



Research Report

Farmers-market Facilitating Access to Market

A Case of Siddipet Rythu Bazar in Telangana State



National Institute of Agricultural Extension Management (MANAGE)

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**National Institute of Agricultural Extension
Management (MANAGE), Hyderabad (Telangana)**

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MANAGE

The National Institute of Agricultural Extension Management (MANAGE), established in 1987, is an autonomous organization under the Department of Agriculture, Cooperation and Farmers Welfare, Ministry of Agriculture & Farmers Welfare, Government of India (GoI). The mandate of MANAGE is to assist Government of India and State Governments/ UTs to help improve delivery mechanisms in agriculture and allied sectors through needbased changes in policies and programs, and also by way of improving the knowledge, skills and attitude of extension personnel. The Institute focus is on Training, Education, Research, Consultancy and information & documentation, apart from implementing some Central Sector Schemes © MANAGE, 2018 National Institute of Agricultural Extension Management (MANAGE) Rajendranagar, Hyderabad-500030, Telangana, India Tel: 040-24594500 www.manage.gov.in

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Dr P Chandra Shekara
Director General



Preface

Indian agriculture has made impressive growth since Independence. The foodgrains production has gone past 300 million metric tonnes (mmt). Same is the case with production of horticultural crops which stands at 325 mmt during 2020-21. However, the challenge is to integrate this production with market mainly when so many changes are being observed in the trade environment on account of preference of consumers and need for a transparent and competitive agriculture marketing system. The Government has also introduced so many initiatives in the recent past to make agriculture marketing system in the country effective and efficient like reforms in agricultural marketing facilitated by the Model Acts circulated during 2003 and 2017, electronic National Agriculture Market (eNAM), regulations in agri-warehousing sector and aggregation of farmers. Farm Acts introduced by the Government during 2020, through repealed subsequently, also express the need of the sector to have a competitive and liberal system. It also suggests the intent of the Government to bring desired changes.

An important model emerging mainly to improve market access of smallholders, particularly those cultivating horticultural crops has been farmers-market. The concept has been experimented with by various states with different names. However, the success of the concept in Telangana with the name of Rythu Bazaar has made MANAGE interested in analysing different aspects of implementation of the concept by taking up a study entitled 'Farmers-market Facilitating Access to Market – A Case of Siddipet Rythu Bazar in Telangana State'.

This report is a compilation of findings mainly based on the case of Siddipet Rythu Bazaar. The report covers perception of farmers visiting the market. It also speaks about the factors influencing decision making of farmers to visit such a model facilitating their direct interaction with consumer. The study highlights the importance of such marketing model in improving farmers access to market, consumers getting fresh produce and also the potential to use it as an effective platform for extension.

I appreciate the efforts put-in by Dr Shalendra and Dr Sangamesh Angre in coming up with a comprehensive report covering the relevant aspects of farmers-market. I am quite confident about the publication being of immense use for all relevant stakeholders including researchers, trainers and extension functionaries placed at various institutes. The document will help in exposing them to the importance of such market models facilitating direct contact between producer and consumers. I hope the document will also facilitate the process of bringing the desired changes in the lives of farmers by improving their access to market.


(Dr P Chandra Shekara)
Director General

ریٹوبازار



ریٹو بازار



RYTHU BAZAR

Sri Lavanya Kirana & General Store

PHARMACY & GENERAL STORE



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Executive Summary

Developing local food system by providing market access to farmers has the potential to overcome various challenges faced by farmers in effective marketing of their produce mainly smallholder cultivating perishables. Accordingly, attempt has been made in the present study to examine the policies introduced by the Government to encourage direct interaction between producer and consumer at local level. The Study also discusses the potential of models like farmers-market emerging as an outcome of recently introduced agricultural marketing reforms with potential for integration with supply chain, better knowledge sharing, providing financial sustainability and bringing market orientation among farmers.

The study mainly focused on assessment of the status of implementation of farmers-market, implemented with the name Rythu Bazaar in Telangana. The study also focused on understanding the perception of producer and consumer on the benefits offered and limitations posed by the marketing model facilitating direct interaction of producer with consumer and analysis of the factors responsible for farmers to participate in Rythu Bazar. An attempt has also been made to suggest strategies for successful implementation of farmer-market in the country.

The result and discussion in the study is based mainly on the analysis of primary information collected from selected 100 farmers and 50 consumers visiting Siddipet Rythu Bazaar which is operating successfully in Siddipet district of Telangana. Information from additional 100 farmers availing marketing channels other than Rythu Bazaar to analyse the factors responsible for farmers to participate specifically in Rythu Bazar has also been collected and analysed.

The Government has introduced a number of reforms measures to ensure direct contact of producer with buyers at local level leading to development of local food system having ability to influence price realised by farmers, develop labour market and improve local economies. Accordingly, different marketing models facilitating direct contact between producer and consumer have emerged like farmers-market. The concept has been introduced with different names by various states like Punjab, Tamil Nadu, Odisha, Maharashtra, Telangana and Andhra Pradesh. In order to encourage consumption of fresh produce at local level, the concept of farmers market is being implemented as Rythu Bazaar in Telangana. The basic analysis of secondary information culled out from the website of the Department of Agricultural Marketing, Government of Telangana suggests that the availability of consumers may be a defining factor in success of farmers-market as two-third of the total trade taking place through Rythu Bazaars in Telangana is coming from consumption hubs like Hyderabad and Rangareddy Districts. These markets have also shown their effectiveness in promoting local

food systems as suggested by their ability to attract local production. The Rythu Bazaars are operating successfully in ten districts of Telangana and capturing more than 20 percent of the total production of vegetables in these districts suggesting their potential to encourage local economy. Though, the concept has shown its potential to encourage the local economy, it will required an understanding of local as perceived by the consumers along with other attributes that influence their purchasing decision in the local context.

The descriptive analysis of the primary information collected from selected farmers and consumers visiting Siddipet Rythu Bazaar (Telangana) suggests farmers-market is the main channel for marketing of produce for majority of the farmers. One of the biggest benefits offered by the farmers-market is direct contact with consumers ensuring better price then wholesale market and opportunity to understand the consumer requirements. The farmers suggested that regular interaction with customers have helped them understand their preferences and have accordingly encouraged them to focus on grading, quality aspects, harvesting time and packaging. Farmers have also been observed to have adopted changes in crop planning encouraged by the demand in the market. Better price realisation has helped in income enhancement. The farmers-market can offer a good option to customers mainly for vegetables. The consumers are also willing to travel moderate distance if benefits in terms of price, freshness and quality are available. The decision of the farmers to participate in Rythu Bazaar is influenced by factors like age, working members available in the family, gender and availability of transportation facility.

Farmers-market can be used as an effective alternative marketing channels for smallholders mainly involved with cultivation of perishables for their ability to capture a reasonable amount of horticulture production. There is need to develop such markets in all possible districts of Telangana to encourage consumption of production at local level. Other states may also explore possibilities of establishing such markets encouraging direct contact between consumers and buyers considering the wide range of benefits offered. Participation of women and a good market option for low-to-moderate income group may help in improving consumption of vegetables leading to better status of nutritional security.

The farmers-market is mainly utilised for marketing of agri-produce but such markets can also be utilised as a potential platform facilitating integration at different levels of supply chain covering inputs, technology and extension system. The findings highlight the potential of farmers-market to improve supply chain integration and knowledge sharing, providing financial sustainability and bringing market orientation among farmers by developing local food system. The market has shown immense potential for development of local economy.

Section – I

Background of the Study

Promoting local supply chains has been one of the strategies suggested by Honourable Prime Minister Shri Narendra Modi in his address to nation on 12th May 2020 in the wake of lock-down enforced in the country due to corona virus pandemic. Though, the idea was suggested in larger economic context but is equally applicable in agriculture mainly in an environment where more than 86 percent of the farmers are operating on small and marginal landholdings. Promoting local food systems also align with the focus of the government on enhancing income of the farmers. Local food can be defined as the food that is locally produced, marketed and consumed (Hand and Martinez, 2010). This concept may also be influenced by geographical, physical, psychological and cultural factors (Marry, 2018, Martinez et al., 2010 and Darby et al., 2008, Durham, et al., 2009). Burnett (2011) used a dynamic approach of local food to understand willingness of consumer to pay for locally grown produce and observed that the willingness to pay for fresh produce increases as the geographic scale shrinks suggesting that consumers may place a higher premium on foods under tighter definitions of “local”. The localness of agricultural produce also emphasises on transparent communication by facilitating interaction between farmers and consumers so that consumers can make more informed purchasing decisions. Direct interaction between farmers and consumers or institutions like canteens, schools, etc offers benefits like flexibility to select the quality and quantity of products available for sale, freedom from contracts and frequently higher per unit sales prices than other marketing channels (Willis et al., 2016). Local food system may offer benefits like greater share in the retail purchase price of food items, growth in local labour markets, increased business for nearby establishment, improve local economies through import substitution (Burnett, 2011) and help farmer fetch premium price (Darby, 2008, Brunett, 2011 and David, et al, 2016). Some of the benefits of local food system as compiled by USDA (2009) are health and nutrition, local economic development, environmental benefits, food security and market opportunities for small and medium size farmers. The potential of local food system to address wide range of issues faced by farmers and rural economy, makes it pertinent to

discuss the policy initiatives taken by the government to strengthen agricultural marketing with scope for development of local food systems.

The Government of India has taken various initiatives to encourage direct interaction between farmers and consumers mainly for perishable commodities. Direct marketing enables farmers, processors and other bulk buyers to economize on transportation costs and to considerably improve price realization. Direct marketing has also led to the emergence of different models for procurement like establishing collection centres by private players with some basic marketing infrastructure. Organized retailers like Big Basket and Reliance are also procuring directly from the farmers through their collection centre. Companies like Adani for the procurement of Apple in Himachal Pradesh have outsourced the procurement component. On the other hand, direct marketing by farmers to the consumers has also been experimented in the country through the concept of farmers-market implemented with different names like Apni Mandis in Punjab and Haryana, Raitha Santhe in Karnataka, as Uzhavar Santhai in Tamil Nadu and as Rythu Bazars in states like Andhra Pradesh and Telangana. The model, enabling interaction of farmers with bulk buyers and consumers, suggests various advantages in terms of better market access, improved price realization, increased share of producers in consumer rupee, employment opportunity, etc. In spite of these benefits, the concept has not been successful across all the states uniformly and there are only a few successful examples to highlight the potential of the model.

With this background, the study examines the policies introduced by the Government to encourage direct interaction between producer and consumer. The study also discusses the potential of models like farmers-market emerging as an outcome of recently introduced agricultural marketing reforms in development of local food system with potential for better knowledge sharing and providing financial sustainability mainly to smallholders. The study focuses on different aspects of the farmers-markets like its implementation, benefits offered and various constraints as faced by different stakeholders. The findings of the study are based on secondary information collected on implementation of Rythu Bazaar in Telangana and primary information collected from sample farmers and consumers visiting Siddipet Rythu Bazaar operating successfully in Siddipet Districts of Telangana.

Objectives

The study specifically focussed on following objectives –

- Assessment of the status of implementation of farmers-market in Telangana
- Analysis of basic aspects of a farmers-market covering facilities, flow of activities and price discovery mechanism.
- Analysis of the factors responsible for farmers to participate in Rythu Bazar
- Understudying the perception of producer and consumer on the benefits availed and limitations faced by them under the model
- Policy suggestions based on the findings of the above.

Methodology

The findings of the study are based on both primary and secondary information. The secondary information is culled out mainly from the website developed by the Department of Agricultural Marketing, Government of Telangana to maintain the transactions taking place in different Rythu Bazaars operating in ten districts of the state. The secondary information has been used for assessment of the status of implementation of farmer-markets in the Telangana in terms of value of trade performed, total arrivals of vegetables in such markets and proportion of production of different vegetables arriving in Rythu Bazaars. In order to understand various aspects of market from the view-point of farmers and consumers visiting such markets, information has been collected from a sample of 100 farmers visiting specifically the Siddipet Rythu Bazaar operating in Siddipet District of Telangana. Another 100 farmers participating in market other than Rythu Bazaars identified randomly from the influence area of Siddipet Rythu Bazaar have also been considered under the study. Such a mix group of farmers was considered under the study not only to analyse various aspects of farmers-market but also to assess the factors determining the participation of farmers in Rythu Bazaar. In order to understand the perspective of consumers and various administrative aspects of the model, 50 consumers and a few market officials were also included in the study. Thus making a total sample size of 250 stakeholders. Both descriptive and econometric analyses were performed for analysing the collected data. Probit regression model was used to analyse the determinants influencing participation of farmers in farmers-market.

Presentation of Report

The report consists of six sections. The second section, followed by background, provides an overview of the policies introduced by the Government in recent past to promote direct marketing leading to development of concept like local food systems. Section III covers different aspects of implementation of farmers-market in Telangana where it has been introduced with the name Rythu Bazaar. Section IV mainly is the compilation of findings based on field observations and analysis of information collected from farmers visiting Rythu Bazaar and the traditional marketing channel. This section also speaks about the information collected from limited number of consumers and their perception. Summary of the study is presented in Section-V. Last Section (VII) suggests policies based on the findings.

