



Are there latent effects in shopping destination choice? Survey methods and response behavior

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Abstract

Destination choice is an essential element in transportation planning processes. The problem is to find the probability that a person traveling from a given origin will choose a destination among many available alternatives. Destination choice models have several challenges including large choice sets, complicated alternative specific attributes and an endogeneity problem. Determining the destination of trips with no fixed destinations such as shopping and recreational trips (unlike mandatory trips) has been a focus of research as soon as the activity/tour-based paradigms were introduced. Nonetheless, the classic destination choice models have paid little attention to psychological and latent personal attributes of travelers. In the last decade, several studies on shopper behavior in shopping centers have revealed that in addition to observable demographic and socio-economic variables, latent constructs such as psychological variables, lifestyle and the profile of the center are important indicators to capture the behavior of travelers. This paper provides detailed information about the survey design, recruitment and pre-test fieldwork of this study. An initial investigation of the data and its quality attributes, descriptions of the sampling structure and response behavior are presented.

Keywords

Destination Choice –Latent Variable – shopping behavior – Tehran

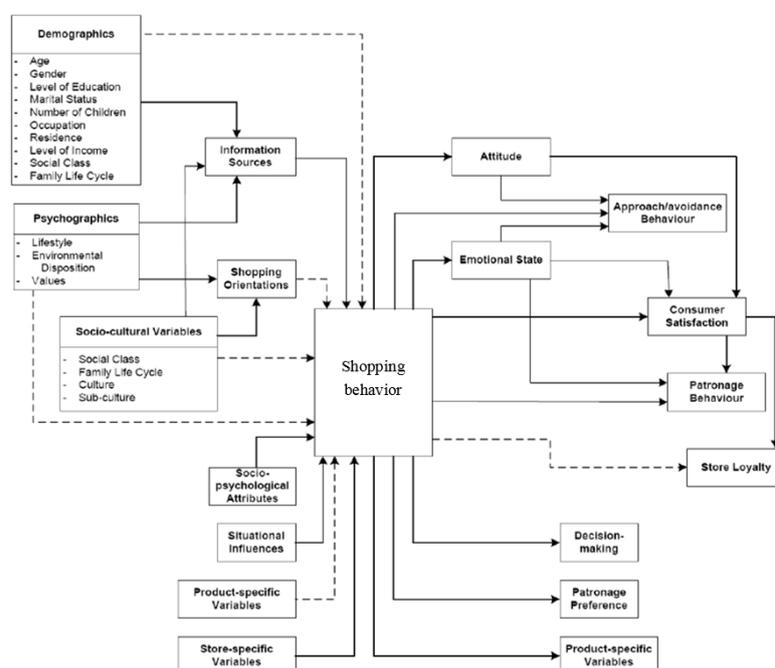
1. Introduction

In the rather new activity- based approach to transport planning and to modelling behavior of travelers, the activity location choice (usually discrete choice models) has attracted more attention than in past trip based approaches. Many studies describe zonal utility (aggregate level) using land- use and socioeconomic variables and thus cannot fully capture individual behavior at the disaggregate level.

Destination choice is an essential element in transportation planning processes. The problem is to find the probability that a person traveling from a given origin will choose a destination among many available alternatives. Destination choice models have several challenges including large choice sets, complicated alternative specific attributes and an endogeneity problem. Determining the destination of trips with no fixed destinations such as shopping and recreational trips (unlike mandatory trips) has been a focus of research as soon as the activity/ tour- based paradigms were introduced. Nonetheless, previous destination choice models have paid little attention to psychological and latent personal attributes of travelers. In the last decade, several studies on shopper behavior in shopping centers have revealed that in addition to observable demographic and socio- economic variables, latent constructs such as psychological variables, lifestyle and the profile of the center are important indicators to capture the behavior of travelers.

Figure 1 presents the proposed conceptual model of the relationship between shopping behavior and shoppers' features. The model outlines the influence of shoppers' features on their shopping behavior. Relationships supported by research findings are indicated with a solid line. Where results from the literature reported contradictory findings, the relationship is represented by a broken line. Only the most prevalent shopper variables of the current study will be investigated in the following sections (Janse van Noordwyk, 2008). Birtwistle et al. (1999) and Du Preez (2001) chose demographics, family life cycle, lifestyle, cultural consciousness, patronage behavior, and shopping orientation to present shoppers' behavior. Some variables chosen by other researchers to investigate shopping behavior were information sources, situational influences, product-specific variables, store-specific variables, socio-psychological attributes, clothing involvement, demographics, socio-cultural, clothing store dimensions, clothing orientation, store atmosphere and prestige, value-for-money. psychographics, personal characteristics and self-concept (Gutman & Mills, 1982, Visser et al., 1996, Shim & Bickle, 1994; Visser & Du Preez, 1996; Janse van Noordwyk, 2008, Erath et al., 2007). Four broad groups of variables are most often included in shopping destination choice models: demographics, attitude, shopping orientation and lifestyle will be discussed briefly.

Figure 1 Conceptual theoretical model of the relationship between Shopping destination choice and the related shopper behavior variables



Source: Janse van Noordwyk (2008)

1.1 Demographics

Demographics include characteristics such as language, educational level, occupation, income, age, geographic location, family structure, ethnic background, marital status and gender (Hawkins et al., 2004; Schiffman & Kanuk, 2007). Demographics are objective and measurable characteristics and are therefore likely to be used in shoppers' destination choice. Demographics influence shopper behavior by directly influencing shopper attributes, for example decision-making styles (Hyllegard et al., 2005). Furthermore, education influences people's occupations and their occupations greatly determine their income. Bellenger, Robertson and Greenberg (1977) found that the shoppers' level of education also influences shopping center patronage factors as it relates to destination choice. Shoppers' occupation and education influence preferences in products, media and activities, while income provides the necessary means for consumption (Choi & Park, 2006; Hawkins et al., 2007; Vakratsas, 1998). Paulins and Geistfeld (2003) focused on identifying attributes that affect shopping behavior. They found that shoppers have different behavior when they have a higher education.

1.2 Attitude

Visser et al. (1996) found that attitudes are key factors in determining shopping behavior. By quantifying the attitude, a main step to modeling shopping behavior is taken (Birtwistle & Shearer, 2001). For the purpose of the current research, attitudes have been defined in accordance with Janse van Noordwyk's (2008) definition.

