



COMPARATIVE STUDY OF PREFERENCE OF CONSUMERS OF SUPERMARKETS AND RYTHU BAZAAR-THE FARMERS' MARKET OF ANDHRA PRADESH

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ABSTRACT

With the mushrooming of supermarkets all across the country, consumers find it convenient to visit these outlets to fulfill their daily needs. These supermarkets, among other products of daily requirement, sell vegetables as well. Rythu Bazaar, another popular place for purchasing vegetables, is the farmers' market of Andhra Pradesh, one of the most prosperous states in South India. These markets are run by the government agencies. This paper studies the demographic profile of vegetable consumers by dividing them into two categories – those purchasing vegetables only from Rythu Bazaars and those from both Rythu Bazaars and supermarkets. In the backdrop of middlemen eating away farmers' profits and the establishment of Rythu Bazaars to address that, this study looks at the impact of demographic variables on purchasing choice, if any. It attempts to study the relation between demographic characteristics and the preference for both Rythu Bazaars and supermarkets vis-à-vis only Rythu Bazaars for purchase of vegetables. Data from consumers' survey in seven Rythu Bazaars in Hyderabad and one each from Visakhapatnam and Vijayawada has been used to analyze consumer preferences using an ordered logistic regression analysis method. The results of this study identify consumer characteristics that influence demand of vegetables and consequently the farmers' returns from operating at these bazaars.

KEYWORDS: Direct Marketing; Logit Model; Demographic Characteristics; Agri-Marketing Channel

1 INTRODUCTION

In the Market is life, vitality, health, abundance, grit, prime produce, colour. In Markets lie the thick of things, sociability, the throb of human community. They provide links with the past and all indications suggest that Farmers' Market networks will create far-reaching and revolutionary changes in the ways we shop and eat – alterations that will affect agriculture's future. (Chorney, 2002, p. 8)

A 1.2 billion population along with substantial income growth has put tremendous pressure on India's available land and other resources to meet its food requirement. This has resulted in an additional demand of 2.5 metric ton of food grains annually. Even assuming a very low growth in per capita GDP, the demand for food grains in the year 2020 is projected to be 256 million ton (Jairath, 2008). Added to this demand is the consumers' increasing inclination towards fresh vegetables. The nutritional concerns as well as security and food safety concerns have increased the interest in locally grown produce with known sources of origin (Brooker, et al., 1987) elsewhere in the world. This increasing demand for fresh agricultural produce gives an opportunity for small farmers to increase their individual returns, provided the means is known to them. Despite being into the seventh decade of independence, the scenario even today is far from encouraging. This is primarily because a large majority of farmers even today are dependent on

middlemen to sell their produce. This is because either they do not have enough money to bring their produce to the market or they do not have any space to store the produce. The middlemen have therefore been utilizing this to their maximum advantage at the cost of the poor farmers. As a result, their average profit margins have been retained at the cost of the profit margins of farmers which have always been very low. Also, the nexus between these middlemen and private money lenders makes it doubly difficult for the farmers to operate independently. Apart from lending money at exorbitantly high rates these money lenders also advise the farmers on what, when and how to produce. This is despite the fact that neither they are equipped to do so nor do they have the right intentions to give the correct guidance, even if they are competent enough to do so. Thus farmers, because of their own gullibility have seldom been guided properly – as a result it is only the middlemen and private money lenders who have prospered at the expense of the poor farmers.

Among the various agri-marketing channels, the most prominent are the ones through middlemen, traders - wholesalers and retailers, big corporate houses and cooperatives. Governments in many states have taken the initiative to encourage farmers to undertake direct selling by eliminating the middlemen. A need was also felt to provide better infrastructure to farmers to facilitate marketing their

own produce. The marketing mechanisms dominated by these middlemen have over the years prevented millions of farmers from getting satisfactory remunerative prices of their produce; forget reaping the benefits of their hard work. To eliminate middlemen Mr. N Chandrababu Naidu, the former Chief Minister of Andhra Pradesh started Rythu Bazaars in Andhra Pradesh in 1999.