Section – II

Policies to Promote Direct Marketing

The Government of India and State Governments have taken various policy initiatives to bring the desired changes in the agricultural marketing environment and make it more competitive, transparent and efficient. This section discusses, in brief, these initiatives mainly with focus on provisions encouraging direct interaction between producer and buyers/consumers.

Policy Environment

Landscape of agricultural production and marketing has undergone changes in the last few years on account of forces of globalisation and liberalisation of trade, changing demand pattern with rising incomes and urbanisation, rapid strides in information and communication technologies, and transformative roles for institutional actors in state, private sector and civil society (Rao, et al., 2017). Recognising the importance of these changes in creating opportunities for better participation of farmers and income enhancement, Government of India has come up with a number of reforms specifically in agricultural marketing to create a conducive environment for different stakeholders to participate and tap the opportunities.

The Ministry of Agriculture and Farmers Welfare circulated Model State Agricultural Produce Marketing (Development & Regulation) Act, 2003 requesting states to amend their respective APMC Act as per the provisions suggested in the model Act mainly for private markets and direct marketing. As the response from States was lukewarm and also not uniform across different State/UTs, the Ministry set up a Committee of State Ministers In-charge Agricultural Marketing during 2010 to expedite the pace of reforms. Subsequently in year 2017, the Government introduced an even more comprehensive and forward looking document called Model Agricultural Produce and Livestock Marketing (Promotion & Facilitation) Act suggesting measures like warehouses to operate as sub-market yards and APMCs to regulate practices only in respective principal market yards and sub-yards.

In order to have a liberal, transparent, efficient, competitive and barrier free marketing system providing alternatives to farmers, the Government of India introduced three Farm Laws during 2020 namely (i) the Farmers (Empowerment and Protection) Agreement on Price Assurance and Farm Services Act, 2020,

(ii) the Farmers' Produce Trade and Commerce (Promotion and Facilitation) Act, 2020, and (iii) the Essential Commodities (Amendment) Act, 2020. The Farm Laws were subsequently repealed with the introduction of Farm Laws Repeal Bill, 2021 in the parliament during 2021. The new laws aimed at creating market environment providing choices to farmers and traders to buy or sell agricultural commodities. The concept of trade area introduced under the Act suggested the rules of APMC Act to be applicable only on the transactions taking place within the physical premises created under APMC Act whereas trade transactions taking place outside the market yard will have to be completed as per the provisions suggested in Act on trade and commerce by the Central Government. Which suggests the co-existence of both the Acts with common interest of supporting farmers in true spirits of cooperative federalism. Farm Acts were also expected to have a major impact on stimulating farm sector growth by encouraging investment, facilitating creation of required post-harvest infrastructure and expansion of markets to help farmers realise competitive and remunerative prices of their produce. These reforms may have proved to be a significant step towards making Indian agriculture more demand-driven, accessible and competitive both at domestic and global level. Though repealed, the understanding of the provisions suggested through the Farm Acts highlights the requirement of the sector to have a competitive and liberal system. The Government has also introduced various other reforms related to warehousing and infrastructure. A snapshot of these reforms is provided in Table 1.

Table 1. Agri-marketing reforms in India

Sr No	Reforms Initiative	Provision	Influence/ Implementation
1	Model State Agricultural Produce Marketing (Development and Regulation) Act, 2003	<ul style="list-style-type: none"> ▪ Establishment of private/ cooperative markets ▪ Direct marketing ▪ Establishing farmer/ consumers market ▪ Single point levy of market fee 	State
2	Model State/UTs Agricultural Produce and Livestock Marketing (Promotion and Facilitation) Act, 2017	<ul style="list-style-type: none"> ▪ Declaration of whole state/ UT as one unified market ▪ APMCs to regulate practices only in respective principal market yards and sub-yards ▪ Warehouses to operate as sub-market yards 	State
3	Warehouse Development and Regulation Act, 2007	<ul style="list-style-type: none"> ▪ Negotiability of warehouse receipt 	National

		<ul style="list-style-type: none"> ▪ Introduction of electronic negotiable warehouse receipt (eNWR) 	
4	National Agricultural Market	<ul style="list-style-type: none"> ▪ Integration of Markets ▪ Integration of other services like warehouses, banks, grading and assaying, etc 	State (subsequently National)
5	The Farmers' Produce Trade and Commerce (Promotion and Facilitation) Act, 2020 [#]	<ul style="list-style-type: none"> ▪ Barrier free inter and intra state trade across the country ▪ Freedom of trade in farming produce outside APMC Market Yards 	National
6	The Farmers (Empowerment and Protection) Agreement on Price Assurance and Farm Services Act 2020 [#]	National framework for farming agreements	National

[#]Repealed with the introduction of Farm Laws Repeal Bill, 2021

These initiatives of the government coupled with changing trade environment have helped in emergence of different models enhancing access of farmers to market. One such model experimented in different parts of the country is farmers' market. Farmers-market facilitates direct sale to consumer by farmers which has been considered at par with many other provisions prescribed under reforms (Chand and Singh, 2016).

Direct Marketing

Direct marketing allows farmers to transact directly with consumers. It can be at wholesale or retail level as prescribed in the Model Acts circulated by the Government during 2003 and 2017. The provision of direct marketing as defined under Model Acts allow wholesales and processors to procure directly from the farmers by avoiding long chain of intermediaries leading to better flow of information and realization of higher value by farmers. Direct marketing enables farmers to meet the specific requirements of wholesalers and retailers based on consumers' preferences. It encourages farmers to undertake grading of produce at the farm-gate and reduces the need for transporting the produce to wholesale markets. Direct marketing offers opportunity both to farmers and buyers to economize on transportation cost and to improve price realization considerably (DMI, 2013). However, the response of buyers to avail the benefits available under the provision has so far been lukewarm as suggested by number of licenses issues by different states. A total of 294 licenses have been issued by

ten states with nearly 75 percent licenses being issued only by Maharashtra (Gol, 2017). Though, the provision has been included in the APMC Act revised by different states/UTs as per the provisions suggested in the Model Act except Delhi (dmi.gov.in).

The reforms also promote establishment of farmer-consumer markets both by public and private agencies. Farmer-consumer markets can be established by APMCs as well as private person. As per the provision included in the Agricultural Produce and Livestock Marketing (Promotion & Facilitation) Act, 2017, a farmer-consumer market yard may be established by a person by developing infrastructure after obtaining license from Director or the authorised officers for marketing of specified agricultural produce in retail. The concept of farmer-consumer market has been experimented in various states with different names like Apni Mandis in Punjab and Haryana, as Rythu Bazars in Telangana and Andhra Pradesh, Raitha Santhe in Karnataka and in Tamil Nadu as Uzhavar Santhai (Gol, 2001). The status of farmers-market is presented in Table-2.

Table 2. Direct marketing experimented in different states

State	Name of Farmers-Market	Year	Presence of Intermediaries	No. of Markets	Administration
Tamil Nadu	Uzhavar Santhai	1999-2000	No	104	Marketing Department
Andhra Pradesh	Rythu Bazar	1999	No	96	APMC
Punjab	Apni Mandi	1987	No	67	APMC
Maharashtra	Shetkari Bazar	2003	No	45	APMC
Karnataka	Raitha Santhe	2002	No	--	Local Authority/ Gram Panchayat

Source: dmi.gov.in

About 488 such farmers-markets are operating in different states of the country (Gol, 2017). Direct contact between producer and consumer is helping farmers in realising higher share in the price paid by the consumer (Sidhu, et al, 2011). These markets aim at rebuilding the trust between consumers and producers and serve as a platform for education and advocacy (Zhenzhong, et al, 2015). However, these markets mainly provide a platform for direct transaction between producer and consumer for supply of locally grown fresh produce unlike western concept where the platform is utilized for education and extension in addition to marketing.

Section – III

Implementation of Rythu Bazaar in Telangana

Rythu Bazaar, the farmers-market was a social initiative started by the state government in 1999 (undivided Andhra Pradesh). The main objective of the initiative was to help farmers sell their produce directly to consumers without the involvement of intermediaries. The initiative aimed at facilitating realisation of remunerative prices by the farmers and making fresh vegetables available to the consumers at reasonable price. The farmer-markets also helped in curbing malpractices (like weighing) and ensuring realization of sale proceeds to farmers without any deductions and delay. Direct contact between consumer and farmers helped in reducing the long chain of intermediaries and therefore, helping in improving farmers share in consumer's rupee.

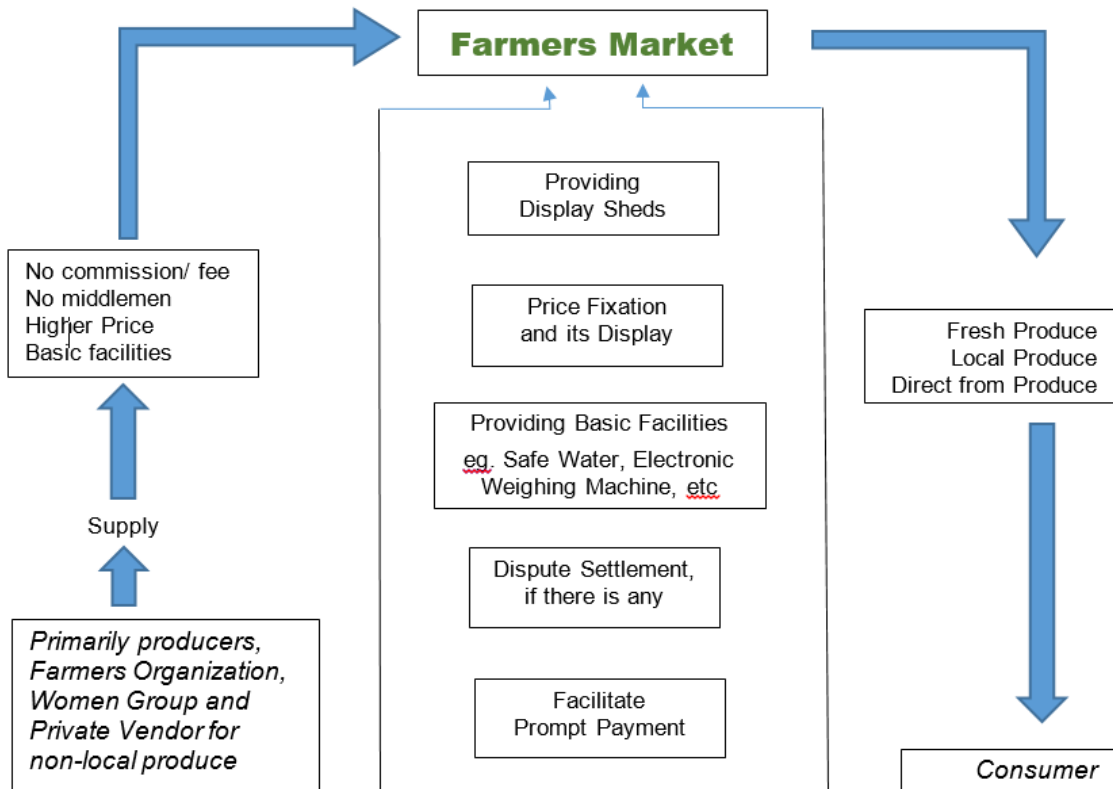
Structure of Rythu Bazaar

Rythu Bazaar or farmers-market facilitates direct contact of farmers with consumer without the involvement of any middlemen leading to better realisation of price. Unlike wholesale markets, the participating farmers are not required to pay any fee/charges. The farmers-market facilitates participation of farmers by providing various services like sheds for display of produce, safe water, electronic weighing machines, ATM, etc. The market also ensures fixation of price by following a scientific and transparent system and also share the same through display boards installed in the market. The market also ensures prompt payment and settlement of dispute, if any. In order to make the commodities offered through the market more comprehensive, market has also allowed a limited number of women groups, farmers' organisation and private vendors to participate in the market mainly to supply vegetables not available locally. Consumers in the process are able to purchase fresh, locally produced vegetables directly from the farmers (Figure-1).

These markets are operating with temporary/ semi-permanent structures being created by respective Agricultural Produce Market Committees (APMCs). Farmers and consumers are not expected to pay any service charges or market fee for participation in these markets (Department of Agricultural Marketing, Government of Telangana). Interested farmers only have to get registered with

the market. All the registered farmers are provided with an ID Card having basic details like name, address, land holding size, barcode, etc. The ID Cards are issued to farmer-couple and is not transferrable to other farmers or members of the family. More than 3000 farmers are registered in the Siddipet Rythu Bazaar.