1.3 Lifestyle

Understanding shopper life-styles in any country can be very useful in profiling and behavior modeling of an individual shopper and/or targeting select shopper groups. Past behavior and psychology literature has identified different shopper life-style groups, such as quality seekers, novelty/fashion seekers, comparison shoppers, and information seekers, brand loyal, and habitual shoppers. These are significant shopper life-style segments who may show similarities and differences across nations and cultures. Psychographic measurement is a composite of a person's interests, activities and opinions, while lifestyle entails this and more, according to Schiffman and Kanuk (2007) and Hawkins et al. (2004). "Lifestyle tends to focus on broad cultural trends in society or on needs and values thought to be associated with shopper behavior (culture, social class, reference group, social performance, family and household life cycle and time utilization)" (Kleinhans, 2003). Visser et al. (1996) state that psychographics and demographics alone are unable to sufficiently explore shoppers' characteristics, and are therefore inadequate to typify shoppers when applied in isolation; thus lifestyle should be included. Lifestyle focuses on actions within a social context. Fox (1989) states that lifestyle is a combination of perceptible (activities, interests, demographics, social class and family orientation) and non-perceptible (needs and motives, values, personality, attitude and opinion) variables. Huddleston, Ford and Mahoney (1990) define lifestyle as a way of living shaped by values and experiences. Lifestyle is a large part of the person's self-image. Crask and Reynolds (1978) included lifestyle in their study on self-image and shopping behavior. Self-image therefore indirectly affects shopping choice (Mills, 1985). Osman (1993) confirmed this in stating that shopper's behavior and their choices depends on their lifestyle. According to Blackwell, Miniard and Engel (2006), shoppers' lifestyle influence their needs and attitudes, thus it simultaneously affects destination choice. Through understanding lifestyle, retailers can also understand shopper preferences (Kleinhans, 2003).

1.4 Shopping Orientation

Shim and Kotsiopoulos (1992) define shopping orientation as, "...a shopping- specific lifestyle, which encompasses shopping activities, interests, and opinions, [regarding clothing] and

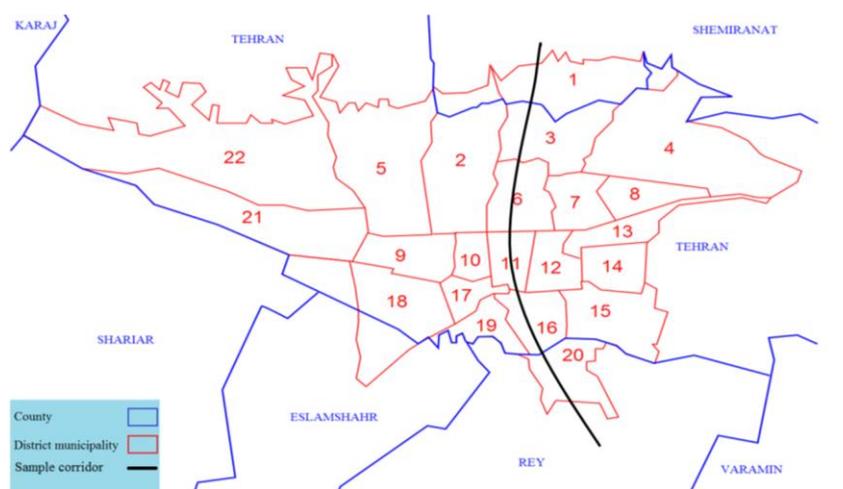
reflects a view of shopping as a complex social, recreational, economic phenomenon”. Another study to research shopping orientation was conducted by Gutman and Mills (1982), who felt that it leads to understanding shoppers best. Personal characteristics, namely social class, lifestyle and family life cycle, play an important role in predicting shopping orientation (Shim & Kotsiopulos, 1992). Shopping orientation is viewed as a good indicator of shoppers’ destination choice (Shim & Bickle, 1994). Osman (1993) considered shopping orientation groups according to those identified by Stone (economic shoppers, personalizing shoppers, the ethical shopper and apathetic shoppers), and found the differences according to shopping orientation crucial to shopping choice. Moye and Giddings (2002) also identified three groups according to shopping orientation and concluded that shopping orientation not only influences preference, but also the importance placed on shopping choice. Furthermore, Moye and Kincade (2002) confirmed previous studies and reported that, according to their study, all the clusters placed more importance on lay-out than on aesthetic dimensions.

Next section of paper introduces the case on Tehran city and after that, section 3 presents the survey. Section 4 gives some brief descriptive analysis of data and at the end of paper, the results of a factor analysis are provided.

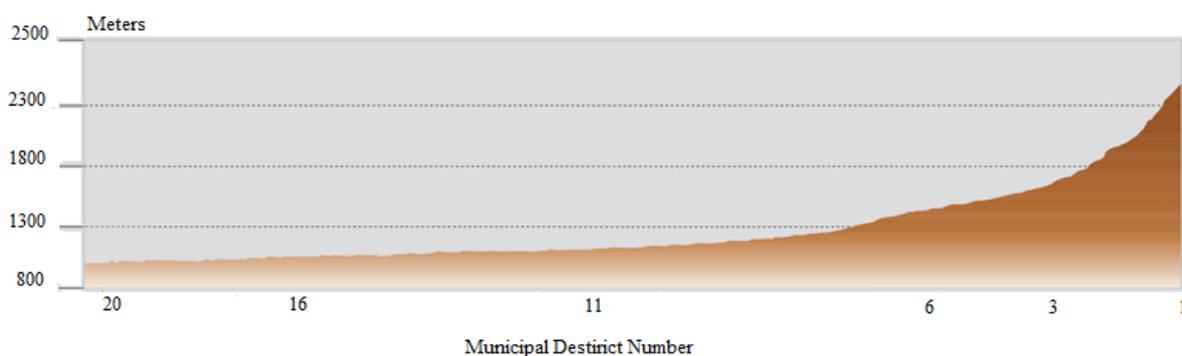
2. Case Study

Tehran is the capital of Iran and Tehran Province. With a population of around 9 million in the city and 16 million in the wider metropolitan area, Tehran is the largest city and urban area of Iran, the 2nd-largest city in Western Asia, and the 3rd-largest in the Middle East. It is ranked 29th in the world by the population of its metropolitan area. Tehran County borders Shemiranat County to the north, Damavand County to the east, Eslamshahr, Varamin, and Rey counties to the south, and Karaj and Shariar counties to the west. The City of Tehran is divided into 22 municipal districts, each with its own administrative center. 20 of the 22 municipal districts are located in Tehran County's Central District, while the districts 1 and 20 are respectively located in Shemiranat and Ray counties.

