

## **APPLYING A SYSTEMS THINKING APPROACH TO ADDRESS THE BARRIERS AFFECTING THE VIETNAMESE COFFEE EXPORT INDUSTRY**

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**ABSTRACT:** *A systems thinking approach is used to identify and analyse the export barriers that the Vietnamese coffee export enterprises are facing in the international markets. Several causal loop diagrams were developed to provide a better understanding of the barriers. Models of general internal and external barriers to the export of coffee were developed to obtain an understanding of the complex relationships between these barriers and how they affect Vietnamese export in the international markets. Various strategies are proposed to reduce the impact of the barriers on coffee export activities.*

**KEYWORDS:** Export barriers, Vietnamese coffee, systems thinking, and causal loop diagram.

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### **INTRODUCTION**

Export activity has traditionally become a core component of national importance; and the determinants of the export performance of enterprises are of great interest for policymakers, export company managers and also researchers (Katsikeas *et al.*, 1996; Lages and Montgomery, 2004; Sousa *et al.*, 2008). This is because engagement in export operations is vital for a number of reasons, e.g. spreading business risks across different markets and ventures (Harrigan, 1988); providing a better profit base to attract and reward shareholders and employees (Greene *et al.*, 1994); generating more revenue as well as funds for reinvestment and also further growth (D'costa, 2002).

Coffee is one of the most traded commodities in the world (Lewin *et al.*, 2004). In Vietnam, coffee is now one of the vital agricultural export products of the Vietnamese economy. It ranks second in earning export value for the nation (after oil). Vietnam's coffee export has been estimated at 1.6 million tons, a turnover of more than \$3 billion, which makes Vietnam one of the world leaders in exporting coffee, second only after Brazil (Ha and Shively, 2008). However, despite the many benefits deriving from exporting coffee, the entry into overseas markets for Vietnamese coffee enterprises remains difficult. Vietnamese coffee firms/enterprises are confronted by many serious problems, the most common problem being limited organizational and managerial resources (Sharma, 2000); an inappropriate foreign marketing strategy; restrictive international trade rules and regulations; different business practices and unfamiliarity with the habits of overseas customers (Bilkey and Tesar, 1977); differences between domestic and foreign task environments; and excessive risks and costs due to large geographic and psychological distances (Leonidou, 2000). These difficulties limit the coffee companies' potential to exploit foreign market opportunities, weaken their financial

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performance, delay progression along the internationalisation path, or even cause complete withdrawal from overseas operations (Dichtl *et al.*, 1984). Therefore, understanding the export problems has become essential for coffee export managers. They need to be able to proactively take suitable measures to overcome or reduce the impact of these problems, especially in the case of ‘controllable’ barriers.

In response to the aforementioned problems, numerous studies have been conducted to investigate the effect of exporting barriers across industries (Leonidou, 1995; Campbell, 1996; Ramaseshan and Soutar, 1996; Milner *et al.*, 2000; Leonidou, 2004; Yannopoulos and Kefalaki, 2010). However, only a few studies have investigated the effects of several types of exporting barriers to a specific product, such as steel, paper, wine, or logistics services (Bauerschmidt *et al.*, 1985; Nogues *et al.*, 1986; Henson and Loader, 2001; Ravi and Shankar, 2005). The focus on one specific product is expected to provide a more accurate assessment of the role of exporting barriers, because the research context in this case is more homogeneous than doing an investigation across industries (Leonidou, 2004). This article therefore aims to contribute to the diversified literature on the effects of exporting barriers by offering a comprehensive and insightful analysis of all the barriers affecting the export of one specific commodity, namely coffee. This was done by combining the effects of the two important kinds of common export barriers:

- **internal barriers** (*price, product, distribution and logistics*) and
  - **external barriers** (*governmental, task and environmental*)
- to the export performance of the Vietnamese coffee industry.

## THE NATURE OF COFFEE EXPORT BARRIERS

Vietnam’s coffee industry is expected to show strong growth during the coming years, thus increased export activity is an important factor that is expected to fuel the industry’s growth. However, over recent years the export of Vietnamese coffee has encountered a large number of barriers that can be classified in two main categories: **internal**, which consists of barriers associated with organisational resources/capabilities and company approaches to export and **external**, which includes the barriers stemming from the home and host environment within which the firm operates (Leonidou, 2000).

**Internal barriers such as price, quality of the product, distribution, logistics and promotion** exert a major influence on export activities that deal essentially with a company’s *coffee products* (e.g. developing new coffee products for niche foreign markets, adapting export product design/style to meet quality specifications, export packaging and labelling requirements), *pricing* (offering a satisfactory coffee price to foreign customers, matching that of competitors), *distribution* (complex foreign distribution channels, accessing export distribution channels), *logistics* (supplying an inventory to overseas markets, unavailability of foreign warehouse facilities), and *promotional activities abroad* (adjusting export promotional activities) (Henson and Loader, 2001; Leonidou, 2004).

