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Parallel Session: A study of buyers' and sellers' perception of organic foods in Pakistan: towards a more effective marketing mix (Green field marketing)

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A study of Buyers' and Sellers' Perception of Organic Foods in Pakistan: Towards a More Effective Marketing Mix

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Abstract: Issues of food safety, nutritional value as well as environmental and ecological damage as a result of agricultural abuse have acquired global significance. Many people are looking for equitable, less cruel and sustainable answers to these problems. Organic foods / products are one such solution to people's food and agricultural needs. Looking at the viewpoints of both consumers (including prospective consumers) and producers, this research undertakes to study the marketing mix of the organic foods / products market in Pakistan and explores marketing solutions to enhance its development (research objective). Using qualitative interviews and thematic analysis, respondents' answers are coded and analyzed to put forward their opinions and recommendations for strengthening the marketing of the aforesaid products. The theme of the paper is marketing mix, with product, price, place, promotion and packaging being the relevant categories.

It was seen that almost all respondents considered chemical-free clean foods, more healthy, nutritious and tasty. Some purchased specifically organic foods for the purpose, some whatever clean and safe solutions (whether organic or not) they could conveniently find and some, though aware, were not involved enough to look for more healthy, safer or cleaner options than what they were already consuming. Price and availability were cited as the main reasons that deterred people from buying organic foods / products. However, many producers and even a few customers felt organic products were locked up in the narrow positioning of 'rich man's health foods.' Hence there was a need to promote them more 'holistically' from the point of view of ecological and environmental safety, as well as more humane and sustainable alternatives to conventional agricultural produce. Responsibility for this needed to be shouldered by all stakeholders – consumers, producers, doctors, environmental and animal right activists and governmental agencies.

The purpose of the research is to present stakeholders of the organic foods market in Pakistan with an informed marketing perspective in order to facilitate them to take more effective decisions. A contribution of this paper thus lies in providing marketing knowledge and recommendations for the organic foods / products' market in the country.

Keywords: *organic products, marketing mix, qualitative*

1. Introduction

The debate on whether the food we are eating is really safe for us and for the environment has gained inestimable proportions in not only Pakistan, but world over. People are grappling with issues of what is safe to eat and what not; what is clean and what isn't; what food processing is cruel to animals and soil and what is more sustainable and humane (Bold et al, 2015; Chiew Shi Wee et al, 2014; Sirieix, 2011 and Butt et al, 2005). To resolve these issues many people are turning to organic farming and organic foods. According to the World of Organic Agriculture 2010 study, the market for organic products has been growing at the rate of 10-15 per cent pa for the last ten years (Bartels and Berg, 2011).

In Pakistan too the food situation calls for attention. Though many people seem to be aware of the issues involved, at least to some extent, the market for safer, cleaner, organic products in the country is still small. Are people aware of the differences between organically grown and conventionally produced foods? Do they have access to organic foods? Do buyers and sellers have different perceptions of the prices and value of organic foods? Not many researches have explored these questions; those that do have studied the scientific growth and benefits of organic foods but have not dealt with the marketing mix of these products, certainly not in Pakistan (Mehmood et al, 2016; Butt et al, 2005; Jaffer and Masud, 2003). The objective of this paper thus is to study buyers' and sellers' perceptions of the marketing mix of organic foods in Pakistan and to offer suggestions for improving their effectiveness. It is hoped this research will be a small contribution towards knowledge and know how of the organic foods market in the country.

For the purpose of this paper, the term 'organic foods or products' refers to agricultural produce grown using natural and environmentally safe methods and supplements. Food products prepared by hand, using at least some proportion of such produce, are also included in this definition. The word 'seller' or 'producer' describes the suppliers of such foods, while 'buyers' or 'customers' refers to current or prospective users (or non users so far) of such produce/products. Investigating their perceptions implies finding out their views and opinions about the characteristics of organic produce and products made from them, including their benefits, prices, accessibility, and packaging. Kotler et al (2010) have given the following definition of marketing mix: 'the set of controllable tactical marketing tools – product (packaging included), place, price and promotion – that the firm blends to produce the response it wants in the target market' (p.46) (for definitions of each of the above components, please refer to appendix A).

Qualitative interviews have been used in this study to elicit views and opinions of the buyers and sellers of organic foods. Respondents' answers are presented in their own words, organized according to the marketing mix categories. Their suggestions regarding the aforementioned components of the marketing mix are also included in the respective categories. Findings are then analyzed using thematic analysis and discussed thereafter.

The purpose of this research is to enable buyers and sellers, as well as other stakeholders of the organic food market to obtain a more thorough description of the market that can enable them to make more informed decisions about their food choices and marketing strategies.

2. Literature Review

'The nation that destroys its soil destroys itself,' American President Franklin Roosevelt once said. Our ancestors practised organic agriculture, or what was historically considered conventional agriculture, fairly peacefully for 12000 years before the advent of chemically intensive industrial agriculture disturbed this peace. Soil degradation, 'superweeds', 'superbugs', greenhouse gas emissions are some of the negative repercussions of this new mode of farming (Moyer, 2016). Worldwide we are losing more than 75 billion tons of soil each year, when it takes 500 years to form just 2.5cm of top soil! (Brown, 2000). Farm pollution is the primary reason world's rivers, lakes and bays are becoming polluted. Agriculture is the main driver of deforestation, according to the Food and Agricultural Organization of the United Nations's latest report (2016), although forests and trees support sustainable agriculture, stabilize soils and climate, regulate water flows and provide important sources of food, energy and income for millions of people around the globe. Farm income rather than farm stewardship has become the dominant goal of the times (Faber, 2016).

Untreated sewage sludge and canal waters are increasingly being used in Pakistan to grow vegetables. This is despite the fact that vegetables, especially leafy ones, absorb heavy metals from such water, even at long distances. Butt et al's (2005) alarming research, for example, showed that the highest

concentration of lead was found in sewage water grown spinach and coriander (14.25 mg/g and 10.52mg/g respectively), the maximum amount of copper (34.3m g/g) in tinda; levels of cadmium varied from 0.29 to 2.95mg/g in these vegetables. Canal irrigated spinach also had the highest level of lead (9.72mg/g) and copper (10.75mg/g), while the other vegetables had varying levels. These metals pose grave health risks to consumers: chromium is a known cause of lung cancer; lead impairs functioning of kidney, liver and brain cells; and cadmium and its compounds produce chronic symptoms varying in intensity from irritation to metabolic disturbances (Jaffer and Masud, 2003).

