

Problems Faced by Pakistani Mango Exports to Europe

A research proposal submitted to the Department of Management Sciences, Bahria University Karachi Campus, in fulfilment of the requirement for the MBA degree Thesis



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List of Abbreviations

TDAP	Trade Development Authority of Pakistan
PHDEB	Pakistan Horticulture Development & Export Board
USDA	United States Department of Agriculture
UNIDO	United Nations International Development Organization
FAO	Food & Agriculture Organization
UNECE	United Nations Economic Commission for Europe
HWT	Hot Water Treatment
VHT	Vapor Heat Treatment

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Abstract

Purpose- Major aim of this study is to look into the factors which are involved in mango export from Pakistan. The problems Pakistani mango exporters are facing in exporting mango to Europe and decrease in volume of mango export in last few years.

Methodology/sample- The study involved both secondary and primary data. Where secondary data is the core of the study and primary data is conducted in the form of informal interviews of different stake holders of mango export from Pakistan.

Findings- The analysis of the informal interviews conducted clearly shows that there is huge potential in Pakistani mango export but not making full use of it as the exports are stagnant for past five years and now decreasing in terms of quantity. All the stakeholders which includes Farmers, processors, exporters and Trade development authorities should make conscious decision to come onto one page for betterment of mango exports.

Practical Implications- The outcomes of the research might help the corporate decision makers, government policy formulators and other related quarters to understand the factors which can help improve mango exports of Pakistan and to understand the overall impact of decrease in mango export to the foreign revenue generation of the Country.

Keywords- Mango Exporter, Stakeholders, Revenue Generation, Potential

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CHAPTER 1

INTRODUCTION

For the following report, I have chosen ‘mango’ to be the broader topic. I would narrow it down to the exports and that also to the European Union specifically. In it, I will be discussing the current status of mango in our country; the issues our mango has been facing in European markets; their inclination; the recent bans from Europe, their progressions and what followed; the issues with export; what might be waiting for us in the upcoming seasons and how we can assist the potential problems – the solutions – and why (in my opinion) those assistive solutions would work.

MANGO MARKETS

1.1.1 MANGO AND PAKISTAN

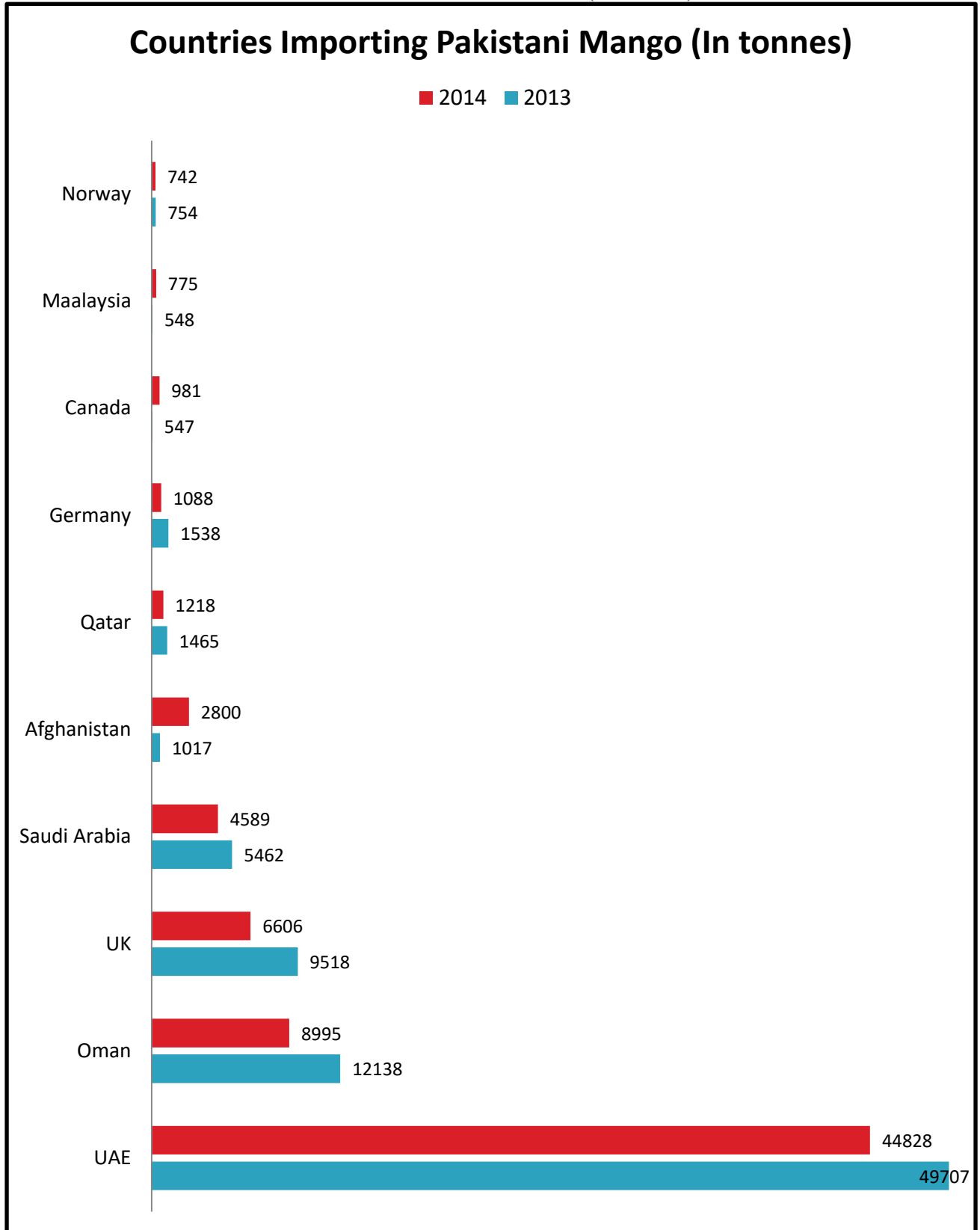
Pakistan is an agricultural country having a 24% contribution to our country’s GDP (*Pakistan Bureau of Statistics – Government of Pakistan*) out of which 1.7 million of the contribution comes from mango only. Being one of the largest contributing sector of Pakistan, it employs 45% of the total workforce of our country (*Pakistan Economic Survey 2012-2013*). Although this (agricultural) sector is immensely great with a lot of areas to praise or criticize, I chose to stick specifically with mango. There are over 1595 different kinds of mango on earth, of which 25 – 30 are the majorly used ones commercially. Pakistan alone produces around four hundred varieties of mango including the widely known ones like Langra, Began Phali, Anwar-ratol, Chounsa and Sindhri. Different types of mango dominate different markets. Only Sindh and Punjab produce 98% (*Agricultural statistics of Pakistan – Government of Pakistan*) of the country’s mango – being the major producers of mango in Pakistan. In these two provinces, Sindhri (Sindh) and Chounsa (Punjab) are the most widely produced ones. Pakistan has a total fruit cultivation area of 853.4 thousand hectares out of which 172.5 thousand hectares is dedicated for the cultivation of mango (2014). As for the production is concerned, Pakistan is producing around 1.95 million tons of mango every year, and ranks as the fifth largest producer of mango (in the world) behind India, China, Thailand and Indonesia.

1.1.2 EXPORT OF PAKISTANI MANGO

Every country would want to dive in an over \$1.5 billion trade (International Trade Centre – ITC), especially the ones who are fortunately one of its biggest producers. The export of Pakistani mango – though faced a lot of difficulties throughout the last year (2014) – but managed considerably well throughout the season. Before the commencement of last year’s mango season, it was being assumed that 2014 would be the year when Pakistan would finally surpass to a higher growth rate, but unfortunately one of Pakistan’s leading buyers i.e. the European Union restricted us to a very narrow ‘clear to rejection’ ratio. By the end of last season, we managed an export of approximately 75,000 tons avoiding a potential ban from Europe.

Pakistan enjoys the fourth spot in the world-wide mango exporter’s ranking despite being the fifth largest producer. One of the many reasons that assist this fact include the fine, distinct taste of Pakistani mango which people around the world love. When asked, many wholesalers around the world preferred Pakistani mango as customers would not bargain much for the price because that’s the product they want to go home with. Pakistan currently exports mangoes to several countries. Major importers of Pakistani mango include United Arab Emirates (UAE), United Kingdom (UK), Saudi Arabia, Afghanistan etc. Exports to the countries in Europe declined relatively due to the restrictions faced; I will talk about them in the next section. In the figure 1 a list of European countries and there import of Pakistani mango in the year 2013 and 2014 is shown:

FIGURE # 1: COUNTRIES IMPORTING PAKISTANI MANGO (INTONES)



SOURCE: TRADEMAP.ORG

TONS

There is no doubt that Pakistan should keep placing its focuses on the Asian or mid-eastern regions of the world, but that do not mean that other markets aren't leading their way up in consumption. According to a publication by Confederation of British Industry (CBI), Europe stands as the third biggest importer of mangoes after USA and Asia. They also mentioned in the same publication that while in over the last ten years, the import of mango in USA has grown by a massive 38%, those of Europe have doubled.