The objective of this paper is to examine the various demographic characteristics of consumers that impact their preferences among the two available major vegetable marketing channels, that is, Rythu Bazaars, the farmers' market and the supermarket stores run by big corporate houses. Ordered logit analysis has been used to understand the relevance of various characteristics that are important in focusing on the segment of consumers that also visits the supermarkets for purchasing their vegetable requirements.

LITERATURE REVIEW

There has been an increasing concern regarding the margins of small farmers being eaten away by middlemen. To address this issue various state governments in India have undertaken measures to address the agri-marketing channels. Among the various agri-marketing channels, the one adopted by the farmers' markets has a very high chance of addressing this issue. As a result, there has been a lot of interest shown in the functioning of farmers' markets across not only India but also various countries in the world. A study conducted by Kezis et al. (1995) on consumers at a small farmers' market in Maine indicates that the number of older, high income, high educated consumers is increasing. Since these consumers are more likely to be attracted to farmers market, the popularity of this format is seen to be increasing. Onianwa et al., (2005) analyzed the determinants of Farmer-to-Consumer direct-market shoppers and provided insights into the factors that affect shopping at a farmer-to-consumer direct market. The study revealed that education was the most significant variable with regard to shopping at farmer-to-consumer direct markets while income was a less significant factor. Consumers with education above high school were more likely to shop at a farmer-to-consumer direct market. However, the study also revealed that as income increases, families with children were more likely to shop at a farmer-to-consumer direct market than were families without children. Further, older people, males, and whites were all more likely to shop at a farmer-to-consumer direct market.

Wolf (1997) in a case study examined responses of consumers with the objective of comparing the profile of farmers' market shoppers to those who do not shop at farmers' markets. Examination of the demographic profile of consumers of farmers' market indicate that they are more likely to be female, married, and have completed post graduate work. There was no difference observed with respect to age, income levels, and employment status between farmers' market shoppers and farmers' market non-shoppers. Henneberry and Haerani (2004) examined consumer preferences among various marketing channels (including direct marketing) with the objective of analyzing the impact of various demographic variables on purchasing

choice, with a specific focus on the links between demographic factors and shopping preferences. The study identified consumer characteristics that influence produce demand and consequently growers' return at Oklahoma farmers' market. Govindasamy and Nayga, Jr. (1996) studied the characteristics of farmer-to-consumer direct market customers with the objective of finding various characteristics of farmer-to-consumer direct market consumers. They concluded that the average number of visits per month to a direct marketing facility was between one and two and the average dollar amount spent per visit at direct marketing facilities ranged from \$11 to \$19. The study further concluded that direct marketing facilities provided better quality of produce as compared to the supermarkets.

Otto and Varner (2005) undertook a study with the objective of assessing the market participation and the impact it had on the economic front. The method adopted was based on survey of a large number of consumers (4500) and vendors (780). The findings regarding consumer and vendor characteristics reveal opportunities for increased marketing toward certain participants. Evidence from the study suggested that targeting of urban consumers and participants approaching retirement age, as well as the development of new strategies to attract younger consumers and those who have little experience with farmers' markets will have a positive impact on the market participation. The study also indicated that these markets are an important place for rural producers and urban consumers to come together to exchange goods and information. Varner and Otto (2004) used an aggregate consumer demand analysis framework with the objective of evaluating the performance of farmers' markets in Iowa. Sales per vendor and sales per capita from a sample of 109 Iowa farmers' markets were evaluated against characteristics of the community, the region and the market. The study concluded that more urban characteristics appeared to be associated with Iowa farmers' markets achieving higher sales per vendor or per capita. The other factors contributing to the overall success of these markets were the size of population in the market locale and also the distance from other competing markets. Further, per capita income of residents in the community hosting the market had a significant and positive effect on per vendor sales as well. However, the conclusion of the study is different from similar study undertaken by Govindasamy and Nayga (1994). The effect of education, measured by percentage of residents in the communities with number of postsecondary training and the number of years the market had been in existence, was not found to be a significant factor in the model.

