</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I care a lot about Canadian Superstore</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.564</td>
<td></td>
<td></td>
</tr>
<tr>
<td>I usually shop at the same grocery store within a locality</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-.491</td>
<td></td>
</tr>
<tr>
<td>Grocery shopping in Canadian Superstore says a lot about who I am</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.757</td>
</tr>
<tr>
<td>I would change the grocery store, if the alternative store offered increased status for me/suits more with my self-image.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.687</td>
</tr>
<tr>
<td>When I see a new grocery store somewhat different form the usual, I investigate it</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.613</td>
<td>-.410</td>
</tr>
<tr>
<td>If I like a grocery store, I rarely switch from it to try something different</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.756</td>
</tr>
<tr>
<td>When deciding on a grocery store, I am NOT interested in bargain-seeking</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.716</td>
</tr>
<tr>
<td>Grocery stores should NOT be expected to give customers individualized attention</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.698</td>
</tr>
</tbody>
</table>
Canadian Superstore is exactly what I need from a grocery store
When I go to a grocery store, I feel it is safer to buy items that I am familiar with
I understand the features of Canadian Superstore well enough to evaluate it against other grocery stores
It is important that when choosing a grocery store, I make the right choice from all the options available
Canadian Superstore is a store that I can talk about for a long time
Canadian Superstore's facilities are visually appealing
I would try an alternative grocery store if the alternative store offered better facilities than Canadian Superstore
I get bored with buying the same brand even if they are good

<table>
<thead>
<tr>
<th></th>
<th>Component 1</th>
<th>Component 2</th>
<th>Component 3</th>
<th>Component 4</th>
<th>Component 5</th>
<th>Component 6</th>
<th>Component 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canadian Superstore is</td>
<td>.667</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>exactly what I need from</td>
<td></td>
<td>.436</td>
<td>.580</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a grocery store</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>When I go to a grocery</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>store, I feel it is</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>safer to buy items that</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am familiar with</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I understand the features</td>
<td></td>
<td></td>
<td>.843</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>of Canadian Superstore</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>well enough to evaluate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>it against other</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>grocery stores</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>It is important that</td>
<td></td>
<td></td>
<td></td>
<td>.578</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>when choosing a grocery</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>store, I make the right</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>choice from all the</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>options available</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Canadian Superstore is</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-.561</td>
<td></td>
<td></td>
</tr>
<tr>
<td>a store that I can talk</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>about for a long time</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Canadian Superstore's</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.766</td>
<td></td>
<td></td>
</tr>
<tr>
<td>facilities are visually</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>appealing</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I would try an alternative</td>
<td></td>
<td></td>
<td></td>
<td>.449</td>
<td></td>
<td>-.597</td>
<td></td>
</tr>
<tr>
<td>grocery store if the</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>alternative store offered</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>better facilities than</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Canadian Superstore</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I get bored with buying</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-.842</td>
</tr>
<tr>
<td>the same brand even if</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>they are good</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


Component Transformation Matrix

<table>
<thead>
<tr>
<th>Component</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.867</td>
<td>.172</td>
<td>.045</td>
<td>.317</td>
<td>.178</td>
<td>.263</td>
<td>.124</td>
</tr>
<tr>
<td>2</td>
<td>-.071</td>
<td>.832</td>
<td>.433</td>
<td>-.235</td>
<td>-.209</td>
<td>.087</td>
<td>-.095</td>
</tr>
<tr>
<td>3</td>
<td>.048</td>
<td>.352</td>
<td>-.671</td>
<td>-.458</td>
<td>.454</td>
<td>-.060</td>
<td>.062</td>
</tr>
<tr>
<td>4</td>
<td>-.226</td>
<td>-.076</td>
<td>.443</td>
<td>-.093</td>
<td>.579</td>
<td>.149</td>
<td>.617</td>
</tr>
<tr>
<td>5</td>
<td>.062</td>
<td>-.291</td>
<td>.171</td>
<td>-.448</td>
<td>.172</td>
<td>.622</td>
<td>-.516</td>
</tr>
<tr>
<td>6</td>
<td>-.376</td>
<td>.183</td>
<td>-.355</td>
<td>.416</td>
<td>-.136</td>
<td>.693</td>
<td>.163</td>
</tr>
<tr>
<td>7</td>
<td>-.212</td>
<td>.177</td>
<td>.092</td>
<td>.502</td>
<td>.578</td>
<td>-.174</td>
<td>-.547</td>
</tr>
</tbody>
</table>