1.1.3 THE LUCRATIVE MARKET OF USA

There are a number of markets around the world that Pakistan could target. One of the biggest yet to be tapped, is the lucrative American market of mangoes. However because of high processing and treatment standards in USA Pakistani mango exporters are unable to enter into US market. There are three basic processing treatments required by the International Quarantine: Hot Water Treatment (HWT), Vapor heat Treatment (VHT) and Radiation Treatment. While Pakistan only possesses Hot Water Treatment Plants,. United States of America requires radiation treatment to make mango disease free. However, when asked, Mr. Qadeer Durrani – Pakistan's leading fruit exporter, a certified mechanical engineer, researcher and owner of Durrani Associates – told that United States would import Pakistani mango with the following condition:

- Pakistani mango should be processed with 48degree Celsius hot water with pulp temperature of mango reaching 46.2 Celsius at 55minutes before shipping to USA.
- Mango packing should be of corrugated carton with cartons wholes sealed with net so that no fruit fly can enter the carton while shipping.

Mr. Durrani added that the running costs of a Radiation Treatment Plant along with the cost of the plant itself is extremely high, being the reason for no such plants in Pakistan. However, some firm has already imported a Vapor Heat Treatment Plant from Japan under the guidance of TDAP which is the first of its kind in Pakistan, but yet to be installed.

On inquiry Mr. Durrani stated that:

“The only reason we are hesitant in kick-starting the VHT Plant is its running costs, which tend to be very uneconomical at the moment. But we already have the plant and we plan on running it sometime in the future.” – Mr. Qadeer Durrani

1.1.4 POTENTIALLY HIGH PAYING MARKET OF AUSTRALIA FOR PAKISTANI MANGO:

Australia itself is a mango producing nation with yearly production of 1lac tones of mango with most prominent mango variety tommy atkins. Australian mango is sold all over the world at highest per kg prices as its mango season begins in October when there is no competition for their mango in International market as their summer season is different to other mango producing countries. There is big potential for Pakistani mango in Australia as large population of Pakistani community is settled specially in Sydney and Perth. Pakistani mango season starts from end of May to end of September. In this period of time there is a vacuum created in Australian market as their season starts from October. Australian Quarantine Approved Pakistani mango to be imported in Australia only after hot water treatment in 2013 and since then few consignments consisting of total 200tones has been exported to Australia from Pakistan and sold at high price of around \$ 5 Australian per kg. (Babar Khan Chairman Pak Sun Green (Pvt) Ltd Exporter Mango)

1.1.5 THE SOUTH-KOREAN MARKET:

The South Korean market is one the biggest and paying markets for mango. Normally South Korea imports mango from neighbor Countries like China, Thailand, Phillipines and Veitnam. South Korea has an import of about 20000tones of mango each year (TradeMap.org). In year 2012 Korean inspection team of Quarantine visited Pakistan and approved Hot Water Treatment Plant for treatment of mango to be exported to South Korea. Around 300tones of mango has been exported to South Korea in the year 2013-2014 combined with an average price of \$ 4 USD per kg. (Babar Khan Chairman Pak Sun Green (Pvt) Ltd Exporter Mango).

1.1.6 EUROPEAN MARKET

When we talk about the European market, we talk about a set of countries whose importing patterns are well in favor of any exporter. As mentioned earlier in this report, Europe has doubled its import of mangoes since the past decade (Confederation of British Industry – CBI). Not only have they doubled it, they have also gotten very particular about the quality measures over this product, which also led to an expected (to a few) ban over Indian mango for a minimum of two seasons. There are many European countries that import mangoes from all around the world.

1.1.7 EU BAN ON INDIAN MANGO AND ITS IMPACT ON PAKISTAN

Though the largest producer on earth and one of the biggest exporters of mango, India hit the rock-bottom in European market last year when having more than 300 of their consignments rejected in 2013 lead them to a ban which was supposed to last until December, 2015(Fresh Plaza.com/Sep 2013). The DG trade who looks upon the matters of external trade in Europe came to work with his new mantra in action – act first, ask questions later! Keen to better the European position in global trade, just after regulating free-trade agreements with USA and Japan, it banned the Indian mango in 2014. Restricting the quality of imports, EU found fruit-flies in the consignments of India which lead them to finally take the decision of a ban till December 2015. However, the ban was lifted earlier in 2015 after successive measures were taken by Indian.

The ban on India gave rise to a huge opportunity for Pakistan, who had the whole season to capture India's market in Europe. But on the other hand, it should not have been 'news' for us that Europe might ban Pakistani mango anytime soon. For the past few years, the number of rejected Pakistani consignments was increasing every year, but none the less, no one really seemed to have taken a fair measure in order to ensure lesser rejections. Our focus remain remained towards the UAE and middle-east regions as they alone import more than the whole of European Union; but that should not be the license to ignore a potentially powerful market, let alone tap newer ones. It wasn't long after when Pakistan was warned that they have only gotten a mere clear to rejection limit of 5 consignments; after which they would have to see their product banned as well. Another restriction that arose towards Pakistan was that only one – treatment plant for mangoes was allowed for the export to Europe. Durrani Associates, who have been working in-line with the government to ensure the best trade opportunities in

Pakistan, agreed to process mango for anyone willing to export to Europe. Fortunately, Pakistan managed to come out of the season with only 2 interceptions made by European Union. Not only was it a great achievement for Pakistan, but we also won the trust of Europe and a fair share of European market which gave us another edge over the Indian exporters. It is expected that since India's ban has been lifted (January 2015), Pakistan would have to face quite a competition this season (2015) going for the European market. Officials say that despite the expected competition, Pakistan could make yet another exporting record this year with an estimated export of 120,000 tons of mango as compared to 75,000 tons last year in 2014 (Trademap.org). . Some of the major European importers of Pakistani mango are exhibited in Table:1 .

TABLE #1: EUROPEAN IMPORTERS OF PAKISTANI MANGO (IN TONS)

Country	2013 (Imports)	2014 (imports)
United Kingdom	9518	6606
Germany	1538	1088
Norway	754	742
Sweden	587	443
Italy	532	337
Switzerland	679	264
Belgium	471	295
Netherlands	420	209
Russia	89	162
Denmark	58	63
Greece	214	48
Spain	70	21
France	23	3

1.1.8 MANGO EXPORTS TO EUROPE

One of the most lucrative market for mango exporters tend to be Europe, which hasn't been tapped completely yet. India got the sanction in April 2014 when previously over 350 of their consignments were rejected by the European Union. In 2013, Pakistan also faced 238 mango consignment rejections which wasn't a very good sign. Each of these consignment rejected were from 1600-3500kg and combined weight of around 500 tones with the combined value of around 12 Crore Pakistani rupees (FreshPlaza.com,June,2013). A warning was given to the exporters before the start of the season-2014 about a maximum of a mere 5 consignments to be the rejection limit; after which Pakistan could surely see its product banned from Europe. Luckily, we managed to come out of the season with only 2 interceptions made by European Union. Not only was it a great achievement for Pakistan, but we also won the trust of Europe which gave us another edge over the Indian exporters – whose ban got lifted in January, 2015. It is expected that since India is back into the market, Pakistan would have to face quite a competition this season (2015) tapping into the European market. TDAP officials say that despite the expected competition, Pakistan could make yet another exporting record this year with an estimated export of 120000 tons of mango as compared to 75000 last year in 2014.