Trobe (2001) studied the potential benefits of marketing food directly from producers to consumers, and hence circumventing the 'middlemen' in the food supply chain. This qualitative study concluded that benefits have been accrued by both farmers and consumers. Consumers get locally grown, fresh, healthy and, in many cases, organic food at affordable prices, while producers get more value of their produce. Govindasamy et al. (1998) looked at the resurgence of farmers' markets in New Jersey which allowed farmers to capture a greater share of the consumers' food

expenditure thus increasing their profitability, while the consumers' need for fresh, high quality commodities as well as for farm-based recreational experiences is met. Brown (2002) reviewed all the research done on farmers' markets in the period from 1940 to 2000 and found the huge increase in the number of farmers' markets in the United States after the passage of the Farmer-to-Consumer Direct Marketing Act of 1976. This article inventories the literature since the Second World War on retail farmers' markets and direct marketing in North America. This study concluded that the literature on farmers' markets is scant and has ample room for new and exciting explorations. The study also delved into the economic impact of the farmers' markets. Sommer et al. (1980) undertook a study with the objective of finding out reasons which motivate Californians to shop at farmers' markets. The study also traced the journey of farmers' markets in USA over the decades and how the American public market reached its peak in the 19th century and declined swiftly after that with the growth of cities and suburbs, improved food transportation, and increased popularity of chain stores. The growth was helped in 1977 when the California State Department of Food and Agriculture passed regulations permitting the establishment of certified farmers' markets, easing the standardization requirements on direct-marketing growers, and ensuring that the person selling was the actual grower or a relative or employee of the grower. One of the major findings was the fact that customers shop at these certified farmers' markets mainly because of the fresh produce, price savings, liking of social atmosphere and the idea of helping the small farmer.

Inference drawn from the review of the above studies

Whilst most research has focused on finding the reasons behind consumers' preferences of purchasing vegetables from farmers' markets, what needs to be studied in details is something that will have the potential to impact the earnings of the farmers. The studies point out the factors that affect shopping at these markets as quality and value being among the most important attributes when purchasing produce and the consumers have a certain perception about the farmers' market, studies have found that that the number of older, high income, high educated consumers is on the rise in these markets.

RYTHU BAZAAR – AN INTRODUCTION AND ITS GENESIS

Rythu means Farmer in Telugu (The local language of Andhra Pradesh in India) and Bazaar stands for the Persian word *bāzār*, the etymology of which goes back to the Pahlavi word *baha-char* (بهاچار), meaning "the place of prices". Rythu Bazaar, the farmers' market was a social initiative started by the government of Andhra Pradesh in 1999. The principal objective of Rythu Bazaar was to help farmers bring and sell their produce to the market effectively eliminating middle man or any other marketing intermediary.

The concept of Rythu Bazaar originated from Kal Ghoj, the farmers' market of Russia. In the late eighties, Mr. M S Gill, the then Union Agricultural Secretary, impressed by the concept of Kal Ghoj adopted this concept in the states of Punjab and Haryana. Thus Apna Mandi was born. Spurred

by the success of Apna Mandi, the state governments of Andhra Pradesh and Tamil Nadu also started Rythu Bazaar and Uzhavar Sandhais in their states respectively. The central idea of these farmers' markets was to eliminate middlemen and provide a platform for the direct interaction between farmers and consumers. The farmers benefit by selling directly to the customers and by not paying any commission to the agents. The customers benefit by getting good quality produce at the best prices.

The concept of Rythu Bazaar was well received by the consumers and the demand for such markets in Andhra Pradesh increased. Currently more than 100 Rythu Bazaars are in existence in the state of Andhra Pradesh benefiting 4500 farmers and a large number of consumers. India has approximately over five lakh villages and almost two-third of the population is employed in the farm sector. However, agriculture contributes to only 25% of the national income. Lack of marketing information and inadequate access to markets as well as supply chain inefficiencies inherent in the farm sector contribute to low realizations and incomes to the farmers. Rythu Bazaars have been established to play a key role in addressing some of these problems.

Operation of Rythu Bazaar

Typically, a Rythu Bazaar covers 10 to 15 villages and at least 250 farmers. This also includes 10 groups (self-help groups) who are selected by a team consisting of Mandal Revenue Officers, Horticulture Officers and Agriculture Officers in the villages to operate from these bazaars. Joint Collectors of the concerned districts ensure that adequate transport facilities are arranged for transport of goods to Rythu Bazaars in consultation with State Road Transport Corporation. In addition online information of prices and commodities movements is provided on the internet.