Frequent use of pesticides too is leading to all sorts of chronic diseases in humans - diabetes, cancer, neurodegenerative disorders, birth defects, kidney and cardiovascular diseases, to name a few. "Considering that we share half of our genes with fruit flies, it should be no surprise that pesticides harm people as well as pests' (Moyer, 2016).

70-80 % of all antibiotics produced are being used on farm animals to make them grow bigger quicker but experts and environmentalists have been concerned about such flagrant abuse of these drugs since the 1970s. 'This is a perfect way to breed resistant strains, which can find their way into humans.' Growing antibiotic resistance is a 'wake-up call' for humans, Dr. Gould and Heilig solemnly warn (Heilig, 2013).

Agricultural abuse is also the reason millions go hungry each day. It is not lack of food but 'poverty, politics and unfair profiteering,' clarifies Lynda Brown, an acknowledged authority in the UK on organic foods and the author of several works and TV shows, as well as an active member of various movements on organic foods. 'Respect nature and nature will be your best friend; and cooperation at all levels, rather than destruction and domination, makes the best sense and bears lasting fruits,' (2000:6) she advises.

At the heart of organic farming is the 'belief that agriculture is our primary healthcare system and that there is a direct link between the health of the soil, that of the crops and animals raised on it, and ultimately that of the people fed and supported by it' (Brown, 2000:6). Chinese Green Food Development Centre defines organic farming as one which uses crop rotation, naturally produced compost and manure, biological pest control and only a limited amount of synthetic chemicals (Sirieix et al, 2011). Badgley et al (2007) also refer to organic farming practices as those that may be called agroecological, sustainable or ecological, which utilize natural (non-synthetic) nutrient-cycling processes and exclude or rarely use synthetic pesticides to sustain or regenerate soil quality. Organic is a form of farming that works with nature, rather than against it. (For more details on the sustainability of organic farming, see appendix B)

The word 'organic' was first used in 1940s on the pages of *Organic Farming and Gardening*, a magazine devoted to agriculture without chemicals or more specifically to counter the N-P-K (the NPK initials stand for elements nitrogen, phosphorus, potassium) mentality, which industry seemed to be applying unquestioningly to solve all agricultural problems. Organic farming soon picked up and wholegrain and brown (rice, sugar, bread) foods became popular (Pollan, 2006), paving way for what are now called organic foods. Today more and more people are turning to organically produced, ecologically safe and sustainably produced food, with organic food consumption growing by almost 20% each year. It is estimated that organic food sales account for more than 5% of all food sales worldwide (Brown, 2000).

Chiew Shi Wee et al (2014) describe organic foods as those that are safe to consume, are of fine quality and nutritious, are concerned with humane animal treatment, and are produced under the principle of sustainable development. More and more people are turning to organic foods because of their taste and healthful properties. Brown (2000) believes that organic foods are more healthy because they contain no hydrogenated fats, preservatives, flavourings, artificial additives, antibiotics, or genetically modified ingredients. Moreover, they also have low nitrate levels and high minerals and vitamin C content, in addition to being made with love and care. Pollan (2006) also reports a study conducted by the

University of California – Davis Research in 2003 which concluded that, in addition to the above, sustainably and organically grown foods had significantly higher proportion of phenols - metabolites manufactured by plants that have important antimicrobial and antioxidant properties that help prevent and fight cancer.

Chemically supported agriculture started in Pakistan around 40 years ago amid massive governmental and advertising campaigns in favour of urea, super phosphates, synthetic fertilizers and hybrid crops. Until then agriculture was based predominantly on organic manure, poultry fertilizer and simple mechanical equipment. But a growing population necessitated larger crop yields to which chemically based industrial agriculture provided a quick solution (interview, P5).

Waking up to some of the detriments of industrial agriculture, Pakistani policy makers and researchers are also exploring opportunities for organic production of fruits and vegetables in the country (see for example, Butt et al, 2005 and Mehmood et al, 2016). The introduction of the Intersectoral Nutrition Strategy has provided a structure for various provincial departments to coordinate. The Scaling Up Nutrition (SUN) movement by the Ministry of Food Security and Research in 2013 has launched a number of nutrition-sensitive agricultural programs, such as those regarding introduction of better seeds and agricultural technologies and more stringent regulations for fish, poultry and vegetable farming. However, government's main goal, as in several other countries, remains to increase food production. Needless to say, more emphasis is required on better managing of agricultural finances, agricultural research and for improved cooperation and coordination between government departments of nutrition and agriculture (Bold et al, 2015).

Private sector too can play an instrumental role in this regard. Fortunately, independent small producers have begun (some for several years now) promoting home gardens and small sized farming. One of my respondents P2, who is also a leading media personality of the country, started organic farming in Lahore back in 1993. 'I was trying to find my identity. Felt cut off from real life. I wanted to see what village life was like.' Despite having no money, family support or agricultural knowledge, she managed to collect a small group of family and friends to chip in for a plot of land to farm. To provide for regular financial needs of the farm, she would work for an NGO. 'Every week I collected litter from neighbouring houses to put into my compost dump. People laughed at me but one day they saw actual real compost in my pit. After that no one made fun of me,' she recollected with a smile (interview, P2).

Another one of my respondents, P5, used media support some 15 years ago, to invite educated urban dwellers to grow food at home. His Baghbani ('gardening' in Urdu) show followed by another episode on kitchen gardening on television were big hits. These shows, coupled with growing social awareness and education, made home farming not only acceptable but almost a 'social movement.' Moreover, his hippie appearance, casual manner and simple language 'brought it home,' he triumphantly announced (interview, P5).

Concerted efforts by other similar minded growers reached fruition in the form of farmers' markets. Pakistan's first farmers' market was set up 3 years ago in Islamabad by Qasim Tareen, who had previously been an investment banker in New York. This currently has a traffic of 150-200 customers a week (interview, P1). Another group of men and women, who had independently been musing about growing their own food and making it available in one place for others' benefit too, came together in August 2015 to open Karachi Farmers' Market (KFM). 'Instead of working on demand, we decided to provide a platform where buyers and sellers of organic produce could interact and exchange. We have provided a model which we are willing to share with anyone.' Now this market has 20-25 regular vendors of the listed 60 and a footfall of 200-300 each week (interviews, P3 and P4).