**External barriers** refer to problems in identifying *governmental barriers* (pertaining to action or inaction by the home government in relation to its indigenous exporters), *task barriers* (focussing on the firm’s customers and competitors in foreign coffee markets) and *environmental barriers* (referring primarily to the economic, political/legal, and sociocultural

environment of the foreign markets within which a company operates) (Morgan and Katsikeas, 1997; Leonidou, 2004).

## SYSTEMS THINKING AS A METHODOLOGY

Systems thinking is a set of knowledge, tools and principles which provides a “new way of thinking” to understand and manage complex problems. It helps to recognise the wider connections and how various parts or segments of a system influence each other (Bosch *et al.*, 2007) and is considered as one of the core disciplines for building an effective learning organisation (Senge, 2006). Systems thinking has been developed and applied extensively in various contexts and fields such as evaluation (Midgley, 2006), education (Frederiksen and Collins, 1989), business management (Van Ackere *et al.*, 1993; Rubenstein-Montano *et al.*, 2001), medicine (Leischow and Milstein, 2006; Waring, 2007), engineering (Sage and Cuppan, 2001), psychology (Schwartz, 1990), economics (Forrester, 1993; Martin and Sunley, 2007), art (Root-Bernstein, 1985) and many others.

The systems thinking approach is particularly relevant in addressing exporting management issues to help analyse and explain the complexity that arises through the effects of barriers on export activities. Systems thinking provides the ability to see the export situation and the interacting relationships more holistically. It would therefore not only have a high potential for application to the export of coffee, but could also be applied across other exporting contexts. In this paper, a systems thinking approach is applied to capture the interactions of coffee exporting barriers and analyse their impact on the coffee export activities of Vietnam.

The study was conducted with 40 representatives of coffee exporters working for different companies and 20 experts in the central highland of Vietnam. The participants were invited to engage in this study to (1) consolidate existing knowledge of the nature of barriers and their association with coffee exporting; (2) use causal loop diagrams to analyse the characteristics, content, and impact of each barrier on export-management decisions in coffee firms; and (3) to recommend strategies for managing coffee export barriers.

A number of workshops were organised in the central highland of Vietnam. During these workshops, a list of the export barriers was defined by individuals who are familiar with the actual Vietnamese coffee export situation. International business literature was also studied to add to the experiential knowledge of the participants. Workshop attendees were asked to review the information on barriers from literature beforehand and these were then added to the list. Based on this list of barriers, causal loop diagrams (CLDs) were constructed to explore the correlations among coffee export barriers. *“A CLD is a systems thinking tool which helps modellers to conceptualise a real world system in terms of feedback loops. It has been applied in various areas such as production, inventory management, quality management and manpower planning, research and development management, corporate planning and quality management. It also provides a framework for understanding the patterns of behaviour and interactions between components. In a causal loop diagram, the arrows indicate the direction of influence that connects different types of variables, and ‘S’/ ‘O’ signs are used to indicate the type of influence. The ‘S’ sign indicates that the variables change in the same direction while the ‘O’ sign symbolizes that change is taking place in an opposite direction”* (Van Ackere *et al.*, 1993; Storbacka *et al.*, 1994; Mandal *et al.*, 1998; Rubenstein-Montano *et al.*, 2001; Moon and Kim, 2005; Testa and Sipe, 2006; Cabrera *et al.*, 2008; Winz *et al.*, 2009). The CLDs

in this study are categorised into two groups (*internal and external barriers*) which will be separately analysed in the following section.

## RESULTS AND DISCUSSION

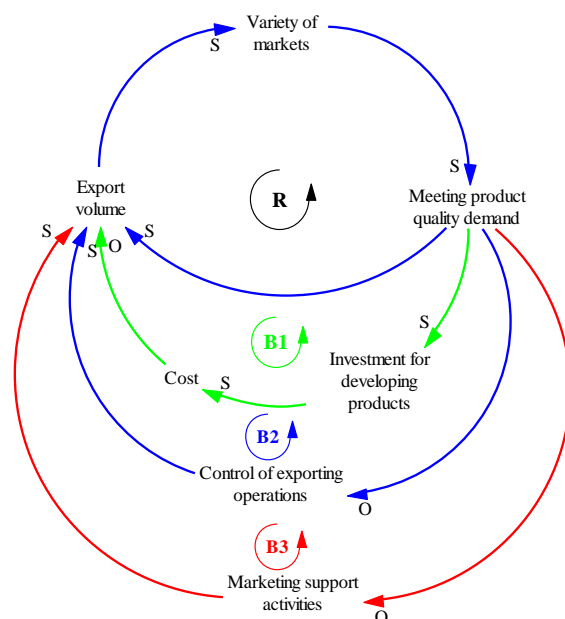
### An analysis of the internal barriers

Internal barriers are the most important problems for coffee export.

- **Product**

Managers of coffee enterprises consider the product barrier as the most important among the internal barriers that influence the export performance of export companies. The product barrier occurs in developing new products for specific foreign markets, meeting export quality standards and packaging, adapting export product design/styles, and providing an after-sales service (Dichtl et al., 1984; Leonidou, 2004).