Investment and Costs

The Rythu Bazaars are located in government plots convenient to farmers as well as consumers. Built in a 1 acre (minimum) vacant land, the infrastructure provided by the government include sheds, arrangements of supply of drinking water, toilets with sanitation facility, parking for vehicles, arrangements for removal of garbage and cleaning of market by local body, facility for storage of unsold produce, provisions of weighing scales for all farmers, telephone, fax, etc. Thus the Andhra Pradesh government meets all the capital expenditure which varies according to the land prices prevailing in an area.

Rythu Bazaars are intended to benefit farmers by providing them access to markets. Inadequate marketing support has been one of the major handicaps faced by the farming sector. The movement of produce from the farms to the ultimate retail outlets faces a number of constraints and in the absence of adequate facilities for storage and preservation, farmers are forced to make distress sales. These market yards are mostly set up by the State Government. For setting up of these market yards, funds are sourced from National Bank for Agriculture and Rural Development (NABARD) through Rural Infrastructure Development Fund (RIDF) and National Cooperative Development Corporation (NCDC). Rythu Bazaar also

serves as a platform to create infrastructure facilities to enable farmers to sell their products directly to retail consumers thereby ensuring that farmers realize better prices and consumers also receive fresh vegetable and fruits at reasonable prices and thus address the constraints in agri-marketing infrastructure.

OBJECTIVE OF THE STUDY

A committee from European countries undertook a survey of some of the traditional markets of Tamilnadu and observed that farmers were selling their produce at very cheap rates and they noted that there were instances when they had even failed to take their produce to the markets, and had to dump them into the field. This was because they were not able to realize even the labour cost for harvesting (Salim et. al, 2008).

Against the backdrop of this all pervasive problem faced by Indian farmers, it becomes pertinent to suggest ways of increasing revenue generation of the farmers operating from Rythu Bazaars. The research problem is thus focused on identification of ways of increasing income benefits of farmers operating at Rythu Bazaars through a study of the demographic profiles of the consumers so that the Rythu Bazaar administration may focus on consumers in a more scientific manner. Therefore the problem area that this research identifies and the related question that it seeks to answer is as follows:

“Is there a possibility of identifying and adopting a model that if implemented could result in benefitting the farmers with respect to a potential increase in their earnings?”

With the problem statement in mind the research objective of this paper has been framed as identifying the demographic characteristics of the segment of consumers that shows preference for both Rythu Bazaars and supermarkets vis-à-vis only Rythu Bazaars for purchase of vegetables.

RESEARCH DESIGN

The study is exploratory in nature and is based on primary data. Consumers of these Rythu Bazaars have been surveyed with the help of a questionnaire for this research.

Sample Selection

The process of selection of sample was sequential (i.e., in stages). In the first stage, the Rythu Bazaars were selected purely based on convenience. In the second stage, the consumers were selected from these Rythu Bazaars. The sampling technique used for their selection was judgemental.

Presently there are nine (9) Rythu Bazaars in Hyderabad and Ranga Reddy Districts of which seven (7) were covered in this study. The Rythu Bazaars covered were Kukatpally, Alwal, Mehdiapatnam, Kothapet, Vanasthalipuram, Erragadda and Qutubullapur. Additionally two more Rythu Bazaars – one each from Vijayawada (Kedareshwari Peta) and Visakhapatnam (Seethammadhara) have also been considered.

The Survey

Consumers of the above mentioned Rythu Bazaars have been surveyed for this research. A total of 370 questionnaires were distributed randomly to customers at these markets. For the purpose of the study 198 usable questionnaires which were complete in all respects were analyzed.

Tools of Analysis

Ordered logit analysis has been used to understand the relevance of various demographic characteristics of the consumers of Rythu Bazaars and supermarkets.

THE SURVEY RESULTS

The survey provided information on the demographic characteristics of consumers. Questions were also asked on their further expectations from the Rythu Bazaars to making purchasing vegetables more attractive. This section has been divided into two broad categories - the first part provides a summary of the consumers' characteristics, and the second part presents the results of the logit analysis of the consumers' survey.

Analysis of Consumer Survey (Demographic Profile): To better understand who constitutes Rythu Bazaar's consumers, respondents were questioned on their demographic characteristics such as age, gender, educational qualification, occupation, size of family, number of children in the family, number of earning members in the family, and annual family income.