Fig 1. Rythu Bazaar operational structure



The markets provide basic facilities like shops and weighing machines. The Rythu Bazars also ensures delivery of so many other services in addition to availability of adequate number of Sheds for farmers to sell their produce like arrangements for drinking water, toilet facilities with proper sanitation, proper arrangements for parking of vehicles, arrangements for removal of garbage and cleaning the market and facilities for storage of unsold produce. A snapshot of the various basic facilities available at such markets based on the observations made in Siddipet Rythu Bazaar is presented at Annexure-1. As the farmers-market deals in fresh vegetables, some of the markets also have cold storage facilities which is made available at a nominal charge to the producers.

Establishing farmers-market close to consumers will encourage demand. Same has also been reflected by analysis of secondary information from Telangana. However, establishing a farmers-market close to consumer may face a limitation related to availability of sufficient space. Establishing a farmers-

market vertically over three floors in Siddipet offers a successful example of effective space management. The market established on an area of under 1800 sq yard is able to accommodate more than 330 sheds and various other services by expanding it vertically over three floors. The various services and sheds as managed on different floors in Siddipet Rythu Bazaar is presented below –

Floor	Number of Sheds	Services	Remark
First Floor	172	Display Sheds	The first floor of the market mainly accommodates the farmers coming with leafy vegetables, private vendors with vegetables like onion and garlic and farmers' organisations
Ground Floor	160	Display Sheds, ATM, Drinking Water, General Shop at the Entrance	Ground floor provides display sheds to farmers Ground floor is also having general shops allotted to women group There are a few (six) shops at the entrance of the market issued to general merchants which creates options for revenue generation for the market and provides comprehensiveness to the market from view point of farmers and consumers as well
Basement	Services	Parking, Toilets, Cold Store and Bio-compost Unit	As the market is in the heart of city, basement is used to provide parking and other facilitates like cold storage and bio-compost unit which is not functional after COVID but was established mainly to utilise the waste coming out of market

Administrative Structure followed at Siddipet Rythu Bazaar suggests the involvement of both local marketing committee and district administration. Additional Collector/ Joint Collector of the District is the chairman of the decision making body facilitated by District Marketing Officer as Convenor and Estate Officer as Member. The market on daily basis is managed by a small group of officers/staff consisting of Estate Officers (01), Security Guards (04) and Cleaning Staff (04). Though, the market is not expecting any charges/fee from farmers and consumers, it is able to meet its expenditures mainly towards hiring of staff, electricity bill and internet bill. These expenditures are covered through the revenue garneted by making a few general merchant shops available at entrance outside the market (07) on rent, issuing display sheds to Women Groups on rent (02) and a few display sheds to private vendors (61) on rent to market vegetables not available locally.

In order to safeguard the interest of producers and consumers and also to ensure smooth functioning of market, the prices for a particular day are fixed in advance every morning and shared with the stakeholders through display boards available in the market. The prices are fixed by taking into consideration the average prices that prevailed in selected few benchmark wholesale markets plus appreciation for efforts of the farmers towards transportation, time invested in market, shorting and display. The prices are therefore, higher than the wholesale market offering benefit to the farmers and lower than the retail market offering benefit to the consumer. In case of Siddipet Rythu Bazaar the benchmark markets are APMC Markets of Gudimalkapur and Bowenpally from Hyderabad which is a major consumption and distribution hub and local Siddipet Wholesale Market.

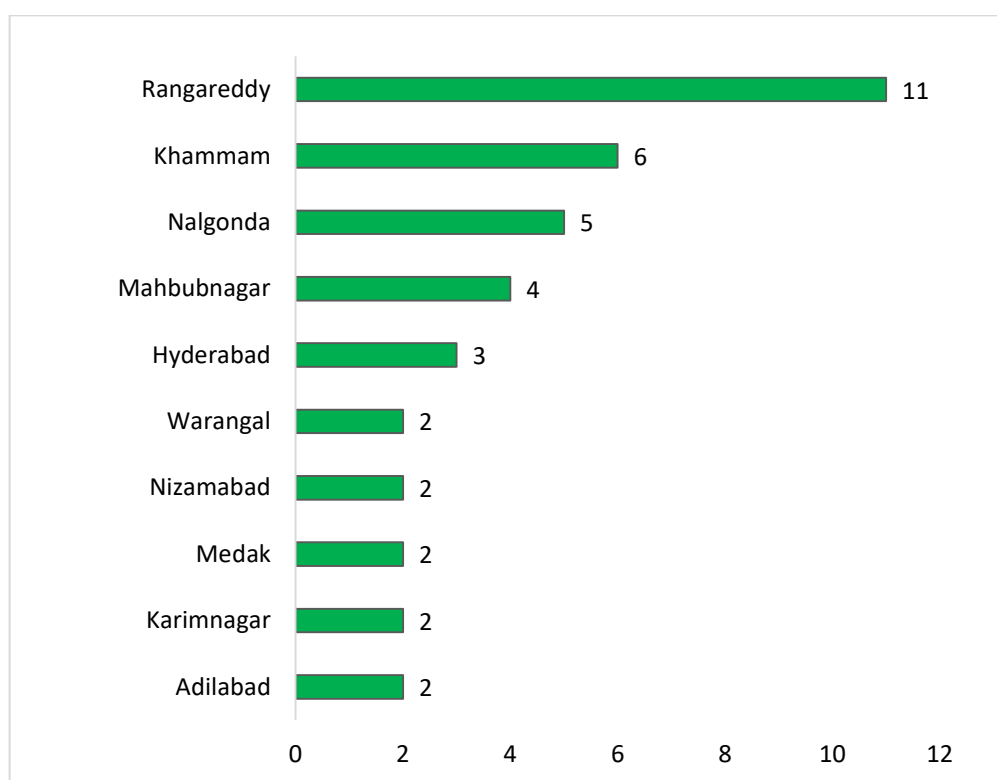
Market Coverage in the State

A total of 39 markets are operating successfully in ten districts of Telangana (Figure 2&3). The progress seems to be reasonable in terms of number of markets but is confined to only 10 districts out of 33 districts in the state.

Fig 2. Coverage of Rythu Bazaars in Telangana



Fig 3. District-wise number of Farmers' Market in Telangana



Value of Trade Performed in Farmers' Market

The value of trade performed in farmer-markets operating in different districts of Telangana during 2018-19 is presented in Table-3. The table reveals that total trade of value of Rs 76637 lakhs was performed in all the farmer-markets with nearly 40 percent of the trade being performed in three Bazaars of Hyderabad located at Mehdiapatnam, Falaknama and Erragadda. More than 26 percent of value is traded in adjoining district of Rangareddy. However, a total of 11 Bazaars are operating in Rangareddy district, which is the largest number of markets operating in a single district in Telangana. The table suggests that nearly two-third of the trade is taking place in 14 Rythu Bazaars operating in these two adjoining districts of Hyderabad and Rangareddy. This may be due to availability of consumers in these two districts which probably is the defining factor in the success of the concept like Rythu Bazaar encouraging direct contact between producer and consumer. The identification of location with sufficient consumer base, therefore, seems to be an important factor to be considered for establishing a platform like farmer-market encouraging consumption of produce locally without any need to push the surplus in long distribution chain.

Table 3. Value of trade performed in Farmers-Market operating in Telangana during 2018-19 (in Rs Lakhs)

Sr No.	Districts	Value (Rs Lakhs)	Value (as % of Total Value)
1	Hyderabad	30298	39.53
2	Rangareddy	20136	26.27
3	Mahbubnagar	8170	10.66
4	Khammam	8141	10.62
5	Medak	3112	4.06
6	Warangal	1623	2.12
7	Adilabad	1325	1.73
8	Nalgonda	1300	1.70
9	Karimnagar	1287	1.68
10	Nizamabad	1244	1.62
11	Total Value	76637	100.00

Source: Department of Agricultural Marketing, Government of Telangana

Effectiveness of Farmer-Market

It is also important to analyse the effectiveness of farmer-market in terms of proportion of vegetables produced in respective districts getting attracted by these markets. The information on district-wise production of vegetable and arrivals in these markets is presented in Table-4. Hyderabad for being an urban centre is not having any significant production of vegetables and also expects to have arrival from both Rangareddy and Medchal districts. Accordingly, in order to facilitate the analysis of arrival with respect to production, a concept of urban cluster has been conceived. The urban cluster from consumption view point consists of districts Rangareddy and Hyderabad i.e. commodities arriving in all the farmer-markets operating in districts Rangareddy and Hyderabad. Whereas, from production point of view, the corresponding area is Rangareddy and Medchal i.e. vegetable produced in these two districts. The information as presented in table reveals that some of the districts are really performing well by capturing more than 25 percent of the production like Khammam, Urban Cluster and Mahabubnagar, in same order. In case of Khammam, half of the vegetables produced in the district are getting routed through respective Rythu Bazaars. The districts like Medak and Karimnagar are also doing well with each district capturing more than ten percent of total vegetable produced in respective

districts. Overall, all the Rythu Bazaars operating in the state are able to capture more than 20 percent of the total vegetable produced in these districts suggesting the importance of these markets in developing a local food system and helping farmers fetch better price by encouraging consumption of production locally.

Table 4. Vegetable arrivals in Rythu Bazaars (Telangana) as percent of total production of vegetables in respective districts during 2018-19

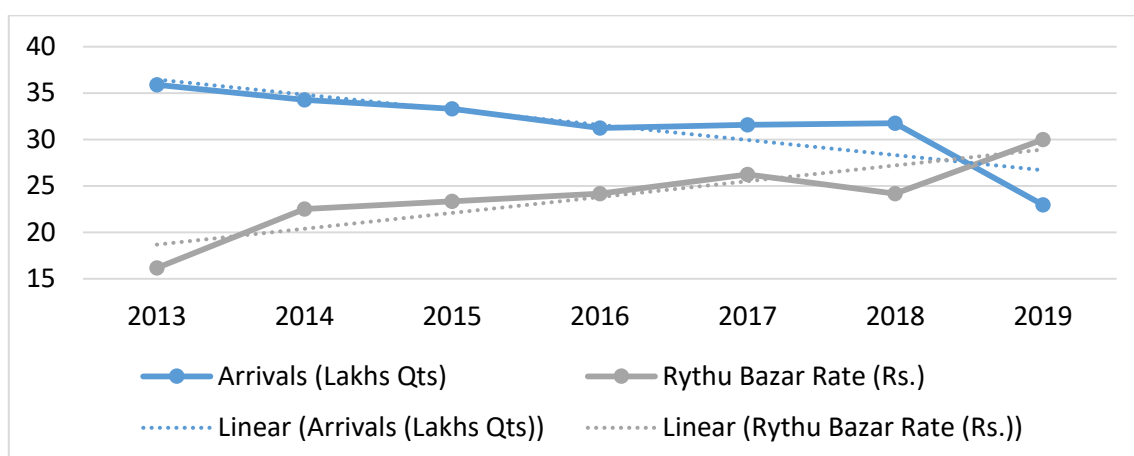
Sr No	Districts	Vegetables Arrivals (MT)	Vegetables Production (MT)	Percent (%)
1	Adilabad	4264	96199	4.43
2	Karimnagar	5420	40186	13.49
3	Khammam	22203	46446	47.80
4	Mahbubnagar	24029	89363	26.89
5	Medak	14821	79013	18.76
6	Nalgonda	5150	94397	5.46
7	Nizamabad	5044	97331	5.18
8	Warangal	4728	150274	3.15
9	Urban Cluster	202484	711779	28.45
10	Total	288141	1404987	20.51

Source: Department of Agricultural Marketing, Government of Telangana

Better Price Realisation

Rythu Bazaars are emerging as an important alternative in terms of value of trade performed in these markets and the proportion of total vegetable production of a district being captured by Rythu Bazaars operating in that district. Prices being realised by farmers using the platform has also shown a continuous increasing trend. However, an area of concern is continuous decline in arrivals in such markets over year (Figure-4). The decline in arrivals may be due to emergence of various other marketing alternatives on account of reforms adopted by the state. Telangana has proactively introduced various reforms measures like implementation of National Agricultural market (eNAM), electronic negotiable warehouse receipt (eNWR) and registration of warehouses to operate as sub-market yards. The state, under eNAM, has also made attempts to integrate services related to grading and assaying under PPP model, integration of electronic weighting machines and sharing information on trade transactions through mobile phones.

