

Strengthening Export Competitiveness of Vietnam Cashew Kernels

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Abstract: Due to the fierce competition on the international marketplace, especially, on the cashew kernel exports, this study aims at strengthening the export competitiveness of Vietnam cashew kernel to make it sustainably developed in such business environment. By using theoretical basis for the analysis and assessment of the current competitiveness against other key players like Brazil, India or West Africa, it is found that Vietnam is the largest exporter of cashew kernel in the world and has favorable natural conditions, climate, abundant and cheap labour forces for the development of cashew kernel industry, however, there are still several weaknesses to be remedied such as low cashew kernel quality, low value added, low food hygiene and food safety, low product diversity, poor distribution channel, etc. the export competitiveness of Vietnam cashew kernels should be further strengthened to gain better competitive advantages for the time being. Thus, some policy implications have been proposed in this study to strengthen its export competitiveness.

Key words: Cashew kernel, competitiveness, exporter, cheap labour, weaknesses, quality

INTRODUCTION

Scientifically named as *Anacardium occidentale* L. in Vietnamese, cashew is usually called as “Dao lon hot” which means turn-inside-out stone peach because its nut is outside of the fruit. In fact, its key commercial value lies in the nut, not the fruit, thus, Joker (2003) claimed that the nut, not the apple is a real fruit. Its nut consists of a kernel covered by a shell. All of its nutrients lie in the kernel which can be directly consumed after being roasted/cooked. The vegetable butter produced from the oil extracted from the nut is good for health because it helps to avoid atherosclerosis while the cashew shell liquid is usually used in industrial paint industry (Joker, 2003).

According to Anonymous (2018a), Vietnam is the largest exporter of processed cashew worldwide. This position has been maintained, since, 2006 (CIEM., 2015). There are two key product ranges exported from Vietnam including: cashew kernel, extracted from raw cashew nut (fruit) and cashew shell liquid (oil), extracted from cashew shells after pitting kernel. Particularly, Vietnam cashew kernel has been well exported to more than 27 countries/territories and its major importing markets include USA, China, Australia, Canada and New Zealand today (Anonymous, 2018b; IACT., 2014). However, the exporting business becomes more and more competitive. It is pointed that 80% of small and micro enterprises in the industry have run into difficulties due to the shortage of raw materials and the fierce competition on the marketplace (Anonymus, 2018c). It is because several traditional and loyal suppliers of the raw cashew

nuts in African countries have started their processing industry and directly exported their cashew kernels for better earning instead of selling their raw materials with low added-value (IACT., 2014). Specifically, several countries in West Africa, such as Cote d’Ivoire, Burkina Faso, Benin, Ghana, Nigeria and Togo, greatly benefit from their natural fertile land with favorable conditions for cashew cultivation and low-cost labour. Therefore, there has been a strong trend of foreign and local investment in the processing industry for export to create more job opportunities for the local residents and take the competitive advantages of supplying source and abundant workforce (Anonymous, 2014).

Therefore, in such a competitive business environment, it is critical to have proper actions to continuously improve the export competitiveness of Vietnam cashew kernels, especially, the roasted one due to its high added-value. Hence, this study aims at identifying key factors affecting its export competitiveness before proposing some practical implications to strengthen it for better performance and competitive advantage.

Literature reviews

Definitions of competitiveness: International trade has always been one of the crucial drivers of economic development in the global economy, especially, in the current trend of international integration. The competition among numerous businesses on the international playground urges them to be better than others in some of their cores for their survival and growth. Such ability is usually referred to as “competitiveness”. According to

Shabaninejad *et al.* (2014) and Rybakovas (2015) as competition aims at attracting their customers for the sake of selling more products and getting better profits, it obviously requires business entities to continuously improve their products, services to serve their customers better and better. Therefore, competition can be positively considered as a motivational force for economic development. Therefore, almost every country and every exporter always try their best to continuously improve export competitiveness as well as effectively identify its determinants, so that, they can have proper policies, strategies for their development (Mussa, 2000).