Age Distribution

Respondent's age distribution (Table 1: 1A) indicate that most of the purchasers are quite young, with the youngest and the oldest respondents being 22 and 48 respectively. This is in sharp contrast to the farmers' market in the US where the majority of the consumers are older than 50 years (Henneberry et. al., 2004). However there is one thing that was found to be common regarding the age of the consumer respondents - it being that none of surveyed consumers were younger than 20 years old. This was consistent with the survey result from the study done by Henneberry et al. (2004).

Gender

The surveys showed that there is no appreciable difference between the number of male and female consumers (Table 1: 1B), being respectively 48.5 and 51.5 percent.

Educational Qualification: With respect to educational qualification, the range was distributed - from secondary school to post graduation. Around 35.9 percent of the respondents indicated education (Table 1: 1C) up to post graduate levels, while another 54 percent were graduates. Only 10.1 percent were not graduates.

Annual Family Income

With regard to the respondents' annual family income (Table 1: 1D), 24.7 percent of respondents had incomes between Rs. 200000 to Rs. 500000, while 64.6 percent between Rs. 500000 and Rs. 1000000, 10.6 percent of the respondents had an annual family income in excess of Rs. 1000000. The relatively high education and income level of Rythu Bazaar respondents on this survey is very similar to the farmers' market studies conducted in the U.S. by Kezis et.al (1995).

Table 1: Consumers' Profile

Table	Parameter	Frequency	Percent	Cumulative Percent
1A: Age	22	2	1	1
	23	3	1.5	2.5
	24	3	1.5	4
	25	5	2.5	6.6
	26	2	1	7.6
	28	17	8.6	16.2
	29	27	13.6	29.8
	30	9	4.5	34.3
	31	1	0.5	34.8
	32	33	16.7	51.5
	33	11	5.6	57.1
	34	6	3	60.1
	35	16	8.1	68.2
	36	3	1.5	69.7
	37	4	2	71.7
	38	20	10.1	81.8
	39	4	2	83.8
	40	9	4.5	88.4
	42	10	5.1	93.4
43	2	1	94.4	
44	6	3	97.5	
45	3	1.5	99	
48	2	1	100	
	Total	198	100	
1B: Male or Female	Female	102	51.5	51.5
	Male	96	48.5	100
	Total	198	100	
1C: Qualification	Class X	1	0.5	0.5
	Diploma	2	1	1.5
	Graduate	107	54	55.6
	Intermediate	17	8.6	64.1
	PG	71	35.9	100
	Total	198	100	
1D: Income	> 10	21	10.6	10.6
	2 to 5	49	24.7	35.4
	5 to 10	128	64.6	100
	Total	198	100	

Purchasing Pattern

To get a better understanding of the purchasing patterns, respondents were asked questions about the frequency of their visits to the Rythu Bazaars, time spent during each of

the visits, and the average amount spent in each of their visits. About 12 percent of Rythu Bazaar respondents visit the market weekly, while 43 percent visit fortnightly once, and 45 percent once a month. When respondents were asked

about their average money spending each time they visit the market, 37.9 percent said they spend in excess of Rs. 400, 39.4 percent spend anywhere between Rs. 200 to Rs. 400, and 20.2 percent spend between Rs. 100 and Rs. 200. A small 2.5 percent of the respondents spend less than Rs. 100.

Reasons for Shopping at Rythu Bazaars: The major reasons for Shopping at these farmers' markets was also sought and it was found that 92.6 percent consumer respondents responded to 'quality' with moderate to high satisfaction. This factor has emerged as the most important factor affecting their choice to shop at these bazaars. Another important factor where the score was very high was the availability of 'fresh and nutritious' products (75.7 percent). More than half the respondents (57.1 percent) were satisfied with the 'price', (58.1 percent), with the 'convenience of purchasing vegetables' at these bazaars, 58.6 percent with the 'variety of vegetables', 56.6 percent with the 'quality of service', and 57.1 with the 'consistency of available products'. However, a lesser number of respondents (47 percent) were satisfied with the 'consistency of rates'.