3. Methodology

This research has taken a closer look at the organic foods market in Pakistan, attempting to understand the marketing mix from the viewpoint of buyers and sellers. Conceived of in an interpretive paradigm (Burrell and Morgan, 1979), this qualitative paper used semi-structured interviews to elicit respondents' views. A total of 21 such interviews were taken until saturation of analytical categories: 8 interviews from sellers /producers and the rest from customers or prospective customers (including non users so far). Since existing research has shown the middle and upper middle classes to be the most likely consumers or prospective consumers of organic foods / products (see for example Ueasangkomsatea and Santiteerakulb, 2016 and Sirieix et al, 2011), convenience sampling was utilized for selecting buyers and prospective buyers (including non users) from these two classes in Karachi. Sellers, on the other hand, were purposely handpicked from the list thankfully provided by the Karachi Farmers' Market and included producers from various cities of Pakistan (Wilson, 2014).

Most interviews were conducted face to face at respondents' residences or at the Karachi Farmers' Market. Those of respondents residing outside Karachi or not easily accessible were taken on the phone. Face to face interviews were recorded digitally, while telephonic interviews were hand written. Many respondents spoke for around half an hour but some keen producers took much longer. Non-users of organic products finished off earlier. Respondents were asked about their concept of organic foods, their reasons for buying (or not buying) or selling them, and the marketing mix factors that were encouraging or discouraging their decisions. (Complete interview schedules can be found in appendix C.)

To triangulate producers' viewpoints, an observation of the Karachi Farmers' Market was carried out one July morning. Data from this session was helpful in supplementing interview data.

After transcription, respondents' answers were coded according to the predetermined categories of product, price, place, promotion and packaging that formed the marketing mix theme of the study (Bryman and Bell, 2003; Hycner, 1985). Participants' responses are presented collectively, with most representative answers quoted verbatim to clarify categorical idea. Notes from the observation session are also added to the appropriate categories. It is to be noted that the interpretation given to the viewpoints of respondents is qualitative and hence personal to the researcher. Other researchers can have their own interpretations and methods of analyses. Next section presents these findings.

4. Research Findings

The following section presents the interview findings from both the customer and producer groups. Participants' responses are grouped together in the marketing mix categories of product, place, price, promotion and packaging (which is dealt as a category independent from product because it was felt it warranted a separate discussion). Similar responses in each category are discussed together, often clarified with the help of actual quotes of the respondents. Observational data is also added where appropriate. In addition, each category also contains suggestions from respondents for enhancing the effectiveness of the marketing mix element under discussion. Participants' identities are disguised under alphabetical codes, using 'C' for customers (including users and non-users) and 'P' for producers.

Consumers have been grouped according to their usage of organic, as opposed to industrial or conventional, foods: one group (4 respondents) was a regular buyer of organic foods; the second (3 respondents) sought clean chemical-free foods / products (whether produced organically or in any other way). Because this group sometimes had organic food and at other times any safe and clean food, it is considered 'occasional buyers' in this study. The third (6 respondents) were only prospective (so far non-users) of organic foods. All respondents in this group belonged to middle or upper middle class and had college level or professional education.

Producer group includes 6 growers of organic fruits and vegetables and poultry and 2 sellers of homemade food products (with at least some proportion of organic ingredients). These organic growers, except one (who grows at home), had small farms ranging in size from 6 to 10 acres, that are run as family or friends businesses. Of the 8, 6 producers were established in Karachi, one belonged to Islamabad and another to Lahore. All of them came from well established, upper middle class families and had left / curtailed their professional careers in favour of organic food production.

4.1. Product

All respondents in the customers category had some concept of organic foods. One of the regular consumers gave a very comprehensive definition of organic foods, 'food produced in such a way that it is sustainable, doesn't damage the environment, isn't cruel to humans or animals beyond necessity; holistically ethical... [Considers] the whole – human beings, nature, plants, animals, using least degrading methods of extraction.' One regular customer C1, however, found the word 'organic' superfluous. According to her, all foods, since they contain carbon compounds, are organic. She liked to call fresh food free of additives 'pure.' These regular customers bought organic fruits, vegetables, honey, chicken and homemade cheeses, condiments, and sauces. Most of these belonged to the upper middle class localities and a few to the middle. Almost all of them had had professional education.

A small group of customers was aware of the differences between farm fresh and industrial produce but did not use the term 'organic' for their purchases. They wanted to eat vegetables and fruits and even spices that were clean, free from preservatives or chemicals, and seemed to have *barkat* (Divine blessing). Hence they purchased such products, irrespective of whether they were produced organically or in any other way. Classified as occasional buyers of organic foods / products, these respondents belonged to the middle class and had college level education.

As far as non-users of organic foods were concerned, many hailed from the upper middle class localities and had professional education. They had some understanding of organic foods were but were not involved enough to seek more details about them or bring them in for trial. They consumed whatever grocery was readily available.

Health was a major reason people consumed and sought organic or at least hygienic food. C4 explained, 'We buy organic because we are growing in age. We don't want our kids to consume more crappy food; their intake of junk food is already high. We better cut down on clothes and shoes and eating out and rather spend on food.'

Several producers also announced that providing good, environmentally clean and hygienic food for themselves and other people was their main purpose for opting for organic farming. Producer P6, who had been a senior aerospace engineer in Pakistan Army, enthusiastically reported about his work, 'Love it. Bit of a satisfaction trying to provide an alternative source of food without contamination to people.' He felt satisfied that many of his repeat customers were cancer survivors and those with immune system disorders. Respondent P3 was also happy that her *aata* (wheat flour) could be eaten by gluten intolerant people. In fact, these producers saw their businesses as part of their lives. P2 mused, 'To me it's a lifestyle.' P7, who was a fine artist by profession, saw her organic foods business as an expression of her creative ability. Procuring countless ingredients from all over the world for her wide array of homemade products, she liked to 'invent' edibles. She had lately developed peach tea that she excitedly talked about and was in the process of developing honey based snacks.

Most of the regular and even occasional customers found the taste of organic foods noticeably different, sometimes 'worlds apart', from that of conventional foods. 'Food tastes cleaner, healthier, raw, less artificial; milk tastes less plasticity,' C4 thoughtfully described. Non-users, of course, were not too discerning, as one of the producers also observed, 'all they see is cracks and bruises and one or two insects crawling in the vegetables.' To regular customers this did not matter. Even though they found organic produce 'more uneven in terms of looks; not as appealing as for example, uniform, bright

apricots,' they were convinced of their nutritional value. One research participant, C11, actually found organic produce 'beautiful.'

Producers too were very strict about their ethical standards. Respondent P6 destroyed and burnt his crops 'without the blink of an eye' when pest attacks went out of control as he could not bow down to the use of artificial pesticides, nor wanted epidemics to spread to other farms. P8 also recounted her battle with using harmful chemicals. She once tried using synthetic chemicals in her soaps as customers had been complaining about their short life. But using an environmentally hazardous ingredient proved too heavy on her conscience. So she decided to let go of increased sales and reverted to her own natural formula. Organizers of the farmers' market in Karachi were also 'encouraging our vendors to buy more and more organic ingredients for their homemade products. It's a move towards organic.' (interview, P3). This was evident at the readymade food stalls at the farmers' market which were heavily advertising organic ingredients in their products.

