

---

# **The Process of Purchasing Raw Coffee at Coffee-Processing Enterprises in Vietnam-Situation & Solutions**

**Ngoc Ninh Doan\* and Anh Tuan Vu**

Faculty of Economics and International Business, Thuongmai University, Vietnam.

\*Corresponding author email id: [ninh.dn@tmu.edu.vn](mailto:ninh.dn@tmu.edu.vn)

Date of publication (dd/mm/yyyy): 29/01/2024

---

**Abstract** – The purchasing process plays a crucial role in the success of coffee processing enterprises in Vietnam. It has a significant impact on procurement decisions and the selection of high-quality suppliers. The quality of input coffee is a critical factor that affects the final output of processed products and the export commodities of these processing enterprises. This study aims to analyze the current state of coffee processing enterprises concerning their professional procurement process for raw coffee used in production and business operations. Based on a comprehensive assessment of the prevailing situation, this article proposes various strategies to optimize the purchasing process within coffee processing enterprises.

**Keywords** – Purchasing Process, Purchase of Material Coffee, Purchase of Raw Coffee, Coffee Processing Enterprises.

---

## **I. INTRODUCTION**

The role of purchasing in business operations is paramount as it entails decisions regarding the quality, quantity, and timing of input material procurement, thus optimizing the cost of production and business processes. Effective purchasing practices have been shown to enhance performance and promote competitiveness among companies. Within the context of coffee processing enterprises, the input chain plays a vital role. This is due to the significant influence that raw coffee holds on the quality of the final processed products. Outdated processing equipment, inefficient investments in the processing stage, and the use of low-quality raw coffee beans can result in poor-quality processed coffee products that fail to meet established testing standards. Additionally, ensuring a stable, timely, and efficient supply of input materials is a crucial determinant affecting output processing, processing time, and overall processing costs, ultimately impacting the optimization of business operations.

Less than 5% of the exported coffee products are classified as specialty coffee, despite Vietnam being the second largest exporter worldwide in terms of output (Do, T.-N., Kumar, V. and Do, M.-H. 2020). Various factors such as limited processing capabilities, outdated machinery, low processing capacity, substandard quality, and lack of unique flavor contribute to this scenario. To elevate the quality and value of Vietnamese coffee exports, it is imperative to implement synchronized strategies and establish a sustainable supply chain network for coffee enterprises in Vietnam. A key solution proposed to combat this problem involves optimizing the raw coffee purchasing process. Therefore, this article undertakes an analysis of the current procurement procedures employed by processing enterprises to identify areas for improvement and subsequently propose strategies to enhance the process. By implementing these solutions, the processing and exporting capacities of coffee processing enterprises in Vietnam can be significantly improved.

## **II. RESEARCH METHODS**

In terms of theoretical foundation, this article utilizes the theory of supply chain management and purchasing activities, approached from the perspective of input factors in the supply chain and based on the theoretical frame-

---

-work of supply chain management.

In terms of empirical data, the article employs interview and survey results from approximately 90 coffee processing businesses. The interview and survey data were processed using SPSS 20 software and analyzed to examine the content of the purchasing process, thereby constructing the most accurate picture of the raw coffee purchasing process of these coffee-processing businesses.

### III. THEORETICAL BASIS OF THE PURCHASING PROCESS

Purchasing can be approached from various perspectives. In this article, the purchasing process is understood as a part of the supply chain, specifically the low tier of supply management within an organization. Therefore, purchasing can be perceived as a commercial activity, acquiring necessary inputs for the business (Lysons, 2016). From this perspective, purchasing is a system of operational activities aimed at acquiring the required quantity of goods and materials to support the business's production and operations. Procurement manages external resources of the company by providing all necessary goods, services, capabilities, and knowledge to ensure the smooth operation, maintenance, and management of critical activities and support of the company under the most favorable conditions, including documents, information, and finances until the point of consumption (Weele, 2010).