When the consumers were asked to identify the three key attractions for them to come to Rythu Bazaars, they were found to be quality (70.7 percent), 'price' (56 percent), and freshness (46 percent). Yet another 29 percent (an equal number of respondents) identified factors like 'service' and 'variety of vegetables'. However a very small percentage (less than 1 percent) of the respondents gave one of their top three key attractive points as 'location'. Location, however, happens to be one of the basic tenets of establishment of these markets.

More than half of the consumers of the Rythu Bazaars (61.3 percent of the respondents) also go to various supermarkets for purchasing vegetables. Exactly 50 percent of the respondents, who also go to supermarkets for purchasing vegetables, visit such stores once every fortnight. When those consumers who only visit Rythu Bazaars, were asked to give the reason for not visiting the supermarkets, 52.4 percent mentioned 'price' as the prime reason, while only 19 percent said 'quality'.

METHOD OF ANALYSIS - THE LOGIT MODEL

The model corresponds to the objective of this study, which is examining consumer preferences among Rythu Bazaars and supermarkets. As mentioned earlier the survey also tried to find out if consumers visiting Rythu Bazaars also visit other supermarkets like Reliance Fresh, Heritage Fresh, More for You etc. for purchasing vegetables. The study revealed that the consumers do visit these outlets as well. However, a substantial percentage of the consumers did not. Therefore, the survey also tried to elicit the probable reasons for not visiting these outlets. To understand the profile of the consumers visiting both Rythu Bazaars and supermarkets, an ordered logit model has been used and the question responses analyzed in relation to respondents' demographic profile and other characteristic information provided in response to other survey questions. More specifically, the model was used to predict the likelihood of a consumer

purchasing vegetables from each of the marketing outlets i.e., Rythu Bazaar only or both Rythu Bazaars and supermarkets, given certain characteristics of the respondents. Five explanatory variables: age, gender, children (have children in the family), income, and the number of visits every month were taken for the study. The model specification is as given below:

Where,

$i = 1, 2, \dots, 198$ is the total observation, in this case the number of respondent customers;

$j = 1, 2$, is the number of dependent variables. Dependent variables here are only 'Rythu Bazaars' and 'Rythu Bazaars and supermarkets'

$k = 1, 2$ is the levels at the dependent variables;

$g = 1, 2, \dots, 5$ is the number of explanatory variables, as mentioned before.

F_{ijk} is the cumulative probability that individual i obtain most of his/her produce from specific source j . Since all independent variables were in discrete values, dummy variables were created to accommodate the models. The dummy variables were as follows:

A_1 is set to 1 if the respondent's age is below 20 years and 0 otherwise; A_2 is set to 1 if the respondent's age is 21-30, and 0 otherwise; A_3 is set to 1 if the respondent's age is between 31 and 40 years, and 0 otherwise; A_4 is set to 1 if the respondent's age is between 41 and 50 years, and 0 otherwise; and A_5 is set to 1 if the respondent's age is greater than 50 years, and 0 otherwise;

Gender is set to 1 if respondent is a male and 0 otherwise;

Children is set to 1 if respondent has kids, and zero otherwise;

I_1 is set to 1 if the annual family income is less than Rs. 2,00,000, and 0 otherwise; I_2 is set to 1 if the annual family income is between Rs. 2,00,000 and Rs. 5,00,000 and 0 otherwise, I_3 is set to 1 if the annual family income is between Rs. 5,00,000 and Rs. 10,00,000 and 0 otherwise, I_4 is set to 1 if the family's annual income is greater than Rs. 10,00,000 and 0 otherwise;

V_1 is set to 1 if the number of monthly visits to the Rythu Bazaars is 1, and 0 otherwise, V_2 is set to 1 if the number of monthly visits is 2, and 0 otherwise, and V_3 is set to 1 if the number of monthly visits is 4, and 0 otherwise.

RESULTS AND ANALYSIS

Since there were two distinctive dependent variables (only Rythu Bazaars and both Rythu Bazaars and supermarkets) two equations were estimated separately. Both equations had the same independent variables, which were age, gender, having children in the family, annual family income, and the number of monthly visits.