However, fully understanding the concept of competitiveness from different perspectives from micro-macro levels is critical (Shabaninejad *et al.*, 2014) because the term “competitiveness” is still an ambiguous definition and there is no commonly accepted definition existing, although, many studies have been well conducted in the field of competitiveness. Literally, “competitiveness” can be understood as the “fighting” ability of a player relatively compared to others to survive in a certain environment, attain some desired achievements in terms of financial benefits or advanced quality, better products/services, take advantage of the market opportunities for their survival and growth. Rybakovas (2015) clearly pointed that the word “competitiveness” may refer to different meanings in different contexts or different levels such as a firm, a sector or total economic activity within a country or region, thus, according to Porter (1998), the competitiveness can be classified into four specific levels including: national competitiveness, sectorial competitiveness, enterprise competitiveness and product competitiveness.

Export competitiveness and its affecting factors: Roberts (2016) defined “export competitiveness” as a function of the aptitude to sell products at the quantity, quality and price within required time frame to satisfy the demand in the international marketplace. Thus, it integrates different variables in terms of technology, engineering sciences, social policies, sectoral policies, etc., to enhance its operational efficiency, quality, development strategies as well as marketing approaches. Or from a general viewpoint of a national level, export competitiveness is referred to as the capability of the nation in producing and selling its products/services in Foreign markets at such prices and quality for their longstanding survival and sustainable development. Therefore, exporting is considered as a final target directing related national policies (Ketels, 2010). Shabaninejad *et al.* (2014) and Rybakovas (2015) pointed that there is an absolute

difference between export competitiveness of a nation and national competitiveness advantage because the former is only limited in specific products from macro business while the latter refers to macroeconomic factors of the nation. However, Ketels (2010) pointed that there is a mutual connection between these two terms. Specifically, the production of a commodity in certain industry will affect the competitiveness of a country in the commodity. If such production positively improves national competitiveness, it also improves the national competitive advantage, thus, affecting national policies. In turn with good institutions and policies supporting transparency and equality in business environment, business entities will have more interests in investing more on their manpower and facilities to increase their added value in their exported products for better competition against those from other countries.

According to Porter (1998), there are several factors affecting national export competitiveness including: production factor conditions, national conditions, related and supporting industries, firm strategy, structure and rivalry, role of the government and opportunities. Specifically, production factor conditions include location advantage, climate, availability of natural resources, workforce capacity/productivity infrastructure, science and technology, financial resources, etc. Several factors, such as supporting industries, firm strategy, structure and rivalry were also confirmed by Lan (2015) and Ketels (2010).

Measure of export competitiveness: Due to the complexity in the term “export competitiveness”, there are several approaches and/or indicators measuring it (Ketels, 2010). And there are certain trade-offs in effectively identifying proper measures among different criteria and objectives. However, the following indicators have been preferably used in practice.

Market share: The market share of a particular item is used as a key indicator to reflect a country’s position relatively compared with others on the same market, i.e., higher market share indicates stronger competitiveness. Li (2011) and Lang (2011) claimed that with a really large market share, the product from the country can easily dominate the market. Basically, the market share of a product from a country is calculated as the ratio between the volume exporting from the country and the total volume of the product exporting from the rest of the world to the specified market.

Production cost or export price: Beside the market share, production cost is also an important indicator of export

competitiveness. Practically, it depends on several factors such as national tax system, wages, efficiency level of management, marketing expenses, costs of supporting services, etc. Assume that a product is identically produced in different country with the same quality, a country with higher production cost is obviously less competitive than others. Among several approaches in identifying production cost, Domestic Resource Cost (DRC) is preferably used. Similarly, export price is also a good indicator of export competitiveness because cheaper product with the same quality will attract more buyers, consequently, resulting in better competitiveness.

Product quality: As the living standards in many countries have been strongly upgraded over the last few decades, people are now paying more attention to consume good quality products for their better health, thus, better quality products sold at reasonable price are always preferably chosen among the vast brand names of the product range. Or product quality can also be a good measure of export competitiveness.

Distribution channels: Being able to buy favorite products easily and conveniently is found as a crucial factor in today's business environment. As customers have numerous choices among brand names and similar or alternative products, they can try new products from other brands if they fail to easily find their favorite products. Such experience usually leads to loss of loyal customers as they tend to switch to new products/brands. Therefore, wide distribution channel is also an important measure of export competitiveness.