Figure 2 (a) Municipal districts of Tehran city and the surrounding counties (b) the elevation of sample route crossing from south to north of Tehran



(a)



(b)

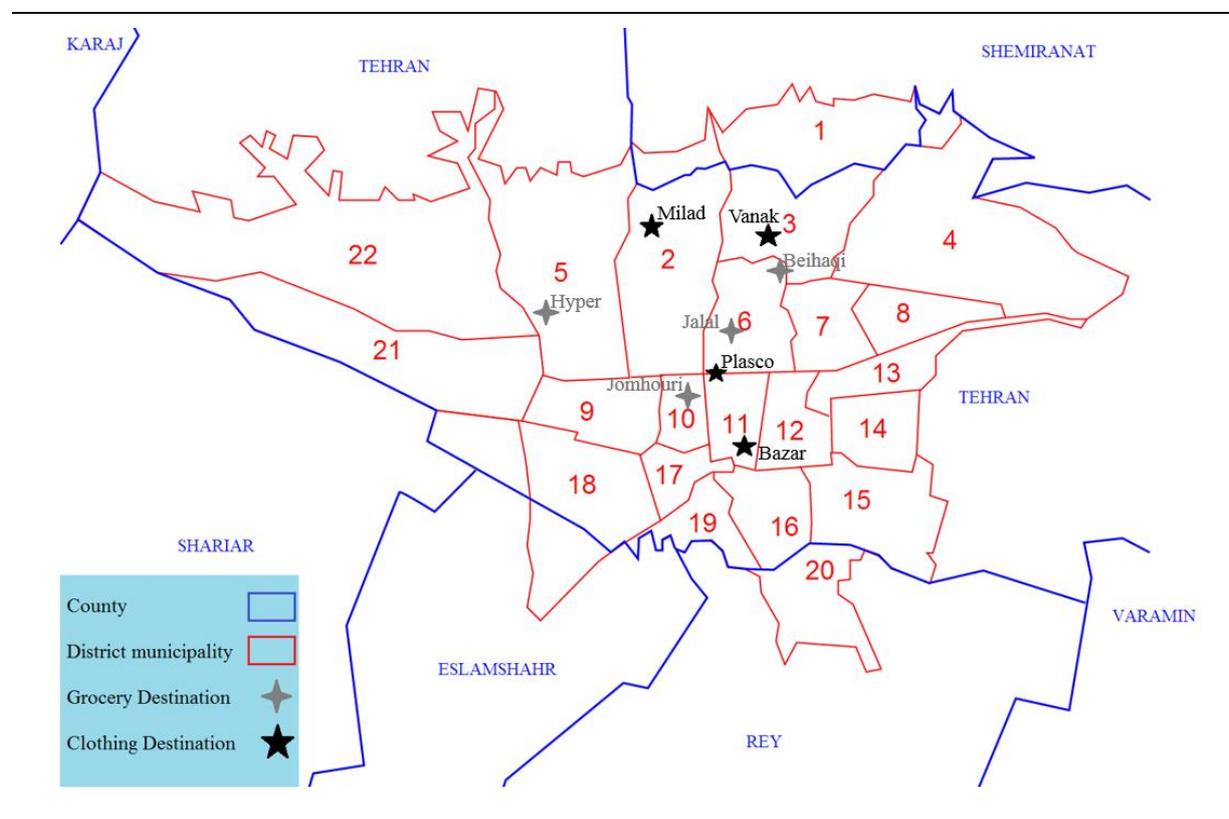
Tehran has a wide range of shopping centers from traditional bazaars to modern shopping malls. The Grand Bazaar of Tehran is the biggest traditional bazaar and is located in the south of Tehran. On the other hand, most of the international branded stores and upper class shops are located in the northern and western parts of the city, while the rest of the shopping centers are located across the city. Tehran's retail business is growing with several newly built malls and shopping centers. Based on a net-based survey, 8 that are the most visited destinations, of which 4 are clothing-focused and the rest grocery-focused, were selected.

Table 1 Several characteristics of the selected destinations in Tehran

Category	Name	District	Traffic restricted zone?	Odd or Even Area?*	Modern or Traditional destination?
Clothing	Grand Bazar	11	√	√	Traditional
	Milad	2	×	×	Modern
	Plasco	11	√	√	Modern
	Vanak	3	×	×	Modern
Grocery	Beihaqi	6	×	√	Modern
	Jalal	6	×	√	Traditional
	Hyper Star	5	×	×	Modern
	Jomhouri	10	√	√	Modern

* In an attempt to mitigate severe air pollution and traffic congestion in Tehran, which gets worst during the winter, a temporary alternate-day travel scheme for cars using the odd- and even-numbered license plates system was announced by Tehran municipality government during a year.

Figure 3 Geographic location of the selected destinations



3. Survey

A personal interview (face-to-face survey), is generally utilized when a specific target population is involved, with the purpose to gather and explore the responses at more and deeper levels. Personal interview surveys are used to probe the answers of the respondents and at the same time, to observe the behavior of the respondents, individually or as a group.

Basically, there are two-types of personal interview survey according to how the interviewer approaches the respondents: intercept and door-to-door interviews. In an intercept approach, the interviewer usually conducts a short but concise survey by recruiting the sample in public places such as malls, theaters, food courts, or tourist spots. On the other hand, a door-to-door interview survey involves going directly to the house of the respondent and conducting the interview either on the spot or at a scheduled date. In this research the intercept interview method was selected. Table 2 present a descriptive analysis of socio-demographic features of travelers.

This kind of destination choice survey questionnaire has been designed referring to many suggestions from the literature (e.g. Dillman (2000); Axhausen et al. (2002); Axhausen et al. (2007); Porter (2004); Galesic and Bosnjak (2009)), trying to account for and reveal potential response rate problems that arise when dealing with burdensome studies:

- Interview surveys often lead to better response rates. A high effort has been put into the design and structure of the questionnaires.
- Confidentiality: Due the high data sensitivity, respondent were reminded several times about the strict confidentiality of their responses.
- Organization and communication: Permission letter were issued by Board of Directors of these destinations after being approached by TMU.

Before the Interview surveys, a net- based questionnaire was designed and conducted as a pre-test. The procedure of survey is presented in Fig. 4. Questionnaire has seven parts: 1. Attitudes, 2. Shopping orientation, 3. Values, 4. Lifestyle, 5. Individual information, 5. Household information and 7. Shopping information.