From a different perspective, purchasing can be understood as a business management function that ensures the identification, sourcing, access, and management of external resources that an organization needs or may need to achieve its strategic objectives (Lysons & Farrington, 2016). In the value chain framework by M. Porter, purchasing is the input stage in the value chain, connecting the upstream members of the value chain, and it is part of the logistics strategy. The stages of purchasing include analyzing needs, making purchasing decisions, selecting suppliers, monitoring supplier evaluation, and developing long-term supplier relationships.

With the operational approach to purchasing here as a business activity, the process involves carrying out steps in procurement, acquiring equipment, and obtaining input resources to serve the business production process. Therefore, *purchasing is understood as a system of activities and decisions aimed at obtaining input goods and materials to serve the business production process and achieve the objectives of the enterprise (Monczka et al., 2021).*

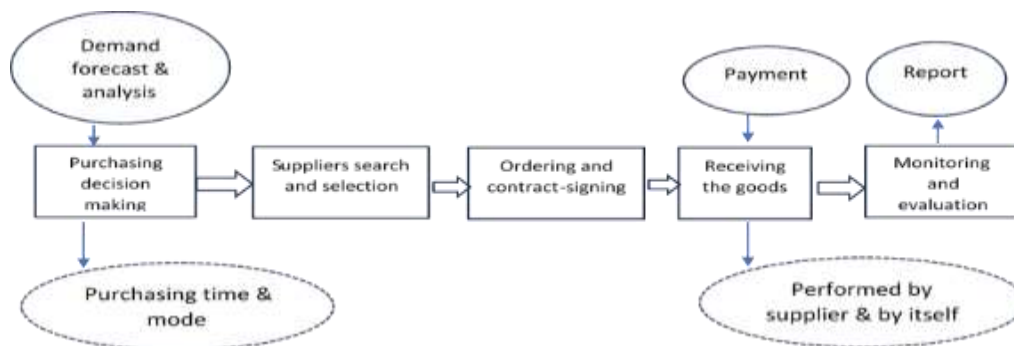


Fig. 1. Purchasing professional process (Source: Developed from Weele, 2010).

Standardizing purchasing activities requires the development of an efficient purchasing process that ensures sequential, thorough, and consistent steps are taken. According to Monczka et al (2021), the purchasing process consists of interconnected, sequential, and cyclical steps involved in carrying out procurement transactions, with specific steps depending on each industry and the unique characteristics of the company.

As indicated by Johnson (2016), a company's purchasing process typically undergoes six stages: (1) identifying needs, (2) deciding to make or buy, (3) selecting a procurement method, (4) choosing suppliers, (5) receiving goods, and (6) evaluating post-purchase. These steps are undertaken sequentially according to each stage's specific content.

In line with this perspective, Weele (2010) also identifies similar developmental stages of purchasing, encompassing steps from making purchase decisions to searching for and evaluating suppliers. Based on the viewpoints of scholars and reputable works, generally, the purchasing process includes tasks such as market research, supplier search, needs assessment, and purchase evaluation. With an inheritance and modeling approach, the steps of the purchasing process are schematized, and the purchasing process model represents a collection of steps that align with the objectives of the business. The steps in this model illustrate relationships and the modeling encompasses the operational requirements to be implemented throughout the purchasing process. The essential content and relationships of this process are depicted in Figure 1 above.

#### **IV. CURRENT STATE OF THE PURCHASING PROCESS AT COFFEE PROCESSING ENTERPRISES**

##### *a) Determining Processing Production Needs*

Purchase decisions in coffee processing enterprises in Vietnam primarily revolve around two aspects: determining when to make purchases and how to make them. Once the demand has been identified by the forecasting and purchasing departments, the coffee processing enterprises proceed with their purchasing activities. These activities encompass new purchases, repurchases, and adjusted purchases, constituting the initial stage of the purchasing process in coffee processing businesses. Based on an analysis of these requirements, the enterprise determines the quantity of goods to be purchased. Generally, the business pre-signs purchase contracts with customers or partners, often wholesalers or exporters.

In general, steps in the purchasing process are built quite methodically and prudently by coffee processing enterprises in deciding each step in the process. In the survey sample with a very high level of importance, as the table below can be seen, the average score is above 4 points, showing that each step in the process has a very important role in the purchasing task process of the coffee processing enterprises.