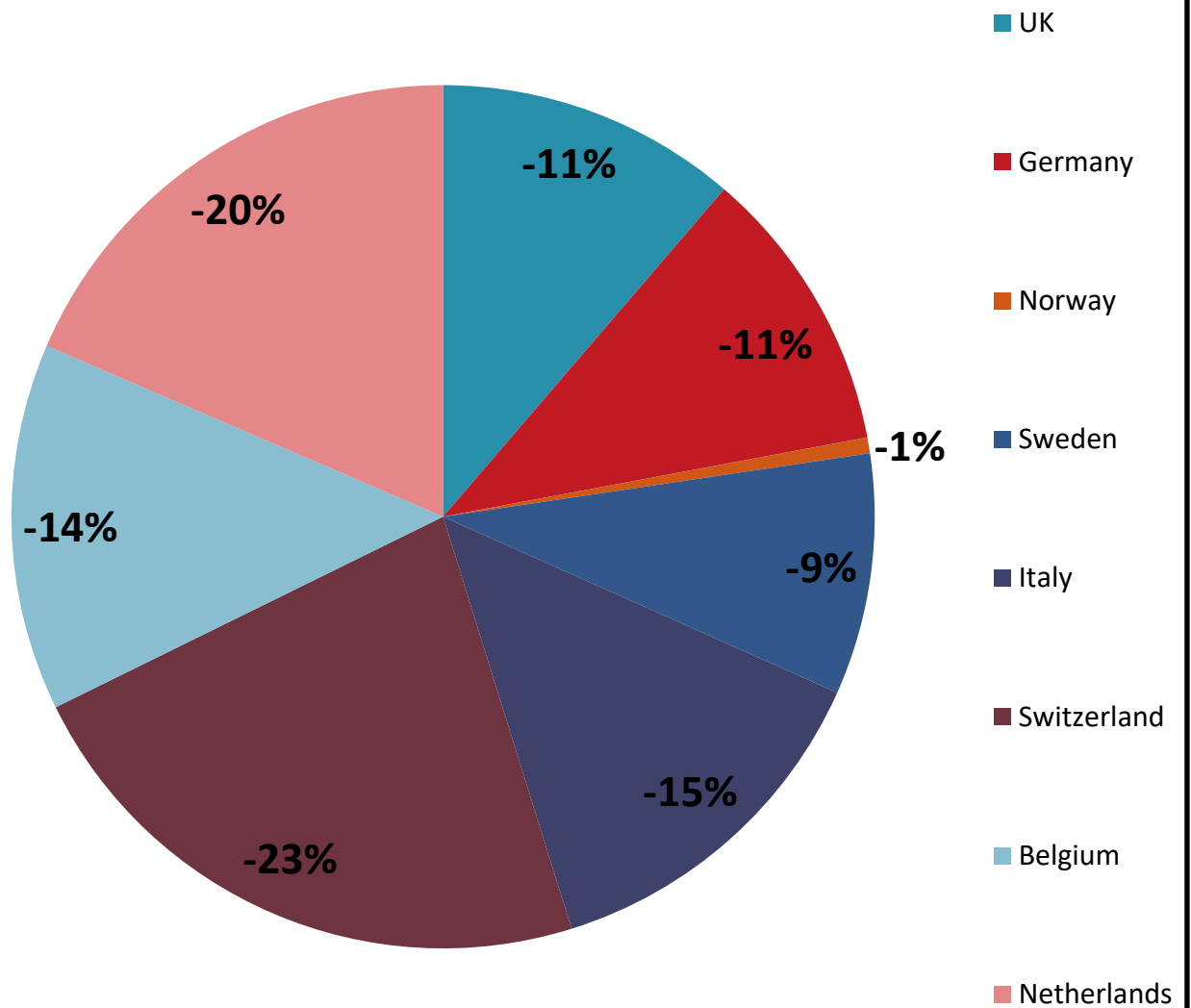
1.1.7 ANALYSIS OF EUROPEAN MANGO MARKET

When we talk about the ban imposed on India and the restrictions on Pakistani mango exports to Europe, we make a probable assumption that these mango exports, throughout the last year, would have declined by a fine margin. There is no denial of the fact that they did decline, but not to an extent every exporter was worried about. I would like to mention here the buzz that took place before last year's restriction that there isn't any chance of Pakistan dodging the ban this season – in other words, there would be more than 5 rejected consignment – but as mentioned earlier, Pakistan went on to have a record breaking season in terms of rejected consignments. The percentage of decline in export to some major European countries from 2013 – 2014 is given in Figure-2

Source: Trademap.org

Figure-2

Loss of market share (%) in European countries from 2013 - 2014



The self-explanatory chart shows the adverse effects of last year's events on the loss of market share of Pakistani mango in Europe. The highest loss of market share was recorded in Switzerland where we lost 23% (value of around 800 Euros) of the market share when compared to the statistics of 2013. This was followed by the 20% (value of around 700 Euros) market share lost in Dutch market, 15% (value of around 650 Euros) loss in Italian market, 14% (value of around 600 Euros) loss in Belgian market and 11% (value of around 9000 Pound Sterling) lost in that of the United Kingdom's. 11% (value of around 1200 Euros) lost in German market. 9% (value of around 500 Euros) lost in Swedish market. 1% (value of around 50 Euros) lost in Norway.

The table#2 shows the percentage of decline with respect to tons of mango exported in each Country of Europe:

As can be assimilated from Table-2:

The difference of mangoes exported (in tons) from Pakistan to Netherlands declined by a massive 50.2% with 420 tons in 2013 to 209 tons in 2014. We can see that all the major European countries imported a massively lesser amount from Pakistan last year. With India back in the market, these numbers could drop even more dramatically. I will focus on the solution to this issue in the "Remedies" section that follows by the end of this report.

TABLE #2:DECLINE WITH RESPECT TO TONES EXPORTED (%)

Country	Decline percentage with respect to tones exported	2013 (Imports)	2014 (imports)
United Kingdom	-30.6 %	9518	6606
Germany	-29.2 %	1538	1088
Norway	-1.6 %	754	742
Sweden	-24.5 %	587	443
Italy	-36.6 %	532	337
Switzerland	-61.1 %	679	264
Belgium	-37.3 %	471	295
Netherlands	-50.2 %	420	209
Greece	-77.5 %	214	48
Spain	-70 %	70	21
France	-86.9 %	23	3

SOURCE: TRADEMAP.ORG

PROBLEM BACKGROUND AND AIM OF THE STUDY

Mango exports are a valuable source of foreign exchange earnings for Pakistan. Export of mango from Pakistan increased from 1.16 thousand tons in 1975-76 to 105.21 thousand tons in 2006-07. An increase in mango exports is attributed to an increasing number of Pakistani immigrants in the importing markets (PHDEB, 2005). However, despite increase in exports, share of Pakistan in global exports is only 6 percent. This is very low when compared with other mango exporting countries such as Mexico and Brazil which contribute 14 percent and 12 percent respectively (FAOSTAT, 2007). Export of mango from Pakistan is highly concentrated in few markets. United Kingdom is also an attractive market for exporters from Pakistan mainly due to an increased demand for mangoes by immigrants (especially from Pakistan). In the European Union, the UK imported 11.46 percent whereas France and Germany imported 1.48 percent and 1.22 percent mangoes from Pakistan during 2006-07 (Government of Pakistan, 2007).

The main issue of study is that the export of mango from Pakistan is decreasing in quantity which can be seen in above table in 2009 it was close to 24000tonnes which has decreased rapidly and in 2013 its almost 15000tonnes.

Accordingly this study is aimed at critically evaluating the factors which are affecting the export of mango from Pakistan to Europe and problems faced by exporters to comply European standards.

RESEARCH QUESTION

Identify the factors which may help to improve the Pakistani mango export to Europe

RESEARCH OBJECTIVE

This research is aimed to achieve the following objectives:

- To find out the main problems faced by Pakistani mango exporters to Europe.
- To give useful recommendations to improve the Pakistani mango export to Europe.

SCOPE OF THE STUDY

This study explored the problems faced by Pakistani mango exporters at large.

SIGNIFICANCE OF THE STUDY

Pakistan is an agriculture country and mango exports play an important role in the growth of the country. Every year mango contributes a large amount in the shape of exports. The findings of this research will be beneficial for the exporters to understand the main problems which affected their exports in European market. Therefore, they will be in a better position to address those problems and improve their exports. Similarly, the findings of this study also help Government in the formulations of rules and policies. Moreover, this study can also serve as a useful source for new exporters as well. This research will also be beneficial for future researchers as this study can be replicated with more markets and with longer sample size.

LIMITATIONS

This research only considered the European Mango Market ignoring other international mango market. Due to time constraint only ten mango exporters were interviewed.

AREAS FOR FUTURE RESEARCH

This research can be replicated by considering longer sample size and more data stream. Moreover, a comparative study can also be done to compare the problems faced by other mango exporting countries to Europe. Further this research only targeted the European market more research can be conducted targeting other markets such as Middle East, America, etc. In future, research can be conducted to explore the problems faced by other fruits exporters such as orange exporters, etc.

CHAPTER 2

LITERATURE REVIEW

2.1 AVAILABLE LITERATURE ON MANGO

Being an agricultural country, it should be our utmost priority to work on its betterment. This sector is one of the highest contributing sectors to our GDP with tropical fruits – mango in this case – being one of our core exports. In this section, I will highlight the work of some of the major people and organizations that have researched and directed their time and efforts for the betterment of mango exports and agriculture of Pakistan as a whole.