Figure 4 Details of the research destination choice survey

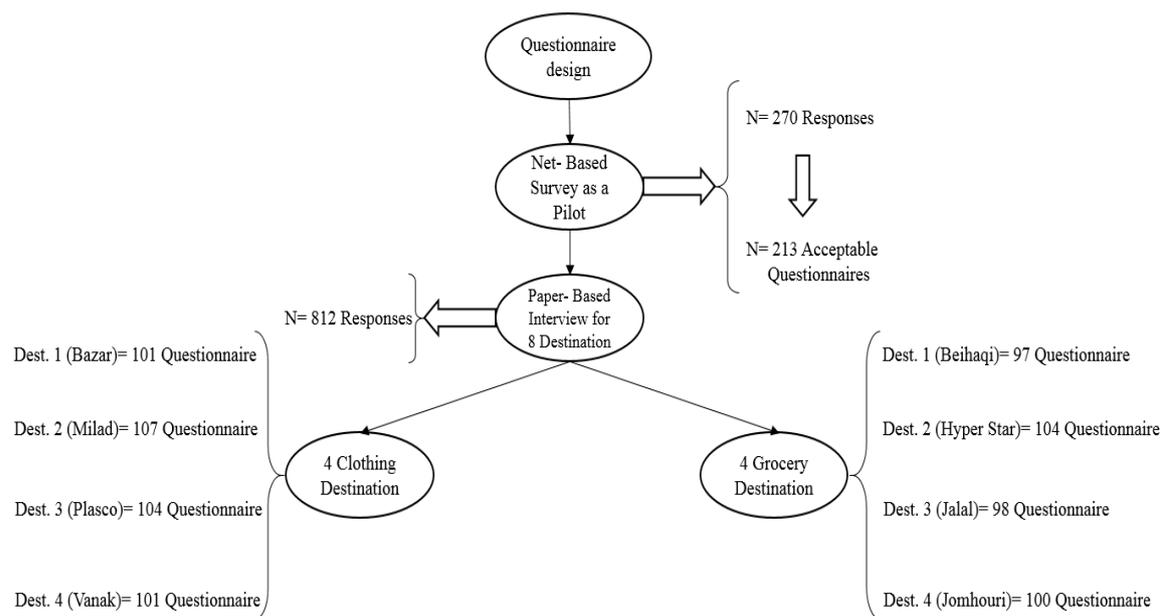


Table 2 Descriptive analysis of the socio-demographic features of the sample travelers

Variable		Destination Name								Total
		Beihaqi	Hyper Star	Jalal	Jomhuri	Bazar	Milad	Plasco	Vanak	
Gender	Male	47	49	37	38	19	52	61	33	336
	Female	50	55	61	62	82	55	43	68	476
Marital Status	Married	78	59	77	70	52	43	68	85	532
	Single	19	45	21	30	49	64	36	16	280
HH Size	1	0	4	0	0	2	1	2	2	11
	2	8	13	24	17	16	13	15	20	126
	3	30	38	39	39	20	35	36	41	278
	4	50	26	31	33	40	44	38	32	294
	4+	9	23	4	11	23	14	13	6	103
HH cost per month (Million Tomans)	Less than 1	0	25	0	3	19	1	1	1	50
	1-2	9	43	23	55	41	6	52	10	239
	2-3	62	16	63	28	18	70	39	45	341
	3-4	25	12	11	12	12	30	6	34	142
	4+	1	8	1	2	11	0	6	11	40
Number of Vehicle in HH	1	33	53	72	62	50	42	48	48	408
	2	60	37	24	28	38	55	49	52	343
	3+	4	14	2	10	13	10	7	1	61
Travel Mode	Privet Car	46	76	67	12	13	48	36	59	357
	Shared Taxi	25	4	2	2	7	31	7	13	91
	Privet Taxi	0	0	0	0	1	2	2	7	12
	Bus	13	0	12	54	16	1	26	12	134
	Metro	0	9	1	1	28	0	1	0	40
	Walk	1	0	6	2	0	0	1	4	14
	Comb	12	12	16	22	36	24	32	10	164
Sum of each Variable		97	104	98	100	101	107	104	101	812

4. Factor Analysis

Factor analysis examines the inter-correlations that exist between a large number of items (questionnaire responses) and in doing so reduces the items into a smaller number of factors. These factors contain correlated variables and are typically quite similar in terms of content or meaning. Unlike most other methods, exploratory factor analysis (EFA) does not discriminate between variables on whether they are independent or dependent, but rather it is an interdependence technique that does not specify formal hypotheses. It is in this sense ‘exploratory’ in nature as it allows the researcher to determine the underlying dimensions or factors that exist in a set of data. The technique is particularly useful for managerial or academic research in reducing items into discrete dimensions that can be summed or aggregated and subsequently used as input for further multivariate analysis such as multiple regression. It is also used extensively in scale development research to condense a large item pool into a more succinct, reliable and conceptually sound measurement instrument. Factor analytic techniques can typically be classified as either exploratory or confirmatory and the former of these is addressed within this chapter using a research example to demonstrate its use (Harman, 1976).

4.1 Mathematical Models

In the ‘classical factor analysis’ mathematical model, p denotes the number of variables (X_1, X_2, \dots, X_p) and m denotes the number of underlying factors (F_1, F_2, \dots, F_m). X_j is the variable represented in latent factors. Hence, this model assumes that there are m underlying factors whereby each observed variables is a linear function of these factors together with a residual variate (Harman, 1976)

$$X_j = a_{j1}F_1 + a_{j2}F_2 + \dots + a_{jm}F_m + e_j \quad \text{Equation 1}$$

where $j= 1, 2, \dots, p$.

The factor loadings are $a_{j1}, a_{j2}, \dots, a_{jm}$ where denotes that a_{j1} is the factor loading of j^{th} variable on the 1st factor. The specific or unique factor is denoted by e_j . The factor loadings give us an idea about how much the variable has contributed to the factor; the larger the factor loading the more the variable has contributed to that factor (Harman, 1976).

Generally, a factor analysis performed using a correlation matrix produces standardized data, thus it is recommended for variables that are not meaningfully comparable (e.g., items from different scales). On the other hand, factor analysis performed using a covariance matrix is conducted on variables that are similar (e.g., items from the same scales). The correlation matrix

is often used because it is easier to interpret compared to the covariance tables, although there is not a strict rule for which matrix to use (Fung, 1995).

The diagonal element of the matrix has always the value 1 (i.e., the correlation of a variable with itself). In principal components analysis, the diagonal values of the correlation matrix, 1s, are used for the analysis. Conversely, computation for the factor analysis techniques involves replacing the diagonal element of the matrix with prior communality estimates (h^2). The communality estimate is the estimated proportion of variance of the variable that is free of error variance and is shared with other variables in the matrix. These estimates reflect the variance of a variable in common with all others together. Factor analysis is also rooted in regression and partial correlation theory so analyzing it from this perspective may shed light on the theories behind this technique (McDonald, 1985).

4.2 Rotation Methods

Factors are rotated for better interpretation since unrotated factors are ambiguous. The goal of rotation is to attain an optimal and simple structure, which attempts to have each variable load on as few factors as possible, but maximizes the number of high loadings on each variable (Rummel, 1970). Ultimately, the simple structure attempts to have each factor define a distinct cluster of interrelated variables so that interpretation is easier (Cattell, 1973). For example, variables that relate to language should load highly on language ability factors but should have close to zero loadings on mathematical ability.