As indicated in Figure 1, if companies want to increase the volume of their coffee export, they have to first explore the variety of coffee markets. In order to meet the demands of different world markets, coffee export enterprises have to adapt their coffee products according to desired tastes, different quality standards and the variety in packaging for specific foreign market needs and wants. These requirements are the result of the different conditions of use in different countries, variations in purchasing power, dissimilar consumers, varying tastes, and diverse socio culture (Leonidou, 2004). Meeting the demands of different markets will increase the volume of coffee export. Although such adaptations are vital in gaining product acceptance and increasing company sales, they can pose several problems for a firm: (1) a rise in unit costs and consumption of time due to investment in developing coffee quality, flavour, packaging, and specifications (see loop B1); (2) ability to control exporting operations (see loop B2); and (3) variations in marketing support activities abroad (see loop B3). These problems are the causes of export volume reduction and have become a bottle neck for the development of Vietnamese coffee export activities.



**Figure 1: Product barrier**

*Strategies:* Vietnamese coffee export companies may overcome the product barrier by

- reducing the cost of developing new coffee products through the formation of strategic alliances with other companies with expertise in introducing new coffee products internationally or adapting the product (*such as Nescafe, Starbucks, Dallmayr, Caffé Vita Coffee Roasting Company, etc.*), as opposed to standardising it in each market;
- increasing marketing activities especially by supporting niche markets;
- increasing the ability to control coffee export operations in insecure and variable markets; and
- changing the way in which coffee is produced – adoption of improved production technologies to increase the productivity and quality of the product.

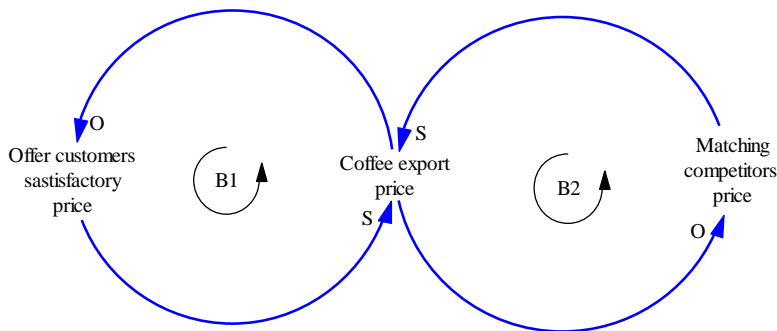
- **Price**

The price barrier is a serious problem for Vietnamese coffee export firms because it has a significant effect on both customer satisfaction and competitors' price. In recent years, Vietnamese coffee enterprises had to increase coffee export cost due to the additional costs incurred in

- ✓ modifying the product, its packaging, and service in foreign markets;
- ✓ higher administrative, operational, and transportation expenses connected with exporting;
- ✓ extra taxes, tariffs, and fees imposed when entering the host countries; and
- ✓ the higher cost of marketing and distributing the goods in overseas markets (Piercy *et al.*, 1999).

It has therefore become very difficult to offer satisfactory prices to customers and to match competitors' prices for increased coffee export volumes (see Figure 2).

As indicated in Figure 2, when coffee export cost increases, it causes the export price to accelerate in order to retain a profit for the exporting enterprise. Thus, the ability to offer satisfactory prices to customers of coffee export companies will continue to reduce. If export companies want to increase their ability to offer satisfactory prices to foreign customers, they will have to increase the export price. This will in return lead to a decline in the offering of satisfactory prices for foreign customers (see loop B1). Another barrier to coffee export price is the difficulty to match competitors' prices. If the Vietnamese coffee export price increases, it will not match that of competitors. This leads to Vietnamese coffee products becoming less competitive than that of other countries.



**Figure 2: Price barrier**

*Strategies:* The Vietnamese coffee exporters can reduce the impact of this problem by

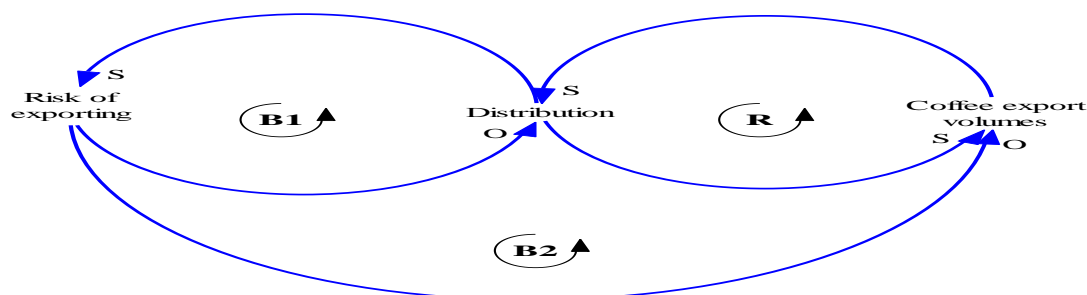
- producing cheaper versions of coffee products; and
- operating in niche markets to enhance competitive advantages.

• ***Distribution***

The distribution barrier is one of the major challenges facing coffee exporters in Vietnam. Figure 3 indicates that growth in the ability to distribute coffee in international markets will increase the volume of coffee export. Increasing the coffee export volume requires an escalation in distribution ability in the overseas markets (see loop R).