2.1.1 UNITED NATIONS INTERNATIONAL DEVELOPMENT ORGANIZATION (UNIDO) & WORLD BANK

World Bank and UNIDO, in one of their reports published in 2006 mentioned barriers that stand in the export of mango from Pakistan. One of the couple of things mentioned included the shelf-life of Pakistani mango. Due to which most of the exporters are only able to export mango as far as the middle-eastern countries. Keeping in view the fact that if they want to send the mangoes further, they would have to opt the aerial route to reach the destination which comes as highly expensive and uneconomical in terms of trade. It was also mentioned that poor infrastructure and the post-harvest measures are the cause of loss of over 30% of mangoes, furthermore adding transporting costs within the country, which lead to increased cost of the product. (UNIDO & WORLD BANK, 2006)

2.1.2 PAKISTAN HORTICULTURE DEVELOPMENT AND EXPORT BOARD (PHDEB)

In a detailed report, PHDEB also mentioned the post-harvest losses, the small shelf-life and the high air-freight issues faced by the exporters of mango in Pakistan. However, in their research (determinants and margins of exporting mango from Pakistan), they mentioned that the cargo handling via sea have been improved which saw many exporters shift their exports from via-air to via-sea; 40% of the exports to middle-east shifted to via-sea whereas reefer and non-reefer containers saw 30% of exports respectively. The problem of poor shelf-life of mango limits export via-sea to close-ranged regions like middle-east and United Arab Emirates (UAE). PHDEB stated that from the over-1 million ton mango produced (risen to over 1.8 million ton in 2014), only less than 0.1 million ton of mango being exported. Following this, they also talked about the major price differences in different standards of

mangoes both within the country and outside of it. (Mango marketing strategies PHDEB, 2005)

2.1.3 FOOD AND AGRICULTURE ORGANIZATION (FAO)

FAO, in its publishing focused upon their research which claimed that the market of fresh fruits had been increasing. This is a good factor for Pakistan as though we don't export much of what we produce, the share in amount is relatively high due to the fact that importers are willing to pay higher prices. This change, as FAO declared, is derived by the improvements in post-harvesting measures around the world alongside better supply-chain management. In this report published in 2005, FAO projected that the coming decade (that we are in now) will see a greater demand for tropical fruits. They added that that is needed to be focused upon is quality control of the fruits, and the importers will be more than happy to indulge in a prolific trade. (FAO, 2005)

2.1.4 ABDUL- GHAFOOR(INDIVIDUAL RESEARCHER)

Mr. Abdul Ghafoor is a Doctor of Philosophy in Agricultural Marketing from University of Agriculture, Faisalabad. He has already published various valuable researches related to agriculture in Pakistan. In his publications online, he pointed out the areas which are probable causes to hindrances in export of mango from Pakistan. He said that there aren't any centralized platforms to manage any surplus mango exports (that if encountered). Besides, for exporters using aerial routes, the terminals of Karachi don't perform as effectively as they should have and that other terminals should be made for this purpose. He further added that we only focus on specific varieties of mango to be exported which limits our export. (Determinants of mango export,2006)

2.2 CONCLUSIONS FROM THE PRESENT LITERATURE

From the examples of existing literature, we can derive that production is not the biggest of the problems for Pakistani mango export as a mere percentage is exported. What needs our sure attention is the post-harvesting measures. The study by FAO clearly stated that the demand for tropical fruits is increasing, provided we work on the post-harvesting measures. The world is already in on the job and we seem to lack despite mango being one of our greatest agricultural exports. If we want to cut costs on our mango exports, we need to work on better picking methods, saving part of our yearly 40% loss of mangoes approximately, improve our packaging and work in-line with the international quality standards if we want to continue growing or survive in the international mango market. These reasons – identified by the publications authorities – need attention. Adding to them, I would continue with the solutions further in the report.

2.3 FACTORS THAT ARE AFFECTING THE MANGO EXPORT

2.3.1 HEALTH/BACTERIA RELATED ISSUES:

According to International Quarantine there are nine kinds of bacteria on the outer surface of mango which can be treated through three treatment processes which are:

- Hot Water Treatment (HWT)
- Vapor Heat Treatment (VHT)
- Radiation Treatment.

In Pakistan Hot Water Treatment is being used currently to make mango disease free. For Hot Water Treatment according to United States Department of Agriculture (USDA) mango should be dipped in hot water of 48 degree Celsius with pulp temperature reaching 46.2 degree Celsius temperature for 55-65 minutes depending on the variety of mango treated. After going through this process mango become disease free and safe for human consumption.

Hot water treatment of mangoes eliminates following diseases and slows down their reaction:

- *Aspidiotus destructor*
- *Bactrocera dorsalis*
- *Bactrocera zonata*
- *Coccus viridis*
- *Dysmicoccus neobrevipes*
- *Parasaissetia nigra*
- *Rastrococcus iceryoides*
- *Sternochetus mangiferae*
- *Thrips palmi*

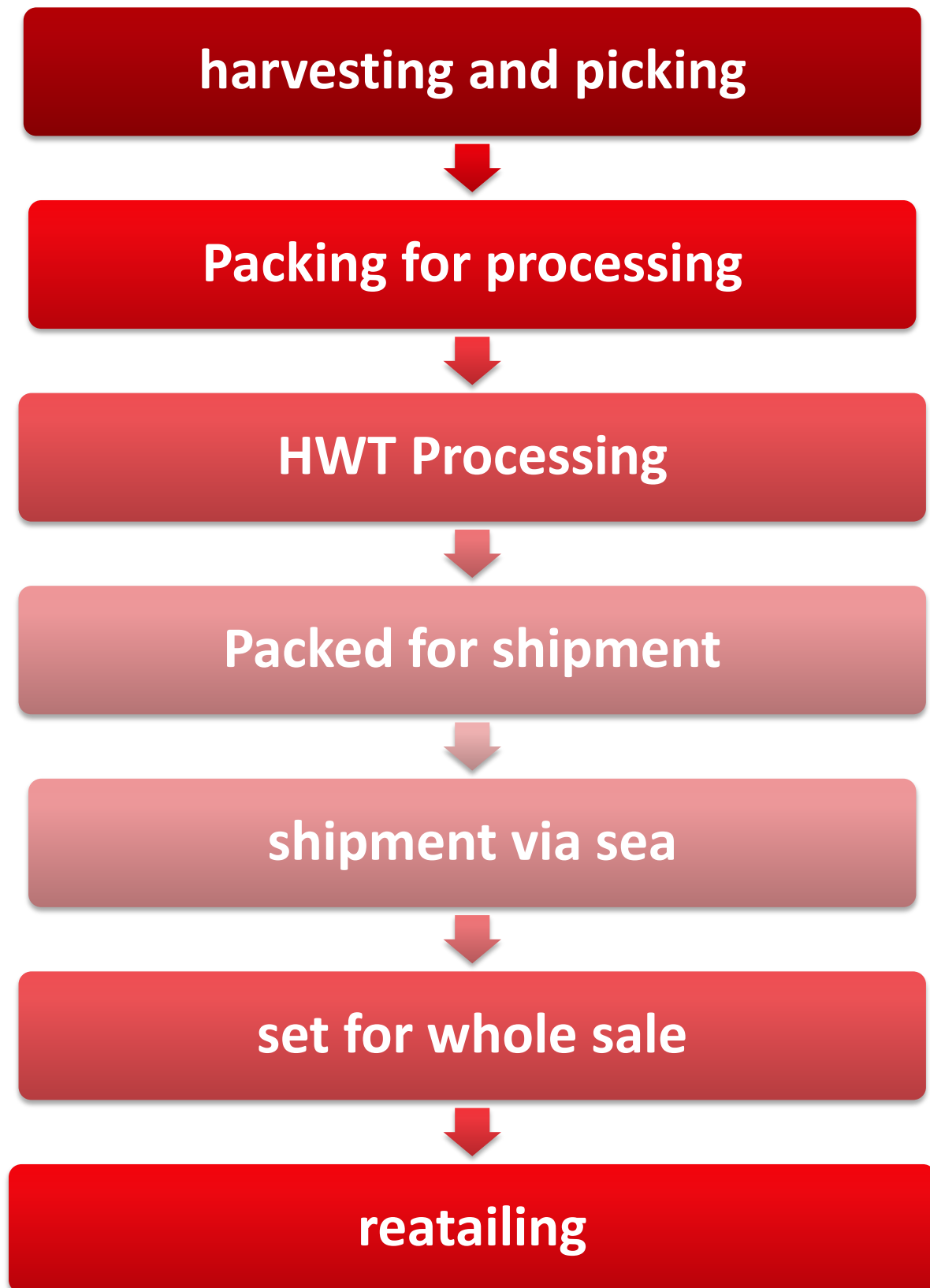
2.3.2 ENVIRONMENTAL ISSUES:

Mango orchards in Pakistan are full of fruit flies and pest diseases which leave the larva (egg) inside the mango and make it harmful for human consumption. There are different reasons behind these pest diseases in mango orchards mostly due to bad agricultural practices. By bad agricultural practices we can understand that there are no hygiene standards met in the orchards. Pakistani mango is very sweet in taste hence it contains more glucose. When mango gets ripped in orchard and drops down to the floor it is important that the farmer should immediately clear the rotten ripped mango from the orchard so that fruit flies and other pests don't get active in the orchard. But because farmers don't react to it the orchards are full of diseases. One of the other reason is that the farmers do not know what sort of agricultural goods can be cultivated with mango. In other mango producing countries there are disease free zones so that one product can not disturb the other commodity being grown In that area. But in Pakistan there is no such agricultural zone. Everyone is working on individual basis such as in Sindh there are many mango orchards with guava orchard side by side which is big problem as in guava orchard there are different pest neutralizers being sprayed which effect the mango crop. All the fruit flies from guava orchard travel to mango orchard and make it unhygienic. Secondly there is problem of water in orchards. In Pakistan flood irrigation system is used for cultivation and not proper drainage system applied which results in water not moving from orchard and stays in different parts and calls for environmental disaster.

2.3.3 TECHNOLOGY ORIENTATION

As it is discussed above that in order to make mango disease free it goes through hot water treatment process. but the problem here is that there are only four proper hot water treatment plants in Pakistan and all of them belong to one specific firm in Karachi which is not enough to process all the mango to export from Pakistan. so in order to improve the mango export to Europe specially, there should be more common treatment facilities in Sindh as well as in Punjab so that all the exporters can feel free to treat their mango and export disease free product. in 2014 around 7000tones of mango was hot water treated with not a single consignment rejected by Euro. (A.Q.Khan Durrani Researcher Karachi).

FLOWCHART OF MANGO PROCESS



SOURCE (AUTHOR HIMSELF)

PROCESS OF MANGO (IN PICTURES)

1. HARVESTING AND PICKING



SOURCE: WWW.AGRICORNER.COM

2. PACKING FOR TRANSPORTATION TO PROCESSING FACOTRIES



SOURCE: WWW.DAWN.COM

3. HWT PROCESSING



SOURCE: WWW.TRTAPAKISTAN.ORG

4. PACKED FOR SHIPMENT



SOURCE: WWW.FRESHPLAZA.COM

5.SHIPMENT VIA SEA



SOURCE: WWW.ALIBABA.COM

6. SOLD IN A WHOLE-SALE MARKET



SOURCE: WWW.SEARCH.WN.COM

7. AVAILABLE FOR SALE IN A RETAIL MARKET



SOURCE: WWW.MANGOWORLDMAGAZINE.BLOGSPOT.COM

TABLE-3 TOP TEN MANGO EXPORTING COUNTRIES

Countries	Global Share (%) In Mango Exports
Mexico	10.30 %
Philippine	7.80 %
Pakistan	7.60 %
Brazil	6.0 %
India	5.20 %
Netherlands	3.30 %
Peru	2.0 %
Guatemala	1.90 %
France	1.70 %
Haiti	1.30 %

SOURCE: CIA WORLD FACTBOOK ESTIMATES (2011)

TABLE-4 TOP TEN MANGO PRODUCING COUNTRIES

Country	Mango Production (tons)
India	15,188,000
China	4,350,000
Thailand	2600,000
Indonesia	2,131,139
Pakistan	1,888,449
Mexico	1,827,314
Brazil	1,249,521
Bangladesh	889,176
Nigeria	850,000
Philippines	800,551

SOURCE: FAOSTAT DATABASE (FAO) UN

2.3.4 ADMINISTRATIVE/FINANCIAL PROBLEMS

In the current scenario the main expense in trading is freight expense. Mango exported to Europe from Pakistan is by-Air shipments. The reason is that the transit time of sea shipment is about three weeks as compared to the Air shipment which reaches the destination same day. The Air shipment expense is Rs.150 per kg and the expense of by sea shipment is Rs.20 per kg. In Pakistan Durrani Group of Companies as a private firm exports mango by sea as they have made their own chemical formulation with the help of which mango can be exported by sea shipment as they claim that after processing they export mango by sea shipment to Europe with shelf life of mango increased to 35 days as fresh. (A.Q.Khan Durrani Chairman Durrani Group Researcher mango)

2.3.5 RULES & REGULATIONS / STANDARDS FOR EUROPE

European buyers or importing consignees demand world renowned certification of farm and packing house for mango from Pakistan. For the assurance of good quality disease free mango standards to be met Pakistani quarantine department has approached SGS a well renowned certification firm to make sure that mango exported to Europe is treated with hot water treatment and packed at hygienic packing house so that no consignment is rejected in Europe. European health and quarantine department don't have specific SOPs for mango imported from other countries but still they when the consignment reaches their ports they randomly check the mango and if they find symptoms of pest diseases or fruit fly they reject the whole consignment.

Minimum requirements: United Nations Economic Commission for Europe (UNECE)

In all classes, subject to the special provisions for each class and the tolerances allowed, the mangoes must be:

- intact
- sound; produce affected by rotting or deterioration such as to make it unfit for consumption is excluded
- clean, practically free of any visible foreign matter
- fresh in appearance
- practically free from pests
- free from damage caused by pests affecting the flesh
- free from black stains or trails which extend under the skin
- free from marked bruising
- free from damage caused by low temperature

CHAPTER 3

RESEARCH METHODOLOGY

3.1 RESEARCH DESIGN

The nature of this research is exploratory research because this research is aimed to find out the factors that create hurdles in exporting mango from Pakistan to Europe

3.2 SAMPLE SIZE

The target of this research is Pakistani mango exporters. This study includes a sample size of ten individuals, two farmers, a middlemen, a packing material producer, a shipping agent, a certification inspector, a processor & researcher, three mango exporters.

3.3 SAMPLING TECHNIQUE

In this research the Non-Probability Convenience sampling technique is used.

3.4 RESEARCH INSTRUMENT

In order to collect data from the respondents the research conducted informal personal interview.

3.5 DATA COLLECTION

In this study both secondary and primary data is used where secondary data is the core of the study and primary data which is conducted in the form of informal interviews of exporters to support of secondary data.

3.6 DATA TREATMENT

The data collected through informal personal interview is summarized in the following chapter.

CHAPTER 4

FINDINGS AND ANALYSIS:

The interviews conducted yielded valuable findings which should optimally become the strategic goals of Mango Exporters and The Government of Pakistan. These findings cover the entire supply chain of mango exports, right from the farmer till the exporter.

One of the major findings was the improper and inadequate availability of technology, instruments and specialized machinery for handling mangoes and this non-availability leads to tones of wastage and loss in terms of exports that could have materialized had adequate machinery been available.

For example, one of the farmers of Ikram Hussain Farm, located in Usman Shah, Sindh mentioned that,

“One of the main problems that a mango grower faces while growing mango in Sindh is the lack of water in most of the mango cultivation land. Secondly, we don’t have proper pesticide spray to make our farm free from pest diseases (fruit fly).”

He also pointed out that *“At the time of plugging of mango we don’t have proper instruments to plug the product from long old trees so we use wooden sticks normally to bring mango down which effects the quality and shelf life of mangoes.”*

Another farmer, from Aashiq Hussain Farm situated in Muzaffargarh, Multan, Punjab when asked why most of the Pakistani mango consignments were rejected by the health authorities of Europe are from Punjab, he replied that,

“The reason behind these rejections is that Chaunsa is the variety of mango mostly cultivated in the province of Punjab. Chaunsa is the sweetest mango in Pakistan with 23bricks when full ripe because it contains such glucose level it gets soft easy when it starts to ripe and its skin is also thinner than other mango varieties so the fruit fly goes inside it easily which is not excepted by European standards and the consignments in which they get symptoms of this disease they reject it.”

Thus, concluding that during the first stage of mango processing, some reasons for inefficiency are man-made and can be rectified whereas some are natural like the thin skin and high glucose level of Chaunsa, thus requiring research and development to make this variety free from pests and diseases.