To step-up sales of organic foods, many customers (including non-users so far) and producers believed that increasing supply and variety would induce people to consume more. 'Supply is our biggest hindrance,' one of the producers stated. Some producers suggested finding more vendors, especially for farm produce, while others like P4 believed, 'People must grow their own food.' She listed options of roof tops, pot gardening, community supported agricultural farms, parts of apartment buildings and public parks for growing more fruit trees than decorative plants. But for this, P8 suggested, professional help was needed, such as a platform for expert opinion and advice, where one could write articles, share information, give and receive counsel. Highlighting the role of Mr. Tofiq Pasha who had been instrumental in introducing and encouraging kitchen gardens, she said, 'We need more Tofiq Pashas and more of Tofiq Pasha.' Finally, producers and even some customers believed that before increasing supply, we needed to learn to eat seasonal for our own health, as well as that of the soil and the vegetables and fruits grown on it.

4.2. Price

All regular and occasional customers, as well as non-users, found organic products two to three times more expensive than conventional products. One regular user objected, 'Prices are at least 3 times. That's why we consume less. Organic food has less shelf life so one can't stock it. It has to be consumed quickly. Therefore not worth the trip.' Another customer protested, 'Price is such a big factor that middle and lower middle classes won't buy even if it's much more beneficial. They are surviving on gatar bagheecha [grown on untreated sewage water] vegetables and poor quality food and water. Why would they buy more expensive?'

Customers strongly advocated reduction in prices to increase sales. A regular buyer of organic foods, C4 argued, 'People would like to buy more if they reduce prices. This will increase sales and demand. People who don't come are the ones who can't afford. They should reduce price of every single item, seriously.' She called one of the places she does her organic shopping from 'elitist, exclusive.' Many other consumers also pointed out to the buyers of organic products to be primarily the privileged elite of the country.

Producers agreed that prices of organic products were no doubt higher than those of conventional products but those who realized their worth were willing to buy them at a premium. Besides organic products appeared overpriced when one looked at monetary cost only. If one took into account cost to the soil, to the environment and to the animals, not to mention one's own health bills, it is conventional farming that turned out to be more costly in the long run.

Even in monetary terms, P1 clarified, organic products were not more expensive than conventional products. In the open market prices, he explained, prices fluctuated a lot. So prices of conventional produce averaged out to be more or less that of organic produce. 'In past Ramadan, for example, tomatoes had gone up from Rs 40/kg to Rs 200/kg in the open market. Yet we continued selling at

Rs80/kg.' He also explained how his organic chicken, bred in open farmyards (truly free range) and fed and looked after for several months before delivering to end user, was priced at Rs. 550 for approx a kilo. In the open market the same weight chicken, made ready in a month's time, sold for around Rs 400. To top it, he weighed his chickens after culling, whereas they were weighed alive, with feathers and all, in the open market.

Respondents, like C2, who had some idea of the painstaking organic production – difficulties in achieving economies of scale, preparing compost, use of natural fertilizers and pesticides and no mass advertising - nevertheless said, 'But organic producers need to downgrade their lifestyle of big houses, cars, air conditioners which they trying to sustain by selling organic. Consequently their products are overpriced and organic becomes a rich man's product.' Another customer affirmed, 'They can afford to reduce prices, they are all rich people with farms of their own.'

In contrast to the above allegations, several producers revealed the rather meager financial conditions of their businesses. Far from reaching a break-even, many put their personal savings into their farms on a regular basis. P2, who has been in this business for more than 20 years had never calculated her expenditures or income, so couldn't say if she had ever broken even! P6 also informed that he would break even in winter months when big harvests were reaped and used these savings to finance summer expenditures when harvests were leaner. Even then he paid his farm workers more than double the market rate, with women receiving the same wages as men (not a norm in Pakistani agriculture). When I asked him the reason, he simply said, 'I have to answer God one day.'

4.3. Place

Many regular buyers of organic produce and products shopped at Karachi Farmers' Market, buying once or twice a fortnight. Some also visited big supermarkets or the Empress market downtown. But C1, who was a regular buyer of clean homemade food never shopped at farmers' markets or supermarkets but bought farm fresh produce from neighbourhood vendors and poor cottage producers who allowed customers to select whatever they wanted, as much as they wanted and sold at very low prices. This was the most involved and informed consumer group that took pains to procure healthful food. One such customer detailed her frequent shopping trips for grocery - fruits and vegetables had to be bought from KFM, bread from bakery, organic milk was home delivered, rapeseed oil from another organic producer, and random requirements from neighbouring green grocer. 'Not easily available and not in one place. One has to drive up especially to buy organic bread, for example. It is inconvenient,' she concluded.

Other seekers of clean and chemical-free (though not necessarily organic) food bought open grocery from local green grocers or mobile thela walas (hawkers with carts) who sold from house to house. One such person, C7, shopped at a farm shop near her office, since they gave her fresh produce at discounted prices. These people often shortlisted suitable vendors and then preferred to shop from them. Such local arrangements were seen to be more convenient and economical than supermarkets or specialty organic food stores. 'Conveyance is expensive for us. We can't pay Rs 600 for a trip to a farmers' market in Clifton.' Another respondent seconded, 'In middle classes availability is of 'supreme importance.'

Non-buyers of organic foods also fulfilled their grocery requirements from neighbourhood grocers or random convenient spots.

Accessibility was a key reason, customers noted, organic products were not selling widely. 'Availability needs to increase in middle class areas,' several customers stressed. C3 promised, 'If available in my area [Nazimabad] people will buy. I am 100% sure they will buy... even if a little expensive.'

Another frequent shopper of organic foods suggested, 'Vendors can operate from their houses. They have land, time. Buyers can pick up jams, condiments, sauces from their homes. This will increase demand and they will be able to increase supply and bring down prices.'

One non-user also suggested home delivery in order to entice her to buy organic, which was what growers/producers outside Karachi were already doing 'to build marketing relationships' with customers. Home delivery also enabled them to quickly sell off fresh produce nearby.

