

A STUDY OF CONSUMER BEHAVIOUR REGARDING QUAIL MEAT PRODUCT DEVELOPMENT AND MARKETING

Rana Muhammad Ayyub*, Muhammad Hassan Mushtaq, Muhammad Bilal and Muhammad Rameez Akram

*Department of Economics and Business, University of Veterinary and Animal Sciences, Lahore, Pakistan
E. MAIL drranaayyub@gmail.com

ABSTRACT:: *Owing to the changing life style and food availability, Quail meat is being used as an alternate potential and acceptable meat source in many parts of the world. The main purpose of this project is to study level of consumer awareness and acceptability about a newly introduced ready to eat Steam Roasted (SR) Quail meat product. A questionnaire survey was conducted from the consumers (n=298) by using convenience sampling technique at the departmental stores in Lahore. As an experiment the respondents were first given samples to taste this product and afterwards they were exposed to questionnaire. Simple descriptive analysis showed that although the consumers have a lot of reservations regarding hygiene of ready to eat products but at the same time their majority (84.6%) was willing to accept this product. Most of the respondents (61.4 %) showed their intention to totally shift from broiler meat to Quail meat. Regarding the availability of quail meat, around 91.3% respondents preferred it's availability at small departmental stores rather than at large superstores. It was also recommended that the marketers of such quail meat products must pay more attention to study consumer behavioral dimensions to effectively target the market. These findings are equally important for product development as well as devising marketing strategies for this ready to eat quail meat products. This article will bring attention of world nutritionists towards a new and efficient source of protein. The originality is that this would be the first ever marketing study in this area in Pakistani context.*

Key Words: Quail meat, Quail meat marketing, Ready to eat (RTE), Consumer behavior, Product development

INTRODUCTION:

It is an axiomatic fact that across many cultures and stages of economic development, meat is regarded as a desirable food and its consumption is increasing in almost all the countries as a best source of protein. According to Euromonitor (2011), the sale of meat grew by 14% over the period of 2005-2010. Owing to the tremendously increasing world population (nearly 7 billion) the conventional animal protein sources are considered insufficient to meet the emerging demands. That's why currently new research is being done to explore meat sources other than routinely used red meat sources i.e. beef and mutton and white meat source i.e. broiler and fish. On the other hand, due to change in lifestyle in this busy world, there is a remarkable change in consumer behavior and health consciousness. This all situation has led to increased demand of white meat.

The Quail meat may be considered as a competitive source against the broiler meat. According to some studies, it is believed that quail meat is nearly a chicken and even better than it [1]. The quails are the smallest species of game bird which are farmed as well. These are found in wild environment in Europe, Asia, America and Australia but commercial strains are farmed for meat and eggs worldwide. The most common specie of quail is Japanese quail (*Coturnix Coturnix Japonica*) which is used in commercial enterprises. Australian quail are among the best meat producing quail in the world which are able to gain an average live weight of about 240 grams at five weeks of age. The reported weight of this particular species outside of production unit is claimed about 100 to 160 grams [2]. When it comes to composition, quail meat has some interesting properties, which might aid in its marketing [3]. Due to its

positive sensory perceptions, quail meat has good acceptance by the consumers [3-6].

Based on all these characteristics, in the last two decades, Japanese quail has been introduced in developing countries like India and this market segment has been growing within the poultry meat sector to cater the quality conscious meat consumers [7]. It is also liked by consumers on the basis of its delicacy [8], taste and affordable price [7]. This claim is important to note that due to high nutritive value and medicinal properties, quail meat is replacing broiler meat [7, 9]. It has low fat, low cholesterol and fewer calories but at the same time, it is rich in proteins, vitamins, essential amino acids, unsaturated fatty acids and phosphorus [1, 3, 4, 7, 8, 10]. All these characteristics make it the preferable food for health conscious consumers [7]. Despite attractive marketing features of quail meat it is an interesting niche business but at the same time there is always an emergent need of detailed market study and campaign for effectively targeting the market and reaping its benefits [4].

In a comparative study of the quality of broiler and turkey meat it was found that the turkey had greater carcass and breast weights as well as breast yield [11]. So raising quails for meat production is a genuine alternative to other animals as sources of animal protein [1, 12]. Such sources must be given proper attention in developing countries to develop their genetic source and related areas [13].

In developing countries it is common that many people go to bed as hungry and other majority is deficient in protein and other essential nutrients. To develop an effective strategy for eradication of malnutrition and protein deficiency, it is important to note that Quail meat can reduce this protein deficiency in poor countries [7] as well as can be a cheaper source of creating employment opportunities [12]. The Quail

farming business require very less investment and poor people can take an easy start at household level as well.