Fig 4. Status of arrivals and prices in Rythu Bazaars over years



Source: Department of Agricultural Marketing, Government of Telangana

Leading vegetables arriving in the Farmer-Market

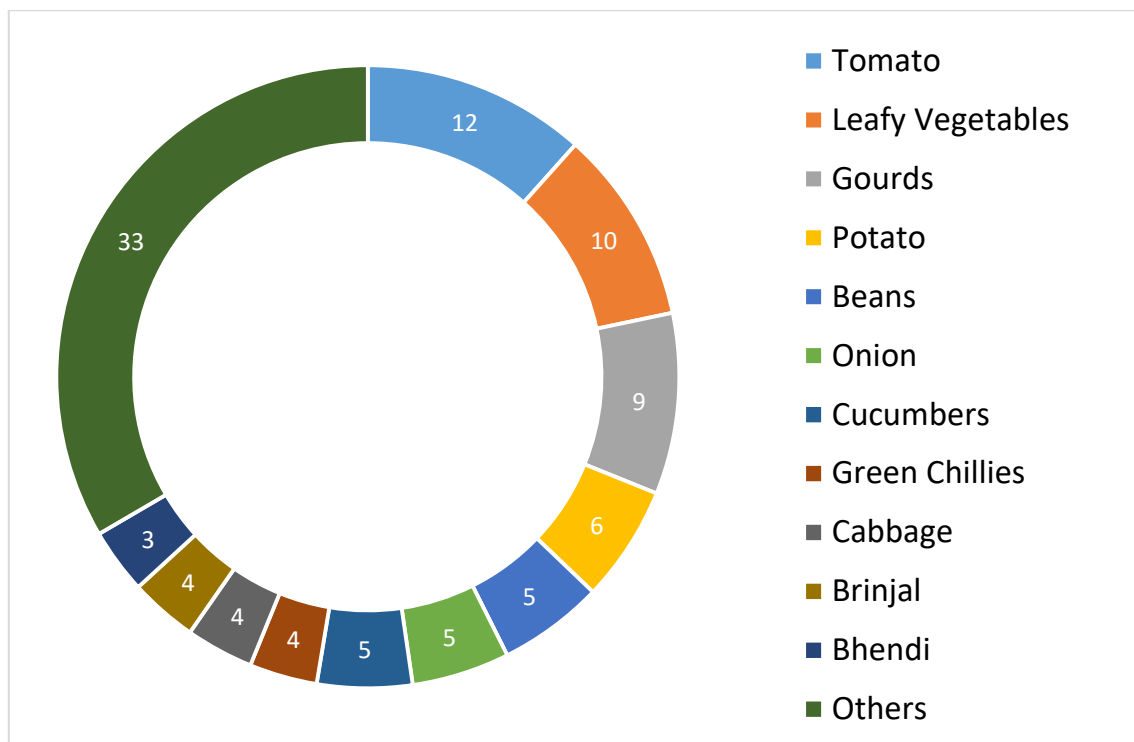
A large number of vegetables are arriving in Rythu Bazaars as depicted in Table-5 and Figure-5. However, nearly half of the arrivals are contributed by leading six vegetables namely tomato, leafy vegetables, gourds, potato, beans and onion in same order. Arrival of more than 30 different types of vegetables in farmers market makes them an excellent platform for consumers.

Table 5. Arrivals of different vegetables in Rythu Bazaars operating in Telangana during TE 2019

Sr No	Vegetables	Vegetables Arrival (MT) TE 2019	Percent (%)	Cumulative Percent Arrival
1	Tomato	33408	11.61	12
2	Leafy Vegetables	29026	10.09	22
3	Gourds	27059	9.41	31
4	Potato	17341	6.03	37
5	Beans	15737	5.47	43
6	Onion	14620	5.08	48
7	Cucumbers	14209	4.94	53
8	Green Chillies	10135	3.52	56
9	Cabbage	10129	3.52	60
10	Brinjal	10125	3.52	63
11	Bhendi	9733	3.38	67
12	Others	96128	33.42	100
	Total	287649	100.00	100

Source: Department of Agricultural Marketing, Government of Telangana

Fig 5. Proportion (%) of different vegetables arriving in Rythu Bazaars of Telangana (TE 2019)



Source: Department of Agricultural Marketing, Government of Telangana

In order to encourage consumption of fresh produce at local level, the concept of farmer-market is being implemented as Rythu Bazaar in Telangana. These markets are successfully operating in ten districts and roughly capturing 20 percent of the total production of vegetables in these districts. The concept has shown its potential to develop local economy, though its successful implementation expects understanding of the concept of ‘Local’ as perceived by the consumers along with other attributes that influence their purchasing decisions in the context of ‘Local’ produce.



Section IV

Study Findings (observations from field)

The section deals with the findings of the study which mainly covers aspects related to farmers and consumers visiting such farmer-markets and factors influencing the decision of farmers to visit such markets encouraging direct contact between producer and consumer. The aspect related to capturing various characteristics of the participating farmers and their business in the market is based on the analysis of information collected from 100 farmers visiting Siddipet Rythu Bazaar which has been considered for the study as a case. It was considered equally important to capture the perception of consumers on various benefits offered by such market to them and therefore, information from 50 representative consumers visiting Siddipet Rythu Bazaar was also collected, analysed and presented. This section also deals with the factors influencing the decision of farmers to participate in Rythu Bazaar. In order to understand this aspects, information was also collected from 100 farmers visiting markets other than Rythu Bazaar.

Various features of Rythu Bazaar and its beneficiary farmers

Characteristics of farmers visiting Siddipet Rythu Bazaar

The characteristics of sample farmers visiting Siddipet Rythu Bazaar are presented in Table-6. The table reveals that majority of the farmers visiting Siddipet Rythu Bazaar are male though the cards provided by the market administration to have access to Rythu Bazaar are issued to the couple and not to individual farmer. Farmers are found to be broadly of middle age. The average age of the farmers visiting Rythu Bazaar is 41.37 years with about two-third being young with age of 45 years or younger. The farmers visiting the market have at an average completed 9.5 years of formal schooling. However, 13 percent of the farmers visiting the market have completed graduation or post-graduation. The average family size is 4.98 members consisting of 2.11 male, 1.84 female and 1.03 children. The dependency ratio of 1:0.26, which reflects the number of working members to non-working members, suggests that about four-fifth of the family is engaged in productive activities. Participation in farmer-market may

encourage farmer-family in taking up various activities towards market to improve their level of engagement in productive activities. More than 90 percent of the farmers visiting Rythu Bazaar are having smallholdings with half of them operating on marginal land holding size suggesting that such concept encouraging direct interaction between farmers and consumer by avoiding intermediaries is providing good alternative at local level to farmers operating on small land holdings.

Table 6. Demographic characteristics of selected farmers visiting Siddipet Rythu Bazaar

Variable	Category	Percent	Average
Gender	Male	69	--
	Female	31	
Age (Years)	20-30	25	41.37
	31-45	40	
	45 +	35	
Education (years of schooling/ college)	Primary	12	9.50
	Secondary	75	
	College	13	
Family Size (Member)	1 – 4	43	4.98
	5 – 6	43	
	7+	14	
Land Holdings (in hectares)	< 1.00	50	1.19
	1.00 – 2.00	42	
	> 2.00	8	

Market Participation

The Siddipet Rythu Bazaar has emerged as an important marketing options for small and marginal farmers. The information compiled in Table-7 suggests that farmers visiting Siddipet Rythu Bazaar are relying heavily on the farmers-market for marketing of their produce. Siddipet Rythu Bazaar is the only channel for 97 percent of the farmers for marketing of their produce. The table also reveals that about 82 percent of the sample farmers are visiting the market between 16 – 25 times per month suggesting farmer-markets to be a good option for small and marginal farmers having limited harvest but available on regular basis for marketing. The usefulness of the market also get reflected by the average number of years of operation of the selected farmers in the market. The selected farmers at an average are operational for 3.34 years in the market with 45 percent

of the farmers being operational in the market for a period of 5 years and above. This indicates that farmers have found the market useful and therefore have continued their association with the market. The model has emerged as an effective market available locally for the perishables cultivated by smallholders as more than 90 percent of the selected farmers were coming from within a distance of 25 kms. More than 80 percent of the selected farmers are coming with three or more vegetables.

Table 7. Information on market participation by selected farmers in Siddipet Rythu Bazaar (Telangana)

Variable	Category	Percent	Average
Farmers relying on Rythu Bazaar for marketing their produce	Rythu Bazaar only	97	--
	Rythu Bazaar and others alternatives	03	
No of visits made per month	< 15 times	16	20.84
	16 – 20	29	
	21 – 25	53	
	> 25 times	02	
Number of years of operations in Rythu Bazaar (RB)	> 5 years	45	3.34
	3 – 5 years	45	
	1 – 3 years	9	
	< 1 years	1	
Distance of Rythu Bazaar from village	< 10 kms	28	--
	10 – 15 kms	33	
	15 – 25 kms	30	
	> 25 kms	9	
Average number of vegetables brought to the market	4 Veg. & more	27	
	3 Vegetables	55	
	2 Vegetables	18	
	1 Vegetable	Nil	

In order to make wide range of commodity available to customers mainly the commodities which are not grown/ available locally, the market administration has allowed a few traders to participate in the market in additional to farmers. However, the number of such participants is restricted only to 72 which covers Mahila Groups and FPOs. These are the efforts made by the market administration to make market more attractive to customers in terms of availability of vegetables.

Preferred timing and factors influencing the same



The market is operational all seven days of the week. However, it will be interesting to know if farmers visiting the Siddipet Rythu Bazaar are having any preference for time. The information on the preferred time and factors influencing the same is presented in Table – 8. The Siddipet Rythu Bazaar is operational all seven days of the week from 6.00 am to 8.30 pm for encouraging participation of producers and consumers as per their convenience. However, majority of the farmers prefer morning hours to visit market for various reasons. More than 87 percent of the times farmers have shown preference to visit the market during morning hours (6.00 – 12.00 hrs). Farmers have expressed their preference for multiple timings but during morning hours only. Farmers generally don't prefer to visit the market after 6.00 PM, though the market is open till 8.30 in the evening. It may be due to issues related to limited availability of transportation and limited presence of consumers. The decision to visit market during morning hours is influenced by various factors like possibility of getting the shed of their choice (53.05 %), better availability of customers (29.88 %) and the decision is also influenced by convenience (17.07 %) as majority of the farmers are depending on public transport to reach Rythu Bazaar. Availability of display sheds and mainly availability of sheds of their choice has been the major factor defining the visiting hours of the farmers. The market, though, is having sufficient number of sheds spread on multiple floors of the building still farmers are able to get the shed of their choice only on limited number of occasions. There are a total of 332 display sheds available in the market spread over two floors, 160 sheds on the ground floor and 172 sheds on the first floor. About half of the farmers visiting Siddipet Rythu Bazaar have reported to get the shed of choice on four occasions per month, another 40 percent on 5-6 occasions, 5 percent on 7-8 occasions and 4 percent on nine occasions and more. At an average, farmers only are able to get the shed of their choice on 4.37 number of occasions per month. This indicates that sufficient sheds may be available but in a quest to get the shed of their choice, farmers are generally trying to reach market in early hours.

Table 8. Preferred time to visit market as perceived by the farmers and factors influencing their decision

Variable	Category	Percent	Average
Preferred time (multiple response)	06.00 – 09.00 hrs	47.17	--
	09.00 – 12.00 hrs	40.25	
	12.00 – 15.00 hrs	3.14	
	15.00 – 18.00 hrs	9.43	
	After 18.00 hrs	0.00	
Factors responsible for preference (multiple response)	Getting shop/ shed of choice	53.05	--
	Availability of customers	29.88	
	Convenience in terms of harvest and transport	17.07	
Getting shop/ shed of choice	< 4 times	51	4.37
	5 – 6	40	
	7 – 8	5	
	> 9 times	4	

Information has also been captured on days important from trade view point and a comparison of trade activities taking place during week days and weekends is presented in Table-9. The information suggests that trade activities are relatively more during weekends. The time required to completely market the commodities on weekend is about 10 percent less in comparison to week-days. This may be due to higher consumer footfall on weekends. Accordingly, farmers are bringing higher quantity of produce on weekends. Farmers are bringing about 15 percent more produce on weekend in comparison to weekdays. Siddipet Rythu Bazar has also shown potential in terms of absorption of arrival as reflected by the average produce brought by a sample farmer during each visit (123 – 142 kg). Though, the average time required by a farmer to clear-off the entire harvest is still quite high (9.32 – 10.28 hrs) suggesting requirement of family members to support the activity on continuous basis having implications for size of family.

Table 9. Market trends based on average produce brought and time required to clear-off the same in Rythu Bazaar (N – 100)

Particulars/ Units	Days of the Week	Status	% Change
Average produce brought to Rythu Bazaar on daily basis (in Kgs)	During week days (Monday to Friday)	123.51	+ 15.02 
	During weekends (Saturday and Sunday)	142.06	
Average time required to clear-off the produce on daily basis (hrs)	During week days (Monday to Friday)	10.28	- 9.34 
	During weekends (Saturday and Sunday)	09.32	

Market orientation and information sharing

The market facilitates direct interaction of visiting farmers with customers on continuous basis which helps in bringing market orientation among farmers. More than 70 percent of the visiting farmers have started preparing the produce as per market requirement (Table-10). The farmers suggested that regular interaction with customers have helped them understand their preferences and have accordingly encouraged them to focus on different market related aspects like grading (39.51 %), quality (26.54 %), harvesting time (24.69 %), importance of safe produce (8.02 %) and packaging (1.24 %) in same order. About 11 percent of the farmers have also suggested change in crop planning encouraged by the demand in the market. About two-third of the farmers feel that presence of Rythu Bazaar has offered them assured market for their perishable produce. The farmer-market has not only helped in bringing market orientation among farmers facilitated by continuous interaction between producer and consumers but has also encouraged sharing of information among farmers. Farmer-market has also served as a platform for interaction among farmers and accordingly, farmers have been observed to share and facilitate adoption of new production practices though, it has not been quantified under the study.

