Consumer Shopping Behaviour in the New Era of Retailing : An Empirical Study on Food and Grocery and Apparel Purchase in East India

Ayan Chattopadhyay

Abstract

Retailing in India has witnessed a sea change, not only in terms of emergence of newer formats, but also in terms of the behaviour of the shoppers. Indian shoppers who had limited choices till a decade back are now exposed to a plethora of choices, which indicates a radical shift from a conservative mind set to a spending mind set. The present research study aims to understand and analyze the ever changing consumer behavioural patterns while shopping. The study involves comparing how the consumer characteristics vary while shopping food and grocery items and apparel in four state capitals of West Bengal, Bihar, Orissa, and Jharkhand. The study covers a sample base spread across the four cities of Kolkata, Ranchi, Patna, and Bhubaneswar. Primary research forms the basis of this study. The data analysis as detailed in the research study turned up some predictable as well as surprising results. The paper concludes that for food and grocery purchase, location (nearness to home) was the prime consideration for the respondents of Kolkata and Bhubaneswar, while it was range for both - respondents from Patna and Ranchi. Ambience was the least important parameter for the respondent populations from the 4 state capitals. For apparel purchase, range or assortment was the most important parameter for the respondent populations from the 4 state capitals. The behavioural pattern of the respondents with respect to frequency of visit, preferred group size during shopping, and decision maker in choosing a shopping destination revealed a fairly uniform pattern across the state capital locations.

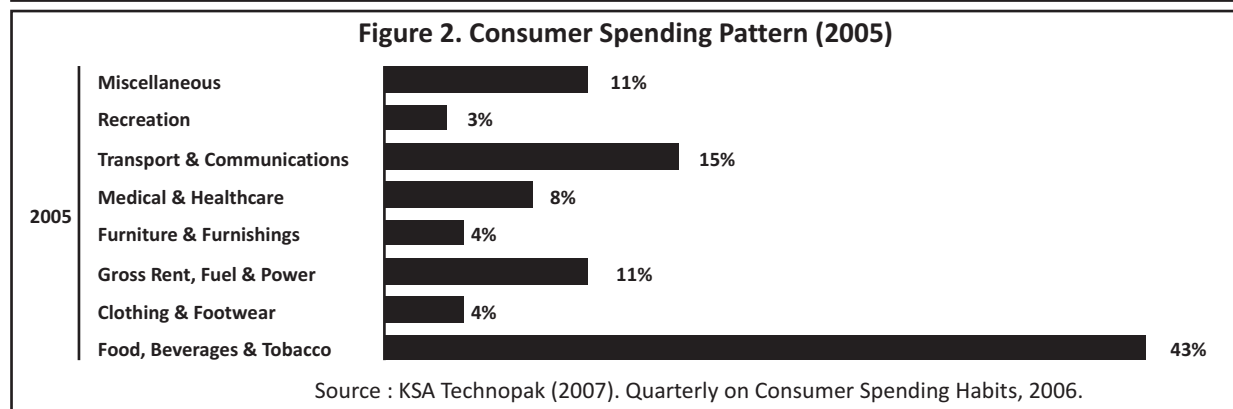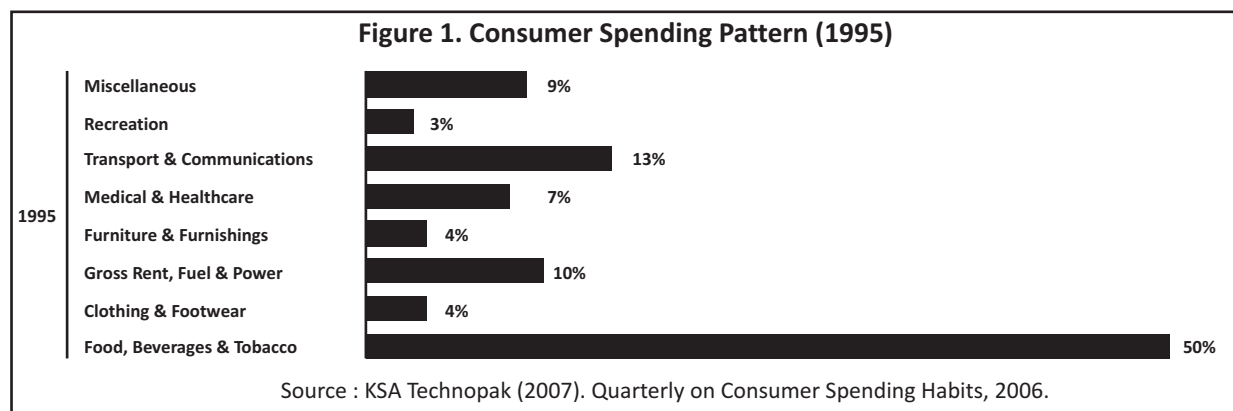*Keywords :* modern retailing, anova, consumer behaviour, chi square test