All of my respondent producers sold at Karachi Farmers' Market (KFM), which was endeavouring to collect suppliers of different organic products under one roof. Some also sold at a couple of big supermarkets in elite localities. Those residing outside Karachi, such as P1 and P2, sent their produce via bus or courier to KFM. One of the vendors, P7, gave her reason for selecting Karachi Farmers' Market. '[I get] best [sale] results at KFM because people come here with a mindset to purchase organic.' This was attested by one customer in the following words, 'KFM are doing something positive; trying to put out something positive there to compete with large brands. It's very difficult thing. I also empathise with them – same class group, educated, middle class, workers, residing in Defence, people like us with areas of similar concerns.' Continuing the argument, he added, 'My honey sellers in Sadar are also trustworthy people because they are religious minded. I don't think they'll lie.' Appreciating personal presence of growers at KFM, C9 noted, 'A lively person makes you feel nice.'

Nevertheless, realizing 'our location is inaccessible for many' producers at KFM were exploring other retail options. P5 suggested including traders (middlemen) in the supply chain to ensure a bigger and more varied inventory at the Market. Some producers were trying to sign contracts with supermarkets but facing issues of packaging (as discussed under the heading of 'Packaging') and concerned whether retailers would provide them required marketing support (such as separate aisles and positive personal selling). P6 also believed middlemen found them threatening, which is why he quit from all but one supermarket.

4.4. Promotion

Regular users relied primarily on word-of-mouth marketing and personal selling by vendors as their major reasons for trusting sellers. C1 observed, 'You have to know the person, have reference for him who makes it [product] at his house.' C2 remarked, 'Easier if I trust them.' Many producers also believed that word-of-mouth marketing and social reference 'have more credibility than official certification in this part of the world.'

Respondent P5, an eminent organic producer, also promoted organic farming to big and small farmers: he ran TV shows, visited universities and researchers and invited people to his farm. Other producers were also using social media - such as facebook, web pages, Islamabad Food Diary – to market their products. Some producers occasionally printed out brochures and leaflets. In spite of these efforts, not many users and non-users had heard of any promotion - other than health benefits - of organic foods in Pakistan.

A few insightful customers (such as C2 and C6), who themselves promoted organic consumption, noted that sellers' emphasis only on the health benefits of organic products was largely responsible for this. Since only affluent people in the country could afford to spend discretionary income on health foods, organic had become predominantly a rich man's product who was buying it 'as an insurance against bad health and old age.' C2 ardently opined, 'Organic is about ethics but vendors are stressing only health, rather than sustainable production, cruelty to animals, environmental degradation. Different aspects will resonate with different people...Besides, everybody must educate everybody, give organic gifts, push it on others. We all need to depend less on cash, buy local, barter, downsize, follow a more sustainable pattern of consumption. Everybody must educate everybody. It's not only farmers who have stake in it.'

Besides, overemphasis on health was helping industrial organic producers to cover up the actual conditions in which organic farming was being practised. Sounding disappointed, C2 said, 'Right now organic is a label, has food miles, packaged in plastic, and refrigerated for 5 months. So it's not truly sustainable.' Producer P2 couldn't agree more. 'I say remove the 'organic' label altogether. It becomes exploitative. Use the word desi (local) instead.'

C2's words were echoed by many producers. P1 and P4 recognized the need for a 'holistic approach.' There was a need to work with government bodies, NGOs, agricultural researchers, environmental activists, and doctors to spread the organic trend to all and sundry rather than to only the rich privileged class, they said. P5 and P8 stressed the need to educate people by writing articles, developing websites, and inviting and visiting students and scholars to look at the bigger picture of the poverty of the farm worker, local production, environmental care, and animal welfare, in addition to personal health. Finally P8 advised not to give in to customer complaints about natural properties of organic produce – that they takes time to prepare, are not as long lasting and not as attractive - but to remain steadfast on one's commitment to organic.

C3 also mentioned the need for influential backing to establish farmers' markets, 'In our country anyone who does good work is threatened.' Producer P4 also believed government policies, big businesses, poor regulations and lack of consumer protection policies were huge hindrances for them.

4.5. Packaging

Most customers, whether regular or occasional, were not really concerned whether paper or plastic or any other organic or inorganic material was used for packaging. They generally found packaging of organic products 'ok.' Only one regular customer, C1, objected to plastic packaging as 'not truly sustainable.' He intended to 'buy more if refilling can be done.'

C1 seemed to be echoing the concerns of producers who were eagerly bringing environmentally safe packaging into the organic foods market. Grower P2 sold in breathable packaging (bori) in bulk, like 40-50kg bags of wheat and rice, with small pouches of organic preservatives like turmeric and blackseed inside. P6 was in the process of developing reusable and repairable wicker baskets with compartments. He was not in favour of paper, as according to him, it too required cutting down of trees and soon became non-reusable. I too saw much more glass, paper, wicker packaging at Karachi Farmers' Market, compared to 2 months ago. One of the organizers also told me about their plan to offer price-cuts to customers who brought back empty refillable glass bottles.

But retailers often were rather unhappy with organic suppliers' packaging choices. Supermarkets that were willing to stock organic produce sneered at large and bulky cardboard boxes and favoured plastic packaging instead. Producers were not unaware of these issues. Respondent P5 empathized with them as to how could one package hundreds of thousands of units without plastic packaging, especially when the issues of retaining crispiness, durability, handling and storage were present to complicate the matter? But he was hopeful that some resolution would soon come around.

One of the regular customers also expressed dissatisfaction with inadequate and unreliable labeling of organic products in supermarkets. Producer P1 thus advised tamper proof packaging and clear labeling for organic items.

5. Analysis and Discussion

The following paragraphs discuss the primary findings in the light of secondary literature, keeping intact the above mentioned categories of product, price, place, promotion and packaging.

5.1. Product

Findings show that all respondents had an idea of the value of clean, chemical-free food but not all procured it. Some specifically bought organic products - such as fruits, vegetables, staples, poultry, bread and condiments - for the purpose, while others resorted to fresh clean produce sold openly. Even non-buyers of such foods were somewhat aware of the distinction between organic and conventional produce, but due to various reasons shopped whatever was most conveniently available.

Health was the main reason customers sought and producers provided clean chemical-free food. Several researches from all over the world (see for example, Ueasangkomsatea and Santiteerakulb, 2016, in Thailand; Chiew Shi Wee et al, 2014, in Malaysia; Sirieix et al's, 2011, in China; Bartels and Berg, 2011 and Wier and Calverley, 2002, in Europe) also name health as number 1 reason for a move towards organic. Interestingly, Sirieix et al's (2011) respondents in China used the same terms as used by my respondents - 'safe,' 'clean,' 'chemical-free' - to describe the kind of food they liked to eat. Taste and freshness were also important to my participants, as they were to Bartels and Berg's (2011) respondents.

