

## DEVELOPING MOBILE BASED AGRI RETAILING (MBAR) MODEL FOR HIGH VALUE AGRICULTURAL AND LIVESTOCK PRODUCTS

SHOJI LAL BAIRWA<sup>1</sup>, MEERA KUMARI<sup>2</sup> & L. K. MEENA<sup>3</sup>

*Department of Agricultural Economics, Bihar Agricultural University, Sabour, Bihar, India*

### ABSTRACT

Mobile based marketing is getting much importance in present dynamic modern time due to easy and wide accessibility of consumers with low communication cost. Mobile based agri retailing (MBAR) model is refers to the technique or method of facilitating the retailing of agricultural products to the final consumer at reasonable price along with free home delivery. The study tries to develop an agri retailing model which comprises three key components i.e. producer/farmer, agribusiness firm/retailers and consumers. In this, consumer can place their order with detail information (name and quantity of commodity, delivery time, address etc.) through sms, emails, whatsApp, messenger, phone calling, and video calling using their mobile and agribusiness firm/retailer received the order and supplies the products to the concerned customer at their address through sales person. Agribusiness firm or retailers are procuring fruits, vegetables, eggs, milk and milk products from the farmers, poultry farm and dairy cooperatives respectively. Farmers/producer can either bargain or contract with the agribusiness firm to fix the price for their produce. MBAR model is a cost effective alternative solution to time-consuming marketing campaigns. It provides instant deliverability, flexible platform, time saving, and high open and conversion rate facilities to customers according their convenience along with two way communications to enquiry about order, to get feedback and to maintain customer's relationship.

**KEYWORDS:** MBAR Model, Agri Retailing, Mobile, Farmer, Consumer, Retailing Firm And Employment Opportunities

**Received:** Oct 22, 2015; **Accepted:** Oct 29, 2015; **Published:** Nov 04, 2015 **Paper Id.:** IJASRDEC201517

### INTRODUCTION

Mobile based marketing is getting much importance in present dynamic modern time due to easy and wide accessibility of consumers with low communication cost. Mobile based marketing involves two or multi-way communication and promotion of an offer or item between a firm and customers using a mobile device. It is defined as "the use of the mobile medium as a means of marketing communication" (Karjaluoto, Leppaniemi, 2005). There are many forms of mobile marketing such as short message service (sms), multimedia message service (mms), in-game mobile marketing, mobile web marketing, and location-based services in business by using technologies 3G, EDGE, GPRS, Wi-Fi, SMS, GPS and USSD. Modern mobile devices also provide users apps or tools for chatting and conversation such as MSN, whatsApp, Skype, Viber and Facebook messenger (Bairwa *et al.*, 2014). Mobile phone has really changed consumer lifestyles from merely indoor to any places in the world with relatively low communication costs (Dastagiri, 2009 and Roger, 2013). Jason *et al.*, (2006) reported that many agribusiness firms are using internet oriented devices in U.S.A. business. Nowadays, mobile technology is growing with high speed in our country and its importance also increases in the retailing of any type of goods and services in all business organizations. The traditional model of retailing is based on consumers entering the retailing environment, making location the primary source of competitive advantage (Rajkumar and Jacob, 2010). Mobile marketing is turning this