Retailing, which is one of the largest industries in India, has received global recognition and attention, and this market is witnessing a significant change in its growth and investment pattern. Economic reforms of 1991 set the stage for fundamental change among the country's consumers. The same momentum lifted millions of Indians out of desperate poverty that has helped in creating the massive middle class, especially in the urban areas. Urbanization in India is proceeding quite rapidly, which is also adding to the growth of the large middle class and hence, to the consumers' purchasing power. With rapid changes in the consumers' taste and preferences, there is a radical shift in lifestyles and spending patterns. There is an increased shift from just price consideration to design and quality, and there is a greater focus on looking and feeling good. Credit friendliness and easy availability of finance have also changed the mindset of the Indian consumers. A survey conducted by Master Card (2008) on "Consumer Savings Trend and Spending Priorities across South-East Asia" indicated that percentage of income saved by a consumer in the lowest slab of 1 – 10% is the highest in India. This indicates that Indian consumers are spending, which is a shift from the traditional savings mentality to spending mentality. This change has helped in generating a demand for not only regular products, but also for lifestyle products and services to unprecedented heights. A comparative study on consumer spending habits, conducted by KSA Technopak (2007), between 1995 with those of 2005 (Figures 1 and 2) revealed that expenditure on food decreased while there was an increase in the expenditure on clothing and footwear, medical and healthcare, transport and communication. Analysis on consumer spending by NCAER (2005) for the period from 1995-2005 revealed that the average consumer has been spending on an increasing number of different goods. For instance, two decades ago, ownership of consumer durables by SEC-A profile customers and SEC-C consumers would be distinctly different. But today, both groups have access to mobile phones, television sets, computers, and other gadgets (Table 1).

Consumer behaviour (Batra & Kazmi, 2004) in retailing may be referred to the process by which people determine

---

Regional Marketing Manager - East, Retail Marketing Division, LG Electronics (India), Metro Tower , 6th Floor, 1 Ho Chi Minh Sarani, Kolkata – 700 071. E-mail : ayan.c28@rediffmail.com

Figure 1. Consumer Spending Pattern (1995)

1995	Category	Percentage
	Miscellaneous	9%
	Recreation	3%
	Transport & Communications	13%
	Medical & Healthcare	7%
	Furniture & Furnishings	4%
	Gross Rent, Fuel & Power	10%
	Clothing & Footwear	4%
	Food, Beverages & Tobacco	50%

Source : KSA Technopak (2007). Quarterly on Consumer Spending Habits, 2006.

Figure 2. Consumer Spending Pattern (2005)

2005	Category	Percentage
	Miscellaneous	11%
	Recreation	3%
	Transport & Communications	15%
	Medical & Healthcare	8%
	Furniture & Furnishings	4%
	Gross Rent, Fuel & Power	11%
	Clothing & Footwear	4%
	Food, Beverages & Tobacco	43%

Source : KSA Technopak (2007). Quarterly on Consumer Spending Habits, 2006.

Table 1. Penetration of Consumer Durables (1995 - 2005)

Consumer Durables Penetration

(Number of Households owning goods per '000 households)

Category	1995-96	2001-02	20050-06	2009-10
Cars	16.1	30.0	50.2	91.4
Motorcycles	29.3	70.8	147.6	282.6
CTV (regular)	72.0	145.6	213.0	314.0
Refrigerators	86.1	134.0	160.7	224.9
White Goods	149.4	247.1	319.1	451.7

Source : NCAER. (2005). The Great Indian market: Market information survey of households. Retrieved from
http://www.ncaer.org/downloads/PPT/thegreatindianmarket.pdf
Retrieved from www.icmrindia.org

whether, what, when, how, from whom, and how often to purchase goods and services. Such behaviour is influenced by a person's background and traits. It blends elements from psychology, sociology, social life, anthropology, and economics. It attempts to understand the buyer decision-making process, both individually and in groups. It studies characteristics of individual consumers such as demographics and behavioural variables in an attempt to understand people's wants. It also tries to assess influences on the consumer from groups such as family, friends, reference groups, and the society in general. Belch, G. and Belch, A. (2004) defined consumer behaviour as the process and activities people engage in when searching for, selecting, purchasing, using, evaluating, and disposing of products and services so as to satisfy their needs and desires.

The behaviour of consumers towards purchases is influenced by a host of factors that include personal needs, economics, marketing, branding, advertising, climate and weather, culture, society, peer pressure, aspirations, opportunity - that is choice and availability of goods and services, leisure time, commitments, personal taste, ethics,

morality, religion, disposable income, discretionary spending, age and sex of the consumer, family responsibilities, awareness of health issues, and so forth. There are overlapping and counter factors. The consumer may be severely constrained by some, and / or strongly influenced by others. Need is the first and fundamental factor, knowledge / awareness is perhaps a close second, availability could be the third, and susceptibility to motivators of desire might be a fourth, and spending power and habit would probably be the fifth yet significant key factors in the long list of factors. The purchase act follows the consumer decision making process that takes place consciously, and at times unconsciously. The consumer's decision process is also dependent on 'What goods and services the consumer is thinking of buying?' and 'From where that consumer is going to purchase that item?'