Table 1. The significance levels of the various steps in the purchasing process of coffee processing businesses.

<b>Statistics Index</b>	<b>Demand Analysis</b>	<b>Supplier Search and Selection</b>	<b>Order-Making and Contract-Signing</b>	<b>Goods Receiving</b>	<b>Monitoring and Evaluation</b>
Average	4.40	4.49	4.53	4.46	4.49
Standard deviation	0.616	0.605	0.586	0.623	0.606

Source: Survey results.

In terms of purchasing modes, it is easy to find that coffee processing companies focus mainly on the adjusted repurchase method, and the table below shows the average score of frequency of using purchasing methods which vary in scores. The score of 4.15 recorded for the adjusted repurchase method shows that this method is mainly used by coffee processing enterprises as each crop year they use traditional suppliers but, for each time of purchasing, can have adjustments in line with each year crop's actual conditions via renegotiation of price and consumption output. Due to the high dependence on fluctuations in world coffee prices and the demand of coffee-

consuming markets, coffee processing companies rarely use the buy-back method, the average score is quite low at 2.44. This also shows that in the survey sample, there are only a few large enterprises, which have a long-term relationship with suppliers, so almost the terms and regulations are fixed for a certain period. The purchase decision can be made immediately without the need to modify the contents of the contract.

Table 2. The utilization level of purchasing methods in coffee processing enterprises.

<b>Purchasing Modes</b>	<b>Mean</b>	<b>Std. Deviation</b>
Repurchases	2.44	1.192
Adjusted purchases	4.15	.598
New purchases	4.15	.766

Source: Survey results.

Similarly, many businesses use the mode of new purchasing, surveyed with an average score of 4.15 - a very high level of frequency, which also shows that often in each crop year, coffee processing enterprises can actively look for new suppliers. Stability with suppliers is low, coffee businesses can change suppliers continuously, at different times, in different seasons, often due to the requirement of price fluctuations and coffee quality.

In terms of buying time, most coffee processing enterprises choose to conduct purchases in advance, the frequency of which is the highest, followed by mixed purchases. Businesses often base themselves on signed contracts with partners, forecast increased demand, and market trends in domestic and international coffee consumption, and calculate the quantity of goods needed to buy. Afterward, they will conduct pre-purchase to reserve, together with flexibly using instant purchase to meet additional orders.

Table 3. The purchase timing of Coffee processing enterprises.

<b>Purchasing time</b>	<b>Minimum</b>	<b>Maximum</b>	<b>Mean</b>	<b>Std. Deviation</b>
Instant purchases	1	5	2.08	.997
Purchases in advance	2	5	4.18	.740
Mixed purchases	1	5	3.22	1.324
Total				

Source: Survey results.

Normally, coffee processing enterprises will often order in advance with a moderate amount, or less than the actual demand, in case of need, they will buy immediately to supplement the missing orders. This has helped the business achieve the goal of best meeting the needs of processing activities and not risking excess coffee due to overbuying. Basically, the processing activities of enterprises are quite stable, therefore, the score for instant purchase is quite low, at 2.08 showing that enterprises rarely use this time of purchase.

### *b) Searching and Selecting Suppliers*

This is the next stage of the purchasing process, which is usually structured methodically by the coffee business, they detail the stages of the supplier search and selection process, specifically following steps such as (1) Searching for information and building supplier data, (2) Determining supplier selection criteria, (3) Identifying potential suppliers, (4) Screening suppliers in the list of potential ones, (5) Evaluation in the screening list, (6) Supplier sele-

-ction decision.

Basically, the supplier selection stage is strictly controlled, from finding supplier information, usually identified in the business's regularly purchased supplier list, and searching for suppliers in potential growing areas, as well as coffee distributors and traders. From this list, based on the needs of the business, the staff in charge calculates whether the number of suppliers is appropriate, according to predefined criteria such as output, quality, ability to meet the number of suppliers, and preferential policies, based on the basic expenses to choose the right suppliers.