EVALUATION OF THE EXPORT COMPETITIVENESS OF VIETNAM CASHEW KERNEL

Briefs about manufacturing process: As a principle all related operations from the harvesting, transporting and storing of the nuts must be handled with care to avoid natural and man-made contaminations. Processing methods must also be done with strict care to preserve the quality of processed kernels. Traditionally, all foreign matters must be eliminated by a cleaning process before the cashew nuts are roasted. Cashew nuts are firstly roasted to make the shell brittle and the kernel loosen from the inside of the shell so that the extraction can avoid making damage to the quality of the kernel. Then, the nuts are soaked with water to increase their moisture and reduce the risk of being scorched during the roasting process as well as make the nuts more elastic to avoid

crack. As shell liquid released from the shell is harmful to the eyes and skin, it is always required to use proper gloves and protection equipment in shelling the nut. It is also advised to have the roasted nuts tumbled in sawdust or ashes to absorb the liquid coating before they are shelled. Practically, the shelling can be done manually with a hammer or mechanically with appropriate machine. Manual shelling only needs inexpensive blade cutters but mechanical shelling needs quite expensive machines. During the shelling process, it is always required to handle with special care to avoid breaking or splitting the kernel because whole kernels are always sold at higher price than broken ones. After the shelling, kernels are then dried so that the testa skin, a thin layer of skin surrounding the kernels can be easily peeled off before the kernels are classified into appropriate grades. Specifically, all cashew nuts need to go through the following process in a consistent manner as shown in Fig. 1.

Boiling (roasting): This process is used to make the shell brittle and loosen the kernel from the shell, so that, the shelling becomes easier.

Cutting (shelling): This stage can be done manually or mechanically to produce clean and whole piece of kernel without cracks because broken kernels are always sold at a lower price compared the whole ones.

Drying: After shelled, the kernels have to be dried in order to slacken the testa skin attached to the kernel for easy peeling.

Moisture (re-humidification): To keep the best quality of cashew kernels as well as making the kernels less fragile and avoid breakage during transportation, their moisture should be kept at 3-5% of the weight. Thus, after passing through the drying phase, kernels are sent to be re-humidified before they are sent for peeling.

Peeling: This process is used to remove testa skin from the kernel by using different techniques including air-blasting, suction, a freezing operation and a system of rubber rollers. As the testa is loosely attached to the Kernel, these techniques can effectively remove all testa skin to make the kernels clean and bright.

Grading: The clean kernels are now in an important stage, classifying them into appropriate quality grades so that they can be sold at reasonable prices depending on their grades. This is usually done with power driven rotary sieves.