The consumer can make these decisions separately or jointly. If made jointly, he/ she relies on the retailer for support (information, assortments, and knowledgeable sales personnel) over the entire decision process. If the decisions are made independently - what to buy versus where to buy - the person gathers information and advice before visiting a retailer and views the retailer merely as a place to buy. In choosing a shopping destination, consumers consider location, assortment, credit availability, sales help, hours, customer service, pricing, ambience, and so on.

Review of Literature

Review of Literature was done to explore the knowledge in the related domain and also to identify the possible gaps where research is needed and will permit the study. Tiwari and Abraham (2010) in their research paper tried to evaluate the various shopping dimensions required to offer the targeted customers with utmost productivity and performance. The research revealed that consumers see malls as a one stop destination for various purposes like dining, watching movies, hanging out, meeting new/ old friends, and shopping. Aesthetics were valued highly by customers in Raipur (area where the study was conducted), and items related to the aesthetics like interior design, décor, and lighting in the malls were observed to have received high acceptance from the respondents. Customers in Raipur also gave high acceptance to dimensions like Exploration and Convenience. The customers preferred one-stop shopping, wide product assortment, and a place for recreation. The study also revealed that young customers in Raipur city were found to be favorably inclined towards malls than their older counterparts.

Palan (2001) in his study presented a thorough review grounded in theoretical models of gender identity of consumer behavior studies. Based on the literature review, the paper evaluated whether gender identity research is still warranted, and proposed specific research questions to guide future research. The research highlighted that gender identity in consumer behavior has been misconceptualized, often resulting in a lack of significant findings. The researcher was of the view that even when we did seem to have a better grasp of conceptualization, we failed to recognize the label of "gender identity". The research concluded that understanding the complex and changeable nature of personality traits associated with gender categories will be crucial to the meaningfulness of business contributions. Rajagopal (2009) conducted a study "Growing Shopping Malls and Behaviour of Urban Shoppers". The study examined the impact of growing congestion of shopping malls in urban areas on shopping convenience and shopping behaviour. The study analyzed cognitive attributes of the shoppers towards attractiveness of shopping malls and intensity of shopping. The results of the study revealed that the ambience of shopping malls, assortment of stores, sales promotions, and comparative economic gains in the malls attracted higher customer traffic to the malls.

Sharma (2011) in her study "Impact of Recession on Buying Behaviour of Indian Consumers" focused on the impact of recession on the buying behavior of consumers during recessionary times. The study was conducted on a sample of 50 retailers in Navi Mumbai. The results indicated that hypermarkets and supermarkets witness a greater change in shopping behavior than the kirana stores. The author also ascertained that the customers who shop frequently are more likely to respond to discounts vis-à-vis others. The findings recorded showed that the customers who shopped frequently are more likely to spend a higher amount for shopping. It was also revealed that customers who shop more frequently are likely to witness higher fluctuations for luxury items than for regular items. This indicates that customers shopping for luxury items may be postponed in times of recession, but they continue to shop for regular items.

A unique study on food retailing by The Coca- Cola Retailing Research Councils, Retailing Research Council, Asia (2005) on fresh food retailing ("The Fresh Imperative: Creating Excellence in Asian Fresh Food Retailing") revealed that more than 50% of the Asian consumers' food bill is spent on fresh food categories. Food will continue to be Asian

consumers' biggest single area of expenditure, and is increasing at 2.6% every year - faster than the rate of Asia's population growth. Not only will the Asian consumers be spending more per capita on food in the future, but there will soon be hundreds of millions of more customers. A key insight from the study was the identification and exploration of four distinct consumer segments, each with distinct needs and preferences. Authority Seekers were the largest portion of the sample (41%). These are sophisticated buyers with a focus on quality. They seek information, like to be advised and helped, and enjoy a sense of collaborating with retailers of their choice. Easy Life Seekers comprised 27% of the overall number of shoppers. These people are time-poor and have a low level of food knowledge. Relationships with retailers, either traditional or modern, are unimportant to them. Value Seekers made up 24% of the total number of shoppers. Their focus is on obtaining what they consider to be the best balance between quality and price, with an emphasis on price. Quality Seekers made up 8% of the total number of shoppers. They are the most discerning shoppers of all, and have wide knowledge of food and the price/ quality equation. While they are the hardest to please, they are also very loyal once retailers have proved themselves.