This obstacle can be explained by

1. complex foreign distribution channels because the distribution channel is different not only between the home and host countries, but also between overseas markets;
2. accessing export distribution channels are difficult due to the fact that some channels of distribution are already occupied by competitors; and
3. obtaining reliable foreign representatives. It is very hard to find foreign representatives who would meet the structural (financial strength, facilities), operational (product assortment, logistical arrangements, coffee warehouse facilities), and behavioural (market reputation, relationships with government cooperative attitude) requirements of the exporter (Leonidou, 2004; Yannopoulos and Kefalaki, 2010). An increase in the distribution ability also leads to accelerated risks in coffee export. As the risks in coffee export increase, both distribution ability and export volume will decrease (see loop B1 and B2).



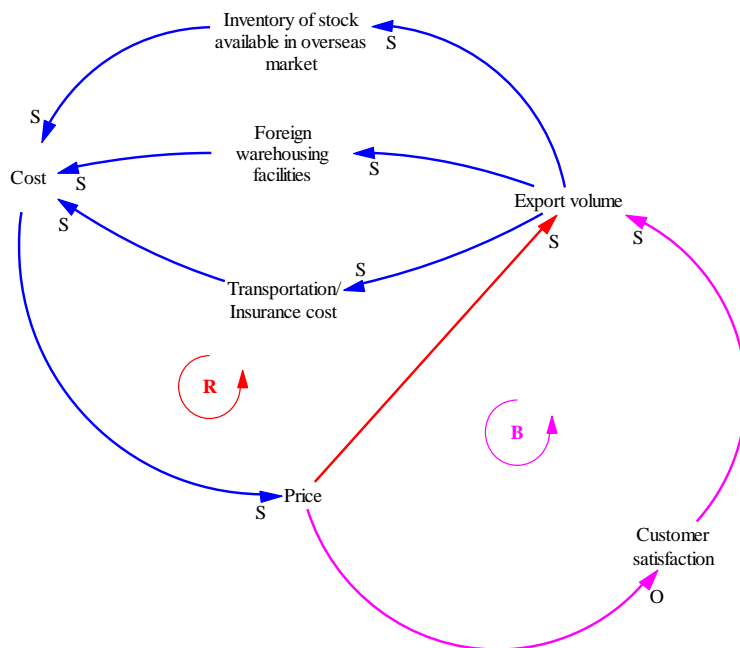
**Figure 3: Distribution barrier**

*Strategies:* To reduce the distribution barrier, Vietnamese coffee export companies should:

- address the complexity in foreign distribution channels by adjusting their distribution;
- find ways to bypass the difficulty in accessing export distribution channels by seeking the assistance of international coffee export management companies which already have established distribution systems or have set up direct coffee distribution channels to consumers;
- obtain reliable foreign representation by attracting both traditional and new representation through offering higher profit rates.

- ***Logistics***

The logistics barrier can be seen as a further extension of the distribution barrier (Leonidou, 2004; Price and Nance, 2010). The logistics barrier refers to the difficulty in maintaining an adequate supply of stock in overseas markets, unavailability of foreign warehouse facilities, and excessive transportation and insurance costs (Julian and Ahmed, 2005; Yannopoulos and Kefalaki, 2010). The logistics barrier to Vietnamese coffee export is presented in a CLD (Figure 4). In this figure, the reinforcing loop (R) shows that an increase in the coffee export volume requires an increasing ability in three aspects. First, an increase in the provision of an inventory to overseas markets, because the exporters require an adequate supply of coffee products abroad to be able to deliver products in the case of unexpected events such as transportation delays or demand fluctuations. A lack in the ability to supply products in such cases may give rise to a number of disadvantages for the exporter, such as (1) a 'bad' image for Vietnamese coffee products in the foreign market; (2) lost sales and profits from potential and existing customers; and (3) extra costs when using forced to use faster transportation means. Many Vietnamese coffee export companies claim that the more distant the foreign market is, the greater the likelihood of experiencing product shortages. Secondly, an increase in coffee export volume leads to the problem of a lack of available foreign warehouse facilities. In some foreign markets there are either not enough warehouses available in which to store the coffee products or the proper installations (equipment technology) to safeguard coffee quality are out-dated. Finally, an increase in coffee export volume also escalates transportation and insurance cost. This is because distances from foreign markets are usually greater than in the case of domestic markets (Leonidou, 2004). Selling coffee abroad requires additional insurance coverage. An increased ability in all three these aspects can increase the cost of coffee products and subsequently the price that end-consumers have to pay. This is a crucial problem for Vietnamese coffee export enterprises, since it can seriously damage its competitiveness in international markets. This means that a surge in coffee export price will lead to an increase in volume export (see loop R in Fig.4), but the subsequent increase in the price of coffee will have a negative effect on customer satisfaction. In the long term, this will lead to a decrease in coffee export volume.