Table 10. Market orientation as perceived by farmers participating in Rythu Bazaar

Sr No	Items	Frequency	Percent
1	Preparing produce as per market requirement	71	71.00
2	Kind of preparation as per requirement of the customers (based on multiple responses)		
	(i) Grading	64	39.51
	(ii) Quality	43	26.54
	(iii) Harvesting time	40	24.69
	(iv) Safe produce	13	08.02
	(v) Packaging	02	01.24
3	Changes in crop plan as per customer/ market demand	11	11.00
4	Presence of Rythu Bazaar offers assured market	60	60.00

Assessment of Financial Benefits

Price realisation

Rythu Bazaar ensures direct contact of farmers with consumers and therefore, farmers are expected to get a better price in comparison to wholesale regulated market. The information compiled in Table-11 suggests that 45 percent of the farmers are satisfied with the price offered by Rythu Bazaar for different commodities. Farmers were also asked to share their understanding on the price offered by Rythu Bazaar in comparison to price available in wholesale markets. More than half of the respondents suggested that the prices prevailing in Rythu Bazaar are better than wholesale market. Conceptually, the prices in Rythu Bazaars are fixed somewhere between retail price and wholesale price to offer benefits to both the producer and consumers. Still, the ability of only half of the farmers considered under the study to observe better price offered in Rythu Bazaar in comparison to wholesale market may be due to limited exposure of such farmers to wholesale market as Rythu Bazaars is main channel of marketing for majority of them. More than two-third (68 percent) of the farmers covered

under the study suggested an increase in the income due to direct contact with consumer without the involvement of any intermediaries. Better price realisation and availability of assured market has been reflected in improved income. This increase in income, as suggested by the participating farmers covered under the study, has been to the tune of 9.42 percent. This suggests that the concept of farmers-market not only have the potential to improve market access of small holders put also have potential to increase income realisation of farmers.

Table 11. Price and income aspects as perceived by farmers participating in Rythu Bazaar

Sr No	Items	Percent
1	Satisfied with the Rythu Bazaar price	45.00
2	Prices in Rythu Bazaar are higher than wholesale market	55.00
3	Farmers with the opinion that participation in Rythu Bazaar has resulted in increase in income	68.00
4	Percent increase in income as perceived by farmers	9.42

Role of farmers-market in income realisation

The information compiled under the study suggests that majority of the farmers visiting Siddipet Rythu Bazaar are operating on small and marginal land holdings. It makes it interesting to know the ability of such markets to generate income mainly in case of smallholders. The information compiled on average monthly income of farmers visiting Rythu Bazaar and presented in Table-12 reveals that 58 percent of the farmers are able to realise an income of Rs 10,000/- and above. Another one-third farmers were realising an income in the range of Rs 5,000/- – Rs 10,000/-. This suggests the potential of farmers-market for small and marginal farmers engaged mainly in cultivation of perishable crops.

Table 12. Monthly income as realized by farmers visiting Rythu Bazaar

Income	Categories (Rs)	Percent	Cumulative
Average Monthly Income	Rs 15000 & Above	04	04
	Rs 10000 – Rs 15000	54	58
	Rs 5000 – Rs 10000	33	91
	Less than Rs 5000	9	100

Relationship and Knowledge Sharing

One of the important aspects of Rythu Bazar is to facilitate direct interaction between consumers and producers. This become even more important in an environment where focus is on market driven production. The direct contact of farmers with consumer is expected to help farmers understand the requirements of the consumers and produce accordingly. Same has been reflected through the information compiled in Table-13. The table reveals that three-fourth of the farmers feels that visiting Rythu Bazaar has helped them in developing relations with consumer. However, decision of a consumer to purchase from a particular farmer is influenced by factors outside the relations as only a limited number of consumers are visiting a particular farmer again based on the relationship. The consumers are mainly making their decision based on factors like quality and freshness of the produce. This suggests that consumer may have developed a relationship with the producer but his decision is influenced only by the quality of produce. However, the understanding of the farmers on the factors that encourages a consumer to visit a particular farmer again or what a consumer is looking for in the produce will facilitate farmers in cultivation and preparation of produce for the market.

Table 13. Perception of farmers participating in Rythu Bazaar on relationship and knowledge sharing

Sr No	Items	Percent
1	Rythu Bazaar has helped in developing relations with customers	75.00
2	<i>Customers visiting the same farmers based on relationship developed</i>	
	(i) Less than 10 percent consumers visit again	90.00
	(ii) 10 – 20 percent consumers visit again	9.00
	(iii) More than 20 percent consumers visit again	1.00
3	<i>Factors encouraging a customers to visit a particular farmer again, as perceived by farmers (multiple responses)</i>	
	(i) Better quality	44.91
	(ii) Freshness	28.24
	(iii) Price	12.50
	(iv) Relationship	10.65
	(v) Number of vegetables offered	3.70

Assessment of orientation of farmers visiting Rythu Bazaar

The information on extension orientation, social orientation, exposure to mass media and marketing orientation is presented in Table-14. The information compiled in the table reveals that the farmers are observed to have limited extension orientation as only 18.60 percent of the farmers are in touch with Extension Officers, Agricultural Officers, ATMA officer and scientists from the University and KVKs, that too occasionally. Less than one percent of the farmers are interacting with extension personnel on regular basis that too not for all categories of extension outlets considered in the questionnaire. The extension orientation has been captured based on the frequency of interaction with Extension officer, AOs, ATMA Officers, scientist from University and KVKs, officers from APMC and marketing department and representatives of development agencies. Another important observation is that the farmers are not in touch with the KVK Scientists at all, though, the interaction with scientists and SMSs of KVKs can play an important role in introduction of new crops, varieties and adoption of technologies.

The social orientation as captured through participation in village panchayat, primary cooperative society, farmers organisations, wholesale market and private input agencies has also been limited (17.60 percent) as farmers have participated only on occasion in village panchayat programs. Participation in any farmer-organisation is almost nil which suggest the scope for promoting farmers organisations among the farmers visiting Rythu Bazaars. The farmers visiting Rythu Bazaar have also been observed to have limited exposure to mass media (32.00 percent) as captured through occasional exposure to radio, television, newspaper, mobile phone, computers and internet, printed material and digital display. Out of these media options, farmers are exposure to Television, Mobile and Newspaper and Print material in same order, again occasionally. The farmers are observed to have reasonably good orientation about the market as 12.20 percent farmers agreed and another 26.60 percent farmers moderately agreed to various aspects highlighting the importance of marketing in agriculture like market information, grading leading to better price realisation, marketing to be considered at production stage and diversification of crops as per market requirement.

Table 14. Orientation of farmers visiting Siddipet Rythu Bazaar

<i>Extension Orientation</i>			
As captured through interaction with	Regular	Occasional	Never
(i) Extension officer, AOs, ATMA Officers, etc	0	78	22
(ii) Scientist from University and KVKs	0	0	100
(iii) Officers from APMC and Marketing Department	0	14	86
(iv) Representatives of development agencies	1	1	98
(v) Input agencies	2	0	98
Total	3 (0.60)	93 (18.60)	404 (80.80)
<i>Social Orientation</i>			
As captured through participation in	Regular	Occasional	Never
(i) Village panchayat	2	82	16
(ii) Primary cooperative society	0	0	100
(iii) Farmers Organisations	0	4	96
(iv) APMC Wholesale Market	0	2	98
(v) Private input agencies	0	0	100
Total	2 (0.40)	88 (17.60)	410 (82.00)
<i>Mass Media Exposure</i>			
As captured through exposure to	Regular	Occasional	Never
(i) Radio	0	2	98
(ii) Television	1	86	13
(iii) Newspaper/ Print material	1	28	71
(iv) Mobile	5	41	54
(v) Computer/ internet	0	3	97
Total	7 (1.40)	160 (32.00)	333 (66.60)
<i>Market Orientation</i>			
As captures through understanding on	Agree	Moderately	Disagree
(i) Market information/ news are important	48	33	19
(ii) Grading helps in fetching good price	5	25	70
(iii) Nearest market are better	1	23	76
(iv) Market to be considered at production stage	2	29	69
(v) Diversification based on market requirement	5	23	72
Total	61 (12.20)	133 (26.60)	306 (61.20)

Major benefits offered by Rythu Bazaar as perceived by farmers

Benefits from Rythu Bazaar as perceived by farmers are presented in Table – 15. The table reveals that the some of the major benefits offered by the market are direct contact with consumers by avoiding long chain of intermediaries present in traditional wholesale markets, no need to pay any fee and better price than wholesale market. These are the major benefits offered by Rythu Bazaar as perceived by the farmers visiting the Siddipet Rythu Bazaar. Farmers have also identified customer relation and feedback related benefits as moderate benefits from farmers-market. The opportunity to build rapport and relations with customers and obtain feedback directly on the product and also on their expectation has been an important benefit offered by the market. Rythu Bazaar offers assured market with sufficient number of customers to the farmers. Farmers have also acknowledge various basic facilities available at the market mainly to facilitate women-farmers. The cordial nature of the market staff and officials have also been recognised though as a small benefits.

Table 15. Benefits offered by Rythu Bazaar as perceived by farmers

Benefit	Major Benefit	Moderate Benefit	Low Benefit
Direct contact with consumers	76	23	1
No market fee	56	41	3
Better price	53	43	4
Building rapport and relation with customers	27	66	7
Direct feedback from customers	25	68	7
Assured market with sufficient customers	20	60	20
Availability of basic facilities mainly for women-farmer	0	80	20
Easy access to market officials	13	25	62

Major Limitations with Rythu Bazaar as perceived by the farmers

The Rythu Bazaar offers various benefits over traditional marketing system but is not free from its challenges and limitations. The limitations as perceived by the farmers are compiled in Table-16. One of the major advantage of farmers-market is the provision for making stall/space available for the visiting farmers to display their produce. However, all the farmers are not getting the stall of their choice and

sometimes even facing difficulty in getting any stall. This suggests the potential and popularity of such markets. The Siddipet Market is spread over three floors (including basement for parking and providing support services) and can accommodate about 332 farmers at a given point of time. Transportation has also been reported as a major limitation by the sample farmers both for bringing the produce to the market and while going back to their places after completing the trade. Through, the marketing model provides assured market to the visiting farmers but consumes a lot of time in clearing off the complete produce and accordingly, has been identified as one of the major limitations of the Rythu Bazaar. Some of the other limitations perceived as moderate by the farmers are fixed price, distance from the market, and poor understanding about market demand limiting their ability to decide about the quantity of produce to be brought to market and inadequate space to display the produce in the stall. Lack of market information has been identified as challenge of low level because farmers visiting the market were observed to have good market orientation and therefore, may be having their own means to have access to market information. In order to facilitate farmers bringing produce as per the demand, the market administration may provide weekly demand forecast based on past data and other factors like festivals and climatic conditions.

Table 16. Limitations with Rythu Bazaar as perceived by the farmers

Limitation	Major	Moderate	Low
Stall availability related issues	76	24	0
Transportation related issues	51	36	13
Time required to clear off the produce	53	37	10
Price fixed by the market administration	20	46	34
Assessment of quantity to be brought to market	5	73	22
Distance from the market	36	62	2
Inadequate space to displace produce	11	78	11
Lack of market information	0	38	62

The benefits experienced and limitations faced by identified farmers visiting Siddipet Rythu Bazaar on regular basis have been categorised into high, moderate and low as compiled in Table-17.

Table 17. High, moderate and low level of benefits and limitations associated with Rythu Bazaar as perceived by farmers

Items	Major	Moderate	Low
Benefits	<ul style="list-style-type: none"> ▪ Direct contact with consumers (76%) ▪ No market fee (56%) ▪ Better price (53%) 	<ul style="list-style-type: none"> ▪ Building rapport and relation with customers (66%) ▪ Direct feedback from customers (68%) ▪ Assured market with sufficient customers (60%) ▪ Availability of basic facilities mainly for women-farmer (80%) 	<ul style="list-style-type: none"> ▪ Easy access to market officials (62%)
Limitations	<ul style="list-style-type: none"> ▪ Stall availability related issues (76%) ▪ Transportation related issues (51%) ▪ Time required to clear off the produce (53%) 	<ul style="list-style-type: none"> ▪ Price fixed by the market administration (46%) ▪ Assessment of quantity to be brought to market (73%) ▪ Distance from the market (62%) ▪ Inadequate space to displace produce (78%) 	<ul style="list-style-type: none"> ▪ Lack of market information (62%)

Major vegetables traded in Rythu Bazaar

Wide range of vegetables are being marketed through Rythu Bazaar as reflected through the information compiled in Table – 18. Tomato is the most popular vegetable and brought by 92 percent of the farmers visiting Rythu Bazaar followed by Chilli (73 %), Potato (62 %), Lady Finger (54 %), Brinjal (40 %), Ridge Guard (34 %) and Green Leaves (24 %), in same order. Wide range of vegetables brought by farmers to the market makes a bouquet of vegetables available for customers to choose from. In order to make it even more comprehensive by making vegetables like onion and garlic available, Mandi administration has allowed a few private vendor (only for vegetables not available locally) also to participate in the market on payment basis. This will help in reducing the need of consumers to visit any other market at least for their vegetable requirement.