paradigm on its head and now retailers entering in the consumer's environment through the mobile application because the mobile stays with the consumer anytime and anywhere. In retailing, mobile based shopping created consumer surplus, decreasing search costs, making it easier and less costly for consumers to access products or services, making prices more transparent, increased variety of products offered in-store atmosphere (Bakos, 1997, Lynch & Ariely, 2000). Recently, mobile devices offer opportunities combining information search, use and exchange while shopping in store or experiencing a product (Chowdhury *et al.*, 2006 and Bairwa *et al.*, 2014). A mobile device is a constant companion to the consumer, a gateway to a relationship between the consumer and the retailer, making it an ideal supplementary channel for distance selling and physical retailing (Shankar *et al.*, 2010). Mobile based agri retailing (MBAR) model is refers to the technique or method of facilitating the retailing of agricultural products to the final consumer at reasonable price and as per the need of consumers along with free home delivery. This mobile based agri retailing (MBAR) model has great significance in dynamic and hi tech modern era due to time saving, money saving and customer satisfied in nature. This agri retailing may take time to establish but it may prove best retailing model for agricultural and livestock products in present mobile based fast life modern era. Agricultural graduates and agribusiness professionals can adopt MBAR model to start their own agriventure though entrepreneurship development programme which helps in increasing income level and employment opportunities in the economy. Thus, the ultimate purpose of the present study is to develop a mobile based model for the retailing of agricultural products (fruits, vegetables) and livestock products (eggs, milk and milk products) in cheaper way at the doorstep of consumers.

### **Conceptual Framework and Mechanism of Mbar Model**

MBAR is a business oriented retailing model which can be adopt by any business organization and individual retailer in order to sell agricultural and livestock products to ultimate consumer through use of mobile phones. Major components of model are producers, agribusiness firms, retailers, mobile phones, sales persons and consumers. The MBAR conceptual framework comprises three key components i.e. Producer/farmer, agribusiness firm/retailers and consumers. It provides linkage between farmers/producers, agribusiness firm/retailers and ultimate consumers of agricultural and livestock products using mobile phones. The agribusiness firms or retailers can contact directly with farmers to procure the fruits, vegetables, eggs, milk and other agricultural and livestock produce. In APMC act applicable states, agribusiness firm or retailer also can purchase fruits and vegetable, eggs and milk products from APMC regulated market, poultry farm and dairy cooperatives respectively.

Figure 1 indicates that MBAR have three key entities in which agribusiness firm or retailer have both side linkages with consumers as well as farmers but consumers and farmers have one sided link only with agribusiness retailers. This model makes a chain by linking following entities:

- **Consumer**

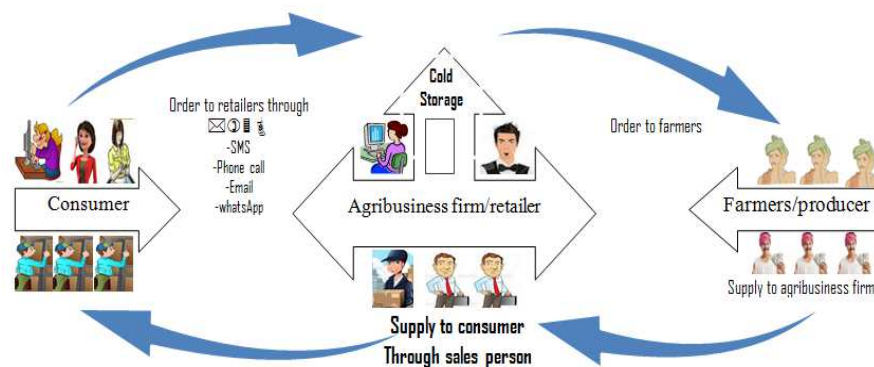
According to this model, consumers place an order of commodities using his mobile phones (sms, call, messenger, whatsapp etc.) on agribusiness firm/retailer's order line or online system before few hours/time of actual requirement along with order details. Order details include which commodity (fruit, vegetables, eggs, milk or milk products), quantity of each commodity, time of delivery and address of delivery of commodities. Mode of payment can be fixed either online or cash on delivery.

- **Agribusiness firm or retailer**

Agribusiness firm/retailer is main pillar of MBAR model because it linked with both consumer and producer entities. Retailer received the order from the consumers through his online system or phone call along with order details. Now, he instructs to sale person to collect the order items from cold storage and deliver at consumers address within stipulated time. Retailer assured consumer with respect to good quality and quantity of commodities at lower cost and time at their doorstep/home. Retailer performs storage function of marketing to create time utility. He also gets feedback about his service from the consumer to assured future re-purchasing and customer’s recommendation in order to maintain the good customer relationship and higher profit level.