Broadly speaking, there is orthogonal rotation and oblique rotation. Orthogonal rotation is when the factors are rotated 90° from each other, and the factors are uncorrelated (DeCoster, 1998; Rummel, 1970). This is less realistic since factors generally are correlated with each other to some degree (Costello & Osborne, 2005). Two common orthogonal techniques are Quartimax and Varimax rotation. Quartimax involves the minimization of the number of factors needed to explain each variable (Gorsuch, 1983). Varimax minimizes the number of variables that have high loadings on each factor and works to make small loadings even smaller. In this paper we use Varimax rotation.

4.3 Results

The purpose of this investigation was to explore the factor underlying the shopping behavior. The identity of each factor is determined after a review of which items correlate the highest with that factor. Items that correlate the highest with a factor define the meaning of the factor as judged by what conceptually ties the items together. A successful result is one in which a few factors can explain a large portion of the total variability and those factors can be given a

meaningful name using the assortment of items that correlate the highest with it. According to literature some latent variables affect people's shopping and their shopping destination choice. These variables included attitude, lifestyle and shopping orientation.

In this research we examine the effect of people's attitude, shopping orientation and lifestyle effect on clothing and grocery shopping destination choice and in this regards we design a questionnaire to evaluate these factors.

Attitudes are a person's mood, opinion and / or disposition. They are developed through interaction with family members and peers, education and experiences gained in the society. Attitudes can be reflected by clothing choice. Attitudes have three components. They are: 1- Affective, 2- Cognitive and 3- Behavioural.

Lifestyle refers to the pattern based on which a person lives his / her life. It establishes a pattern of consumption reflecting a person's choice on how to spend one's time and money. One's lifestyle represents the way how one selects to allocate one's income on different products, including clothing. In modern society, people are freer to select the lifestyle that defines them and create an identity to situate themselves as a particular person in different groups of people. Shopper's choice of clothing makes a statement about who one is and about the types of people with one desires to identity with. Lifestyle is dynamic. One's lifestyle is shaped by one's role at that particular time. College students have a lifestyle that is centred on campus life. Parents' lifestyle changes with each development stage of children. Retired people often make changes in their lifestyle, including changing hobbies, recreation and daily life.

Shopping orientation consists of both a personal dimension (e.g. activities, interests, opinions, motives, needs and preferences) and a market behaviour dimension. Table 3 present descriptive statistics of the items by clothing and grocery destinations.

Table 3 Descriptive statistics of the items in clothing destinations

No	Latent Variable	Question*	Clothing Shopping*		Grocery Shopping**	
			Mean	Std. Deviation	Mean	Std. Deviation
1	Attitude	Fashion ability of store interior	4.04	0.883	4.05	0.849
2		Shopping experience (feeling when shopping in store e.g. Special/welcome)	3.98	0.999	3.91	0.991
3		Time it takes to travel to shopping center	4.05	0.953	4.10	0.872
4		Convenient movement within the shopping center	3.97	0.991	4.21	0.792
5		Availability of Parking	3.36	1.365	4.08	1.058
6		Accessibility of store entrance/ exit	3.99	1.083	4.31	0.779
7		Air condition in Shopping center	4.10	0.986	4.28	0.826
8		Width of aisles in shopping center	3.87	0.995	4.12	0.827
9		Variety of merchandise categories	4.09	0.925	3.96	0.912
10		Availability of unique/ exclusive/ fashion merchandise	3.79	1.049	3.59	1.047
11		Quality of merchandise	4.14	0.892	4.34	0.796
12		Reasonable Price of merchandise	4.12	0.922	4.23	0.834
13		Credibility of store advertising	3.47	1.169	3.49	1.091
14		Timely announcement of sales	3.53	1.253	3.81	1.108
15		Availability of special offers	3.13	1.263	3.34	1.247
16		Availability of gift registry	3.22	1.298	3.34	1.244
17		Availability of Credits Card	4.31	0.836	4.39	0.793
18		Ease of returning of servicing merchandise	3.73	1.290	3.81	1.083
19	Shopping Orientation	Shopping made me happy	4.200	0.782	4.130	0.808
20		When I go shopping, have good feeling	4.190	0.774	4.180	0.805
21		Shopping makes me feel like I am in my own universe	4.000	0.980	3.870	1.046
22		I am expert in shopping because I could find what I need at the first time	3.790	0.978	3.880	0.914
23		I think almost all of my shopping trip was successful	3.930	0.817	3.970	0.840
24		I like to feel smart about my shopping trip	3.740	1.002	3.760	0.934
25	Life Style	My children are the most important things in my life	3.760	1.512	4.12	1.284
26		I usually keep my house very neat and clean	4.290	0.857	4.44	0.730
27		I am uncomfortable when my house is not completely clean	4.350	0.897	4.44	0.815
28		I find myself checking the prices in the grocery store even for small items	3.400	1.206	3.44	1.207
29		I usually watch the advertisements for announcements of sales	3.190	1.120	3.19	1.101
30		A person can save a lot of money by shopping around for bargains	3.200	1.169	3.09	1.225
31		I would rather spend a quiet evening at home than go out to a party	3.130	1.279	3.33	1.197
32		I am a homebody	2.930	1.261	3.090	1.195
33		I depend on canned food for at least one meal a day	1.880	1.268	1.740	1.143
34		I am an active member of more than one service organization	2.860	1.360	2.680	1.273
35		I like parties where there is lots of music and talk	3.370	1.036	3.250	1.142
36		I often seek out the advice of my friends regarding which brand to buy	3.370	1.082	3.210	1.177

Table 3 Descriptive statistics of the items in clothing destinations

No	Latent Variable	Question*	Clothing Shopping*		Grocery Shopping**	
			Mean	Std. Deviation	Mean	Std. Deviation
37	Lifestyle	I think I have more self-confidence than most people	3.960	0.906	3.860	0.872
38		I am more independent than most people	3.980	0.791	3.910	0.865
39		I like to be considered a leader	3.340	1.096	3.300	1.169
40		People come to me more often than I go to them for information about brands	3.540	1.029	3.400	1.091
41		I often try new stores before my friends and neighbors do	3.370	1.020	3.500	1.065
42		I have used diet foods at least one meal a day	3.100	1.301	3.350	1.231
43		I participate in sports activities regularly	2.990	1.327	3.220	1.266
44		I usually have one or more outfits that are of the very latest style	3.660	1.075	3.390	1.079
45		When I must choose between the two I usually dress for fashion, not for comfort	3.450	1.104	3.400	1.158
46		I will probably have more money to spend next year than I have now	4.160	0.969	4.160	0.939
47		Five years from now the family income will probably be a lot higher	4.340	0.863	4.310	0.859

* N= 413, Min= 1, Max= 5

** N= 399, Min= 1, Max= 5

4.3.1 Clothing

Figure 5 presents a scree plot of attitude's component in clothing shopping and Table 4 shows the factor analysis of the questions which would be considered central in clothing destinations. 17 questions out of 18 questions are meaningful and 3 components are identified. For each of components, Cronbach's alpha is acceptable and KMO factor which presents sampling adequacy is 0.918 and acceptable.