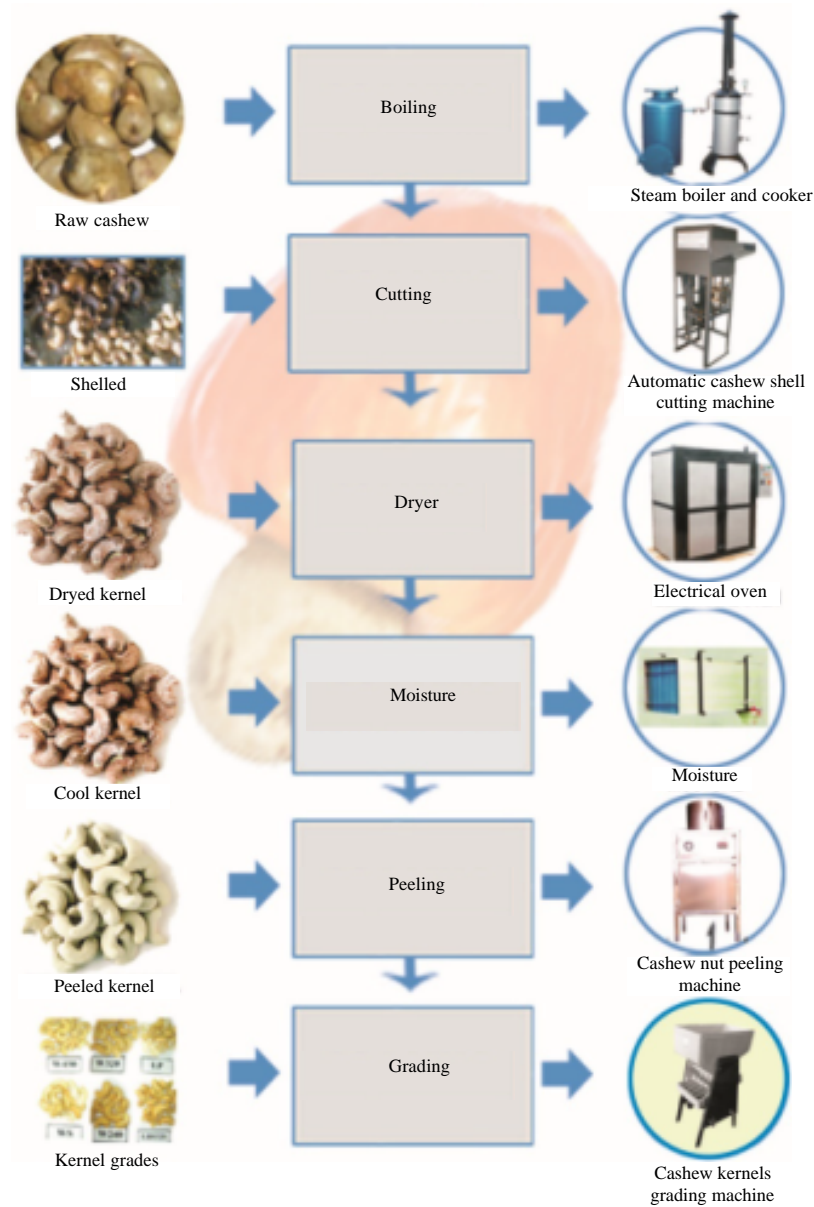


Fig. 1: Cashew nut process flow chart and relevant machinery (A.P. Industries, 2010)

Packing: The graded kernels are now packed as requested by the importers or customer’s requests or producer’s specifications. The packaging is very important to protect the kernels from their rancidity and quick staleness. After filling and weighing, the cap should be soldered on in preparation for the ‘vita pack’ process.

Overview of Vietnam cashew kernel export: Cashew has been one of the most valuable commercial agricultural crops in Vietnam for over the last three decades. Due to the shortage of domestic supplying source, a major part of raw cashew nuts is imported

from Africa and Cambodia, thus, domestic buying price of raw material is strongly affected by the world market price, making the domestic price fluctuated with large amplitude. It is found that the cost for producing raw cashew pips accounts for a large portion of the production cost of cashew kernels. Particularly, cashew growers take a share of about 55-60% of total cost spent in processing cashew nut while processing factories, wholesalers and retailers normally take about 17, 15 and 12%, respectively. Therefore, buying domestic raw cashew nuts is the way processors help to improve farmer’s income and encourage them to cultivate more to increase the domestic

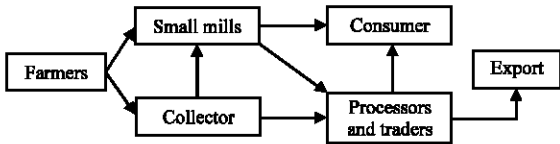


Fig. 2: Supply chain of Vietnam cashew industry

supply source and reduce its dependence on the foreign suppliers of raw cashew nuts. Figure 2 briefly presents the supply chain of Vietnam cashew industry.

According to the report by Anonymous (2018a-c) among the 27 countries and territories importing Vietnam cashew kernels, United States, the Netherlands, China and the United Kingdom accounts for about 65% of total export volumes, thus, they are still the most important markets for Vietnam cashew kernel export. In the first 6 months of 2018, Vietnam exported about 202 thous.ton of cashew kernels with an increase rate of 7.4% compared to that in 2017. Among them, United States was the largest import market with the import volume of about 66,400 tons worth of USD 646.8 million, the Netherlands was ranked 2nd with a volume of 42,800 tons worth of US\$218.3 million, China was ranked 3rd with a volume of 18,400 tons worth of US\$178 million and the United Kingdom came 4th with a volume of 7,100 tons worth of US\$66.5 million. In addition, Vietnam cashew export industry also observed a strong increase in buying volumes from Ukraine, Greece and the Philippines with a growth rate of more than 80% compared to that in the same period last year.