- **Producer/farmers**

The basic raw material supplier of agricultural and livestock produce to retailer is the farmer, poultry farm, dairy cooperatives. Agribusiness firm/retailer makes direct contact to farmers and procure required quantity of agricultural and livestock products for storage as well as spot distribution to consumers as per their order. Retailers are procuring eggs, milk and milk products from the poultry farm and dairy cooperatives respectively. Farmers can either bargain or contract with the agribusiness firm for price fixation for the procurement of agricultural and livestock produce.



**Figure 1: Conceptual Framework of MBAR Model**

**Benefits and Beneficiaries of Mbar Model**

MBAR model is a cost effective alternative solution to time-consuming marketing campaigns. It provides instant deliverability, flexible platform, time saving, and high open and conversion rate facilities to customers according their convenience. It also facilitates two way communications between consumers and agribusiness retailers to exchange information, to enquiry about order, to get feedback and to maintain customer’s relationship. Consumer benefits are value received by the customer by the product utilization compared to customer sacrifices for acquisition of the product (Dastagiri, 2009). In several studies related to mobile marketing value for consumers, perceived value was not explicitly measured but the majority of the studies measured benefits and sacrifices components. Studies of consumer mobile marketing adoption used the Technology Acceptance Model (TAM) by Davis (1989) and Theory of Planned Behaviour (TBP) by Fishbein and Ajzen (1975). This MBAR model helps to all the entities in different ways such as it increase profitability of business organization while provides good quality products to consumers at lower prices. Agribusiness firms needs farmers to procure the agricultural and livestock produce to distribute among nearby households around the retailer’s supply chain booth as similar by Rajkumar and Jacob (2010) in business models for retailing. The agribusiness

firms or retailers can contact directly to farmers to procure the fruits, vegetables, eggs, milk and other agricultural and livestock produce. Agribusiness firm or retailer can purchase fruits and vegetable, eggs and milk products from APMC regulated market, poultry farm and dairy cooperatives respectively. The supply chain of agribusiness firms needs young talents for the fulfilling the customer's order which creates employment opportunities for rural and urban youths. Consumers are benefited with good quality food products on right time at lower price than market prices.

- **Benefits to Farmers/Producers**

This model ensure the regular and assure sale of farmers produce, reduce forced sale, improve bargaining power of producer, saving of time and cost (money) of transportation and reduce wastage of agricultural produce. Retailers are procuring eggs, milk and milk products from the farmers which assured direct marketing of agricultural produce of farmers. This model also helps in reduction of post-harvest losses of agricultural and livestock produce which helps in improving farmer's income level and living standard.

- **Benefits to Consumers**

This model provides benefits to consumer with the good quality products, products at reasonable prices, instant and home delivery of products and saving of time and money of purchasing from the market place. Consumers also benefitted with the supply of all types of items such fruits, vegetables, eggs, milk products from same retailer at any time and convenience of order quantity as per his requirements (small or large order) and order payment either online or cash on delivery. In nutshell, it facilitates products inquiry, reliability of products, customer satisfaction and relation, online payment, cash on delivery, order quantity convenience, free home delivery, and all types' products from one retailer at any time at reasonable prices.

- **Benefits to retailing firm/retailer**

Agribusiness firm/ retailer are the largest beneficiary of this model because MBAR is a business oriented model for retailing of agricultural and livestock products among consumers. Initially, retailer is less benefitted due to limited size of customers but as increasing in customer's size, the profit will goes up and agribusiness retailing chain will established which generates future cash inflows. The agribusiness retailing firm can be apply this model for supply of agricultural inputs to farmer at their doorsteps.

- **Benefits to society and economy**

MBAR model established links producers and consumers with agribusiness retailing firm/retailers and these are the major drivers of the social system of the any economy. This model gives benefits to all the entities (consumers, farmers and retailers) involved in the whole chain of retailing of agricultural produce. It also creates employment opportunities; increase income level of farmers through bargaining power in selling of produce, consumers benefitted with good quality products at reasonable prices at home delivery. Rural and urban youths can gain employment through establishment of business of agricultural retailing based on MBAR model in local as well as surrounding areas of their living.