Table 18. Number of farmers bringing a particular vegetable in Siddipet Rythu Bazaar (multiple responses)

Sr No	Vegetables	Percent (%)
1	Tomato	92
2	Chilli	73
3	Potato	62
4	Lady Finger	54
5	Brinjal	40
6	Ridge Guard	34
7	Green Leaves	24
8	Cabbage	22
9	Bitter Guard	19
10	Bottle Guard	17
11	Chikkudu	17
12	Carrot	14
13	Cucumber	14
14	Others	8

Note – A particular farmers may be bringing more than one vegetable

Consumer Perception

It is equally important to capture information about the consumers visiting Siddipet Rythu Bazaar for purchasing different commodities to understand their preference and decision making pattern. The information compiled based on limited consumers visiting Siddipet Rythu Bazaar and considered under the study is presented in this section. An attempt has also been made to understand the perception of consumers visiting Siddipet Rythu Bazaar on various aspects covering their preference and decision making.

Basic Information on consumers visiting Siddipet Rythu Bazaar

The basic information on consumers visiting Siddipet Rythu Bazaar is compiled in Table-19. The table reveals that one-third of the respondents are young in less than 30 years age group. Another two-third of the respondents are from 31-50 years age bracket suggesting that the market is popular among all age group of customers. The customers were broadly educated with 40 percent having completed secondary education, 18 percent higher secondary and 26 percent even completed college and above. The average size of family of the respondents was five members. Gender representation was observed to be skewed slightly towards male. The market is established in the heart of city, still customers were

required to travel an average distance of 4.36 kms to access market. This suggests that customers are ready to even travel a moderate distance if market is able to offer some benefits in terms of better price and availability of fresh and quality vegetables.

Table 19. Basic information on selected consumer visiting the market

Characteristics	Category	Status	(%)
Age (Years)	20-30	18	36
	31-50	31	62
	>50	2	04
Gender	Male	33	66
	Female	17	34
Average Family size (No.)	Male	1.94	--
	Female	1.76	--
	Children	1.28	--
	Total	4.98	--
Qualification (years of schooling)	Illiterate	5	10
	1 to5	3	06
	6 to10	20	40
	11 to 12	9	18
	Degree/ Above	13	26
Average annual family income (Rs Lakhs)	<3 Lakhs	32	64
	3-5 Lakhs	16	32
	5-8 Lakhs	2	04
	>8Lakhs	0	00
Average distance to Rythu Bazar (Km)	--	4.36	--
Average number of years for which consumer is visiting the Rythu Bazaar	>5	29	58
	3 to 5	18	36
	1 to 3	3	06
	<1	0	00
Average number of times a consumer visited the market in a week	1 to 2	42	82
	3 to 4	10	20
Average purchase at a single visit	Quantity (Kgs)	5.24	--
Preference of farmers	Yes	25	50

Customers visiting market were observed to be from low to moderate income group as 64 percent of the customers were having income of less than Rs 3.00 lakhs per year. Another 32 percent of the customers were with average annual income in the range of Rs 3.00 – 5.00 lakhs suggesting that majority of the consumers visiting Siddipet Rythu Bazaar were having a family income of less than Rs 5 lakhs per annum.

The market has good ability to retain customers as most (94%) of them are visiting the market regularly for last 3 years and more. The consumers are visiting the market roughly twice every week and purchasing about 10 kgs of vegetables per week (5.24 kg per visit). The customers were also asked about the preference for farmers. More than half of the customers expressed their preference for farmers. Such direct contact help them develop relationship and share their expectations with the producers.

Participation of women (34 percent) and a good market option for low-income group may be an indication of potential of such market to improve consumption of vegetables mainly in low income group and therefore, having an implications for nutritional security. There are studies though from western world suggesting usefulness of such marketing models, off-course, as a part of a comprehensive package of solution in improving food availability and health of low income community (Lowery, 2006 and Minakai, 2014).

Dependence on Rythu Bazaar

The customers were also asked about need to visit other markets for fulfilling their fruits and vegetables requirement and the information is presented in Table-20. The information reveals that majority of customers visit other places also like local vendor, local market, wholesale market and even super market/ organised retail. Visiting local vendor is quite frequent mainly for purchasing leafy vegetables, tomato and chillies. Visit to local market and wholesale market is not frequent but consumers visit such markets to purchase vegetables not cultivated/ available locally like onion, potato and garlic. The consumers are visiting organised retail and wholesale market mainly to purchase fruits that too just twice a month which indicates that their reliance mainly on Rythu Bazaar and local vendor for the vegetable requirements.

The customers are visiting alternative markets mainly for fruits and selected vegetables required more frequently. As wide range of fruits may not be available locally, market administration may experiment by dedicating a section of the market for fruits by inviting vendors from outside to make the market comprehensive in offering fruits and vegetables to the customers.

Table 20. Different markets visited by consumers for their fruits and vegetables requirement (Yes = 42)

Reasons to visit other markets	Distance (km)	No of times visited in a month	Purpose (purchasing what F&V items)
Local vendor	0.36	5.06	Leafy vegetable, tomato and chilli
Local Market	2.12	2.56	Cucumber, chilli tomato and potato
Wholesale market	2.43	2.17	Onion, garlic, general kirana and fruits
Super market/ organised retail	2.05	2.00	General kirana, vegetables and fruits

Factor influencing choice of customers

Farmer-market promoting production, marketing and consumption of food locally can play an important role in developing local food systems. Accordingly, the information on factors influencing the choice to purchase from Rythu Bazaar has been collected and presented in Table-21.

Table 21. Factors influencing for choice to purchase from Rythu Bazaar as perceived by the consumers visiting the market on regular basis (affirmative responses presented as percent)

Particular	Is this a factor considered while purchasing fresh produce	If yes, is it fulfilled by Rythu Bazaar
Local produce	62	46
Fresh produce	80	72
Quality produce	54	48
Safe produce	22	10
Better price	86	68
Type of vegetables	34	56

The table reveals that better prices, fresh produce, types of vegetables made available, quality and localness of produce are the some of the important factors in same order influencing the choice of customers to visit Rythu Bazaar. Rythu Bazaar was able to fulfil most of the expectations of the customers related to freshness, price and localness. However, customers were not sure on safety of the produce.

Factors influencing decision to participate in Rythu Bazaar

Probit regression model was used to analyse the factors determining the participation of farmers in a particular market type i.e. traditional wholesale market characterized by long chain of intermediaries viz-a-viz Rythu Bazaar facilitating direct contact of farmers with consumers. The decision to participate either in the farmers-market or traditional market was considered in Probit model as variable dependent on various independent variables, as explained in Table-22.

Table 22. Description of the variables of the model developed to analyze factors responsible for participation of farmers in Rythu Bazaar

Variable	Variable Name	Variable type	Variable measurement
Dependent Variables			
MPD _{RB}	Market Participation Decision in Rythu Bazaar (RB)	Dummy	1 if farmer participated in Rythu Bazaar (RB), 0 otherwise
Quantitative Variables			
WKMEM	Working members	Continuous	Number of working members in the family of respondents
AGE	Age of the respondents	Continuous	Number of years
PRVG	Production of three leading vegetables	Continuous	Quantity in Quintals
Qualitative Variables			
GEN	Gender of sample farmer	Dummy	1 if farmer is female, 0 otherwise
MKTOR	Market orientation of sample farmers as captured through their understanding of different marketing aspects	Dummy	1 if sample farmer is oriented, 0 otherwise
TRNS	Access to transport facilities	Dummy	1 if farmer enjoy good access to transportation means, 0 otherwise
DIS	Closeness measured in terms of distance	Dummy	1 if distance is less than 15 kms, 0 otherwise

Source: Author's definitions

Farmer's decision to participate in the market

Probit model was used to estimate the factors influencing Market Participation Decision (MPD_{RB}) in Rythu Bazaar by farmers considered under the study. The Probit model used to analyse the farmers' decision to participate in the market can be computed from the standard normal cumulative distribution function (Egbetokun and Omonona, 2012). This model is a statistical probability model with two categories in the dependent variables. That is, the binary dependent variable, MPD_{RB} takes on the values of zero and one. The Probit analysis provides statistically significant findings of which variable increase or decrease the probability of participation of farmers in farmers-market. In this binary Probit model, the preference of the farmer to participate in Siddipet Rythu Bazaar was taken as '1', while preference to participate in the traditional wholesale market was considered to be as '0'. It is assumed that the *i*th farmer obtains maximum utility, if transaction is completed by participating in Rythu Bazaar in comparison to wholesale market.

The probability P_i of choosing any alternative over not choosing it can be expressed as bellow –

$$P_i = \text{prob}[Y_i = 1 | X] = \int_{-\infty}^{x_i' \beta} (2\pi)^{-1/2} \exp\left(-\frac{t^2}{2}\right) dt$$
$$= \Phi(x_i' \beta)$$

Where Φ represents the cumulative distribution of a standard normal random variable

Model used in the study

Considering the variables selected (Table-22), the Probit model formulated for this study is as given below –

$$P(0,1) = \text{MPD}_{\text{RB}} = \beta_0 + \beta_1 \text{MKTOR} + \beta_2 \text{AGE} + \beta_3 \text{GEN} + \beta_4 \text{WKMEM} + \beta_5 \text{TRNS} + \beta_6 \text{DIS} + \beta_7 \text{PRVG} + \epsilon_i$$

Where, MPD_{RB} = Market Participation Decision of the farmer to participate in farmer-market, which will take the value of '1' if the farmer participated or '0' if not.

The relationship between a specific variable and the outcome of the probability is interpreted by means of the marginal effect, which accounts for the partial change in the probability. The marginal effect associated with continuous explanatory variables X_k on the probability $P(Y_i = 1 | X)$, holding the other variables constant, can be derived as follows:

$$\frac{\partial P_i}{\partial x_{ik}} = \Phi(x_i' \beta) \beta_k$$

where ϕ represents the probability density function of a standard normal variable.

The marginal effect on dummy variables should be estimated differently from continuous variables. Discrete changes in the predicted probabilities constitute an alternative to the marginal effect when evaluating the influence of a dummy variable. Such an effect can be derived from the following:

$$\Delta = \Phi(\bar{x}\beta, d = 1) - \Phi(\bar{x}\beta, d = 0)$$

The marginal effect provide insights into how the explanatory variables shift the probability of participation in Rythu Bazaar. The marginal effect were calculated for each variable, while holding other variables constant at their sample mean values.

Determinants of MPD_{RB}

In order to analyse the factors influencing MPD_{RB}, Binary Probit Model was employed. This model has been estimated by the maximum likelihood method (Table-23). The estimated coefficients and Standard Errors (SEs) reveal the major factors influencing the decision of the farmer to participating in Rythu Bazaar (MPD_{RB}). A statistically significant coefficient suggests that the likelihood of farmer's participation in farmer-market will increase/ decrease as the response of the explanatory variable increases/ decreases. The likelihood ratio statistic as indicated by χ^2 is significant ($P < 0.00$), suggesting that all the model parameters were jointly significant in explaining the dependent variable. The McFadden's Pseudo R2 was 0.30 which suggest a moderate fit as highlighted by various studies on evaluating Pseudo-R2's for Binary Probit Models (Veall, M and Zimmermann, K, 1990).

The results pertaining to the influences of selected explanatory variables revealed that variables like Gender (GEN), family size (WKMEM), production of vegetable (PRVG) and availability of transport facility (TRNS) have significant and positive influence on the participation of farmers in Rythu Bazaar (MPD_{RB}). This suggests that women-farmers are more likely to participate in Rythu Bazaar. The participation in the market is not influenced by the distance but by the availability of transport facility. The number of working members in the family (WKMEM) also influences the decision to participate as a lot of time is required to clear-off the commodities brought to the market. The availability of vegetable surplus is also having positive impact suggesting smallholders with some minimum quantity of vegetable production (PRVG) are more likely to participate in such farmer oriented direct marketing models.

Factors like market orientation (MKTOR) and age (AGE) had significant but negative influence suggesting that youth with better market orientation tends to explore market opportunities outside such models. However, factors like distance from the market (DIS) had no significant effect on the decision of farmers to participate in the Rythu Bazaar.