Assessment of the export competitiveness of Vietnam cashew kernel

Export market share: Though Vietnam takes the largest market share in exporting cashew kernels to its international markets, it is now facing an intensive competition with other traditional kernel suppliers in Brazil, India and new players from West Africa. Therefore, unless Vietnam has some proper strategies to strengthen its export competitiveness, such competition will affect its market share in the near future.

Export price: In a broad context, it is found that the average export price of Vietnam cashew kernel over the past few years is usually lower than that of Brazil due to their better quality of cashew kernels but higher than that of India and West Africa. This is an unfavorable indicator negatively affecting the export competitiveness of Vietnam cashew kernel.

Quality of products: Vietnam cashew industry have observed several difficulties in exporting its cashew kernels to some prissy markets such as USA, Australia,

Europe, etc., due to their strict regulations relating to technical barriers, quality standards and food hygiene. The quality of Vietnam cashew kernels is still low and inconsistent because the cultivation and processing of cashew kernels in Vietnam fail to be fully controlled. Consequently, the gained turnover from the exported cashew kernel is really limited. Farmers have insufficient knowledge and techniques to take care of their cashew trees, cashew nuts from the early stage, harvesting and storing before selling to large collectors. Moreover, as a major portion of raw cashew nuts is imported, the quality of the raw materials is also a key issue. Therefore, Vietnam needs to establish certain criteria in producing cashew kernels for export to standardize and improve its quality.

Vietnam cashew kernel brand: Though Vietnam is currently the largest exporter of cashew kernels, there are only a few brands such as Emperor, Tida Kim, Thanh Dat Nguyen Gia, etc., existing on international markets because most of the kernels are processed and packaged with Foreign trademarks and brands. However, more exporting companies are now paying attention to create and register their own brands, trademarks and protect their brands in several key markets. They are also trying to embed geographical indications for cashew kernel products to further improve the recognition of product origin and build good image about Vietnam as the largest exporter of cashew kernels worldwide.

From the above overview, it can be concluded that some practical strategies should be formulated to strengthen the export competitiveness of Vietnam cashew kernel to help the industry sustainably grow in the fiercely competitive global marketplace. To do that, it is mandatory to identify what factors affecting the export competitiveness in the case of Vietnam cashew kernel industry.

KEY FACTORS AFFECTING THE EXPORT COMPETITIVENESS OF VIETNAM CASHEW KERNEL

Natural conditions: Basically, cashew tree grows well in wide areas with rich soil, equatorial environment and fitting terrain altitude. Therefore, cashew trees are suitably planted in Vietnam, especially, the South of Vietnam due to its favorable natural conditions. However, the production of domestic raw cashew nuts is seriously affected by the recent climate change, resulting in shortage of domestic supply for the processing industry.

Human resources: With the current population of more than 96 million people nationwide in 2018 (Anonymous, 2018a-c), Vietnam has an abundant and relatively cheap workforce (GSO., 2016) because people in working age account for more than 60% of the national population (Anonymous, 2014a, b). Currently, there are about 200 cashew kernel processing enterprises and about 140 exporters. However, most of them fail to have enough experience to effectively deal with their foreign partners because their human resources are still lack of needed quality and skills. In addition, farmers are mostly unplanned with insufficient training about plants and how to take care of the cashew trees and harvest their nuts. As such, the quality of Vietnam cashew kernel is limited which negatively affects the export competitiveness of Vietnam cashew kernel (Anonymous, 2014a, b). However, this issue can be effectively handled because currently, Vietnam has about 13 universities and colleges offering majors in agriculture and forestry and 60% of vocational colleges, professional secondary, vocational secondary schools and centers offer agricultural and forestry vocational programs. And there are 28 institutes and research centers belonging to the Ministry of Agriculture and Rural Development. Along with the training programs, VINACAS and related agencies also actively organize extended programs, seminars, workshops to distribute proper knowledge and cultivation techniques for farmers (Anonymous, 2014a, b).