Despite the challenges these farmers are facing, the rise in exports of mangoes has also benefited these farmers. According to the farmer from Ashiq Hussain Farm, the practice of exporters buying their produce to exporters has given them better margins as opposed to the prices they received when they sold their mangoes in the local market. When asked how Pakistani mango export is beneficial for the farmers, he replied that,

“About 15years back the price of mango was very less in local market and we had to take our product to local markets to sell it. In that case we were bound by the commission agents in local fruit market to sell our product on their rates. But now since Pakistani mango export has increased in volume exporters have increased and they come to us to purchase the mangoes on level terms and proper rates. In this case the exporters get the desired quality they want to export and we get better price for our mango without going to the agents.”

The intermediary between the exporter and the farmer is the agent who notes the requirements from the exporters and then contacts local farmers for their rates and makes procurement of mangoes easier. It is a normal practice for these agents to charge commission from both the sides, the farmer and the exporter which considerably adds to the cost per unit. But when faced with this question, Khadim Hussain, a middle man, produced a sound debate,

“It is true that after agents commission the cost of mango increases but we provide service to both the parties. Exporters are busy in the processing, packaging and shipping the mango so they cannot handle the back-end process of bringing mangoes from the field according to their standards so we provide them with this service and supply good quality product to their factory’s door step and charge for it. On the other hand growers also feel secure in selling their product to us on credit as we purchase in bulk quantity and give their payments on time.”

Another surprising finding was the import of packaging material for processed mangoes. According to Mr. Anwar Malani, a packaging material producer in Pakistan, two types of packing are required, ‘**corrugated cartons**’ and ‘**wooden cases**’.

When asked why is it that corrugated carton is being imported from different countries when we have corrugated carton producing companies present in Pakistan, he explained that,

“The reason behind cartons imported from other countries in the presence of producers like us, is that we are not producing the corrugated cartons of the quality and specifications that the Pakistani mango exporters demand as we don’t have high technology based new plants to tackle the needs and demand of our buyer. Few companies in Pakistan have imported plants from Spain and China which are doing well but they are very few and only in Punjab.”

This not only leads to a huge increase in exporters cost but also a economy wide impact on the total import bill.

- **Increase in costs and import bills, need to make Pakistan self-sufficient in making raw material and packaging material.**

Shipping lines like Mearsk and APL are the most used by mango exporters and even they claim that they face difficulty in transporting a cargo like mangoes which are of an extreme perishable nature.

Mr. Asif, a shipping agent from Khas Trading explained that

“Mango is a highly perishable commodity and has a specific shelf life even in refrigerated containers and due to different technical reasons the cruise carrying the cargo gets late to reach the destination and the product is destroyed till then and results in a huge loss for the shipper in Pakistan. This is one of the reasons why Pakistani export is increasing in quantity but revenue generated from it is stagnant.”

- **inefficiency**
- **delicate nature**
- **needs a very strong supply chain , and automated where necessary**

According to a SGS inspector, Mr. M. Hanif,

“...European Countries are very strict when it comes to food safety and health of their residents. So in that case they have set the standard for high quality disease free mango import from other Countries. We have been assigned by the Government of Pakistan to check the quality of the mango and make sure it is disease free before departing to Europe.”

When inquired about the specific treatments which mangoes go through to get disease free, Mr Hanif explained that,

“According to International Quarantine to make mango disease free there are three treatments which are: (1) Hot Water Treatment, (2) Vapor Heat Treatment and (3) Radiation Treatment”

This Hot Water Treatment is used majorly in Pakistan, where the mango is treated at 48 degree Celsius bringing its pulp temperature to 46.6 Celsius for 55 minutes. This makes the mango disease free and free of fruit fly safe for human consumption.

According to him, *“Durrani Group of Companies are the only ones who have three Hot Water Treatment Plants each with the capacity of 12-15 tons of mango processing capacity each.”*

- Lack of facilities
- Entire Pakistan relying on one company for processing to meet international standards.

Coming to what the exporters have to say, the main findings were that the exporters are determined to readily research and improvise the available facilities and technology to reduce wastage and recurring losses. To gain a better understanding of the export scenario currently, we interviewed Mango processors and researcher, Mr. A.Q. Khan Durrani, CEO of Durrani Group of Companies.

In his view, *“Pakistani mango has huge potential in European markets but we are lacking in R&D. Pakistani mango is loved by one and all for its taste, aroma, size and lots of pulp but all of these qualities which Pakistani mango has are drawbacks as an exporter as the more sweetness and aroma a mango contains, the lesser its shelf life. It’s a big risk for trading. It is not as feasible as other countries mango which have mango with less bricks.”*

When asked about the recently acquired Hot Water Treatment Plant, he explained that,

“...Indian mango is banned in Europe due to fruit fly and pest diseases as they don’t have the Hot Water Treatment technology to make it disease free. So in this case there is a big vacuum now in European markets and golden opportunity for Pakistani exporters to meet the high demand of Europe and generate high revenue for themselves and huge foreign exchange for Pakistan.

Mr A.Q Khan’s plans for further development in this field are equally ambitious. He was very happy to announce,

“... after giving Pakistan the Hot Water Treatment Facilities we are installing a Vapor Heat treatment plant as well with which we would not only be able to process mango but we can also process Pakistani vegetables as well and export them to Europe which is a big market for vegetables as well. This would be the first of his kind technology based VHT plant in Pakistan and would start working from July-2015 God willing.”

Another reputable mango exporter, Mr. Babar Khan, CEO Pak Hortifresh (PVT) mentioned some major problems that Pakistani Exporters are currently facing. With an experience of 15 years of exporting mango to Europe, he commented that,

“Since the last three years the European Quarantine department has made it tougher for Pakistani exporters to take our product to their markets due to pest diseases in our mango. Pakistani Quarantine Department last year in 2014 mango season tried their best along with Pak Hortifresh to take best quality treated mango to Europe but the mango treatment facilities are not enough in the country to increase the export of Pakistani mango to Europe.”

Europe is a very lucrative potential market for mango exports and the like. The most favored variety of mango in Europe is the Sindhri variety, which is not as sweet as the Chaunsa but has more pulp and is bigger in size.

Mr. Nadir, Managing Director of Durrani Associates also added that,

“Durrani Associates have the technology to increase to shelf life of mango and keep it fresh for 35days. The freight of Europe by Air is 150rs per kg whereas the sea freight is much cheaper; only 20rs per kg. So by using the technology we increase the shelf life of

mango and it reaches to Europe in about 25days. So our consignee still has approximately one week to sell the fresh tasty Pakistani mango.”

This advancement in technology has led to a major reduction not only in cost but also in the number of rejections from overseas since now the mangoes can survive for 35 days.

The main countries mango is being exported to are United Kingdom, Germany, Italy and Belgium. All these Countries are profitable but United Kingdom offers best rates for Pakistani mango as there is more Pakistani population living there.

The peak mango season is from 25th May to 10th of July, where the export is about 10tons of mango daily to Europe. It certainly depends on the quality of mango; it also happens that not even a single piece of mango is exported because of low quality mango coming from orchards. Pakistan is producing about 2million ton of Mango each year but exporting only 7percent which is close to 1lac ton only because of low quality mango and bad agricultural practices.

CHAPTER 5

CRITICAL DEBATE:

Although, there are many problems which created hurdles in exporting mangoes from Pakistan to Europe. After going through the existing literature on the topic and the findings of the interviews the following main problems are found:

One of the major problems explored from the interviews is the lack of proper pre and post harvest mango handling and processing. One of the interviewers MR. Ikram Hussain explained that due to inadequate availability of technology, instruments and specialized machinery for handling mangoes and this non-availability leads to tones of wastage and loss in terms of exports that could have materialized had adequate machinery been available. These findings are also consistent with the past literature as UNIDO and World Bank already mentioned in their report due to poor infrastructure and the post-harvest measures 30% of the production lost every year. Furthermore, PHDEB, and FAQ findings also revealed the same problem.

Another major problem revealed by Mr. Aashiq Hussain is to avoid the fruit flies and pest problem that destroys the mango and makes it either decay or unhealthy to eat. From the past literature it is found that Indian mangoes received the ban last season. Ghafoor, A. in his previous research also addressed the same problem.

Furthermore, UNIDO, PHDEB and FAQ reports found that packaging and transportation is also one of the problems in exporting Pakistani mangoes to Europe which is also consistent with this study finding. One of the interviewers Mr. Anwar Malai explained this problem in detail. Moving on to sea-exports, we don't have many alternatives and have to rely on the limited shipping liners like MAERSK or APL. The good thing however is the fact that we can see exporters moving beyond the raw mango exports. With efforts being made to introduce bi-products of mango to extensive world markets. This may bring a whole new demand of mango and also lay a path for other exporters to follow, potentially tapping a revolutionary period to Pakistani mango.