**Figure 4: Logistics barrier**

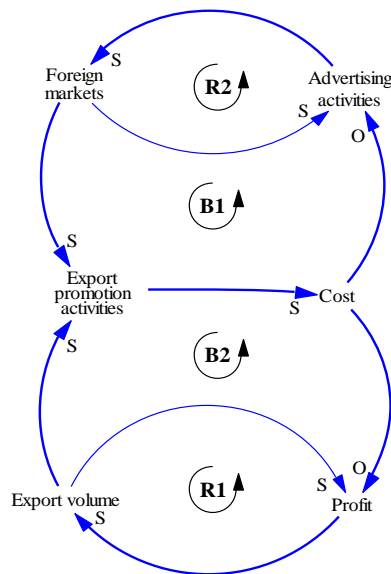
*Strategies:* To reduce difficulties in the coffee export logistics, the coffee export companies should:

- improve relationships with key local suppliers who have good infrastructures and facilities for coffee products;
- pay more attention to packaging and labelling in the host markets to reduce the cost of transportation, insurance, and inventory.

- **Promotion**

The promotion barrier deals with adjusting export promotional activities to individual foreign market requirements in relation to the variations in buying motives, consumption patterns, and government regulations (Leonidou, 2004; Lewin et al., 2004). The effect of the promotion barrier to export performance for coffee export firms is at a moderate level (Leonidou, 2004). Figure 5 shows that both coffee export volume and foreign coffee markets are strongly influenced by export promotion activities. When export promotion activities increase, it can lead to a rise in the cost of the coffee product. Increasing cost of coffee products leads to not only a reduction in profit, but also in advertising activities in global markets. While reduced advertising (the message, advertising media, frequency and duration of advertising) leads to limited international markets (see loop B1), a decrease in export volume is also a cause of reduced coffee export profit (see loop B2). Both of these affect export promotion activities negatively.





**Figure 5: Promotion barrier**

*Strategies:* Almost all the Vietnamese coffee export enterprises have limited promotional resources and low levels of competition. Coffee marketing efforts must therefore be judiciously targeted and professionally developed. The most efficient approaches focus on relationship building, such as exporter and roaster visits and trade shows, rather than on non-targeted advertising. Some useful promotional strategies such as E-Trade and business development, internal consumption campaigns, and market information systems should be applied in the coffee trade.

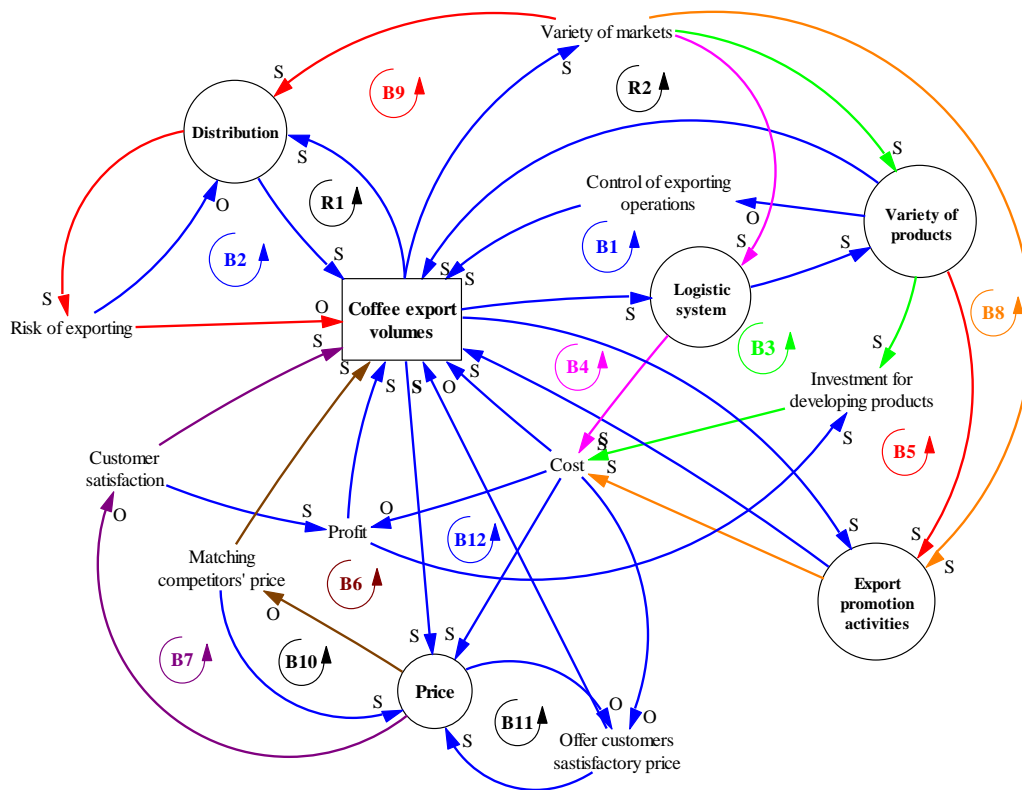
- ***Overall analysis of the internal barriers***

Figure 6 indicates the constraining effects of each of the eleven internal barriers (shown in balancing loops) on Vietnamese coffee export activities. Variety of product is the most influential problem encountered by coffee exporters. If coffee export enterprises want to increase their export volume, they need to expand their markets. In fact, this becomes a problem in countries where the customers are seeking a better quality, and require more attractive labelling/packaging/styles than those offered in the company's home market. To meet these requirements, coffee firms have to invest more in developing new products. However, higher investment in developing new products will lead to an increase in the cost of the product. As a consequence of increasing the cost, the volume of coffee export will decrease (*See balancing loop B3: Variety of products – Investment for developing products – Cost – Coffee export volumes – Variety of markets*).