Appendix 42: Component item list

Complete list of 28 items from the scale

<table>
<thead>
<tr>
<th>Item 1</th>
<th>I understand the features of Canadian Superstore well enough to evaluate it against other grocery stores</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item 2</td>
<td>It is important that when choosing a grocery store, I make the right choice from all the options available</td>
</tr>
<tr>
<td>Item 3</td>
<td>Canadian Superstore is a grocery store that interests me; I consider it for my grocery shopping</td>
</tr>
<tr>
<td>Item 4</td>
<td>When deciding on a grocery store, I am NOT interested in bargain-seeking</td>
</tr>
<tr>
<td>Item 5</td>
<td>When choosing a grocery store, I compare prices of different grocery stores to be sure I get the best value for money</td>
</tr>
<tr>
<td>Item 6</td>
<td>Canadian Superstore has up-to-date equipment</td>
</tr>
<tr>
<td>Item 7</td>
<td>Canadian Superstore's facilities are visually appealing</td>
</tr>
<tr>
<td>Item 8</td>
<td>Canadian Superstore is exactly what I need from a grocery store</td>
</tr>
<tr>
<td>Item 9</td>
<td>Canadian Superstore, as a choice of grocery stores, has NOT worked out as well as I thought it would</td>
</tr>
<tr>
<td>Item 10</td>
<td>If I could do it over again, I would choose an alternative grocery store to Canadian Superstore</td>
</tr>
<tr>
<td>Item 11</td>
<td>I truly enjoy grocery shopping in Canadian Superstore</td>
</tr>
<tr>
<td>Item 12</td>
<td>Grocery stores should NOT be expected to give customers individualized attention</td>
</tr>
<tr>
<td>Item 13</td>
<td>Canadian Superstore is a store that I can talk about for a long time</td>
</tr>
<tr>
<td>Item 14</td>
<td>I have a preference for Canadian Superstore</td>
</tr>
<tr>
<td>Item 15</td>
<td>The Canadian Superstore is more than just a grocery store for me</td>
</tr>
<tr>
<td>Item 16</td>
<td>I would try an alternative grocery store if it was 25% less expensive than Canadian Superstore</td>
</tr>
<tr>
<td>Item 17</td>
<td>I would try an alternative grocery store if the alternative store offered better facilities than Canadian Superstore</td>
</tr>
<tr>
<td>Item 18</td>
<td>I would change the grocery store, if the alternative store offered increased status for me; suits more with my self-image</td>
</tr>
<tr>
<td>Item 19</td>
<td>I would change the grocery store, if the alternative store's staff were more friendly</td>
</tr>
<tr>
<td>Item 20</td>
<td>When I see a new grocery store somewhat different from the usual, I investigate it</td>
</tr>
<tr>
<td>Item 21</td>
<td>I usually shop at the same grocery store within a locality</td>
</tr>
<tr>
<td>Item 22</td>
<td>Grocery shopping in Canadian Superstore says a lot about who I am</td>
</tr>
<tr>
<td>Item 23</td>
<td>I care a lot about Canadian Superstore</td>
</tr>
<tr>
<td>Item 24</td>
<td>I consider myself to be highly loyal to Canadian Superstore</td>
</tr>
<tr>
<td>Item 25</td>
<td>I would get bored of shopping at Canadian Superstore every time I do grocery shopping</td>
</tr>
</tbody>
</table>
Item 26 When I go to a grocery store, I feel it is safer to buy items that I am familiar with
Item 27 If I like a grocery store, I rarely switch from it to try something different
Item 28 I get bored with buying the same brand even if they are good

List of component and their items from factor analysis run on all 28 items (The level that is measured by each item is mentioned in the parenthesis)