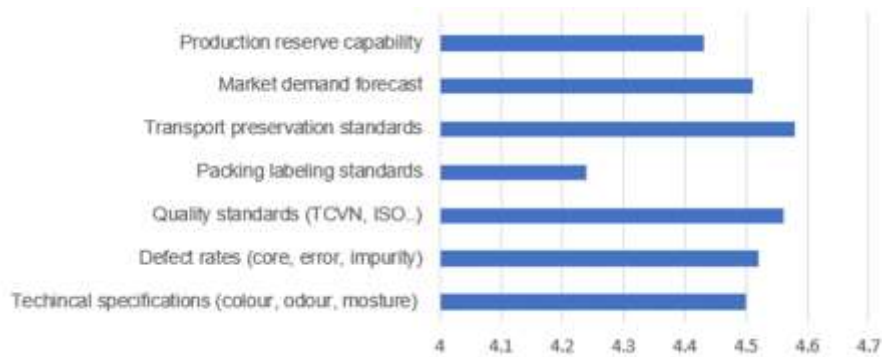


Fig. 2. Level of importance of purchasing decision criteria. Source: Survey results.

For coffee products, the search and selection of suppliers to evaluate the quality standards are highly valued by coffee processing enterprises, the criteria are developed very detailedly technically. This requirement is often very clear for supplier searches.

Looking at the table above, we can see those criteria such as technical characteristics, rate of coffee bean defects, quality standards, labeling standards or production capacity are the criteria that most businesses choose at a very high level with a low standard deviation, the highest is 0.806, pointing out that the responses of the enterprises are very concentrated, most of the enterprises highly require the selection of these input factors.

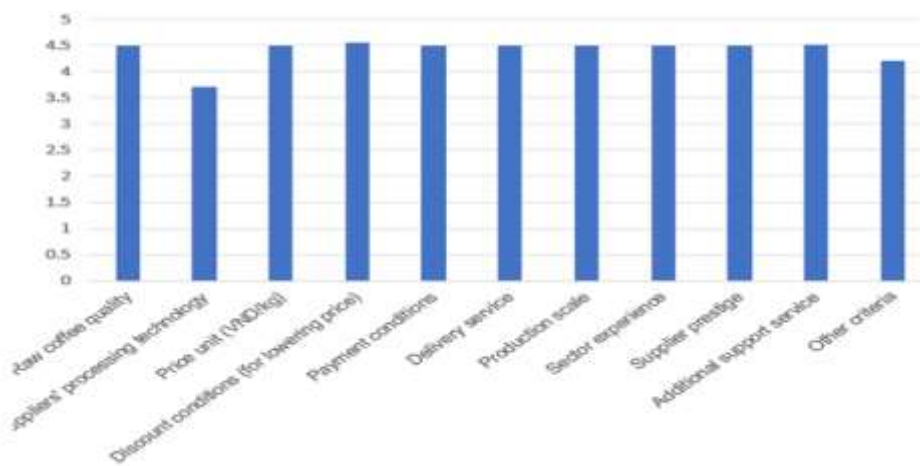


Fig. 3. Level of importance of criteria for selecting the supplier. Source: Survey results.

To ensure the quality of raw coffee, coffee processing enterprises also use measures such as quality control at suppliers' warehouses, at factories, or directly participating in the planting process at their gardens, farms, and farms as described above, a method of quality control when purchasing raw coffee.

c) *Placing Orders and Signing Contracts*

Regarding order placing, coffee processing companies will normally order in advance, in a small quantity, just enough for cases of immediate response for processing activities, ensuring partial supply for customers; when having big orders, they continue to order large quantities. Since suppliers usually require a deposit of 10% of the contract value, which sometimes is not a small amount, the enterprises tend to think over when having to pre-ordering in bulk.

To negotiate successfully, it is necessary to follow a reasonable process including (1) Preparation phase, (2) Contact phase, (3) Negotiation phase, (4) Negotiation-closing phase & contract signing phase, and (5) Experience-drawing phase.

The negotiation process usually ends with a written agreement, also known as a purchase and sales contract. At this time, details that are discussed and agreed upon by both parties are to be included in the agreed terms of the contract, ensuring compliance with regulations and conventions in contract drafting.