Pakistan is also a developing country. In Pakistan, the 6th most populous country of the world, the population is growing at a much faster rate. Here the gap in production of food, especially of animal origin, is widening year after year. At present 66% Pakistanis are deficient in protein. The requirement of protein is 102.7 grams per head per day while the available protein for consumption is 69.61 grams per head per day. This situation leads to the gap of 33.09 grams of protein per head per day. The main source of animal protein in Pakistan is beef, mutton, milk, poultry meat and eggs, respectively [14]. The major portion of Pakistani Halal meat is exported to Arabian countries [see e.g. 15] and Pakistan is exploring new market as well [see e.g. 16]. This export status has increased the prices of meat in Pakistan for local consumers [17]. Here the need of serious production and marketing efforts emerges for exploring cheaper alternative sources of animal protein. The establishment of Avian Research and Training centre is very right step in this direction [8, 12]. Recently in 2010, quail as a ready to eat (Steam Roasted) product was introduced by this ART (Avian research and Training) centre in the vibrant market of Lahore.

The marketing of Poultry meat is comparatively difficult as compared to other meat product. Unfortunately, Pakistan is facing many difficulties in maintaining a good marketing system especially the poultry products. According to Asif et al. (2005), marketing system of poultry is traditional in nature in Pakistan. Now due to change in consumer demands, the quail meat is now more often available in big retail stores [3] and restaurants [9] in many countries. Likewise, in Lahore market, the offering of Quail meat has been started but it is in initial stages.

Considering it as newly introduced product, this “ready to eat quail meat product” is in its developmental stages. According to marketing literature, much importance is given to consumer insight into the product development process [18, 19] specifically for food products [20]. In the past years there has been a considerable progress in understanding how consumers perceive meat quality[21-23] and form their preferences for different meat products[24, 25]. So the consumer insights can be highly useful for identifying promising market opportunities[26].

In modern urban cities, there is a strong consumer base demanding industrially produced (‘factory-farmed’) meat. Owing to change in lifestyle consumers now prefer the ready to eat products in their routine life. Consumers are relying increasingly on ready-to-eat (RTE) foods because these are convenient, quick and easy [27, 28]. Increased demand for processed poultry products and ready to eat products strongly indicates an opportunity for the development of new value-added poultry products[29]. It is an evident fact that in the stages of product development, consumer’s perceptions and their needs must be studied in detail and this activity becomes more important for food producers and marketers in commercial context [30, 31]. That’s why today’s marketers focus on researching consumer behavior for increasing the acceptability of their new products.

According to Michel *et al.* (2011), identification of consumer attributes for discriminating poultry products among other meat alternatives can guide the development of competitive value-added poultry products. The research studies suggest that consumers could be benefitted from education regarding open dates and recommended storage times for RTE foods[27].

The present project is an attempt to investigate acceptability and consumer perception regarding such a newly launched Ready to eat quail meat product in Lahore (one of the biggest cities and provincial capital), Pakistan.

MATERIALS & METHODS:

The questionnaire survey was administered to the customers at various superstores and stores in Lahore market at different locations. These sale points were offering different branded or non-branded meat and meat products. So the customers, who were visiting these stores were customers of different raw or ready to eat meat products. This field experiment included the convenience sampling of total 298 customers. The respondents were offered the samples of ready to eat Steam Roasted (SR) quail meat product (initially developed by ART centre) for taste. After taste experiment, questionnaire was administered to get their response. In this questionnaire, the response of respondents was collected broadly on two aspects. Firstly they were asked about their taste experience of offered ready to eat steam roasted quail product in particular. Secondly, the respondents were asked about their perception, awareness and acceptability of quail meat/ meat products in general. The collected data was analyzed for descriptive statistics on SPSS Software for taking out meaningful results.