Reports of most studies conducted so far share the macroscopic view of the changing consumer tastes and preferences and understanding the evolving consumers in the country. These new age consumers are going to drive the Indian retailing industry, including value retailing. In the present study, I have identified a gap and an opportunity of local-level study on the consumer characteristics while shopping, especially in the four state capitals of West Bengal, Bihar, Orissa, and Jharkhand, and compared them for understanding the variations at the micro level.

Scope of the Study

In the present study, an attempt has been made to study certain consumer characteristics while purchasing food, grocery, and apparel. The same has been framed within 3 objectives.

✤ **Objective 1:** Evaluating the importance of location, service, range or collection, ambience, and pricing while shopping.

✤ **Objective 2:** Analyzing the difference (across four state locations) in :
i) Duration of the stay during shopping,
ii) Expenditure pattern during shopping.

✤ **Objective 3:** Analyzing the difference in the population behavioural characteristics across four state locations with respect to the :
i) Frequency of visit of the respondents,
ii) Preferred group size during shopping,
iii) Decision maker in choosing a shopping destination.

Methodology

✤ **Research Design :** Descriptive research design was adopted for the present study. Out of the two basic types of descriptive research, cross-sectional studies have been preferred to longitudinal studies since the former examines the population sample to make measurements at a specific point in time.

✤ **Sampling Technique :** Among the various sampling methods, the investigator chose simple random sampling as it facilitates the need to generalize the results of the population parameter.

✤ **Questionnaire :** The questionnaire formed an integral part of this research. It is a mix of both closed ended and open-ended questions. Also, questions on rating the choices of the respondents were also included. The first part of the questionnaire was designed to obtain information about the personal details. The second part was designed to capture insights on the different shopping parameters considered by the consumers.

✤ **Pilot Survey :** A pilot study was conducted to examine the fitness of the questionnaire before a full-scale survey was undertaken. The pilot survey helped in eliminating the flaws and deficiencies in the questionnaire. It also gave an idea

of the time taken to fill up the questionnaire by the individuals and the likely response rate and reasons for the non-response when approached for the survey.

⮒ **Data Collection Procedure :** Simple random sampling method was employed to collect data from the respondents to ensure that the sample is truly representative of the population and to avoid sampling bias. 137, 50, 70, and 72 respondents from Kolkata, Bhubaneswar, Patna, and Ranchi participated in the study. Telephone directories (BSNL, 2007, Telephone Directory - Bhubaneswar Telephones, Kolkata Telephones, Patna Telephones, and Ranchi Telephones) of four cities were used as the frame database to source the name and phone numbers of the probable respondents.

To ensure randomness in the selection process, a random number table was used. The first two names and the last two names from each page (selected from random number table) were listed along with the respective telephone numbers. 200 names from Kolkata, 100 names from Bhubaneswar, 120 names each from Patna for Ranchi with their telephone numbers were listed. In each city, a larger number of probable respondents (compared to the defined sample size) were listed since not everybody would agree to participate in the survey. For the purpose of data collection, undisguised personal interview method was employed. From the list of randomly selected respondents, individuals were contacted and time was sought from them after explaining in brief the objective of the study. The filled in questionnaires were then scrutinized, and the incomplete ones were rejected. It was found out that on an average, the respondents took 25 minutes to fill up the questionnaire. 540 questionnaires were distributed, out of which 329 filled-in valid questionnaires were received. The study was conducted during August 2011 to April 2012.

⮒ **Research Tools for Data Analysis :** Composite score analysis, chi-square test, coefficient of variation, and analysis of variance were used as the research tools to analyze the data.

Results and Discussion

⮒ **Findings of the Objective 1 - Understanding the Importance of Location, Service, Range or Collection, Ambience, and Pricing to a Consumer While Shopping :** The importance of these parameters was calculated from the ratings as indicated by the respondents. A composite score of the ratings was obtained for all the five parameters considered for the study. The lower the composite score, the higher is the importance of the parameter. The importance of the parameters for all the 4 study areas (Kolkata, Bhubaneswar, Patna, and Ranchi) as found out from the analysis is presented in the Tables 2 and 3 for food and grocery and apparel shopping.