The main information to be included in the contract of sale: (1) Name and address of the ordering company, (2) Number and code of the order, (3) Time of making the order, (4) Name and address of supplier, (5) Name, quality, specification of materials to be purchased, (6) Quantity of materials to be purchased, (7) Price, (8) Time, delivery location, (9) Payment.

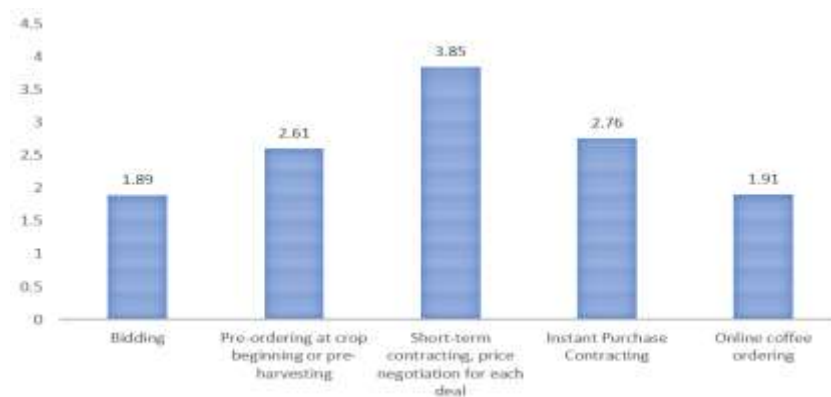


Fig. 4. Forms of ordering raw coffee by coffee processing enterprises. Source: Survey results.

From the table above, we can see that the current forms of ordering are mainly short-term contracts, with a high score of 3.85, proving that businesses regularly use this ordering method in which the price is determined for each crop year. This is consistent with the above analysis when most purchase contracts are short-term, and businesses only buy the goods in certain quantities, pre-ordering just enough to serve their processing operations. Other forms of ordering are used quite sparingly by enterprises, for example, the form of bidding surveyed with a very low average score of 1.89 or ordering from the beginning of the season and instant purchase contracting, also with a low average score of 2.61 and 2.76 respectively. Especially, the form of using online coffee ordering is recorded with an average score of 1.91, proving that businesses rarely use this form in ordering goods from suppliers.

#### d) *Goods Receiving Process*

In the receiving process, which is mainly based on the foundations established in the sale and purchase contract, the receiving process includes receiving the quantity, and quality, and documenting the delivery of goods. Basically, coffee processing enterprises control this stage very well in terms of procedure, although the work of ensuring the receiving facilities is still limited. For example, the way of loading and unloading goods and collecting

goods on the means of transport or placing and gathering of goods in the warehouse is not satisfactory, having not had modern technology applied, mainly involves manual labor, leading to not high productivity and efficiency.

- This is the process of transferring ownership of goods; therefore, enterprises are quite cautious in determining the material liability of goods. The receipt of details, specific about the specifications of the goods, the type of the goods, the current quality of the goods, or the quantity of the goods in general. These items are carefully checked by coffee processing companies in accordance with the purchase and sale contract, or the order.
- They not only check the implementation of the import plan of the enterprise but also the purchase and sale contract of the enterprise and develop a quick inspection method.
- Coffee processing companies have developed requirements to ensure timely receipt, use advanced methods in receiving goods such as quantity counting, quality inspecting, etc. make sure quick release of vehicles, fast moving of the goods into the warehouse, assuring that the process of storing goods will be continued to be same in the process of supplying goods.

#### e) *Monitoring and Evaluating*

In this stage, the processing enterprises execute supervision based on the standards defined in the evaluation and selection of suppliers to monitor the performance of suppliers. For the set goals, coffee processing enterprises basically have adhered to these criteria to carry out monitoring and evaluation of suppliers. However, suppliers are usually not long-term, mainly engaged in one crop, leading this monitoring and evaluation to be based on each contract, each specific purchase and sale transaction.