From the results it has been observed that the difference between the two log-likelihoods – the Chi-square has an observed significance value greater than 0.10 (0.410) which signifies that there is no significant difference between the model and the data indicating that it is a good model with the predictors. For further reinforcement of the goodness of fit, Cox and Snell Pseudo R-square was calculated using the equation 1 minus the negative 2 log likelihood of the full

model divided by the negative 2 log likelihood of the intercept = $1 - (145.927/201.477) = 1 - 0.72428 = 0.27572$. The R^2 indicates that the model fits the data fairly well. A low R^2 is acceptable in logistic regression (Hosmer and Lemeshow, 2000). Of the five predictor variables used in the model, three of them, that is, age, children, and income were significant at explaining the variability of the dependent

variable. Respondents in the age group 21 to 30 with no children have significance values less than 0.05 while those having an annual family income greater than Rs. 10,00,000 has significance value less than 0.1. Therefore, it can be concluded that these parameters contribute to the model. The remaining parameters have significance values greater than 0.1 signifying that they do not contribute to the model.

Table 2: Parameter Estimates

		Estimate	Std. Error	Wald	Df	Sig.	95% Confidence Interval	
							Lower Bound	Upper Bound
Threshold	[RBSM = 0]	-.119	.980	4.515	1	.043 ^b	-2.039	1.801
Location	[A2=1]	-.031	.333	4.008	1	.027 ^b	-.683	.621
	[A3=0]	0 ^a	.	.	0	.	.	.
	[A3=1]	0 ^a	.	.	0	.	.	.
	[A4=0]	.156	.495	.100	1	.752	-.814	1.127
	[A4=1]	0 ^a	.	.	0	.	.	.
	[Gender=0]	.297	.305	.945	1	.331	-.302	.896
	[Gender=1]	0 ^a	.	.	0	.	.	.
	[Children=0]	1.647	.793	4.316	1	.038 ^b	.093	3.202
	[Children=1]	0 ^a	.	.	0	.	.	.
	[I2=0]	.212	.362	.342	1	.559	-.498	.922
	[I2=1]	0 ^a	.	.	0	.	.	.
	[I3=0]	0 ^a	.	.	0	.	.	.
	[I4=1]	-.608	.529	2.320	1	.101 ^c	-1.645	.429
	[I4=1]	0 ^a	.	.	0	.	.	.
	[V1=0]	0 ^a	.	.	0	.	.	.
	[V2=0]	.019	.322	.004	1	.953	-.613	.651
[V2=1]	0 ^a	.	.	0	.	.	.	
[V3=0]	.393	.477	.681	1	.409	-.541	1.327	
[V3=1]	0 ^a	.	.	0	.	.	.	

Link function: Logit.

- This parameter is set to zero because it is redundant.
- Significant at 0.05 level
- Significant at 0.1 level

CONCLUSION AND IMPLICATIONS OF THE STUDY

The results of the study on the consumers of Rythu Bazaars of Andhra Pradesh have shown consistency with some similar studies done in the past in the United States (Henneberry et. al. (2004)). The results from the ordered logistic regression identified that among the five demographic characteristics taken for this study, age, children, and annual family income have an impact on the consumers' preference towards Rythu Bazaar or both Rythu Bazaar and supermarkets. This will help the Andhra Pradesh Directorate of Marketing to focus on the consumers' segment to help farmers generate increased revenue. The study further revealed that:

- There is not much of a difference between the number of male and female consumers visiting Rythu Bazaar, with female consumers being marginally higher than

male consumers. The Andhra Pradesh Directorate of Marketing should focus on both the gender to increase sale.

- About 90 percent of the consumers were either graduates or more, with 64.6 percent having an annual family income between Rs. 5,00,000 and Rs. 10,00,000. Therefore, the Andhra Pradesh Directorate of Marketing should concentrate on this middle income group and should also try to attract the lower income group to visit Rythu Bazaars.
- It was found that consumers with no children in the family have a higher propensity to visit supermarkets as well. Therefore, the Andhra Pradesh Directorate of Marketing should concentrate on this segment to ensure that they feel more attracted towards Rythu Bazaars.
- The major reasons why consumers preferred to shop at the Rythu Bazaars are quality, freshness, price, variety,

and convenience with the top three attractions of coming to Rythu Bazaars being quality, price and freshness of vegetables in that order. Therefore, the Andhra Pradesh Directorate of Marketing should highlight these strong points and publicize them to attract more consumers.

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