Table 23. Probit model results for factors influencing MPD_{RB}

Variables	Coefficient	SE	Marginal effect (dy/dx)	Z	P > z
MKTOR	- 1.0853	0.234	- 0.2680*	- 4.63	0.000
AGE	- 0.0337	0.011	- 0.0083*	- 3.00	0.003
GEN	1.3663	0.337	0.3373*	4.05	0.000
WKMEM	0.4360	0.100	0.1076*	4.36	0.000
TRNS	0.008	0.225	0.1015**	1.83	0.068
DIS	0.4113	0.221	0.0829	1.52	0.130
PRVG	0.3359	0.003	0.0020*	2.72	0.007
Constant	- 0.4585	0.599		- 0.76	0.444
LR χ^2 (10) = 102.75					
Prob > χ^2 = 0.0000					
Log likelihood = - 87.255696					
Pseudo R ² = 0.37					

Note: () and (**) denote significance at the 1% and 10% levels, respectively*

The presence of female-member (GEN) in the family influenced the decision (at 1% level). This may be an indication of better participation of female in such market as a lot of time is required to clear off the entire produce and male taking care of production aspects. The marginal effect (0.3373) revealed that presence of women in the family to participate would increase the probability of market participation by 33.73 percent. Participation is also influenced by availability of working members (WKMEM) in family (at 1% level) for requirement of working members to clear-off the produce in farmer-market. The marginal effect (0.1076) revealed that increase of one working member in the family to take care of post-production activities would increase the probability of market participation by 10.76 percent.

The decision to participate is also influenced significantly by the availability of vegetables surplus depicted through production (PRVG) also influenced the decision to participate significantly (at 1% level). The marginal effect (0.0020) imply that every increase of one quintal in production of vegetables will improve the possibility of the farmer to participate in the Rythu Bazaar by 0.20 percent. The decision to participate is also influenced by availability of transportation mean (TRNS) at 10 percent level but not by the distance of farm (DIS) from the market. The marginal effect suggest that availability of transportation mean increases the probability to participate by 10.15 percent.

Orientation of the farmers towards on market (MKTOR) and age of the farmers (AGE) has also influenced the decision to participate in the market but negatively (both at 1% level). The negative association of farmers with age and market orientation to participate may be an indication that youth having better understanding of markets are keen in exploring other marketing options available in the region. Though, the farmers-market offers an important option to farmers mainly smallholders involved with cultivation of fresh vegetables but there are alternatives marketing models emerging in present time because of various reforms initiatives of the Government which are suitable for different kind of crops and stakeholders. The marginal effect of market orientation (0.2680) suggests that possibility of a farmer having better market orientation to participate in Rythu Bazaar would decrease by 26.80 percent. Whereas, in case of age, the marginal effect (0.0083) suggests a decrease of 0.83 percent in probability to participate with an increase of one year in age.



Section V

Summary and Interpretation

The findings of the study discussed in Section-IV have been summarised and interpreted in this section. The findings indicate the influence of such market on various factors like financial sustainability, integration with supply chain towards consumers, relationship development and bringing market orientation among farmers. The information at some places has been presented again in this section to facilitate the interpretation.

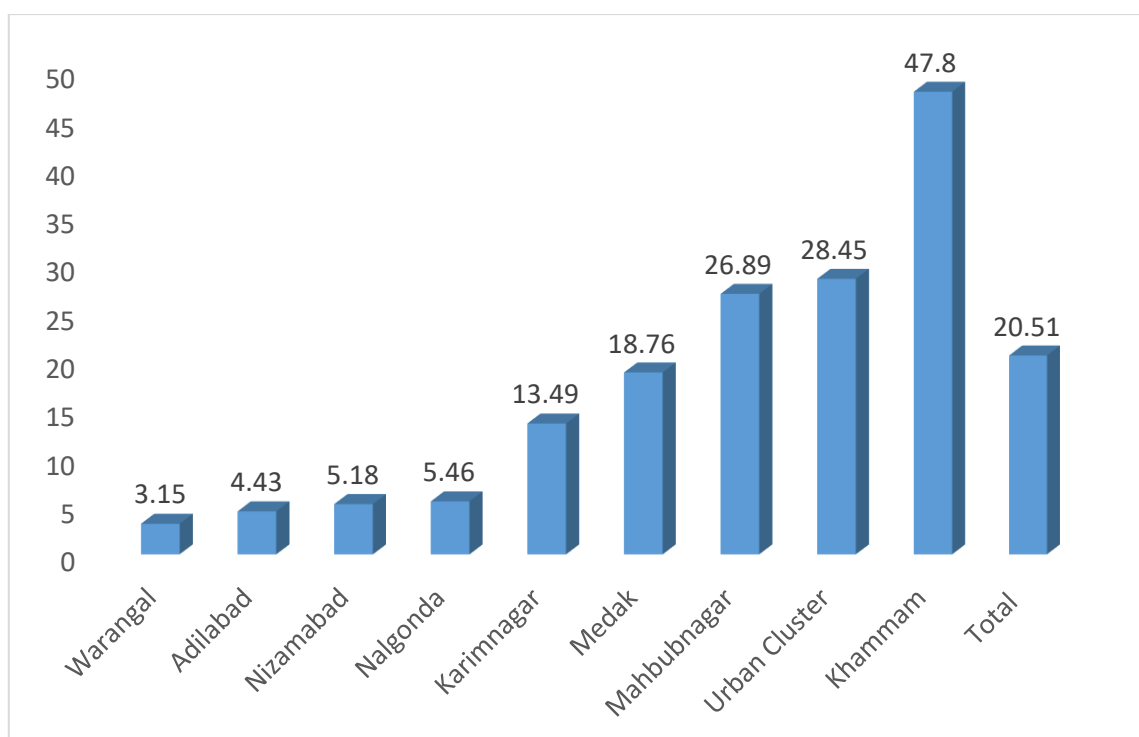
Agricultural Marketing Reforms

The Government has introduced various reform measures to help farmers integrate with the supply chain close to buyers/ consumers. Such reform provisions like direct marketing can help farmers realise better price due to short supply chain and development of local food systems with potential for benefits like health, nutrition, rural economic development, food security and market opportunities for small and marginal farmers. Direct marketing allows buyers to procure directly from farmers by avoiding long chain of intermediaries leading to better flow of information and price realisation by farmers. Reforms have also promoted, both under public and private sector, establishment of farmer consumer market having ability to overcome various challenges faced by farmers in marketing of their produce mainly small holders cultivating perishables. With this background, it was considered pertinent to study various aspects of farmers-market mainly its ability to improve supply chain integration, ensuring financial sustainability, facilitating knowledge sharing and bringing market orientation among farmers. Accordingly, implementation of the concept of farmers-market in Telangana was taken-up as a case to make assessment of the status of implementation of farmer-markets in Telangana, analyse basic aspects of farmer-market like availabilities of facilities, flow of activities and price discovery mechanism, and factors responsible for farmers to participate in Rythu Bazar. The study also aimed at understudying the perception of producer and consumer on the benefits availed and constraints faced by them under the model.

Effective marketing alternative for smallholders

The concept of farmers-market is being implemented in Telangana with the name of Rythu Bazaar. There are 39 Rythu Bazaars operating successfully in 10 districts of the State. These markets have shown their effectiveness by capturing more than 20 percent of the total production of vegetables in these 10 districts having Rythu Bazaars (Figure-6). The volume of trade at Rs 7.66 billion (2018-19) performed in these 39 Rythu Bazaar also reflects the importance of such markets. In case of Rythu Bazaar operating in Telangana, more than two-third of the trade is taking place in Hyderabad and Rangareddy districts though only 14 Rythu Bazaars are operating in these two districts suggesting the importance of having good consumer base for a farmers-market to operate successfully.

Fig 6. Vegetable production in the districts routing through respective Rythu Bazaars (percent)



Majority of the farmers visiting Siddipet Rythu Bazaar are operating on small and marginal landholdings and are relying heavily on Rythu Bazaar to clear-off the produce. The average number of visits (20.84) made per month and years of continuous participation in the market (3.34 years) also suggests the effectiveness of such markets (Table-24).

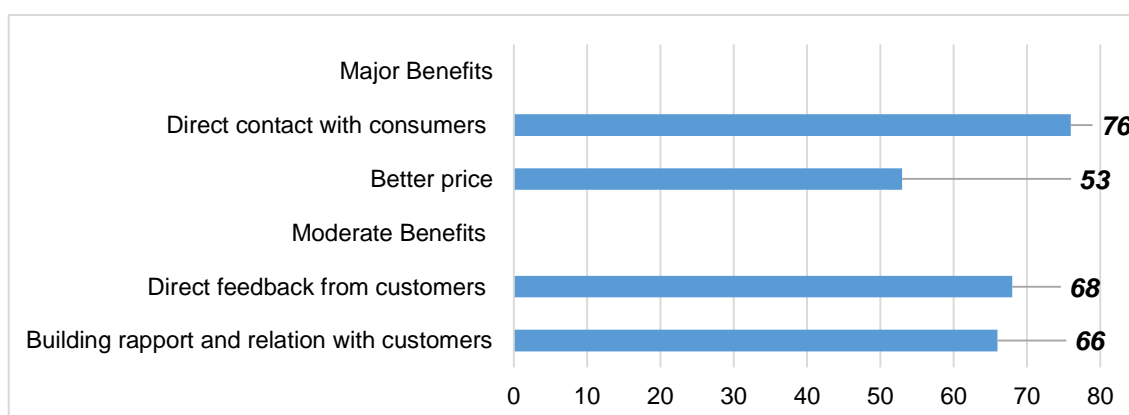
Table 24. Different aspects of Rythu Bazaar indicating its effectiveness

Aspects	Unit	Status
Farmers relying on RB for marketing their produce	Percent	97
Visits per month to Siddipet Rythu Bazaar	Number (Average)	20.84
Length of operations in Rythu Bazaar (RB)	No. of Years	3.34
Average land holding size	Hectares	1.19

Integration activities

The potential of farmers-market to help integrate farmers with the supply chain was captured through the various benefits as expressed by selected farmers participating in Siddipet Rythu Bazaar. More than three-fourth of the farmers perceive that the ability to contact directly with consumers without involvement of any intermediary is the biggest benefits offered by farmers-market. The direct contact not only help in better price realisation due to participation in crisp supply chain but also enable them in establishing relation with consumers (Figure-7). Getting direct feedback from the consumers help farmers in preparing the produce for market and remain competitive by supplying quality produce mainly in an environment where broadly a uniform price fixed by the administration prevails. The benefit like direct contact with consumers, ability to receive feedback and develop rapport and relations with consumers suggest the potential of farmers-market in better integration of farmers with the supply chains close to consumption.

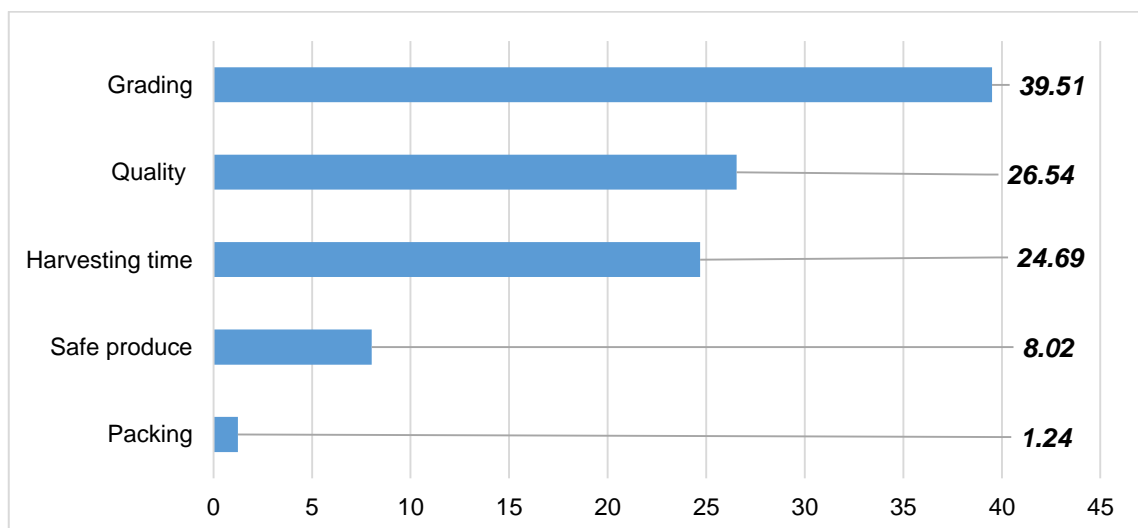
Fig 7. Benefits from Rythu Bazaar as perceived by farmers (percent)



Knowledge sharing

The market facilitates direct interaction of visiting farmers with consumers on continuous basis which helps in bringing market orientation among farmers. More than two-third of the farmers visiting farmers-market have started preparing the produce as per market requirement. About 11 percent of the farmers have also suggested change in crop planning encouraged by the demand in the market. The farmers suggested that regular interaction with customers have helped them understand their preferences and have accordingly encouraged them to focus on different market related aspects. The information compiled from sample farmers visiting the farmers-market reveals that farmers have started preparing the produce as per the requirements of consumers covering aspects like grading (39.51%), quality (26.54%), harvesting time (24.69%), importance of safe produce (8.02%) and packaging (1.24%) in same order (Figure-8). The figure also reveals that farmers are not paying much attention to the delivery of safe food to the consumers. The farmers may be oriented on such critical aspects by designing suitable awareness programs utilising the farmers-market as platform. Farmers-market has also served as a platform for interaction among farmers and its impact on adoption of new production practices though it has not been quantified.