### **V. PROPOSE SOLUTIONS TO OPTIMIZE THE COFFEE PURCHASING PROCESS**

For most operational activities in business operations in general, establishing an optimal purchasing process plays a crucial role in enabling enterprises to easily carry out steps consistently, efficiently implement, and effectively control the process.

An optimized purchasing process will help the enterprise not only effectively control the quality of raw coffee materials and manage costs but also cross-functionally control the functional departments in purchasing tasks. In this process, the implementation steps are detailed, as well as the description of each step's execution, with the aim of building an applicable optimal purchasing process in coffee processing enterprises in Vietnam.

#### (1) *Determining the Need to Purchase Raw Coffee:*

The key issue for businesses is to accurately determine the purchasing needs based on the market's forecasted consumption demand, which the company aims to target, and the internal needs of coffee processing departments. These requirements are proposed by functional departments and sent to the purchasing department. Typically, the receiving purchasing department carries out the procurement entirely based on the requests from the functional department proposal. However, this can be restricted by subjective factors and the lack of accuracy from the requesting departments themselves. Therefore, during this receiving phase, the purchasing department can directly participate with the functional departments to determine the appropriate quantity and timing for purchasing goods. The early involvement of the purchasing department in the procurement process can help the processing business accurately determine the purchasing needs, the timing of purchases, the quantity needed, who to buy from, the price, and the purchasing costs.

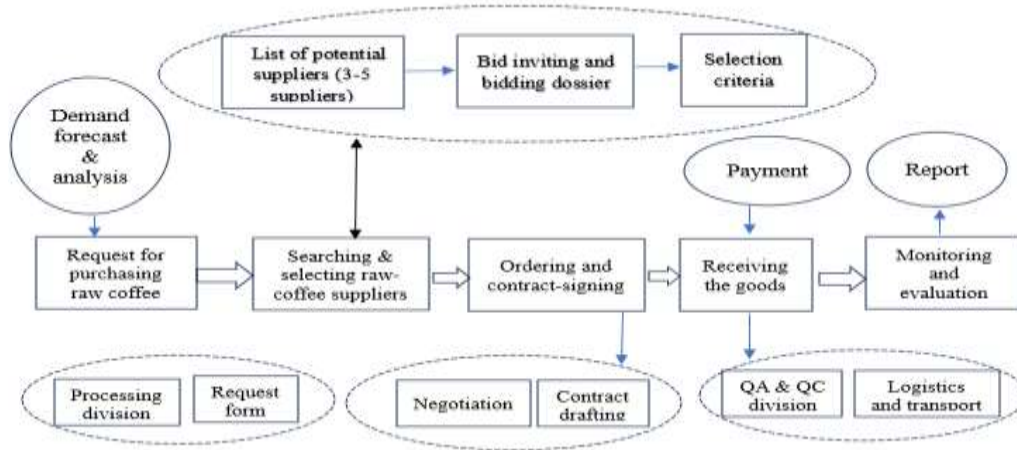


Fig. 5. Proposed model of the purchasing process of coffee processing enterprises in Vietnam (Source: Developed from Weele, 2010).

Based on demand analysis and determining demand from customers and the market through forecasting and annual data, the processing department and factory receive the demand and develop a processing plan, on that basis to work out the amount of raw coffee and material coffee to buy, then to build a detailed draft of the plan to buy material coffee. The processing unit sends the purchase request form to the purchasing department. In these stages, purchasing staff can join departments to develop the best purchasing plan to meet the needs of divisions and optimize costs and factors from suppliers.

The supply request form is made and submitted to the level of competent authority for evaluation and consideration:

- Purpose of purchase and use.
- Evaluation of purchasing possibilities.
- Determine the possibility of budget capital.
- Evaluate individual abilities.

The purchase request form will be approved and will be returned to the purchasing department. Here, the purchasing staff will check whether the Purchase Request Form is valid (must be signed by the approver or his representative), if not, he will contact the responsible staff of the factory, requesting them to check and deliver a valid Purchase Request Form. When the necessary documents are obtained, the purchasing department will proceed with the purchase.