Very few customers, but most producers, also mentioned environmental and ecological reasons for their turn to organic. It can thus be said that altruistic motives - such as environmental concerns, food miles or support for small producers, animal welfare - are only emerging in this part of the world, as elsewhere in China (Sirieix et al, 2011) and Thailand (Ueasangkomsatea and Santiteerakulb, 2016) but are more established in the developed countries of Europe (Wier and Calverley, 2002).

Many respondents suggested an increase in supply and variety to encourage them to eat more organic. Locating more vendors was the way forward for some, while others believed in growing one's own food. A few respondents called for professional help in case of the latter. Whatever tactic one used, the need for increasing supply could not be over emphasized. But before increasing organic consumption, it was seen important to learn to eat seasonal, for better health and harvests.

5.2. Price

Most consumers found organic products expensive, up to 2 to 3 times the price of conventional products. Researches elsewhere in Asia and Europe (Sirieix et al, 2011, Wier and Calverley, 2002 and Naspetti, 2002, for example) also confirm this. Customers and even non-customers vehemently asked for a reduction in prices to encourage them to buy (more). Very few customers were aware of the long laborious process of organic production. This was why many customers, especially from middle class areas, preferred to buy fresh open produce from neighbourhood vendors than go for specifically organic products in farmers' markets or supermarkets.

Though some producers, like some of the above mentioned researchers, argued for lower prices, many believed otherwise. Calling organic products pricey was not a fair evaluation of them. It not only brushed aside the much longer and painstaking process of organic production but also ignored all cost savings to the soil, to the environment, to the animals and to the small local farmer. Were these costs taken into account, not to mention the price fluctuations in open market, conventional agriculture turned out to be more costly, particularly in the long run. Michael Pollan reminds of the same reality. '[If] no pesticides found their way into any farm worker's bloodstream, no nitrogen run-off or growth hormones seeped into the watershed, no soils were poisoned, no antibiotics were squandered, no subsidy checks were written. If the high price of my all-organic meal is weighed against the comparatively low price it exacted from the larger world, it begins to look like a real bargain' (2006: 182).

Moreover, as some respondents incorrectly alleged, several producers were not 'rich people with farms of their own'... 'out there to make profits from scaring people from unclean poisonous foods' but were often ethical, educated, well-established men and women who had adopted organic as a way of life. Far from making profits, many had never even broken even. To them 'it is health and vitality [of self and nature at large] rather than yields that matter most' (Brown, 2000:6).

5.3. Place

Most of the regular customers bought organic food from farmers' markets in Karachi and Islamabad. Some also visited supermarkets occasionally. In times of spontaneous need, they resorted to neighbourhood shops. Being the most involved customer group, these people eagerly sought out specific vendors for specific products, however inconvenient it was. People in search of clean open food (produced organically or in any other way) also selected few trustworthy suppliers and stayed with them. Non-buyers of organic foods bought grocery from any easily accessible shop or hawker. Thus accessibility was considered of 'supreme' significance in the purchase of everyday grocery. Since purchase of organic foods / products required much time and effort, not many customers were committed enough to locate them. Many of the previously mentioned researches - such as those of Wier and Calverley (2002), Shi and Hodges (2015) and Naspetti (2002), and Sirieix et al (2011) - attest to this fact. However, most consumers in these researches preferred to buy from supermarkets because of regular, if narrow or more expensive, range of supply. A few bought directly from farmers and the open market.

Although a fairly new addition to the distribution network, farmers' markets have proven useful for both buyers and sellers as they supply different organic products in one place. Besides personal interaction with actual growers of food gave customers confidence in their purchases. Buying open grocery from neighbourhood markets or specific home producers, on the other hand, accorded customers convenience, economy and sometimes selection of merchandise. The few elite supermarkets which stock organic products offer none of these benefits (substantially). In fact, some customers do not even trust their prices and labels.

Though farmers were endeavouring to improve availability of organic foods / products, many respondents believed, this along with high prices, was holding down adoption of these products in the country. Some users and non-users pledged to buy more if the twin issues of availability and prices could be resolved. 'Yes, yes, yes' non-user C5 said. 'Definitely I will try' non-user C12 promised. Many producers were trying to improve delivery through supermarkets and middlemen, but neither seemed very supportive of organic foods / products (also see section on packaging below). Home delivery was also suggested as a distribution option in Karachi as in other cities of the country.

5.4. Promotion

Respondents in the study considered word-of-mouth publicity and trustworthiness of critical value in promoting organic products. Customers preferred to talk directly with vendors, whom they sometimes saw as 'people like us' and this gave them confidence in their purchases. Sirieix et al (2011) also speak about trust as an important factor in inducing trial.

In addition, producers were using social media, websites and sometimes TV shows to market their products. One of them also visited universities and invited other farmers and students to his farm. Unfortunately, not many customers, particularly non-users, were aware of these activities or of organic farming as anything other than a road to better health. According to one of my customers, this state of affairs was mainly because producers, particularly industrial producers, were emphasizing only the health benefits of organic products, sidelining or even ignoring environmental issues, animal welfare or local concerns, consequently losing out on prospective customers who could have been wooed by these reasons.

Moreover, excessive emphasis on healthcare gave lukewarm ethical producers opportunity to camouflage the actual conditions of organic food production. Michael Pollan captures this reality in his classic work, *The Omnivore's Dilemma*. Calling 'organic' an 'industrial artifact', he warns that organic should not be simplistically assumed to be automatically healthful, especially for the entire ecosystem. Food that is heavily processed and has travelled long miles is hardly sustainable. Besides, on many industrial milk plants cows are still tethered to machines and have never seen a blade of grass, though they are fed organic fodder every day! Many chickens remain locked up in pens with hundreds of others

and are allowed to venture out to a narrow grassy yard only for only a few minutes every day (2006). Reverberating these concerns, several producers advocated joining hands with government bodies, educationists, environmental and animal welfare activists and for remaining steadfast to the organic way of life.

5.5. Packaging

On the whole, customers found packaging of organic products 'ok' and did not give much serious thought to it. One customer, however, was perturbed by the use of plastic by some organic vendors and another found labeling inadequate and not always trustworthy. Most producers, on the other hand, were sensitive to the use of environmentally hazardous packaging and were campaigning aggressively for banishing plastic out of the organic foods / products market. Some were even working to develop more ecological packaging alternatives. Unfortunately, retailers often objected to paper cartons, favouring plastic packaging instead.