## CONCLUSIONS

Recently mobile and online marketing for industrial goods are on boom and increasing with the time due to quick consumer response. Present study tries to develop an agri retailing model to supply the agricultural and livestock products to ultimate consumers at reasonable price within stipulate time along with good quality products at their doorsteps. As

mobile device users are on the increase, new technologies will be continuously developed and businesses tend to find new ways to communicate with their target customers. This model is based on the application of mobile phone whereby a consumer can place his order through sms, phone call, whatsapp, messenger, video call and email to the agribusiness firm/retailer. Agribusiness firm/retailer received consumers order details on their online system/mobile and supplies the order commodity in quantity demanded through the sales person in stipulated time period. Thus, MBAR model eliminates middlemen from the traditional agri supply chain management by the linkage of producers and ultimate consumers through agribusiness firms/retailers. In a nutshell, the MBAR is an agricultural based business oriented model and has resulted in new and hi tech ways of agribusiness retailing which reduce cost, time saving, increased profitability of business organization.

## **ACKNOWLEDGEMENTS**

Authors are highly thankful to the deputy director research, BAU Sabour for their valuable comments and encouragement in developing this MBAR model and support in submitting a research proposal to director research, BAU Sabour for testing the consumer acceptability and feasibility of model in Bhagalpur district under state plan scheme.

## **REFERENCES**

1. Bairwa, Shoji Lal, Kushwaha, Saket, Meena L.K. and Lakra, Kerobim (2014) *ICT Application in Agribusiness Industry: Present and Future Perspective*, Edited by Y P Kohli "Science for Rural India". Reading Rooms Publication, Varanasi, PP 129 – 136. ISBN 978-81-9295-10-2-7
2. Bakos, J. Y. (1997) *Reducing buyer search costs: Implications for electronic marketplaces*, *Management Science*, 43 (12): 1679-1692.
3. Chowdhury, H. K., Parvin, N., Weitenberner, C. & Becker, M. (2006) *Consumer attitude toward mobile advertising in an emerging market: An empirical study*, *International Journal of Mobile Marketing*, 1(2): 33–42.
4. Dastagiri, M.B., Kumar, B. G. and Diana, S. (2009) *Innovative Models in Horticulture Marketing in India*, *National Centre for Agricultural Economics and Policy Research, New Delhi – 110 012*.
5. Davis, F. D. (1989) *Perceived usefulness, perceived ease of use and user acceptance of information technology*, *MIS Quarterly*, 12 (3): 319-339.
6. Fishbein, M. and Ajzen, I. (1975) *Belief, Attitude, Intention and Behaviour; an introduction to theory and research*, Addison-Wesley, Reading, MA
7. Jason R. Henderson, Jay T. Akridge, and Frank J. Dooley (2006) *Internet and e-commerce use by agribusiness firms*, *Journal of Agribusiness* 24(1):17-39.
8. Lynch, Jr. J. G. & Ariely, D. (2000) *Wine online: search costs affect competition on price, quality, and distribution*, *Marketing Science*, 19 (1): 83-103.
9. Rajkumar, Paulrajan and Jacob, Fatima (2010) *Business models of vegetable retailers in India*, *Great lakes herald*, 4 (1):31-43.
10. Roger, Strom (2013) *Value of mobile marketing for consumers and retailers: a literature review*, *Martin Vendel, KTH Royal Institute of Technology, Halmstad University, Sweden*.
11. Sengupta, Anirban (2008) *Emergence of modern Indian retail: an historical perspective*, *International journal of retail and distribution management*, 36 (9), 2008, 689-700.

12. Shankar, V., Venkatesh, A., Hofacker, C. & Naik, P. (2010) Mobile marketing in the retailing environment: Current insights and future research avenues, *Journal of Interactive Marketing*, 24 (2): 111-120.