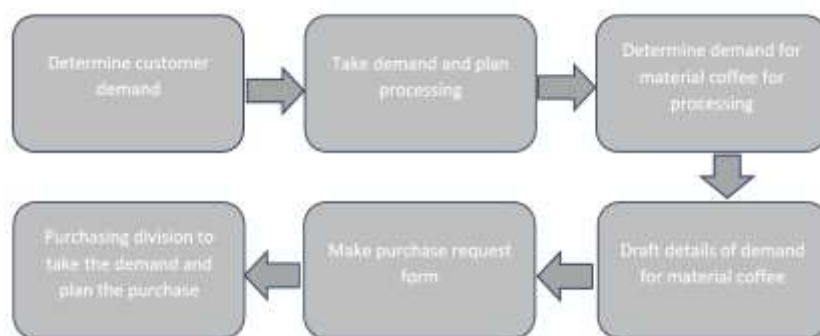


Fig. 6. Proposed process of receiving purchase requests from processing enterprises. Source: Author's suggestion.



*(2) Searching and Selecting Raw Coffee Suppliers:*

Finding potential raw coffee suppliers is a very important requirement for purchasing by coffee processing enterprises. Whether the quality is guaranteed, or the quantity is sufficient or not depends substantially on the supplier's ability. In the purchasing process, this is a key stage that determines the effectiveness of purchasing activities. Once the need to buy raw coffee has been identified, the search for potential suppliers needs to be carefully analyzed. Based on accurate data about suppliers, purchasing staff must have an assessment of standards. When choosing a supplier, a set of standards should be developed methodically, and based on technical requirements when selecting raw coffee products and market factors.

Regarding necessary information and data collected from suppliers to meet identified orders of raw coffee, coffee processing companies should pay attention to:

- Reviewing of the data about the suppliers, especially those from whom previous purchases have been made or prestigious local suppliers.
- The fact that new suppliers can be searched, and in this case, it is necessary to develop a methodical selection process and collect information through channels that need to be verified and evaluated experimentally for new suppliers. The data collected through direct surveys, or through market information channels requires verification and evaluation at the source.
- It is advisable to verify via customers, the local market, and experienced experts with information from the suppliers.

Based on the collected information, analysis and evaluation should be conducted on all aspects: (1) Competitive price, (2) Shipping ability and warranty period, (3) Providing the best payment ability, (4) Having a good track record of quality goods and services, (5) Through reviews from previous users of the supplier's product.

It is required to build a list of potential suppliers according to criteria such as market reputation, strong brand name, supply capacity, quantity assurance, quality, flexible payment methods, competitive prices, etc. Based on this list of suppliers, enterprises shall make an approach and a purchase proposal; this process needs to re-evaluate the suppliers' capability and double-check the information and requirements for the suppliers.

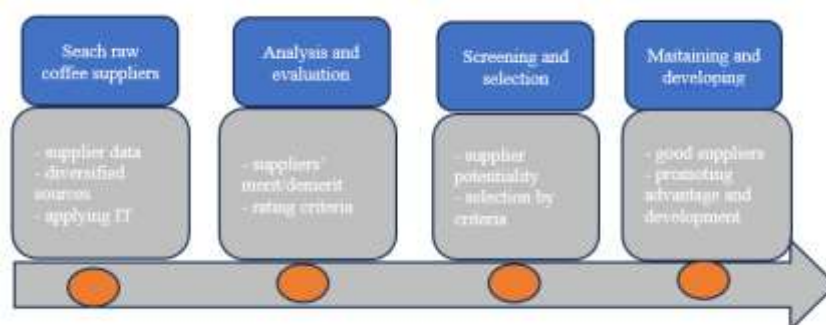


Fig. 7. Proposed process of supplier selection Source: Author's suggestion.