Figure 5 Scree plot of attitude's component in clothing shopping

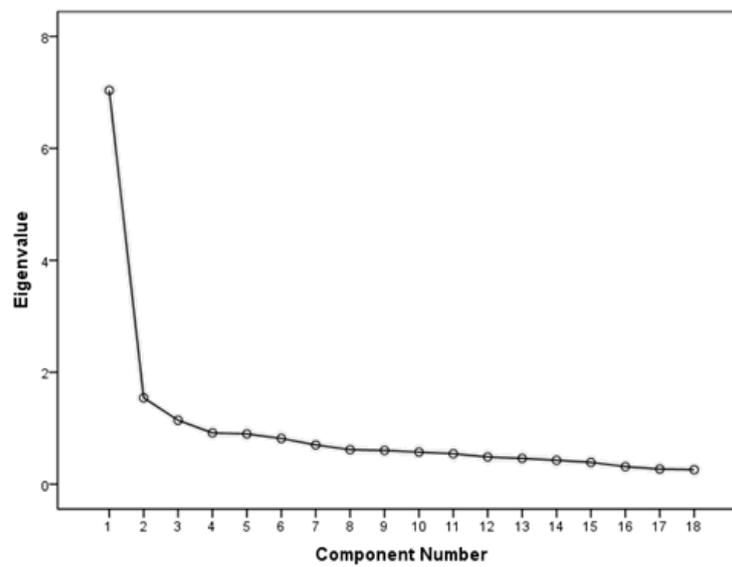


Table 4 Results of rotated component of attitude questions in clothing destinations

No	Question	Component Score		
		Comp 1	Comp 2	Comp 3
1	Availability of special offers	0.804		
2	Availability of gift registry	0.772		
3	Timely announcement of sales	0.721		
4	Credibility of store advertising	0.717		
5	Availability of parking	0.676		
6	Ease of returning of servicing merchandise	0.614		
7	Accessibility of store entrance/ exit	0.556		
8	Availability of unique/ exclusive/ fashion merchandise		0.667	
9	Shopping experience (feeling when shopping in store e.g. Special/welcome)		0.651	
10	Quality of merchandise		0.643	
11	Fashion ability of store interior		0.620	
12	Variety of merchandise categories		0.601	
13	Reasonable price of merchandise		0.575	
14	Convenient movement within the shopping center			0.563
15	Air condition in shopping center			0.604
16	Width of aisles in shopping center			0.536
17	Availability of credits card			0.677
18	Extraction sums of squared loadings	39.087	8.570	6.347
19	Rotation sums of squared loadings	22.907	17.170	13.927
20	Cronbach's alpha	0.868	0.777	0.690
21	Kaiser-Meyer-Olkin measure of sampling adequacy.		0.918	
22	Bartlett's test of sphericity		3033.330	

Figure 6 presents a scree plot of shopping orientation's component in clothing shopping and table 5 shows the factor analysis of the questions which would be considered as key for shopping orientation in clothing destinations. All 6 questions are meaningful and 2 components are identified. For each of components, Cronbach's alpha is acceptable and KMO factor which presents sampling Adequacy is 0.716 and acceptable.

Figure 6 Screen Plot of shopping orientation's component in clothing shopping

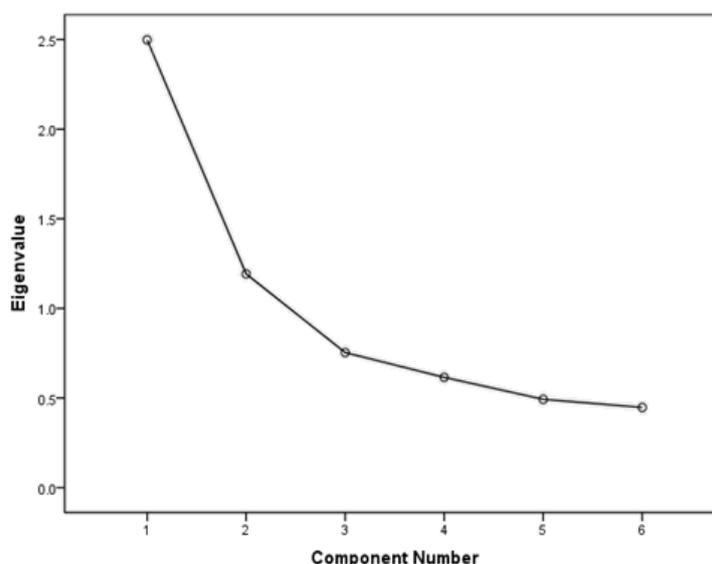


Table 5 Results of rotated component of Shopping orientation questions in clothing destinations

No	Question	Component Score	
		Comp 1	Comp 2
1	I am expert in shopping because I could find what I need at the first time	0.815	
2	I think almost all of my shopping trip was successful	0.763	
3	I like to feel smart about my shopping trip	0.716	
4	Shopping made me happy		0.802
5	When I go shopping, have good feeling		0.847
6	Shopping makes me feel like I am in my own universe		0.592
7	Extraction sums of squared loadings	41.634	19.872
8	Rotation sums of squared loadings	31.654	29.852
9	Cronbach's alpha	0.681	0.649
10	Kaiser-Meyer-Olkin measure of sampling adequacy.	0.716	
11	Bartlett's test of sphericity	486.089	

Figure 7 presents a scree plot of lifestyle's component in clothing shopping and table 6 shows the factor analysis of the questions which would be considered as key lifestyle. 20 questions out of 23 questions are meaningful and 7 components are achieved. Acceptable Cronbach's alpha for each component must be greater than 0.6 and based of this criteria, 4 components are acceptable. KMO factor which presents sampling adequacy is 0.713 and acceptable.