Moreover, European countries also have strict quality standards. According to International Quarantine to make mango disease free there are three treatments which are: (1) Hot Water Treatment, (2) Vapor Heat Treatment and (3) Radiation Treatment”. In Pakistan Of these treatments we only have Hot Water Treatment (HWT) a 55-60 minute process where mango undergoes through temperatures of 48 degree Celsius in Pakistan. Furthermore, only “Durrani Group of Companies are the only ones who have three Hot Water Treatment Plants each with the capacity of 12-15 tons of mango processing capacity each. In short, lack of research and development is another major problem that creates hurdles in exporting mangoes. This finding is consistent with the findings of World Bank, UNIDO, FAQ and PHDEB.

DISCUSSION:

The purpose of this study was to highlight the problems that mango exporters are facing in the European Union. Research conducted exhibited many operational and natural problems that challenge all involved along the supply chain- from the farmer to the exporter.

It is commendable that the challenges that the Pakistani market was facing a few decades ago have been almost overcome with the attention of a few dedicated exporters and the support of the government. It was indeed a milestone for the country and the industry when Pakistani Mango was cleared for export by the European Union and that too against the famed Indian Mango.

The research and effort put in by exporters to increase the shelf life of mangoes and to protect them from diseases so that more volume is available for export is indeed an achievement but is not the end of what is to be achieved.

Considering the major findings of this study, to capture an even greater market share of imported mango, it is important to address the issues of pre and post harvest mango handling and processing to avoid the tons of loss incurred every year. Furthermore, the facilities available for processing mangoes are scanty – especially those which hold the approval of international quarantine departments. Thus there is a dire need to further invest in these facilities and to expand the volumes processed each year. Also, it is very imperative that the backward linkages of the mango exporter are strong and facilitated through a strong autonomous body which governs and manages the on time procurement of the mangoes required for processing.

Bringing the discussion to a conclusion, the problems faced by mango exporters are gaining attention from the industry and the government alike and steps have begun to materialize that have led to an improvement in the per annum level of exports. Thus, with continuing attention and deliberation, this road to progress in the field of mango processing can flourish and lead to Pakistan becoming the leader in mango processing and exports

CHAPTER 6

CONCLUSION

We know from the existing literature that Pakistan – being an agricultural country – has its basis set on agricultural production, and when we talk about agriculture, we talk about some of its major exports i.e. the mango. But as much as we flatter ourselves with our standings in the mango exporting countries, we know for sure that there is a lot of room for improvement yet.

Pakistan produces around 1.9 million tons of mangoes every year and exports about less than 5% of it. Even though it is a mere amount, we have managed to target major importing markets around the world. That is because of the distinctiveness in our mango with its mouth watering taste and striking outlay. However, markets like USA, Australia and South Korea are yet on the hit list of our mango exporters. Taking a glimpse into each of these countries, USA demands different processing techniques than ours. Australia is one of the high paying markets of the world. With the difference of mango cultivation seasons of Australia and Pakistan it can result in high revenue generator for Pakistani mango exporters. South Korea shares the imported mango market with many countries, so despite of the approval, we can work on making our trade bonds even stronger and further capture a wise share of its mango imports.

One of the biggest markets with Pakistan's share in it is the European market which has been of quite a debate for the last two seasons. Last season's events with Indian mango being banned was a tough time for Pakistani mango as well. We too were on the verge of facing a ban with 500 tons of mango already being rejected by European Union the previous season. But as much as a point of pain, it was also an opportunity for Pakistani mango exporters and fortunately we made the best of it by dodging the ban and gaining European Union's trust for the upcoming season(s).

Furthermore, as cited in this report, PHDEB, World Bank, UNIDO etc have already taken into consideration certain problems regarding mango export.

The common citing with each of them is the need to focus on transportation costs, the solution to which goes back to the shelf life of mango. The shelf life of mango is not good enough to be exported by-Sea to far destinations like Europe.

Another important factor focused is the post-harvest losses that eat around 30% of the total production every year. It means that not only the factory operations, but we need to focus on the entire chain from pre-harvesting to the processing to packaging – another of the deep concerns of many.

Talking about the issues focused, in findings mentioned above there are some serious issues that need to be addressed if we want to be more efficient with our mango production and export. Apparently to treat the nine different kinds of bacteria on the surface of mango, there are different treatments to make mango disease-free which are already mentioned above in bacteria related issues. Of these treatments we only have Hot Water Treatment (HWT) . 55-60 minute process where mango undergoes through temperatures of 48 degree Celsius in Pakistan.

As it is mentioned before , pre- and post- harvesting systems must be established. One major reason for this is to avoid the fruit flies. Another one is pest problem that destroys the mango and makes it either decay or unhealthy to eat. This is one of the major reason due to which India received the ban last season, so it isn't that small of an issue and needs strong addressing.

While evaluating the major exporters from Pakistan. It is conclusive to say that exporters don't have enough time to look over the backward linkages of mango exports, to take care of these linkages they should create a body or forum. The reason behind it is that the major loss of mango takes places during this backward linkage process. So if deliberate measures are taken by a specific body, the overall mango market might see those lost mangoes in the market, increasing the availability of mangoes (as at least a major portion of those lost during pre-harvesting can be saved). Moreover, we should try to push-sell other varieties of mango to the importing countries as well to discover a good market for them as well.

Exporters are also importing carton to pack mangoes, another expense that can be cut down if packing material production technology is brought to our Country.

Moving on to sea-exports, we don't have many alternatives and have to rely on the limited shipping liners like MAERSK or APL. The good thing however is the fact that we can see exporters moving beyond the raw mango exports. With efforts being made to introduce bi-products of mango to extensive world markets. This may bring a whole new demand of mango and also lay a path for other exporters to follow, potentially tapping a revolutionary period to Pakistani mango.

From different problems to their solutions and from unintentional lacking to potential opportunities regarding mango exports to Europe (and the rest of the world), In this research we have covered several aspects in this report with a fair intention of contributing to this lucrative industry.

RECOMMENDATIONS

- 1- First of all the major stake holders of the Country concerned with mango industry which includes farmers, processors, researchers, exporters and government departments should form a consensus on how to increase the mango export of Pakistan. This would result in high revenue generation for the Country.
 - 2- Presently there are only few mango treatment facilities in Pakistan which makes it difficult for exporters to have disease free mangoes to export. There should be minimum five Hot Water and Vapor Heat Treatment facilities in Sindh and as many in Punjab to increase the capacity for disease free mango to be exported to foreign markets.
 - 3- There should be good agricultural practices used in the mango cultivation orchids so that the exporters can get good quality mango with no damage so that they can export it on high rates.
 - 4- Researchers should work on increasing the shelf life of mango so that it can be exported by Sea shipment as it is much cheaper to Air shipments and bulk quantity can be exported.
-

APPENDIX

INTERVIEWS

INTERVIEWEE #1

FARMER: IKRAM HUSSAIN FARM (USMAN SHAH SINDH)

Q:1) What are the main problems that a farmer faces while growing mango in Sindh?

Ans) One of the main problem that a mango grower faces while growing mango in Sindh is the lack of water in most of the mango cultivation land. Secondly we don't have proper pesticide spray to make our farm free from pest diseases (fruit fly). At the time of plugging of mango we don't have proper instruments to plug the product from long old trees so we use wooden sticks normally to bring mango down which effects the quality and shelf life of mangoes.

Q:2) How is Pakistani mango export beneficial for the farmers ?

Ans) Mango export is beneficial for us in such a way that when Pakistani mango export was low in volume about 15years back the price of mango was very less in local market and we had to take our product to local markets to sell it. In that case we were bound by the commission agents in local fruit market to sell our product on their rates. But now since Pakistani mango export has increased in volume exporters have increased and they come to us to purchase the mangoes on level terms and proper rates. In this case the exporters get the desired quality they want to export and we get better price for our mango without going to the agents.

INTERVIEWEE #2

FARMER: AASHIQ HUSSAIN FARM (MUZAFFARGARH MULTAN PUNJAB)

Q:1) WHAT ARE THE SPECIFIC MANGO VARIETIES WHICH MANGO EXPORTERS ARE INTERESTED IN ?

Ans) Mostly mango exporters demand two varieties from us which are:

- Sindhri
- Chaunsa (regular and white)

Q:2) As our statistics show that most of the Pakistani mango consignments rejected by the health authorities of Europe are taken from Punjab. What are the reasons behind it ?