<table>
<thead>
<tr>
<th>Component</th>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Component 1</td>
<td>Item 9 (Affective loyalty), Item 10 (Action loyalty), Item 14 (Affective loyalty), Item 3 (Affective loyalty), Item 23 (Conative loyalty), Item 24 (Conative loyalty)</td>
</tr>
<tr>
<td>Component 2</td>
<td>Item 22 (Affective loyalty), Item 20 (Action loyalty), Item 13 (Affective loyalty), Item 5 (Cognitive loyalty), Item 18 (Conative loyalty)</td>
</tr>
<tr>
<td>Component 3</td>
<td>Item 1 (Cognitive loyalty), Item 16 (Conative loyalty)</td>
</tr>
<tr>
<td>Component 4</td>
<td>Item 6 (Cognitive loyalty), Item 7 (Cognitive loyalty), Item 17 (Conative loyalty)</td>
</tr>
<tr>
<td>Component 5</td>
<td>Item 8 (Affective loyalty), Item 28 (Action loyalty), Item 25 (Conative loyalty)</td>
</tr>
<tr>
<td>Component 6</td>
<td>Item 26 (Action loyalty)</td>
</tr>
<tr>
<td>Component 7</td>
<td>Item 21 (Action loyalty), Item 19 (Conative loyalty)</td>
</tr>
<tr>
<td>Component 8</td>
<td>Item 12 (Affective loyalty), Item 11 (Conative loyalty), Item 15 (Conative loyalty)</td>
</tr>
<tr>
<td>Component 9</td>
<td>Item 27 (Affective loyalty), Item 4 (Cognitive loyalty)</td>
</tr>
<tr>
<td>Component 10</td>
<td>Item 2 (Cognitive loyalty)</td>
</tr>
</tbody>
</table>

List of component and their items from factor analysis run after excluding the overlapping items (The level that is measured by each item is mentioned in the parenthesis)

<table>
<thead>
<tr>
<th>Component</th>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Component 1</td>
<td>Item 9 (Affective loyalty), Item 14 (Affective loyalty), Item 3 (Affective loyalty), Item 23 (Conative loyalty), Item 15 (Conative loyalty), Item 8 (Affective loyalty)</td>
</tr>
<tr>
<td>Component 2</td>
<td>Item 22 (Affective loyalty), Item 13 (Affective loyalty), Item 18 (Conative loyalty)</td>
</tr>
<tr>
<td>Component 3</td>
<td>Item 27 (Affective loyalty), Item 4 (Cognitive loyalty), Item 12 (Affective loyalty), Item 20 (Action loyalty)</td>
</tr>
<tr>
<td>Component 4</td>
<td>Item 26 (Action loyalty), Item 2 (Cognitive loyalty)</td>
</tr>
<tr>
<td>Component 5</td>
<td>Item 17 (Conative loyalty), Item 28 (Action loyalty)</td>
</tr>
<tr>
<td>Component 6</td>
<td>Item 21 (Action loyalty), Item 7 (Cognitive loyalty)</td>
</tr>
<tr>
<td>Component 7</td>
<td>Item 1 (Cognitive loyalty)</td>
</tr>
</tbody>
</table>
## Appendix 43: Measure of reliability

### Reliability Analysis - Scale (Alpha)

<table>
<thead>
<tr>
<th>N of Cases</th>
<th>94.0</th>
</tr>
</thead>
</table>

#### Inter-item Covariances

<table>
<thead>
<tr>
<th>Variance</th>
<th>Mean</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Range</th>
<th>Max/Min</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.1493</td>
<td>-1.1445</td>
<td>1.8836</td>
<td>3.0280</td>
<td>-1.6458</td>
</tr>
<tr>
<td></td>
<td>.2343</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Inter-item Correlations

<table>
<thead>
<tr>
<th>Variance</th>
<th>Mean</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Range</th>
<th>Max/Min</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.0602</td>
<td>-.5295</td>
<td>.7955</td>
<td>1.3250</td>
<td>-1.5026</td>
</tr>
<tr>
<td></td>
<td>.0459</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Reliability Coefficients

- Alpha = .6636
- Standardized item alpha = .6419
Appendix 44: Correlation between overall loyalty and cumulative loyalty score.

Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cumulative loyalty score</td>
<td>115.4043</td>
<td>13.68408</td>
<td>94</td>
</tr>
<tr>
<td>Overall loyalty towards</td>
<td>3.51</td>
<td>1.501</td>
<td>94</td>
</tr>
<tr>
<td>Canadian Superstore</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Correlations (a)

<table>
<thead>
<tr>
<th></th>
<th>Cumulative loyalty score</th>
<th>Overall loyalty towards Canadian Superstore</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cumulative loyalty score</td>
<td>Pearson Correlation</td>
<td>1</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td>.</td>
</tr>
<tr>
<td>Overall loyalty towards</td>
<td>Pearson Correlation</td>
<td>.606</td>
</tr>
<tr>
<td>Canadian Superstore</td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
</tr>
</tbody>
</table>

a Listwise N=94
REFERENCE LIST