Figure 7 Screen Plot of lifestyle's component in clothing shopping

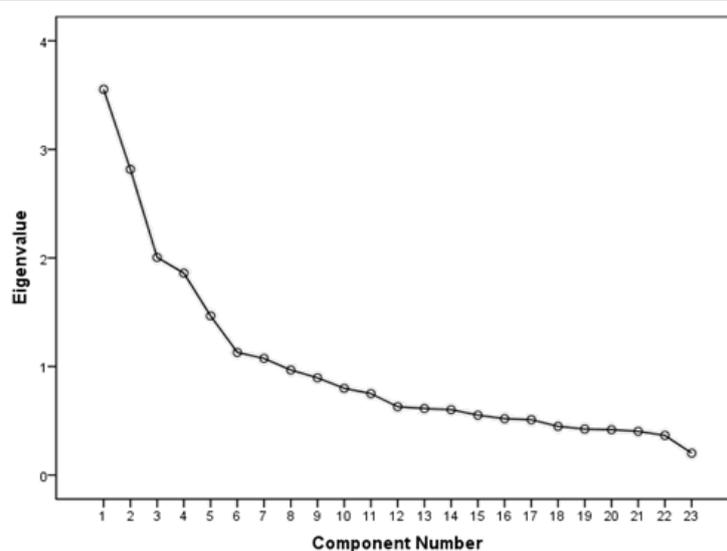


Table 6 Results of rotated component of Lifestyle questions in clothing destinations

No	Question	Component Score						
		Comp 1 (Fashion oriented)	Comp 2 (Home oriented)	Comp 3 (Economically oriented)	Comp 4 (Family oriented)	Comp 5 (Active daily life)	Comp 6 (Independent)	Comp 7 (Health oriented)
1	I usually have one or more outfits that are of the very latest style	.731						
2	When I must choose between the two I usually dress for fashion, not for comfort	.696						
3	People come to me more often than I go to them for information about brands	.689						
4	I often seek out the advice of my friends regarding which brand to buy	.579						
5	I often try new stores before my friends and neighbors do	.500						
6	I would rather spend a quiet evening at home than go out to a party		.860					
7	I am a homebody		.846					
8	My children are the most important things in my life		.658					
9	A person can save a lot of money by shopping around for bargains			.789				
10	I usually watch the advertisements for announcements of sales			.722				
11	I find myself checking the prices in the grocery store even for small items			.663				
12	I usually keep my house very neat and clean				.790			
13	I am uncomfortable when my house is not completely clean				.723			
14	I like parties where there is lots of music and talk					.841		
15	I am an active member of more than one service organization					.628		
16	I am more independent than most people						.817	
17	I like to be considered a leader						.574	
18	I think I have more self-confidence than most people						.534	
19	I have used diet foods at least one meal a day							.808
20	I participate in sports activities regularly							.569
21	Extraction sums of squared loadings	15.448	12.245	8.715	8.088	6.376	4.11	4.670
22	Rotation sums of squared loadings	11.411	10.711	9.633	7.903	7.763	6.869	6.164
23	Cronbach's alpha	0.708	0.733	0.696	0.284	0.602	0.518	0.491
24	Kaiser-Meyer-Olkin measure of sampling adequacy.				0.713			
25	Bartlett's test of sphericity				2379.421			

4.3.2 Grocery

Figure 8 presents a scree plot of attitude's component in grocery shopping and table 7 shows the factor analysis of the questions which would be considered as key attitude in clothing destinations. 13 questions out of 18 questions are meaningful and 3 components are achieved. For each of components, Cronbach's alpha is acceptable and KMO factor which presents sampling adequacy is 0.799 and acceptable.

Figure 8 Screen Plot of attitude's component in grocery shopping

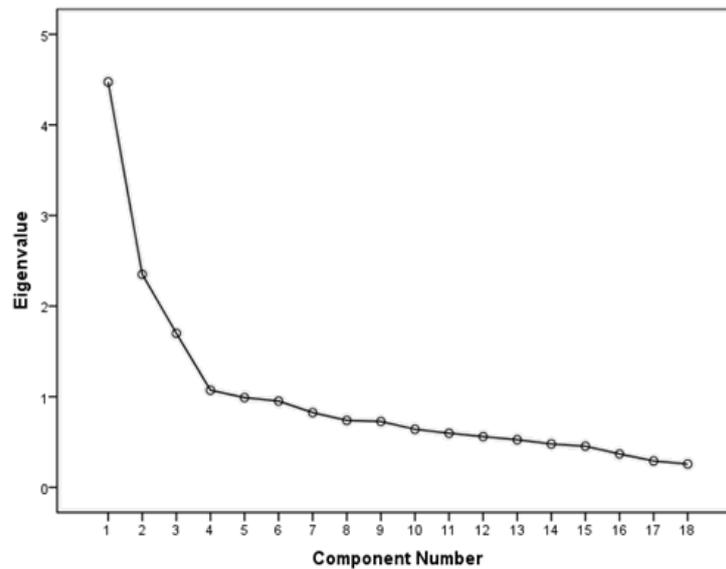


Table 7 Results of rotated component of attitude questions in grocery destinations

No	Question	Component Score			
		Comp 1 (Comfort)	Comp 2 (Promotion)	Comp 3 (Merchandise)	Comp 4 (Customer orientation)
1	Quality of merchandise	.779			
2	Convenient movement within the shopping center	.754			
3	Air condition in Shopping center	.746			
4	Reasonable Price of merchandise	.653			
5	Accessibility of store entrance/ exit	.648			
6	Width of aisles in shopping center	.584			
7	Availability of gift registry		.849		
8	Availability of special offers		.836		
9	Timely announcement of sales		.579		
10	Variety of merchandise categories			.809	
11	Availability of unique/ exclusive/ fashion merchandise			.778	
12	Ease of returning of servicing merchandise				.629
13	Fashion ability of store interior				.540
14	Extraction sums of squared loadings	24.853	13.058	9.444	5.955
15	Rotation sums of squared loadings	20.362	13.274	9.882	9.792
16	Cronbach's alpha	0.815	0.782	0.675	0.208
17	Kaiser-Meyer-Olkin measure of sampling adequacy.		0.799		
18	Bartlett's test of sphericity		2043.396		

Figure 9 presents a screen plot of shopping orientation's component in grocery shopping and Table 8 shows the factor analysis of the questions which would be considered as key shopping orientation in clothing destinations. All 6 questions are meaningful and 2 components are achieved. For each of components, Cronbach's Alpha is acceptable and KMO factor which presents sampling Adequacy is 0.739 and acceptable.