These results are somewhat different from those of other studies in the developed (not so much in the developing) world, where communicative, ethical and environmentally safe features of packaging are becoming important marketing concerns (Fernqvist et al, 2015). Significance of ethical and adequate labelling is highlighted by Wier and Calverley (2002), Bartels and Berg (2011) and Sirieix et al (2011). Environmental issues in product packaging are evident in Fernqvist et al's (2015) study, where paper was seen as giving a feeling of a 'fresh[ness]' and reminiscent of 'farmers' market,' while plastic was considered strange, expensive, unnecessary and 'bad for the environment.'

I believe a more holistic promotional effort, geared towards enlightening people to the various dimensions of organic foods, including environmental concern, will automatically win votes towards environmentally safe packaging.

6. Conclusion

This research studied the organic foods / products market in Pakistan by interviewing buyers (including occasional and non-users) and sellers regarding their views on the marketing mix of these products and inviting their suggestions for improving marketing mix problems they highlighted. It was seen that most people were aware, at least somewhat, of the benefits of clean, chemical-free food but not all bought it. Some bought specifically organic foods / products for the purpose (called regular customers in the study); some looked for any clean and safe alternatives (whether produced organically or otherwise – they are thus called occasional consumers), while some others just shopped whatever and wherever convenient (aware, but not committed enough to look for safe clean food; called non-users in the paper). Health, as in other countries, appeared as the main reason for the quest for organic foods / products. But high prices and limited availability made shopping for organic foods / products difficult, causing even involved consumers to curtail their purchases. Market for organic products was further seen to be limited because of customers' ignorance or vague understanding of altruistic concerns about ecology and fair trade. It was thus argued to increase supply and variety through intensifying distribution and providing organic foods / products with more holistic promotional support. These measures, it was hoped would pull demand up and push prices down. Besides, they would enlist those customers who so far had not been wooed by the health motive. Thus a revised marketing mix was seen to have potential to contribute to the overall market development of organic foods / products in Pakistan.

It is hoped this research has provided stakeholders with a more well-rounded view of the organic foods / products' market in Pakistan that will help them take more informed decisions about their food choices and marketing strategies.

7. Limitations and Areas for Further Research

In this research all customers and most producers belonged to Karachi. It is felt a more varied (geographically and socially) and wider sample could have enriched findings further. Also limitations of scope and space did not allow the researcher to fully investigate some of the debates around organic foods, such as sustainability, consumer demographics, repositioning, etc. These ideas were only touched upon and one is briefly mentioned in appendix C. They can be explored in upcoming researches.

References

- Bold, M., Kohli, N., Gillespie, S., Zuberi, S., Rajeeesh, S. and Chakraborty, B., (2015). "Is There an Enabling Environment for Nutrition-Sensitive Agriculture in South Asia? Stakeholder Perspectives from India, Bangladesh, and Pakistan", *Food and Nutrition Bulletin*, Vol. 36(2) 231-247.
- Badgley, C., Moghtader, J., Quintero, E., Zakem, E., Chappell, M.J., Katia Avilés-Vázquez, K., Andrea Samulon, A. and Perfecto, I. (2007), "Organic Agriculture and the Global Food Supply". *Renewable Agriculture and Food Systems* Vol 22 (02), pp 86-108.
- Bartels, J. and Berg, I (2011) "Fresh Fruit and Vegetables and the Added Value of Antioxidants: Attitudes of Non-, Light, and Heavy Organic Food Users," *British Food Journal*, Vol. 113 Issue 11 pp. 1339 – 1352.
- Brown, L. (2000) *Organic Living*, Dorling Kindersley Pub, UK.
- Bryman, A. and Bell, E. (2003) *Business Research Methods*, Oxford Uni Press, USA.
- Butt, M.S., Kamran Sharif, Babar Ehsan Bajwa Abdul Aziz (2005) "Hazardous Effects of Sewage Water on the Environment: Focus on Heavy Metals and Chemical Composition of Soil and Vegetables," *Management of Environmental Quality: An International Journal*, 16 (4) pp.338 - 346.
- Chiew Shi Wee, Mohammadd Shoki Bin Md. Ariff, Norhayati Zakuan, Muhammad Naquib Mohammad Tajudin, Khalid Ismail, & Nawawi Ishak (2014), "Consumers Perception, Purchase Intention and Actual Purchase Behavior of Organic Food Products", *Rev. Integrated Business and Economic Research* Vol 3(2) pg 378.
- Faber, S. (2016) "Unregulated Farm Pollution, Not Billboards, is the Real Scandal", *The Blog*, USA.
- Fernqvist, F., Olsson, A. and Spendrup, S. (2015), "What's in it for me? Food Packaging and Consumer Responses, A Focus Group Study", *British Food Journal*, Vol. 117, Iss 3 pp. 1122 – 1135.
- Heilig, S. (2013) *New York Times*, USA.
- Hycner, R. (1985). "Some Guidelines for the Phenomenological Analysis of Interview Data", *Human Studies* 8, Netherlands.
- Jaffer, M. and Masud, K. (2003) "Selected Toxic Metal Levels in Seasonal Fruits of Pakistan", *Nutrition & Food Science*, Vol. 33 Iss: 1, pp 9-15.

- Kotler, P., Armstrong, G., Agnihotri, P.Y and Haque, E. (prob 2010) *Principles of Marketing – a South Asian Perspective*, 13ed.
- Mehmood, T., Hussain, S. Farooq, U. and Akram, K. (2016) “Impact of Different Farming Systems (Conventional, Integrated and Organic) and Storage Time on Physiological Characteristics of Kinnow Mandarin”, *Pakistan Journal of Agricultural Science*, Vol. 53(1), pp 7-15.
- Moyer, E. (2016) “Eat Well and Don't Wreck the Planet”, *The Blog*, USA.
- Pollan, M. (2006) *The Omnivore's Dilemma*, Penguin Press, USA.
- Raffaele, Z. and Naspetti, R.Z.S. (2002), "Consumer Motivations in the Purchase of Organic food", *British Food Journal*, Vol. 104, Iss 8 pp. 643 – 653.
- Shi, R and Hodges, A.W. (2015) “Shopping at Farmers' Markets: Does Ease of Access Really Matter?” *Renewable Agriculture and Food Systems*, Cambridge University Press.
- State of the World's Forests - 2016, Food and Agricultural Organization of the United Nations.
- Sirieix, L., Kledal, P.R. and Sulitang, T. (2011), 'Organic Food Consumers' Trade-Offs between Local or Imported, Conventional or Organic Products: A Qualitative Study in Shanghai,' *International Journal of Consumer Studies*, Vol 35, pp 670–678, Blackwell Publishing Ltd.
- Thompson, G.D. (1998) 'Consumer Demand for Organic Foods: What We Know and What We Need to Know,' *American Journal of Agricultural Economics*, Vol. 80, No. 5, Oxford University Press, pp. 1113-1118.
- Ueasangkomsatea, P. and Santiteerakulb, S., (2016), 'A Study of Consumers' Attitudes and Intention to Buy Organic Foods for Sustainability,' *Procedia Environmental Sciences*, Vol 34, pp 423 – 430.
- Wier, M. and Calverley, C. (2002), "Market Potential for Organic Foods in Europe ", *British Food Journal*, Vol. 104 Iss 1 pp. 45 – 62.
- Wilson, J. (2014) *Essentials of Business Research*, 2nd ed. Sage Pub.