Table 2. City Wise Importance of Parameters : Food and Grocery

Food & Grocery					
Location	Most Imp.	2nd Most Imp.	3rd Most Imp.	4th Most Imp.	Least Imp.
Kolkata	Location	Range	Price	Service	Ambience
Bhubaneswar	Location	Price	Range	Service	Ambience
Patna	Range	Location	Service	Price	Ambience
Ranchi	Range	Service	Location	Price	Ambience

Source : Primary Data

Table 3. City Wise Importance of Parameters : Apparel

Apparel					
Location	Most Imp.	2nd Most Imp.	3rd Most Imp.	4th Most Imp.	Least Imp.
Kolkata	Range	Price	Service	Location	Ambience
Bhubaneswar	Range	Price	Service	Location	Ambience
Patna	Range	Service	Location	Ambience	Price
Ranchi	Range	Service	Location	Location	Price

Source : Primary Data

Analysis of composite score of ratings given by the respondents reveals that during food and grocery purchase, location (nearness to home) was the prime consideration for respondents from Kolkata and Bhubaneswar, while it was range for both - the respondents from Patna and Ranchi. Ambience was the least important parameter for all the respondents. Respondents from Bhubaneswar were found to be more price sensitive than respondents from Kolkata. Respondents from Patna and Ranchi were the least price sensitive. For apparel purchases, range/ assortment or collection was the most important parameter for the respondents based in all the 4 locations. Respondents from Patna and Ranchi were found to be the least sensitive to pricing, while respondents from Kolkata and Bhubaneswar were more sensitive to price. Service was of more importance to the people of Patna and Ranchi. Having found out the importance of the parameters considered in the present study, it is important to know the association level between the chosen parameters and the respondent population from the 4 state capitals. This was ascertained using the chi-square test of dependence (Ghosh & Saha, 1997) followed by calculation of the contingency co-efficient (Shajahan, 2004). The chi-square test was performed with the following hypotheses :

✥ **H0 : Respondent population from the 4 state capitals and consumer characteristics while shopping are independent, that is, there is no association between them.**

✥ **H1 : Respondent population from the 4 state capitals and consumer characteristics while shopping are dependent, that is, there is an association between them.**

If the calculated value of chi square is greater than the tabulated value of chi square at the 5% level, the null hypothesis (H0) is rejected and the alternative hypothesis is accepted, that is, there is an association between the respondent population from the 4 state capitals and the consumer characteristics while shopping. Otherwise, it is vice-versa. Contingency coefficient is then calculated using Karl Pearson's formula:

Table 4. Association Characteristics Between Shopping Parameters and State Locations

Industry	Calculated Chi Square Value	Tabulated Chi Square Value (at 5% level of confidence)	Contingency Co-efficient	Association Level between Respondent Population in Diff. States & Parameters Considered While Shopping
Food & Grocery	81.14	21.03	0.44316	High Association
Apparel	32.81	21.03	0.29990	High Association

Source : Primary Data

Table 5. ANOVA – Expenditure Pattern for Food & Grocery and Apparel Purchase

ANOVA - Exp. Pattern	Food & Grocery				Apparel			
Source of Variation	SS	DF	MS	TS	SS	DF	MS	TS
Between Samples	7985977	3	2661992	92.4	13562618	3	4520873	64.4
Within Samples	9419076	327	28805		22950050	327	70184	
Total	17405053	330		2.6	36512668	330		2.6

Source : Primary Data

Table 6. Highest Slabs of Expenditure Per Month for Food & Grocery and Apparel Purchase

Exp. Pattern	Highest % Slab (₹)	
Location	F&G	App.
Bhubaneswar	1000 - 1500	1501 - 2500
Kolkata	> 1500	1501 - 2500
Patna	> 1500	1501 - 2500
Ranchi	> 1500	1001 - 1500

Source : Primary Data

Contingency Coefficient = SQRT {Chi-Square / (Chi-Square + *N*)}, *N* = Sample Size

If there is no association contingency, the coefficient value will be 0 (zero), and its value cannot exceed 1. A larger value of contingency coefficient represents a greater degree of association between the two attributes. The chi-square statistic reveals that there is a strong association between the respondent population from the 4 state capitals and the chosen parameters. It is also observed that the association is stronger for food and grocery purchase as compared to apparel purchase (Table 4).

✥ **Findings of the Objective 2 : Analyzing the Difference between Duration of Stay and Expenditure Pattern During Shopping :** ANOVA was performed to understand how significantly different the respondent population from the 4 state capitals were in terms of expenditure pattern and duration of stay (Ghosh & Saha, 1997). Also, the consistency of the consumers on these two aspects was evaluated from the coefficient of variation. Slabs with the highest percentage of expenditure and the duration of stay were calculated and compared. ANOVA was performed step wise with the following hypothesis:

✥ **H0 : The mean values of the respondent population from the 4 state capitals are equal w.r.t. expenditure pattern/ duration of stay.**

✥ **H1: The mean values of the respondent population from the 4 state capitals are not equal w.r.t. expenditure pattern/ duration of stay.**

ANOVA (analysis of variance) was then calculated, and the test statistic was compared with the tabulated value at 5% level of confidence before a conclusion was arrived at. If the calculated value is greater than the tabulated value, we reject the null hypothesis (H0) and conclude that all population means are not equal. Otherwise, we accept H0.