Capital: Due to their limited capital, cashew growers/farmers fail to have enough necessary production conditions such as fertilizers, some materials to protect the premature apples from insects and climate impacts, to fully take care of their cashew trees, therefore, the quality of cashew nuts and the productivity is significantly affected. It is also quite difficult and complicated for them to approach loans from banks due to their strict requirements of mortgage. Therefore, in some cases, the farmers must borrow directly from fertilizer dealers in the form of “credit-purchase” with higher prices or even ask cashew collectors to advance some money, so that, the farmers will only sell their nuts to the advancing collectors at a lower price. Consequently, the farmers usually earn a little or even get loss in these cases.

Infrastructure It is found that the general infrastructure for the cashew industry is quite poor. Only a few collectors have their own systems in cultivating, harvesting, storing, processing and drying, most farming households still use open land areas around their houses for storing and drying cashew nuts after harvesting

because they don't have cement yards. In addition, due to the lack of open space, the cashew nuts are densely dried without having enough sunlight, thus, the nuts can easily get moldy. These will obviously affect the quality of cashew nuts. Moreover, the current processing technology in most processing plants are quite old with low productivity and capacity. And the transportation system is underdeveloped while seaports are concentrated in the big cities like Ho Chi Minh city, Da Nang city, Hai Phong city, far away from the cashew processing hubs, making the transportation difficult for processors/exporters.

Supply chain: Though there are about 200 cashew kernel processing enterprises and over 140 exporters, most of them are small and medium in size and lack of capital and experience in international business. Most of them just focus on raw kernel which has least added value in the chain. Due to limited finance, they found it overburdened in investing advanced technology for product innovation and productivity improvement. Therefore, they supply with similar products, resulting in fierce competition among domestic processors and exporters but poor competition with others in other countries. Moreover, supply chain of Vietnam cashew kernel is rather weak due to the poor link among growers, processors, exporters and the state bodies.

General comments on the export competitiveness of Vietnam cashew kernel

Strengths: Vietnam has several favorable natural conditions to develop its cashew industry for example, equatorial environment and rich soil ensures good growth for cashew trees with high yield and delicious distinct tastes. Besides, Vietnam has an ample and relatively cheap workforce who are young, diligent, hard-working and enthusiastic. More Foreign projects investing in the cashew industry are implemented in Vietnam, thus, more business opportunities for Vietnam processors and exporters. As cashew kernel is one of the most valuable export agricultural commodities from Vietnam, it usually attracts special attention from relevant agencies and government bodies to have proper policies, development strategies, encouragement and supports for farmers and related businesses entities.

Weaknesses and reasons

Low quality of cashew kernel: Through the above assessment, there is certain concern about the current quality of cashew kernel which must be effectively improved so as to strengthen its export competitiveness. There are many reasons leading to the low quality of

cashew kernel including: poor quality of cashew seedlings which play important roles in providing high productivity and the quality of the cashew nuts, improper care for cashew trees due to the insufficient knowledge of growers in fertilizing and protecting the trees from harmful particles, improper harvesting and storing due to poor infrastructures among households, backward processing technology, etc.

Low food hygiene and food safety: Due to the insufficient knowledge and awareness of the importance of food hygiene and food safety required by different importing markets, the careless use of fertilizers and plant-protection products, poor sanitary processing facilities, backward processing technology and impurities in production processes obviously affect the quality of processed cashew kernels. Moreover, due to limited funds, there are not enough facilities to test the product's sanitation, food hygiene and safety before the kernels are exported.

Low product diversity: Cashew kernels exported from Vietnam are usually in the form of dried type which has the least added value compared to roasted one. It is because the roasted type needs appropriate machines and related processing technologies and investment in such systems is usually unaffordable. In addition, the production cost of roasted cashew kernels is much more than that of dried ones because it needs high quality workforce and good management systems. However, to strengthen the export competitiveness, proper investment in the processing facilities and human resources must be carefully considered in the long-term development of the industry.