Although most coffee enterprises in Vietnam take advantage of the low labour cost, the coffee export price is becoming a serious barrier due to the continuous increase in the cost of input materials. The price affects both competitiveness and customer satisfaction. As mentioned above, if coffee enterprises want to increase coffee export volume, they are required to expand their international markets via a bigger variety of coffee products for the niche markets. However, if this is expected to be successful it will mean higher costs due to the additional costs incurred in modifying the product, its packaging, transportation expenses, advertising and extra taxes in overseas markets. However, if prices escalate it will not only reduce competitive advantages (not matching that of competitors - see balancing loop B6: *Coffee export volume –*

Variety of markets – Variety of products – Investment for developing product or Export promotion activities – Cost – Price – Matching competitors’ price), but will also lead to a decline in customer satisfaction (see balancing loop B7: Variety of markets – Variety of products – Investment for developing product or Export promotion activities – Cost – Price – Customer satisfaction). As a result of the lack of price competitiveness, the coffee export volume will decline.

Three other common barriers in the coffee export industry were discussed, namely logistics, promotion and distribution. These barriers imply that when companies decide to expand their international markets, they have to (1) upgrade and establish a new supply inventory system (see B4: Variety of market – Logistic system – Cost – Coffee export volume); (2) adjust promotional activity to individual foreign market requirements in a responsible way (see B8: Variety of market – Export promotion activities – Cost – Coffee export volume); and (3) vary distribution channels (see B9: Variety of market – Distribution – Coffee export volume) in overseas markets. All of these lead to an increase in the cost or the risk in export activity and consequently a decrease in the volume of coffee export.



**Figure 6: Overall analysis of internal coffee export barriers**

In conclusion, there are several specific internal barriers to coffee export to overseas markets that warrant particular attention namely: *product, price, logistics, distribution, and promotion*. These obstacles can be overcome by the internal actions of the coffee export firms. To overcome these barriers, enterprises should determine the causes of each type of barrier. For instance, a lack of information and knowledge about customer attitudes, preferences and habits may be the cause of providing coffee products that do not meet the customer’s needs and wants. Therefore, a customer investigation in different markets may help to solve the root cause of the

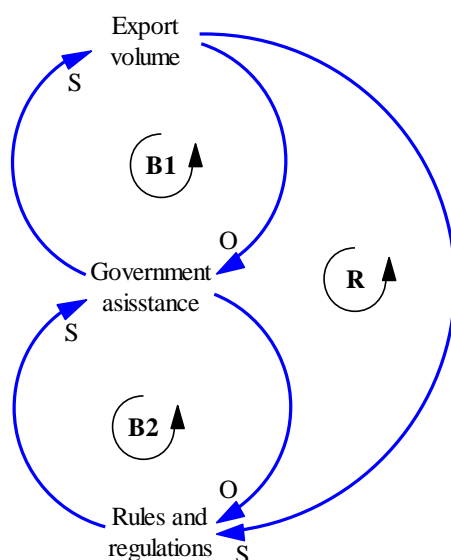
problem. However, adapting product(s) to foreign market specifications is difficult because it may require a large initial investment, which many Vietnamese coffee exporters lack.

### Analysis of the external barriers

- **Government barriers**

Government barriers are the actions or inactions of the Vietnamese Government to support coffee exporters. Government agencies can be major promoters of coffee export activities by guaranteeing loans, providing updates on the information of coffee export prices and market data, and being party to interstate trade agreements. Thus, if coffee exporters receive strong support from the Vietnamese Government, the coffee export volume will increase (see balancing loop B1 in the Figure 7). Good support from government will also reduce rules and regulations with regard to Vietnamese coffee in host countries through trade agreements (see balancing loop B2 in Figure 7). However, an increase in coffee export volume requires expanding the foreign market, which will lead to an increase in rules and regulations, since each market has its own product standards, technical standards and rules (see reinforcing loop R in Figure 7).

In recent years, although the assistance of the Vietnamese Government (*for example: quality standard for each market, information on coffee price, demand for information, etc.*) has increased, some coffee exporters claim that they do not receive such assistance, or when this is offered, it is insufficient and does not satisfy the specific needs of the coffee companies. On the other hand, even though this assistance may be fully provided, there are instances of coffee exporters not being aware of how to make use of it.