Table 7. Standard Deviation, Mean, and Coefficient of Variation of Expenditure Pattern per month for Food and Grocery Purchase

Exp. Pattern - F & G	Bhubaneswar	Kolkata	Patna	Ranchi
Standard Deviation	447	557	660	539
Mean	1113	1342	1163	1551
Co-Eff. of Variation	40.16	41.51	56.75	34.75

Source : Primary Data

Table 8: Standard Deviation, Mean, and Coefficient of Variation of Expenditure Pattern per month for Apparel Purchase

Exp. Pattern - Apparel	Bhubaneswar	Kolkata	Patna	Ranchi
Standard Deviation	623	930	1004	813
Mean	1851	1360	1690	1393
Co-Eff. Of Variation	33.65	68.38	59.40	58.36

Source : Primary Data

Table 9. ANOVA – Duration of Stay During Food and Grocery and Apparel Purchase

ANOVA - Duration of Stay	Food & Grocery				Apparel			
Source of Variation	SS	DF	MS	TS	SS	DF	MS	TS
Between Samples	9820	3	3273	18.67	50629	3	16876	115.7
Within Samples	57328	327	175		47670	327	146	
Total	67148	330		2.6	98299	330		2.6

Source : Primary Data

Table 10: Highest Slabs of Duration of Stay for Food and Grocery and Apparel Purchase

Duration of Stay	Highest % Slab (sec)	
Location	F&G	App.
Bhubaneswar	0 - 30	61 - 120
Kolkata	0 - 30	61 - 120
Patna	31 - 60	31 - 60
Ranchi	31 - 60	61 - 120

Source : Primary Data

✤ **Expenditure Pattern:** ANOVA reveals that since the calculated value of the same is greater than the tabulated value, we reject the null hypothesis and accept the alternative hypothesis at the 5% level, and conclude that the difference in the expenditure incurred by the respondents while purchasing both food and grocery and apparel between the respondent population from the 4 state capitals is significant (Table 5). The standard deviation, mean, coefficient of variation, and percentage analysis for food and grocery and apparel are presented in the Tables 7 and 8.

Table 11: Standard Deviation, Mean, and Coefficient of Variation of Duration of Stay for Food & Grocery Purchase

DOS - F & G	Bhubaneswar	Kolkata	Patna	Ranchi
Standard Deviation	29	27	25	26
Mean	41	40	45	54
Co-Eff. of Variation	70.73	67.5	55.55	48.15

Source : Primary Data

Table 12: Standard Deviation, Mean, & Coefficient of Variation of Duration of Stay for Apparel Purchase

DOS - Apparel	Bhubaneswar	Kolkata	Patna	Ranchi
Standard Deviation	20	26	25	24
Mean	84	60	43	63
Co-Eff. of Variation	23.81	43.33	58.14	30.10

Source : Primary Data

✤ **Food and Grocery :** It is evident that Ranchi's respondent population has the lowest value of the coefficient of variation, which is more uniform (consistent) with respect to the expenditure pattern on food and grocery followed by respondent populations in Bhubaneswar, Kolkata, and Patna (Table 7). The percentage analysis (Table 6) of the expenditure pattern on food and grocery across states reveals that in Bhubaneswar, maximum consumers spent in ₹ 1001 - ₹ 1500 slab (40.38%) followed by ₹ 751 - ₹ 1000 slab (28.85%). However, in Kolkata, Patna, and Ranchi, maximum consumers spent in the > ₹ 1500 slab, with Ranchi having the highest percentage of respondents (54.17%) followed by Kolkata (37.23%), and Patna (31.43%) respectively. Also, the second highest slab for all these three state capital locations is ₹ 1001 - ₹ 1500, with consumer percentages ranging from 25% - 28%.

✤ **Apparel :** Bhubaneswar is found to have the lowest value of coefficient of variation, and hence had more consistent expenditure pattern during the purchase of apparel followed by respondent populations in Ranchi, Patna, and Kolkata (Table 8). The percentage analysis of expenditure pattern on apparel purchase across states (Table 6) reveals that in Bhubaneswar, maximum number of respondents spent in the ₹ 1500 - ₹ 2500 slab (59.62%) followed by ₹1000 - ₹ 1500 slab (25.00%). In Kolkata, maximum number of respondents spent in the ₹ 1500 - ₹ 2500 slab (26.28%) followed by 23.36% in the ₹ 501 - ₹ 1000 slab. In Patna also, maximum number of respondents spent in the ₹ 1500- ₹ 2500 slab (24.29%), followed by an almost equal proportion of consumers in the expenditure pattern slabs of ₹ 1000 - ₹ 1500 and

Table 13. Frequency of Visit – Food and Grocery & Apparel Purchase

Frequency of Visit	Food & Grocery	Apparel
Bhubaneswar	Daily	Once in 3 Months
Patna	Daily	Once in 2 Months
Ranchi	Daily	Once in 3 Months
Kolkata	Daily	Once in 3 Months