Poor distribution channel: As most Vietnam cashew kernels are exported indirectly through intermediary firms abroad, they fail to have a good connection with foreign distribution networks, thus, they fail to clearly capture the consumer's demands. Vietnam exporters fail to build direct relationships with the roaster processing enterprises, supermarket chains, retail stores in foreign markets due to the incapability of building own distribution channels and have limited market research due to their insufficient capital resources.

Policy implications to improve the export competitiveness: To deal with the above-mentioned weaknesses and improve the export competitiveness of Vietnam cashew kernels, some key solutions are proposed as the following, mentioned as follows:

Improve cashew kernel quality and food safety: Firstly, good seeds must be carefully selected, so that, they can grow well and provide high yield with good quality of

cashew kernel. This will help to have more raw cashew nuts harvested to improve the domestic supplying source for the processing demands. Therefore, the government are expected to facilitate strong linkage with some famous breeding centers in other countries that have a long tradition in the cashew kernel industry as Brazil, India and West Africa, etc. In addition, the government should also provide financial grants for research projects on raising crops, conducting experiments on new seeding generation, etc. or even create an attractive policy to encourage large enterprises to invest in the cultivating industry.

Secondly, the renovation of cashew seeds costs a lot of money and farmers need financial support from businesses. Besides, enterprises should also assist farmers in managing the quality right from the first step of choosing breed plant. Enterprises need to have fair business with farmers by buying high price for standard cashew nuts, thereby enhancing their ripening fruits and being more careful in picking cashew nuts. Enterprises should actively invest in machinery, advanced equipment and apply automation production lines and monitor the quality of cashew kernel and modernize processing facilities, compliance standards and national regulations.

Thirdly, government should also help farmers with proper technologies in drying, ironing as well as creating conditions for businesses to invest in modern processing line through effective financial support, priority preferential import tariffs for some machinery such as milling machines, sprinkler or cashew kernel sorter, etc. It is also expected that more training workshops on the new processing technologies are provided, so that, farmers have more knowledge on how to take care of the plants when to collect the cashew nuts to have their best quality how to efficiently store the nuts, etc.

Lastly, farmers are suggested to use good cashew seeds bought from seeding agencies. They should strictly follow all required techniques to ensure the quality of cashew kernels to avoid infections and ensure food safety. Farmers should be actively involved in the courses related to cashew kernel growing. Besides that, they should invest in machines in cashew kernel processing.

Organize a tighter coordination of activities in cashew kernel export sector: The government should establish a coordination committee consisting of top level management from ministries, research institutes and associations, scientific researchers. The committee is in charge of creating and implementing proper policies and strategies for the sustainable development of cashew Kernel industry. Moreover, enterprises and farmers should have mutual collaborations in terms of

financial support, technical knowledge, technologies, fair trading price, market information, etc. And farmers need to actively accumulate land, linked together through the cooperative model, large production farm households.

Especially, the government need to have more bilateral/multilateral trade agreements between Vietnam and other countries to reduce tariff barriers and facilitate the export and distribution of cashew kernel to the potential markets, etc. Cashew exporters can take advantage of the trade agreements to promote their exporting business and improve their competitiveness. Traders and exporters should actively participate in trade promotion programs, trade fairs, cashew kernel festival and cashew kernel associations/networks to have more opportunities to meet major partners.

CONCLUSION

The recent globalization and international integration results in fierce competition on marketplace, thus, strengthening the export competitiveness of Vietnam cashew kernel is necessary and inevitable. Using theoretical basis for the analysis and assessment of the current competitiveness in comparing with other key players on the market like Brazil, India or West Africa, this study found that the export competitiveness of Vietnam cashew kernels should be further strengthened to gain better competitive advantages for the time being. Although, Vietnam is the largest exporter of cashew kernel in the world and has favorable natural conditions, climate, abundant and cheap labour forces, there are still several weaknesses to be remedied such as low cashew kernel quality, low value added, low food hygiene and food safety, low product diversity, poor distribution channel, etc. Thus, some policy implications have been proposed in this study to strengthen its export competitiveness.

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