RESULTS AND DISCUSSIONS:

The sample consisted of total 298 respondents, out of which 136 were females and 162 were male. Most of the respondents (55%) were belonging to earning class i.e. Rs. 20,000-40000 while 36.6% were belonging to class Rs. 41,000-60,000. The majority of respondents (71.5%) agreed that they are satisfied with the conventional poultry meat available in the market but at the same time around 82.2 % agreed that they will prefer a change in it provided that maintaining health and quality standards etc. It was very important that around 84.6% respondents showed their intention to purchase quail meat product while only 6% disagreed with such an intention of purchasing Quail meat. These findings are in line with the findings of many researchers who claimed that quail meat is making it’s acceptance among consumers [3, 7, 8]

When asked about their intention, 61.4% respondents explained that they will totally shift from broiler to this Steam Roasted (SR) Quail meat product. Based on these findings, it can be concluded that there is an emerging market for Quail meat in Lahore, Pakistan. These findings are in accordance with the findings of researchers who claimed Quail meat as comparable with broiler meat [1, 5, 7]. Based on ready to eat meat products, these findings also support the findings of some researchers who claimed that changing consumer behavior has increased acceptance of convenient meat products [27-29].

When the respondents were asked about their expected level of consumption of quail meat, around 72.1% respondents showed their intention to purchase around 2-3 Kg of this product per week. This finding shows that a vast majority of people is willing to buy (WTB) a sizeable quantity of quail meat.

As distribution and then availability of any product is one of the main factor regarding consumer acceptability of it, so when the respondents were asked about their preferred place of purchase for this product, majority around 91.3% respondents preferred that this product must be distributed to small departmental stores and only 2.3 % respondents preferred it's availability at big superstores. These findings are a little bit contrary to the findings of Genchev *et al.* (2008) who claimed that quail meat is available in big retail stores. This finding is very important because it shows that people want to buy this product from small departmental stores rather than from superstores. It will help quail meat marketer for devising the distribution strategy for this product accordingly to get success.

Regarding the current awareness level of this product majority i.e. 57% respondents knew about this product but at the same time majority i.e. 74.2 % responded that they only often use it whereas only 4.4% use it on routine basis. This finding shows that there is an emergent need of adequate marketing efforts to bring this product in routine consumption of general consumers. These findings correspond to the findings of the studies which have already stressed on the need of effective marketing strategies to increase the level of awareness about this unique product for the niche market[32].

The respondents were asked about comparing quail meat with broiler meat so majority of respondents i.e. 61.1% responded that quail meat is not comparable with broiler meat and 21.8% showed their response as neither agree nor disagree with this notion that both of the meat can be compared. These findings are contrary to the findings of some researchers who claim Quail meat to be exactly comparable to chicken [1, 5]. This finding shows that consumers of Pakistan are still unaware of the scientifically proven medical benefits of this Quail meat which need to be highlighted. But when respondents were asked about their reservations regarding quail meat, so majority i.e. 64.1% respondents responded neutrally. Based on these findings, it is recommended that people must be made aware about the nutritional, medicinal and economic benefits of quail meat in comparison with the broiler meat. So a strong awareness media campaign is recommended.

The majority of respondents i.e. 75.5% responded that steam roasted (SR) quail meat product is not being properly marketed that's why people are not aware of it. While 13.3% of respondents responded that they did not know about this quail meat product because it is not available everywhere and there were no effective marketing campaigns for that purpose. These findings apprise the need of devising an effective marketing program (promotional campaign) for promoting this product in the targeted segment[33].

CONCLUSION & RECOMMENDATIONS:

Based on these findings following recommendations are made for the stake holders

1. The researchers in area of food/nutrition must focus on importance of Quail meat as an alternate source of protein to Broiler.
2. The consumer behavior must be properly studied for making effective product development strategies.
3. There is a strong need of promoting the Ready to eat Quail meat products among the masses.
4. This product must be distributed on small departmental stores rather than on large departmental stores.
5. There is a need of proper marketing campaign for promoting this product among the target population.
6. The Governments in developing countries must do some preliminary policy making for promoting the Quail farming.
7. The Quail farming must be promoted to alleviate poverty from developing world as poor people can easily perform this farming with least financial resources.

REFERENCES:

1. Faitarone, A.B.G., et al., *Economic traits and performance of Italian Quails reared of different cage stocking densities*, Revista Brasileira de Ciencia Avicola, **1**, (2005).
2. Anonymous, *Structure and dynamics of the Quail industry*, F.a.F. Department of Agriculture, Editor., DAFF, (2012).
3. Genchev, A., et al., *Meat quality and composition in Japanese quails*. Traika Journal of Sciences, **6**(4): 72-82 (2008).
4. Anonymous, *Quail meat-an undiscoverable alternative* (2009).
5. Cunha, R.G.T.d., *Quail meat - an undiscovered alternative*. World Poultry, **25**(2):12-14 (2009).
6. Minville, F., *What are quail good for in a chicken-focused world?* World's Poultry Science Journal, **65**(04):601-608 (2009).
7. Wahab, S.H.A.M.A., *Quails could reduce protein deficiency in poor countries*, in *World Poultry* (2002).
8. Anonymous, *Quail meat processing plant to open shortly*. The PoultrySite News Desk (2011).
9. Anonymous, *Quail delicacy food for the groups or parties*, (2011.)
10. Parabakaran, R., *Good practices in planning and management of integrated commercial poultry production in South Asia*. FAO Animal Production and Health Paper (FAO). Rome: FAO (Food and Agriculture Organization), **159**:98 (2003).
11. Werner, D.C., et al., *Comparative study of the quality of broiler and turkey meat*. British Poultry Science, **50**(3):318-324 (2009).
12. Sultan, A., *Quail farming is good for meat production* (2012).
13. Chandraisiri, A.D.N., *Country report on the state of animal genetic resources (Sri Lanka) submitted to "The Food and Agriculture Organization of the United*

- Nations, Veterinary Research Institute, P.O. Box. 28: Peradeniya, Sri Lanka (2002).
14. Anonymous, *Pakistan Economic Survey*, Finance, Editor, Finance Division of Govt. of Pakistan: Islamabad (2010).
 15. Ayyub, R.M., et al., *Exploring Arabian Markets for Pakistani Halal meat-A futuristic vision*. Pakistan Journal of Life and Social Sciences, Forthcoming.
 16. Ayyub, R.M., et al., *Exploring future markets for Pakistani Halal meat export*. International Journal of Social Entrepreneurship and Innovation, **2**(1):11-20 (2013).
 17. Ayyub, R.M., M. Bilal, and M. Ahmed, *Meat prices hikes and its forecasting in Pakistan*. Journal of Animal and Plant Sciences (JAPS), **21**(2): 256-259 (2011).
 18. Cooper, R.G., *The invisible success factors in product innovation*. Journal of Product Innovation Management, **16**(2):115-133 (1999).
 19. Nambisan, S., *Designing virtual customer environments for new product development: Toward a theory*. Academy of Management Review, 392-413 (2002).
 20. Kristensen, K., P. Ostergaard, and H.J. Juhl, *Success and failure of product development in the Danish food sector*. Food Quality and Preference, **9**(5):333-342 (1998).
 21. Krystallis, A. and I.S. Arvanitoyannis, *Investigating the concept of meat quality from the consumers' perspective: The case of Greece*. Meat Science, **72**(1):164-176 (2006).
 22. Troy, D. and J. Kerry, *Consumer perception and the role of science in the meat industry*. Meat Science, **86**(1):214-226 (2010).
 23. Verbeke, W., et al., *European citizen and consumer attitudes and preferences regarding beef and pork*. Meat Science, **84**(2):284-292 (2010).
 24. Banovic, M., et al., *Beef quality perception at the point of purchase: A study from Portugal*. Food Quality and Preference, **20**(4): 335-342 (2009).
 25. Grunert, K.G., L. Bredahl, and K. Bruns, *Consumer perception of meat quality and implications for product development in the meat sector- A review*. Meat Science, **66**(2):259-272 (2004).
 26. Grunert, K.G., et al., *Use of consumer insight in the new product development process in the meat sector*. Meat Science, **89**(3): 251 (2011).
 27. Kosa, K.M., et al., *Consumer knowledge and use of open dates: results of a WEB-based survey*. Journal of Food Protection, **70**(5): 1213-9 (2007).
 28. Euromonitor, *The war on Meat: How low-meat and Non -meat diets are impacting consumer markets*, in *Strategy Briefing*, Euromonitor International, (2011).
 29. Michel, L.M., P.H. Punter, and W.V. Wismer, *Perceptual attributes of poultry and other meat products: A repertory grid application*. Meat Science, **87**(4): 349-55 (2011).
 30. Oude Ophuis, P.A.M. and H.C.M. Van Trijp, *Perceived quality: A market driven and consumer oriented approach*. Food Quality & Preference, **6**(3): 177-183 (1995).
 31. Van Kleef, E., H.C.M. Van Trijp, and P. Luning, *Consumer research in the early stages of new product development: A critical review of methods and techniques*. Food Quality and Preference, **16**:161-201 (2005).
 32. Anonymous, *Quail meat-an undiscoverable alternative*, in *World Poultry*. Doetinchem, The Netherlands (2009).
 33. Asif, M., et al., *Marketing of Commercial Poultry in Faisalabad City (Pakistan)*. Journal of Agriculture and Social Sciences, **1**(4):327-331 (2005).