Source : Primary Data

Table 14. Group Size During Shopping – Food and Grocery & Apparel Purchase

Group Size	Food & Grocery	Apparel
Bhubaneswar	One	Three
Patna	Two	Two
Ranchi	Two	Two
Kolkata	One	Two

Source : Primary Data

Table 15. Decision Maker While Shopping – Food and Grocery & Apparel Purchase

Decision Maker	Food & Grocery	Apparel
Bhubaneswar	Spouse	Spouse
Patna	Spouse	Spouse
Ranchi	Spouse	Spouse
Kolkata	Spouse	Spouse

Source : Primary Data

Table 16. Association Characteristics – Food & Grocery Purchase

Food & Grocery	Calculated Chi Square Value	Tabulated Chi Square Value (5% confidence level)	Contingency Coefficient	Association Characteristics between State Population & Consumer Characteristics while shopping
FOV	71.24	16.92	0.388815	High Association
Group Size	187.22	21.03	0.564643	High Association
Decision Maker	94.82	21.03	0.438635	High Association

Source : Primary Data

Table 17. Association Characteristics – Apparel Purchase

Apparel	Calculated Chi Square Value	Tabulated Chi Square Value (5% confidence level)	Contingency Coefficient	Association Characteristics between State Population & Consumer Characteristics while shopping
FOV	65.0	21.03	0.374278	High Association
Group Size	72.75	21.03	0.392278	High Association
Decision Maker	53.88	21.03	0.344547	High Association

Source : Primary Data

in the > ₹ 1500 slab (22.86%). However, in case of Ranchi, it is observed that maximum number of respondents spent in ₹ 1000 - ₹ 1500 slab (33.33%) followed by the ₹ 500 - 1000 slab (31.94%).

✤ **Duration of Stay:** ANOVA (Table 9) reveals that since the calculated value is greater than the tabulated value, we reject the null hypothesis and accept the alternative hypothesis at the 5% level and conclude that the difference in the average duration of stay of the consumers while purchasing food and grocery as well as apparel between the respondent population from the 4 state capitals is significant. The standard deviation, mean, coefficient of variation,

and percentage analysis for food and grocery and apparel purchase are presented in the Tables 11 and 12.

✤ **Food and Grocery :** From the Table 11, it is evident that Ranchi, with the lowest value of coefficient of variation, is more uniform (consistent) or more homogeneous in terms of average duration of stay (of the respondents at the retail outlet or shopping center) during food and grocery purchase followed by Patna, Kolkata, and Bhubaneswar. The percentage analysis of expenditure pattern on duration of stay during food and grocery purchase across state capitals (Table 10) reveals that the respondents in Bhubaneswar and Kolkata exhibited a similar trend. Maximum respondents in Bhubaneswar (46%) stayed at the retail outlet or shopping center for the 0 - 30 mins slab, while in Kolkata, maximum number of respondents stayed in the retail outlet or shopping center equally for the 0 - 30 minutes and 31 - 60 minutes slab (39%). This is followed by stay in the 31- 60 minutes slab in Bhubaneswar (33%) and in the 61-120 minutes slab (18%) in Kolkata. Maximum number of respondents from Patna and Ranchi stayed at the shopping outlet in the 31-60 minutes slab (53% for both states) followed by stay in the 0 - 30 minutes slab in Patna (26%) and in the 61-120 mins slab in Ranchi (22%).

✤ **Apparel :** From the Table 12, it is evident that Bhubaneswar, with the lowest value of coefficient of variation is more uniform (consistent or homogeneous) in terms of average duration of stay of the respondents during apparel purchase followed by Ranchi, Kolkata, and Patna. The percentage analysis of duration of stay during apparel purchase across states (Table-10) reveals that respondents in Bhubaneswar, Kolkata, and Ranchi exhibited a similar trend. Maximum number of respondents in Bhubaneswar, Kolkata, and Ranchi stayed at the shopping outlet in the 61 - 120 minutes slab (Bhubaneswar - 79%, Kolkata - 46%, and Ranchi - 47%). In Patna, the maximum number of respondents stayed at the outlet for the 61-120 mins slab (33%).

✤ **Findings of the Objective 3 : Study on Frequency of Visit, Preferred Group Size During Shopping, and Decision Maker in Choosing a Shopping Destination :** From the observed frequency for each slab, the percentage data was calculated and then state capital wise mapping was done to understand the behavioral pattern. The slab/s with the highest percentage are depicted in the Tables 13, 14, and 15. The behavioural trend is found to be fairly uniform across locations with some deviations (highlighted). The chi-square statistic reveals a strong association between state capitals and the consumer shopping characteristics (Tables 16 and 17). For food and grocery and apparel purchase, the association is highest for group size followed by decision maker and frequency of visit (FOV) for food and grocery purchase and frequency of visit (FOV) and decision maker for apparel purchase.