*(3) Placing Orders and Signing Contracts*

The process of meeting for agreement, negotiating, and signing a purchase contract is very important content, ensuring the binding legality between you to make the purchase commitments. For processing enterprises, it is

necessary to have a team of purchasing staff with knowledge and experience in negotiation, especially technical knowledge about coffee, to ensure that the negotiation contents in the contract are accurate, highly logical, and binding on suppliers. The terms in the contract should receive priority for pre-preparation with consultation and be sent to the suppliers for agreement before implementation. The content of the contract should take into consideration: (1) Coffee quality based on standard criteria, required bean ratio, bean size, or error rate, etc.; (2) Supplied quantity is calculated by each supply stage or by each shipment, which needs to be specific; (3) Responsibilities of the parties when implementing commitments on quality, quantity, price and supply time, etc.

#### *(4) Receiving Raw Coffee:*

The receiving process should ensure that steps are taken to control the quantity and quality of goods, and the coordination with the quality control departments, the shipping warehouse units, and the transfer of ownership of the goods from the supplier. The receiving process needs to be swift, and fast release the means of transport, etc.

For coffee items, the receipt of orders will involve the preparation of storage space, which is very important. Therefore, receiving orders needs to coordinate with the logistics department in a smooth manner. The area of the warehouse should be calculated to receive the appropriate amount of goods and have a backup plan in case it is required to receive a large amount of goods that the size of the warehouse system cannot meet.

#### *(5) Order Tracking:*

It is advisable for coffee processing companies to monitor and track orders in accordance with signed commitments and contracts to ensure that suppliers' goods supply process complies with the terms of the signed contract in terms of quantity, quality, time, price, and cost. Also, the purchasing division shall follow up throughout the order journey, starting from the signed agreement with the suppliers. Purchasing staff must be aware of this journey and notify the receiving department about the update.

When the goods arrive at the receiving place, the QA, QC or warehouse department shall inspect the goods, checks the receipt of goods, proceeds to receive the goods, and records the handover of the status of the goods, to notify the department for updates of the situation, and inform the suppliers promptly, in case of errors for correction. When checking and comparing the status of goods import, those departments shall coordinate with the accounting department to carry out the payment procedures as agreed in the contract.

## **VI. CONCLUSION**

The strong development of the supply chain motivates agricultural enterprises in general and coffee processing enterprises, in particular, to optimize operations in their supply chains, improve the efficiency and performance of supply chains, and increase competitiveness for enterprises' supply chains. One of the effective solutions is to optimize the input factors of the supply chain, supply management, and purchasing activities by coffee processing enterprises.

## **REFERENCES**

- [1] Apostolova B.Z & ctg (2015), Strategic Purchasing a global perspective, University of Groningen.
- [2] Ates, M.A. (2014), Purchasing an Supply Management at the purchase Category Level, PhD Thesis University Tottenham.
- [3] Baily P. & ctg (2022), Procurement principles management, Pearson Education.
- [4] Do, T.-N., Kumar, V. and Do, M.-H. (2020), Prioritize the key parameters of Vietnamese coffee industries for sustainability, International Journal of Productivity and Performance Management, Vol. 69 No. 6, pp. 1153-1176.
- [5] Johnson, P.F. and Flynn A (2014), Purchasing and Supply Management, McGraw-Hill Education.
- [6] Lysons, K and Farrington B. (2016), Procurement & Supply Chain Management, Pearson Education Limited.

- [7] Monczka et al (2021), Purchasing and Supply Chain Management, South-Western Cengage Learning.
- [8] Vietnam Coffee and Cocoa Association (2022), Summary report of coffee year 2021-2022, No.: 142 /BC-HHCPCC.
- [9] Vietnam Trade Office in American Market, Ministry of Industry and Trade (2022), Coffee market report, Published on the Ministry of Industry and Trade Web portal.
- [10] Vietnam Industry and Trade Information Center (2020), Vietnam coffee market research report for the period 2015-2020, Published on the Ministry of Industry and Trade Web portal.
- [11] Weele V. (2010), Purchasing and Supply Management, Erasmus University.

### **AUTHOR'S PROFILE**



**First Author**

**Dr. Ngoc Ninh Doan**, Faculty of Economics and International Business, Thuongmai University, Vietnam.



**Second Author**

**Anh Tuan Vu**, Faculty of Economics and International Business, Thuongmai University, Vietnam.  
email id: [tuanva@tmu.edu.vn](mailto:tuanva@tmu.edu.vn)