Ans) In my point of view the reason behind these rejections is that Chaunsa is the variety of mango mostly cultivated in the province of Punjab. Chaunsa is the sweetest mango in Pakistan with 23bricks when full riped because it contains such glucose level it gets soft easy when it starts to ripe and its skin is also thinner than other mango varieties so the fruit fly goes inside it easily which is not excepted by European standards and the consignments in which they get symptoms of this disease they reject it.

INTERVIEWEE #3

MIDDLEMAN (INTERMEDIARY) KHADIM HUSSAIN.

Q: 1 WHAT IS YOUR SPECIFIC JOB AS A MIDDLEMAN?

Ans) As a middleman we act as an intermediary between the grower and the exporter. Exporters order us to get different varieties of mango with specifications of their choice and pay us some fixed commission on it. On the other hand we purchase export quality mango from the grower on behalf of the exporter with our own guarantee of payment so we take commission from both sides from grower and exporter and give our services in return.

Q:2) Don't you think that by taking commission from both sides you are increasing the overall cost of the product?

Ans) It is true that after agents commission the cost of mango increases but we provide service to both the parties. Exporters are busy in the processing, packaging and shipping the mango so he cannot handle the back process of bringing mango from field according to his standard so we provide them with good quality product to their factory door step and charge for it on the other hand growers also feel secure in selling us their product on credit as we purchase in bulk quantity and give their payments on time.

INTERVIEWEE #4

PAKING MATERIAL PRODUCER MR ANWAR MALANI

Q:1) Which kind of packing material is used in mango export from Pakistan?

Ans) There are two types of packing used in Pakistan for mango export which are:

- Corrugated Cartons
- Wooden Cases

Wooden cases of 8kg net weight are only exported to middle- east region (Gulf) whereas corrugated cartons are exported to Far- East Countries and Europe. Mango is exported to Europe in 2kg gross packing and to Far-East Countries such as Malaysia, Singapore, Hong Kong and South Korea in 5kg gross corrugated cartons.

Q:2) Why is that corrugated carton is being imported from different Countries as we have corrugated carton producing companies in Pakistan?

Ans) The reason behind cartons imported from other Countries in the presence of us is that we the packing material makers are not producing the corrugated cartons of the quality and specifications that the Pakistani mango exporters demand as we don't have high technology based new plants to tackle the needs and demand of our buyer. Few companies in Pakistan have imported plants from Spain and China which are doing well but they are very few and only in Punjab.

INTERVIEWEE #5

SHIPPING AGENT: ASIF (KHAS TRADING)

Q:1) Which are the shipping lines active in Pakistan these days? What is the job of a shipping agent?

Ans) There are few shipping lines active in Pakistan these days most prominent of them are Maersk Line and APL shipping line. The job of the shipping agent is to work as a free service provider who books cargo for the shipping line and arrange containers for the exporter.

Q:2) Are there any problems exporters facing with these shipping lines?

Ans) Yes there are few problems exporters are facing such as not following the schedule of reaching the destination and getting late. As mango is highly perishable commodity and has a specific shelf life even in refrigerated containers and due to different technical reasons the cruise carrying the cargo gets late to reach the destination and the product is destroyed till then and results in huge loss for the shipper in Pakistan. This is one of the reason why Pakistani export is increasing in quantity but revenue generated from it is stagnant.

INTERVIEWEE #6

CERTIFICATION FIRM (SGS) MR. M.HANIF (INSPECTOR)

Q:1) What are the perimeters of SGS for the mango exports to Europe?

Ans) As we all know European Countries are very strict when it comes to food safety and health of their residents. So in that case they have set the standard for high quality disease free mango import from other Countries. We have been assigned by the Government of Pakistan to check the quality of the mango and make sure it is disease free before departing to Europe.

Q:2) What is the treatment from which mango goes through to get disease free?

Ans) According to International Quarantine to make mango disease free there are three treatments which are:

- Hot Water Treatment
- Vapor Heat Treatment
- Radiation Treatment

In Pakistan Hot Water Treatment is used in which mango is treated at 48 degree Celsius bringing its pulp temperature to 46.6 Celsius for 55 minutes makes the mango disease free and free of fruit fly safe for human consumption. In Pakistan Durrani Group of Companies are the only ones who have three Hot Water Treatment Plants each with the capacity of 12-15 tones of mango processing capacity each.

INTERVIEWEE #7

MANGO PROCESSORS & RESEARCHER: A.Q.KHAN.DURRANI (DURRANI GROUP OF COMPANIES)

Q:1) Sir as you have the only mango treatment facility and the largest mango processing plants in the world how do you see Europe as a market for Pakistani mango?

Ans: In my view Pakistani mango has huge potential in European markets but we are lacking in R&D. Pakistani mango is loved by one in all for its taste, aroma, size and lots of pulp but all of these qualities which Pakistani mango has are backdrops as an exporter as the more sweetness and aroma a mango contain its shelf life is lesser so for trading its not as feasible as other Countries mango which have mango with less bricks. As we know that Indian mango is banned in Europe due to fruit fly and pest diseases as they don't have the Hot Water Treatment technology to make it disease free. So in this case there is a big vacuum now in European markets and golden opportunity for Pakistani exporters to meet the high demand of Europe and generate high revenue for themselves and huge foreign exchange for Pakistan.

Q:2) Sir what is your next venture in mango treatment technology?

Ans) I am happy to announce with the help of this question/answer session that after giving Pakistan the Hot Water Treatment Facilities we are installing Vapor Heat treatment plant as well with which we would not only be able to process mango but we can also process Pakistani vegetables as well and export it to Europe which is a big market for vegetables as well. This would be the first of his kind technology based VHT plant in Pakistan and would start working from July-2015 God Willing.

INTERVIEWEE # 8

MANGO EXPORTER PAK HORTIFRESH (PVT) LTD BABAR KHAN (CHIEF EXECUTIVE)

Q:1) WHAT PROBLEMS ARE YOU FACING AS ONE OF THE BIGGEST MANGO EXPORTER TO EUROPE?

Ans: I have been exporting mango to Europe for 15years now, it has been a long journey but a fruitful one with the grace of Almighty Allah. But since last three years European Quarantine department has made it tougher for Pakistani exporters to take our product to their markets due to pest diseases in our mango. Pakistani Quarantine Department last year in 2014 mango season tried their best along with Pak Hortifresh to take best quality treated mango to Europe but the mango treatment facilities are not enough in the Country to increase the export of Pakistani mango to Europe.

Q: 2) In Europe which mango variety is most liked?

Ans) In Europe most liked mango is Sindhri which is not as sweet as Chaunsa but it is bigger in size has more pulp and has greater shelf life.

INTERVIEWEE #9

MANGO EXPORTER NADIR KHAN MANAGING DIRECTOR (DURRANIASSOCIATES)

Q:1) As your Company treated mango for all the exporters of Europe in 2014 season what are the preparations for 2015 season?

Ans) As you have mentioned yourself that we Durrani Associates played critical role in Hot Water Treating mango to Europe last year for all the exporters with no interceptions from Europe. Europe rejected 234 mango consignments coming from Pakistan in 2013 and gave Pakistan chance of 5 rejections only but with the grace of Almighty we had no rejections last year. Last year we have three hot water treatment facilities of 12tons per hour processing capacity each now this year we have installed fourth plant for treating mango so that Pakistan can export more mango to Europe and generate more foreign revenue.

Q:2) I have read somewhere that your company has also exported mango to Europe by sea how is that possible?

Ans) Well what you have read is absolutely correct we Durrani Associates have the technology to increase to shelf life of mango and keep it as fresh for 35days. The freight of Europe by Air is 150rs per kg whereas the sea freight is much cheaper which is only 20rs per kg. So by using the technology will increase the shelf life of mango and it reaches to Europe in about 25days. So our consignee still has approximately one week to sell the fresh tasty Pakistani mango.

INTERVIWEE #10

MANGO EXPORTER

MR. AKBAR KHAN DIRECTOR (PAK SUN GREEN (PVT) LTD)

Q:1) Which Countries in Europe are you exporting mango and which one is most profitable?

Ans) We are currently exporting mango to United Kingdom , Germany , Italy and Belgium. All these Countries are profitable but United Kingdom offers best rates for Pakistani mango as there is more Pakistani population living there.

Q:2) In peak mango season how much mango do you export on daily bases?

Ans) In peak mango season which is from 25th May to 10th of July we export about 10tons of mango daily to Europe. It certainly depends on the quality of mango we get sometimes we don't even export a single piece of mango because of low quality mango coming from orchards. Pakistan is producing about 2million ton of Mango each year but exporting only 7percent which is close to 1lac ton only because of low quality mango and bad agricultural practices. Growers don't have proper instruments to plug the mango from tree and mango gets destroyed.

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