Summary of Findings

The observations made through the process of the research highlight some interesting facts :

1) For food and grocery purchase, location (nearness to home) was the prime consideration for the respondents from Kolkata and Bhubaneswar, while it was range for both - respondents from Patna and Ranchi. Ambience was the least important parameter for the respondents of all the four locations. For apparel purchase, range was the most important parameter for the respondents of all the 4 locations. Chi-square statistic reveals that there is a strong association between the respondent population from the 4 state capitals and the chosen parameters.

2) ANOVA revealed that the difference in the expenditure incurred and duration of stay of the respondents while purchasing food and grocery and apparel between respondent population from the 4 state capitals is significant. It is evident that respondents in Ranchi were more uniform (consistent) in their expenditure pattern for food and grocery followed by respondents in Bhubaneswar, Kolkata, and Patna, while respondents in Bhubaneswar were found to be more consistent in their expenditure pattern on apparel purchase followed by respondents in Ranchi, Patna, and Kolkata. Also, respondents in Ranchi were more consistent in terms of average duration of stay at the shopping outlet during food and grocery purchase followed by respondents in Patna, Kolkata, and Bhubaneswar, while respondents in Bhubaneswar were more consistent in terms of average duration of stay during apparel purchase followed by respondents in Ranchi, Kolkata, and Patna.

3) Fairly uniform behavioural pattern across state locations was observed, with a strong association between

frequency of visit (FOV), preferred group size during shopping, decision maker, and the state population locations.

Limitations of the Study

↳ The study was restricted to 4 locations. Hence, the findings of the study cannot be generalized for either the entire region or the country as a whole.

↳ Income wise/ age group wise/ qualification wise segmentation of the sample was not done initially so as to maintain randomness in the selected sample.

↳ Sample size was not the same for all the 4 locations. The total sample size was restricted to 333 respondents owing to time constraints.

Scope for Future Research

The study was conducted in the Eastern part of the country, with an assumption that the respondent populations from the 4 state capitals are representative of the State. Thus, there remains scope for future research, that may be conducted keeping in mind the following :

↳ There remains a scope to do segmented analysis with respect to demographics, psychographics, and so forth.

↳ Further analysis may be done with greater number of respondents that may include representation from urban as well as rural areas. Also, the differences between rural and urban characteristics may be studied.

References

Batra S. K., & Kazmi, S.H.H. (2004). *Consumer behavior: Text and Cases* (pp. 67 - 112). New Delhi: Excel Books.

Belch G., & Belch, A. (2004). *Advertising and promotion: An integrated marketing communications perspective* (6th Edition). Pennsylvania: McGraw-Hill.

BSNL. (2007). Bhubaneswar and area [telephone directory], pp. 9-243.

BSNL. (2007). Kolkata and area [telephone directory], pp. 8-523.

BSNL. (2007). Patna and area [telephone directory], pp. 5-267.

BSNL. (2007). Ranchi and area [telephone directory], pp. 7-243.

Ghosh R.K. & Saha S. (1997). *Business mathematics and statistics - advanced level* (7th Edition, pp. 182 - 246), Kolkata: New Central Book Agency Pvt. Ltd.

KSA Technopak (2007). Quarterly on consumer spending habits, 2006. Retrieved from www.icmrindia.org

Master Card (2008). Consumer savings trend and spending priorities, 2008, Retrieved from www.masterintelligence.com/asset/.../MEA-ConsumerConfidence

NCAER. (2005). The Great Indian market: Market information survey of households. Retrieved from http://www.ncaer.org/downloads/PPT/thegreatindianmarket.pdf

Palan, K. M. (2001). Gender identity in consumer behavior research: A literature review and research agenda. *Academy of Marketing Science Review, Volume 2001* (No. 10). Retrieved from http://www.amsreview.org/articles/palan10-2001.pdf

_____, Rajagopal. (2009). Growing shopping malls and behaviour of urban shoppers. *Journal of & Retail & Leisure Property, 8*, 99-118. DOI:10.1057/rlp.2009.3

Shajahan S. (2004). *Research methods in business management* (2nd Edition, pp. 147 - 210). Mumbai: Jaico Publishing House.

Sharma, K. (2011). Impact of recession on buying behavior of Indian consumers. *International Review of Business Research Papers, 7* (1), 381-392.

The Coca- Cola Retailing Research Councils (n.d.). The fresh imperative: Creating excellence in Asian fresh food retailing. Retrieved from https://www.ccrrc.org/.../the-fresh-imperative-creating-excellence-in-asia

Tiwari, R. K., & Abraham, A. (2010). Understanding the consumer behaviour towards shopping malls in Raipur city. *International Journal of Management & Strategy, 1* (1). Retrieved from http://www.facultyjournal.com/webmaster/upload/__Paper6.pdf