**Figure 7: Governmental barriers**

*Strategies:* The Vietnamese Government needs to:

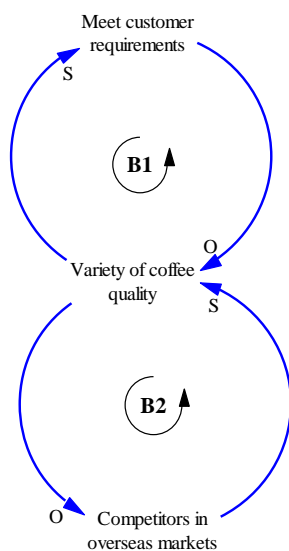
- assure that the macroeconomic conditions and legal framework are conducive for coffee export enterprises;
- support coffee export companies by providing relevant information about coffee markets, attractive tax incentives programs, export promotion programs; and

— provide a detailed overview of rules and regulations for overseas markets to exporters.

- **Task barriers**

Task barriers focus on customers of Vietnamese coffee and Vietnamese coffee export competitors in the foreign markets, which can have an immediate effect on its export operations.

As indicated in Figure 8, an increase in the coffee quality will increase the satisfaction level of customers and meet the requirements of customer habits. However, this is an obstacle for Vietnamese coffee exporters, because customers living in different climatic conditions with different income levels and educational standards have clear differences in coffee product preferences, price acceptance levels, distribution systems, and methods for making a cup of coffee. Therefore, an increase in the investment to diversify products to meet customer requirements in different markets will lead to a reduction in the investment for upgrading the quality of coffee exporters' products (see balancing loop B1). This is due to a lack of capital and technology to produce a variety of products for different markets. Increasing coffee quality not only meets the requirements of consumer habits, but also reduces the number of competitors in the global markets. This is because some exporters don't have the ability to provide coffee products with high quality standards. Adjusting their product strategy to accommodate this will incur higher costs and create exporting delays. However, when competitors in overseas markets reduce, it will lead to a decline in the quality of Vietnamese coffee products because the pressure of increasing the quality of Vietnamese coffee exporters will reduce (see balancing loop B2).



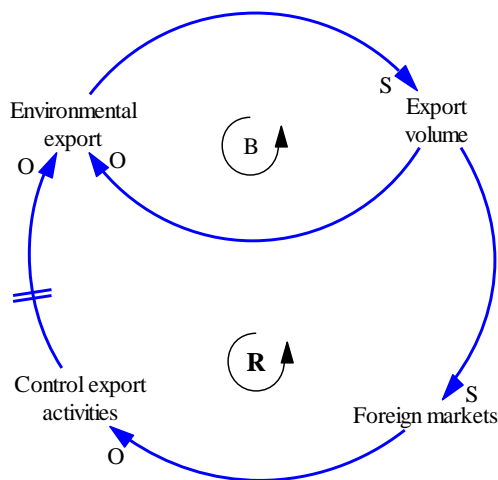
**Figure 8: Task barriers**

*Strategies:* To overcome this barrier, Vietnamese coffee exporters should adopt niche marketing as the most viable strategy to compete abroad.

- **Business environmental barriers**

Business environment barriers refer to economic conditions abroad, and the political-legal and sociocultural environment of international markets. These barriers are usually difficult to

predict and control. As illustrated in Figure 9, favourable environments in the host countries have positive effects on coffee export volume. However, these countries may not be attractive to coffee exporters due to poor or deteriorating economic conditions (low income per capita and inflation). The governments in these countries can impose a number of controls on exporters selling coffee products in their markets such as coffee price control, entry restrictions or special tax rates. These are serious barriers to coffee exporting. A favourable environment in the host countries has been seen as a solution to the problem of coffee exporting. Increases in export volume, an unintended consequence of this solution, also occur. This is because increasing the quantity of coffee export requires expanding international markets. As a result of this, the ability to control export activities of coffee exporters may reduce.