Figure 9 Scree plot of shopping orientation's component in grocery shopping

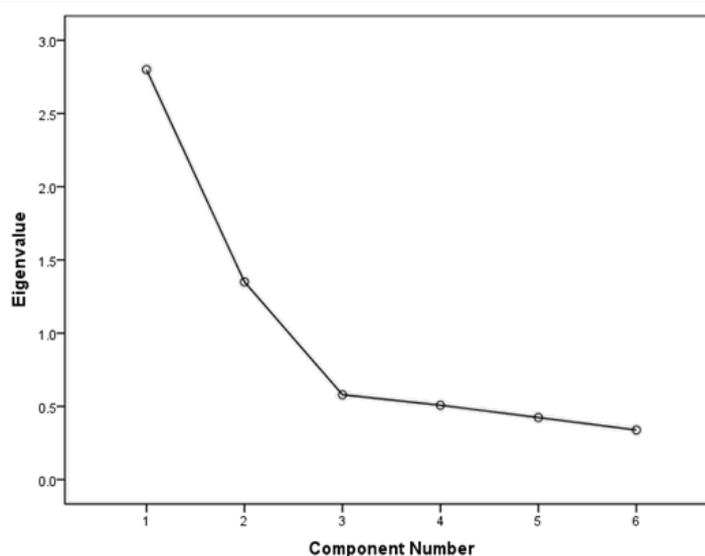


Table 8 Results of rotated component of shopping orientation questions in grocery destinations

No	Question	Component Score	
		Comp 1 (Hedonic)	Comp 2 (Utilitarian)
1	I am expert in shopping because I could find what I need at the first time	0.854	
2	I think almost all of my shopping trip was successful	0.830	
3	I like to feel smart about my shopping trip	0.748	
4	Shopping made me happy		0.871
5	When I go shopping, have good feeling		0.831
6	Shopping makes me feel like I am in my own universe		0.734
7	Extraction sums of squared loadings	46.659	22.500
8	Rotation sums of squared loadings	34.994	34.215
9	Cronbach's alpha	0.764	0.762
10	Kaiser-Meyer-Olkin measure of sampling adequacy.	0.739	
11	Bartlett's test of sphericity	724.417	

Figure 10 presents a screen plot of lifestyle's component in clothing shopping and Table 9 shows the factor analysis of the questions which would be considered as key lifestyle. 21 questions out of 23 questions are meaningful and 7 components are achieved. Acceptable Cronbach's alpha for each component must be greater than 0.6 and based of this criteria, 5 components can be acceptable. KMO factor which presents sampling adequacy is 0.684 and acceptable.

Figure 10 Scree plot of lifestyle's component in grocery shopping

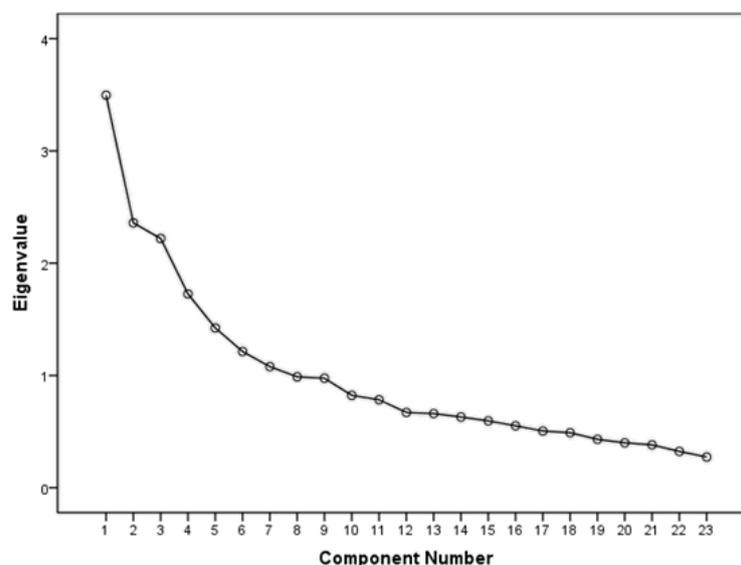


Table 9 Results of rotated component of lifestyle questions in grocery destinations

No	Question	Component Score						
		Comp 1 (Social conscious)	Comp 2 (Economically conscious)	Comp 3 (Independent)	Comp 4 (Home Oriented)	Comp 5 (Optimistic Oriented)	Comp 6 (Family Oriented)	Comp 7 (Health conscious)
1	I am an active member of more than one service organization	0.735						
2	I like parties where there is lots of music and talk	0.647						
3	I usually have one or more outfits that are of the very latest style	0.640						
4	I often seek out the advice of my friends regarding which brand to buy	0.626						
5	When I must choose between the two I usually dress for fashion, not for comfort	0.564						
6	I usually watch the advertisements for announcements of sales		0.798					
7	I find myself checking the prices in the grocery store even for small items		0.719					
8	A person can save a lot of money by shopping around for bargains		0.684					
9	I am more independent than most people			0.703				
10	I think I have more self-confidence than most people			0.642				
11	I like to be considered a leader			0.630				
12	People come to me more often than I go to them for information about brands			0.565				
13	I would rather spend a quiet evening at home than go out to a party				0.773			
14	I am a homebody				0.745			
15	My children are the most important things in my life				0.510			
16	I will probably have more money to spend next year than I have now					0.807		
17	Five years from now the family income will probably be a lot higher					0.711		
18	I am uncomfortable when my house is not completely clean						0.766	
19	I usually keep my house very neat and clean						0.750	
20	I have used diet foods at least one meal a day							0.789
21	I participate in sports activities regularly							0.689
22	Extraction sums of squared loadings	15203	10.257	9.651	7.504	6.187	5.276	4.691
23	Rotation sums of squared loadings	12.041	9.231	8.662	8.640	7.634	6.7731	5.829
24	Cronbach's alpha	0.691	0.698	0.604	0.603	0.601	0.490	0.376
25	Kaiser-Meyer-Olkin measure of sampling adequacy.				0.684			
26	Bartlett's test of sphericity				2076.708			

5. Conclusions and Outlook

Based on the literature, destination choice for the urban grocery and clothing shopping trip is hypothesized to be determined by three factors: the individual's perception of the destination, the individual's accessibility to the destination and the relative number of opportunities to exercise any particular choice. New research emphasized personal latent variables such as attitude, shopping orientation and lifestyle. But fewer papers investigate the effect and difference of these latent variables on two kinds of clothing and grocery shopping destination choice.

This study was designed to research factors which affect shopper's destination choice in both clothing and grocery shopping. First a questionnaire about choosing a shopping center was designed. Then the questionnaire was tested with 270 internet users (Net-based questionnaire). Two hundred and thirteen fully filled out questionnaires were analyzed and at the next step, the questionnaire was interviewed with 812 randomly chosen shoppers in 8 destinations. Besides demographic questions, effective factors determining people's shopping center choice were asked.

Factor analysis has as its key objective reducing a larger set of variables to a smaller set of factors, fewer in number than the original variable set, but capable of accounting for a large portion of the total variability in the items. By using factor analysis method, results showed that, for clothing shoppers attitude, shopping orientation and lifestyle have respectively: three, two and 7 components and considering Cronbach's alpha, three out of seven components of attitude are not acceptable. On the other hand, for grocery shoppers, these latent variables have four, two and seven components that because of Cronbach's alpha one component of attitude and two components of lifestyle are not acceptable.

Although the research findings provide some new insights to researchers, these findings should be viewed in light of their limitations. Due to the limitations of this research, some recommendations are suggested. The results of this paper can be examined by Structural equation models. By using the factor scores, discrete choice models is the second suggestion for destination choice. The combination of SEM and discrete choice is the third suggestion to modeling destination choice.

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