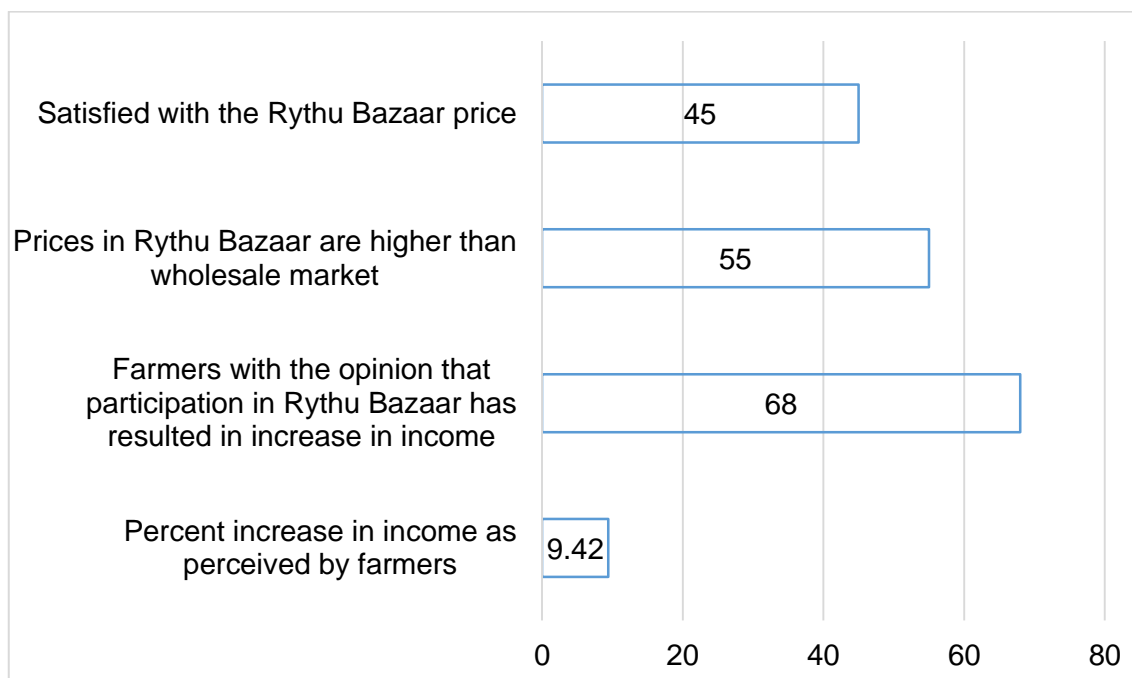
Fig 8. Different aspects of produce being prepared by farmers based on the requirements of the consumers (expressed in percent based on multiple responses)



Financial Sustainability

The information compiled on income realised by the farmers through their participation in the farmers-market emphasised on the dependence of farmers on such models for marketing of their produce. The dependency of sample farmers on farmers-market suggest the important role played by such type of marketing models with focus on direct contact between producers and consumers and their ability to provide financial sustainability to farmers mainly smallholders. About half of the sample farmers were observed to be satisfied with the price offered by farmers-market which were higher than the wholesale market price. More than two-third farmers contacted were of the opinion that participation in Rythu Bazaar has resulted in increase in income which broadly is about ten percent. The influence of farmers-market on prices, contribution of income realised through such marketing in total income and ability to enhance income suggest the potential of farmers-market in ensuring financial sustainability of the farmers. Market and extension orientation of the farmers also influences the decision to participate in the market but negatively which may be an indication that such farmers are keen in exploring other options available to them.

Fig 9. Price and income aspects of Rythu Bazaar (percent)



Factors influencing participation in Rythu Bazaar

Probit analysis suggests that the decision to participate in the Rythu Bazaar is influenced by the gender and availability of working members in the family. The model though provide direct contact with the consumers but a lot of time is required to clear-off the produce and therefore, the participation is influenced by the size of the family and gender. The decision is not influenced by the distance but transportation facilities available to farmers. The farmers having access to transport facilities are more likely to participate in Rythu Bazaar. Vegetable production is also an important factor influencing the participation in market. The farmers mainly the smallholders with surplus above a minimum level are more likely to participate in such marketing models. Age and market orientation of the farmers also influences the decision to participate in the market but negatively which may be an indication that such young farmers with a better understanding of marketing are keen in exploring other options available for marketing of their produce.

Section VI

Suggestions

Direct marketing of local food products has the potential to increase farm income (Brown, 2003). Accordingly, different policy measures have been introduced by the government to encourage direct contact between producer and consumers. Farmers-market is one such model emerging as an outcome of these efforts. The model is operating successfully in Telangana with the name Rythu Bazaar. Some of the suggestions based on the findings of the study to use the concept optimally are mentioned below –

- Farmers-market can be used as an effective alternative marketing channels for smallholders mainly involved with cultivation of perishables for their ability to capture a reasonable amount of vegetable production. Rythu Bazaars operating in Telangana has successfully captured more than 20 percent of the vegetables production from respective districts which has been as high as 50 percent in case of Khammam district.
- These markets are more suitable in districts having reasonable consumer base as two-third of the total trade taking place in 39 Rythu Bazaars operating in 10 districts of Telangana is happening only in Hyderabad and Rangareddy districts.
- Farmers-market can be an effective market alternatives for smallholders for being the primary marketing channels for majority of selected farmers. The state governments need to include developing farmers-market as an integral component of the diversification plan with focus on vegetable production and income enhancement.
- Various studies from the western world suggest the effectiveness of such marketing models, as part of a comprehensive plan, in improving food availability and health of low income community (Lowery, 2006 and Minakai, 2014). Participation of women and a good market option for low-to-moderate income group may help in improving consumption of vegetables mainly in limited income group leading to better status of nutritional security.
- Customers are observed to feel the need to visit markets outside Rythu Bazaar as wide range of fruits and some selected vegetables are not available locally. Market administration may experiment by dedicating a section of the market for fruits by inviting vendors from outside to make the market comprehensive in offering fruits along with vegetables to the customers which are not cultivated locally.

- The youth are observed to be inclined to participate in models other than Rythu Bazaar. Capacity building of youth on the skills required to explore different marketing models can help them get linked effectively with various new marketing models emerging because of reforms and various other changes experienced in the ecosystem.
- The participation in the market is not influenced by the distance but by the availability of transport facility. There is need to provide transportation facilities to the farmers interested in visiting market by creating appropriate provisions in public transport so as to maintain the quality of the fresh produce. Government may consider running exclusive buses/ other means mainly during morning hours to help farmers reach market on time with fresh produce.
- The marketing model is mainly utilised for marketing of agri-produce but such markets can also be utilised as a potential platform for creating awareness and offer various extension services. Government may consider installing television, providing market information and creating awareness on various schemes of the central and state government. In order to facilitate farmers bringing produce as per the demand, the market administration may also consider providing weekly demand forecast based on past data and other factors like festivals and climatic conditions.
- Understanding of participating farmers is observed to be low on the importance of packaging and making safe food available to consumer. There is need to orient farmers visiting such models for marketing of their produce and interacting directly with consumer on these aspects as well.
- The findings highlight the potential of farmers-market to improve supply chain integration and knowledge sharing, providing financial sustainability and bringing market orientation among farmers by developing local food system. There is need to promote such markets in all possible districts to encourage consumption of production at local level. Other states may also explore establishing such markets encouraging direct contact between consumers and buyers considering the benefits offered.

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Services provided by the Rythu Bazaar, Siddipet

Multiplex complex

Rythu Bazaar Siddipet is a multi-storied building with parking facility at the basement. Ground floor provides facilities for marketing of vegetable, ATM, pure drinking water, washroom and other stores like Pharmacy and general stores. First floor is meant for selling leafy vegetable and fruits. A total of 332 display sheds are available in the market spread over two floors, 160 sheds on the ground floor and 172 sheds on the first floor.



Mahila Sangh

Mahila Sangha is a women led community based organization, having a separate shed/ shop in Rythu Bazaar to showcase and sell their products like varieties of pickles, chatni, papad, and masala powder packets to the customers. Only two sheds are allotted to Mahila Groups whereas rest of the sheds are issued to farmers and a few private vendors. This provide a comprehensiveness to the produce offered by the market.



Digital Price Board

Rythu Bazaar is having both digital and wooden price board ensuring transparent price system and transactions taking place in market area. Based on predetermined price, farmers have to sell their farm produce. The prevailing prices are displayed through these digital price boards.



Price Fixation

The prices of vegetable are fixed in consultation with the farmers committee. The prices are fixed slightly higher than the wholesale price and lower than the local retail market prices in the area. A wide range of vegetables are available in Rythu bazaar like onion, potato, garlic, ginger, cucumber, carrot, tomato, green chilli, red chilli, beetroot, cauliflower, beans, radish, ladyfinger, capsicum, coriander, mint, drumsticks, lemon, curry leaf and brinjal. Only limited fruits are available like grapes, apple, sapota, orange and banana.

రైతు బజార్ - సిద్దిపేట.
ఈ రోజు ధరల పట్టిక 12-12-2021

క్ర.సం.	కూరగాయల పేర్లు	ఈ రోజు కిలోధర
1.	టమాటం	12 =
2.	వంకాయ	28 =
3.	కల్ల పంకాయ	20 =
4.	బొండ్లకాయ	56 =
5.	మిర్చి (పచ్చమిర్చి)	28 =
6.	బొండ్లమిర్చి	28 =
7.	కొక్కరకాయ (పచ్చ/ఎర్ర/బొండ్ల)	18 =
8.	బీరకాయ	74 =
9.	క్యాబేజీ	14 =
10.	బొండ్లకాయ	34 =
11.	క్యారెట్	32 =
12.	బీరకాయ	28 =
13.	అల్లం	20 =
14.	ఉల్లిగడ్డ	30 =
15.	ఎర్ర ఉల్లిగడ్డ	30 =
16.	అల్లం 40/50/60/70/80/90/100/110/120/130/140/150/160/170/180/190/200/210/220/230/240/250/260/270/280/290/300/310/320/330/340/350/360/370/380/390/400/410/420/430/440/450/460/470/480/490/500/510/520/530/540/550/560/570/580/590/600/610/620/630/640/650/660/670/680/690/700/710/720/730/740/750/760/770/780/790/800/810/820/830/840/850/860/870/880/890/900/910/920/930/940/950/960/970/980/990/1000	48 =
17.	గోబి అల్లం	14 =
18.	పొద్దుతిమ్మ	40 =
19.	అల్లం	32 =
20.	బొండ్లమిర్చి	14 =
21.	కొర్రె	20 =
22.	కొర్రె	20 =
23.	బీరకాయ	20 =
24.	అల్లం	80 =
25.	ఎర్ర ఉల్లిగడ్డ	110 =
26.	బొండ్లమిర్చి	160 =
27.	క్యాబేజీ	28 =
28.	పొద్దుతిమ్మ	24 =
29.	కొర్రె	24 =

Proper Sitting Arrangements

Sheds are allotted to the farmers on first come first serve basis. The farmers are not allowed to occupy the place permanently. No fee is to be collected from the farmers. However, in order to offer complete range of vegetables including a few not available locally, a few shed are issued to private vendors on rent of Rs



3000/- per shed. Such arrangements help market to generate revenue as the services are offered free to the producers and consumers and also provide completeness to the bouquet of vegetables offered by the market.

Pure Drinking Water

Purified drinking water is made available to the farmers and customers



ATM Facility

ATM facility is available in the Market

Digital Sitting Arrangement



A digital dash board displaying the allotted and occupied slots for farmers and vendors. All the green slots in the display board are occupied while the red slots indicate the vacant sheds.

CCTV Facility



CCTV cameras are installed at every level for surveillance and monitoring different activities

Other facilities at Rythu bazaar

- Public Address System – Prices of vegetables are frequently announced through public addressing system to create awareness of the rates of the vegetables among the consumers as well as farmers.
- Supply of weighing scales – When the farmers enter into the market their names along with the particulars such as name of the village and the quantity of vegetables brought by them are entered in a register and they are issued a token. On the basis of the token issued to them, all the farmers are provided with weighing scales without collecting any fee. The farmers will return the scales after completing their sales.
- Toilet facilities – Toilet facilities are also made available at the basement. In order to get the display shed of their choice, many times farmers are approaching the market early in the morning at around 4.30 – 5.00 AM (though market will start from 6.00 AM). Such farmers many times need facilities for getting fresh. Such facilities are available at payment basis.
- Canteen facilities for food and tea – One of the shop allotted by the market administration is to Canteen. Farmers can purchase food from the canteen on nominal rates.
- Bio-compost unit – A bio-compost unit is also available for effective management of waste being generated by the market. The Unit is established at the basement. However, the unit become non-functional during COVID period. Administration is making efforts to make it functional again.
- Ramp – A ramp is also made available to drag the produce from ground floor to first floor.