**Figure 9: Business environmental barriers**

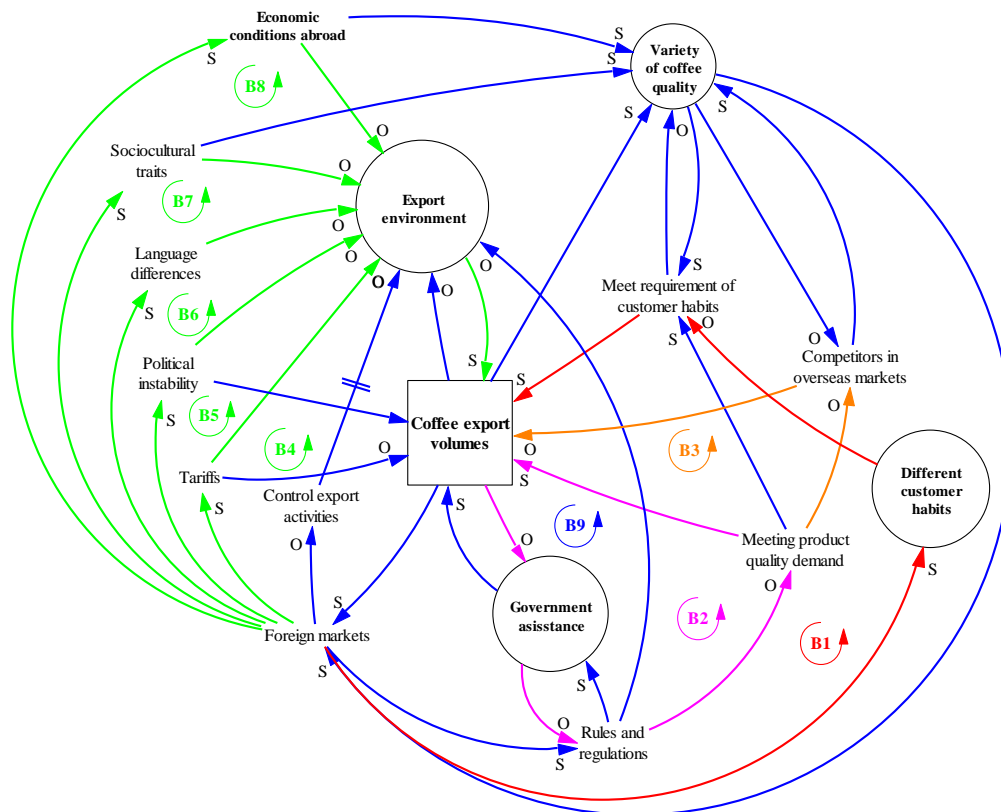
*Strategies:* Coffee export firms need to intensively research the economic and social conditions of host markets before exporting their products and increasing cooperation with partners in importing countries.

- ***Overall analysis of external barriers***

Figure 10 shows the result of the obstructing effects of each of nine common external barriers (visible in the balancing loops) on Vietnamese coffee export. The most important external barrier is the assistance from the Vietnamese Government. Vietnam's agencies in foreign countries can guarantee loans, sponsor trade missions, be directly involved in interstate trade and organise trade fairs and agreements for coffee export activities. However, currently coffee exporters do not receive such assistance from the Vietnamese Government, which means that the export enterprises continue to face more rules and regulations in overseas markets. This leads to a reduction in the capability of the enterprises to produce coffee for exporting and as a consequence coffee export volume will continue to decline (*see balancing loop B2: Government assistance – Rules and regulations – Meeting product quality demand – Coffee export volumes*).

The export environment is also one of the most unpleasant external barriers encountered by coffee exporters. When coffee export enterprises want to increase export volume, they have to expand their markets. However, there are many differences between the home and foreign markets in relation to customer habits and attitudes, cultural traits and languages, economic

conditions, tariffs, political environment and product standards and specifications. Expanding the overseas markets means that the exporters will experience increasing difficulties, which could lead to a reduction of the coffee export volume (see balancing loop B4, B5, B6, B7 and B8: *Coffee export volumes – Foreign market – Tariffs/Political instability/Language differences/Sociocultural traits/Economic conditions abroad – Export environment*).



**Figure 10: Overall analysis of external coffee export barriers**

In summary, export environment, assistance of government and different customer habits are the most common external barriers that cause a reduction in the opportunities for exporting Vietnamese coffee products. These barriers cannot be overcome by the coffee exporter's internal actions or through education. Therefore, this study suggests that it is important for government program administrators to be aware of the perceived strategic limitations and when possible, find ways to help coffee export enterprises overcome these limitations. The Vietnamese policy makers need to augment the promotional, operational, and educational programs that they service in a bid to reduce the effects of perceived exporting problems. Such responses can be made in two ways. On the one hand, indirect efforts may be made through assisting in primary research activities to help coffee exports seek potential foreign market opportunities and identify suitable overseas representation. On the other hand, direct efforts may be made to provide export incentives and simplify regulatory procedures.

## CONCLUSION

The above discussion has demonstrated that there are many obstacles to the internationalisation of Vietnamese coffee companies. These are associated with internal weaknesses (such as the ability to have product variety, logistic ability, promotion strategies, and distribution ability) and external factors (e.g. the role of government and the political-legal and sociocultural environment of international markets). In general, internal barriers found within the country are more controllable and easier to manage while external problems occurring in the international market are difficult to manage. The systems thinking approach is a valuable methodology to identify how these obstacles or barriers affect the coffee export industry.

Overcoming the multiple barriers that have an effect on the coffee export companies will not be easy. It requires an understanding of the relationships between exporters and their import partners as well as the environmental factors in the different markets. Obstacles for managers of coffee export enterprises have been highlighted through the construction of a series of CLDs. Exploring the relationships helped to identify basic strategies for overcoming these obstacles in order to improve the competitive advantage of Vietnamese coffee products in the international market.

The results presented in this paper provide a better understanding of the complex influences of export barriers on Vietnamese coffee export activities. Although internal factors such as product, price, distribution, logistics and promotion may play a vital role in shaping the CLDs, other external barriers were shown to be highly relevant. These include task, government, and environment. Details of these CLDs do not only provide coffee export managers with a snapshot of the Vietnamese coffee export system and its obstacles, but also help to define basic strategies to overcome these difficulties. In forthcoming papers, the CLDs of export barriers will be developed further in order to be incorporated into the context of the overall coffee supply chain management system.

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