Appendix A: Definitions of the Components of the Marketing Mix

Product: anything that can be offered to a market for attention, acquisition, use or consumption that might satisfy a want or need (p.190)

Packaging: The activities of designing and producing the container or wrapper for a product (p. 199)

Price: the amount of money charged for a product or service, or the sum of the values that customers exchange for the benefits of having or using the product or service (p.247)

Place: company activities that make a product or service available to target consumers. This includes distribution channels, retail outlets, product transportation and logistics (p. 46)

Promotion: activities that communicate merits of a product or service and persuade customers to buy it; typically includes advertising, personal selling, public relationing and sales promotion

Appendix B: Sustainability Debate on Organic Farming

Organic farming is not considered sustainable due to the following reasons:

absence of artificial fertilizers and nutrients limits crop yield and hence necessitates a bigger area of land (Moyer, 2016; Brown, 2000)

pest attacks destroy huge amounts of crops each year, so again large areas of crops need to be planted (FAO report, 2016)

organic farmers need to intensely cultivate whatever small farms they have. This too quickly depletes soil of its natural nutrients, making it useless for further cultivation (Brown, 2000; interview, P3)

because of all of the above reasons, organic farming is more expensive. Hence big farmers are not getting involved, keeping supplies small and prices high (interview, P1 and P5)

supply is also low because of seasonal plantation by organic producers (Brown, 2000; interview, P3)

transportation and distribution costs per unit are also higher for small quantities, further pressurizing prices (interview, P5)

In response to the above arguments, my participant producers replied that it is conventional agriculture that robs land off its nutrients faster, making it uncultivable in about 5 years time. Organic farming uses intercropping instead of monoculture that naturally replenishes nutrients by the time the next season for a particular crop arrives (interview, P1 and P2). Besides, P3 informed, a variety of crops, as opposed to monoculture farming, limits the damage done by pest attacks. Dismissing the fear, she announced in a careful tone, 'I am hedging my bets.'

Respondent P3 also revealed that she obtains 25 mun of aata from an acre of land, whereas the conventional yield is 35 mun/acre. So not only is this a relatively small differential but in the long run is likely to close due to the soil retaining its fertility for longer.

Regarding transportation and distribution costs, respondent P5 explained in meticulous detail the role of the middleman arti: he is a reliable source of start-up capital, underwriter to purchase ready harvest and a financier of labour and overhead costs for the farmer. So even if he eats away the profit, he provides invaluable service, without which a farmer couldn't even exist.

As far as expenses were concerned, if we consider the cost to the soil, to the environment, to the animals, our own health bills, and price fluctuations in the open market, conventional produce becomes more expensive in the long run, all producers unanimously agreed. Concluding the argument, P3 asserted, 'Without organic farming, agriculture is not sustainable.' P1 declared, 'In the long run, it is organic agriculture that can provide a sustainable source of supply.'

The above interview findings also find support in literature. Like P3, Badgley et al (2007) claim that "organic agriculture has the potential to contribute quite substantially to the global food supply, while reducing the detrimental environmental impacts of conventional agriculture." They compared yields of organic versus conventional food production for 293 examples from both the developed and the developing world. It was found that the estimated organic food supply was more or less similar in magnitude to the current food supply for most food categories (grains, sweeteners, tree nuts, oil crops and vegetable oils, fruits, meat, animal fats, milk, and eggs), ranging from 0.93 to 1.06. For other food categories (starchy roots, legumes, and vegetables) the average yield ratios ranged from 0.82 to 0.89. Thus the average yield ratio for all 160 examples from developed countries stood at 0.92 while the average yield ratio for the 133 examples from the developing world at 1.80. This research also suggested

that organic agriculture can provide 2641 kcal/ person/day or an even higher 4381 kcal/person/day (The average caloric requirement for a healthy adult is between 2200 and 2500 kcal / person /day), thus having the potential to sustain not only the current human population but perhaps a significantly larger one.

According to the authors, these high yields were obtained when farmers incorporated “intensive agroecological techniques, such as crop rotation, cover cropping, agroforestry, addition of organic fertilizers, or more efficient water management...Use of cover crops, crop rotation, green manure and leaving soil fallow, some agricultural systems, leguminous cover crops not only contribute to soil fertility but also reduce the vulnerability of plants to disease. These results imply that, in principle, no additional land area is required to obtain enough biologically available nitrogen to replace the current use of synthetic nitrogen fertilizers.” This was what was asserted by the above mentioned organic producers in the study.

Many countries have started instituting measures to reverse the trend of conventional agriculture. Chile, Vietnam, Gambia, Costa Rica and a host of others are using fiscal measures (incentives and tax breaks) and regulatory tools - concerning environment, land usage, local agriculture - to fight deforestation and are already experiencing positive changes in food security, poverty reduction, climate change and sustainable development (FAO Report, 2016). Other countries, such as Thailand, Malaysia, China have set up ministries, research centres and certification bodies looking into sustainable /organic agriculture (Ueasangkomsatea and Santiteerakulb (2016).

Appendix C: Interview schedules for respondents

Buyers

1 What is your

concept of organic

foods / products? 2

What organic foods /

products do you buy?

3 Where do you buy these foods / products?

4 What encourages you to buy organic foods / products mentioned above?

5 What can be the likely market mix factors (product, place, price,

promotion and packaging) that discourage you or induce you to buy less of the above mentioned organic foods / products?

6 What changes in the market mix factors (product, place, price, promotion and packaging) can induce you to buy more organic foods / products in future?

Sellers

1 What is your
concept of organic
foods/ products? 2

What organic foods /
products do you sell?

3 Why do you sell organically, rather than conventionally,
produced foods mentioned above? 4 Where do you sell these
foods / products?

5 What kind of customers buy your organic products?

6 What marketing mix factors (product, place, price, promotion and packaging) are discouraging people from buying organic foods / products?

7 What changes in the market mix factors (product, place, price, promotion and packaging) can redeem the situation?