

GUIDELINES FOR DECISION-MAKING IN SELECTING SUPPLIERS OF RAW MATERIALS FOR GEMS AND JEWELRY INDUSTRY IN THAILAND

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ABSTRACT

In today's dynamic business environment, gems and jewelry entrepreneurs require the efficient supply chain management to remain competitive advantage in the market. The decision to select raw material suppliers is considered one of the main issues that entrepreneurs in the industry must thoroughly concern. Supplier selection for raw materials plays pivotal roles which directly impacting the cost, quality, productivity as well as future business performance. The aim of this research is to study guidelines for decision-making in selecting suppliers of raw materials for gems and jewelry industry in Thailand. This research employed a qualitative approach. Data was collected through in-depth interviews. Sixteen people were interviewed, including 1) ten entrepreneurs registered with the Department of Business Development of the Ministry of Commerce, 2) two committee members of Thai Gem and Jewelry Association, 3) two committee members of The Jeweller Association and 4) two committee members of The Gem and Jewelry Institute of Thailand. The findings of the research revealed that the factors must be considered when making the decision in selecting suppliers of raw materials for gems and jewelry industry in Thailand, including the quality of raw materials, the reliability and reputation of suppliers, good relationships between entrepreneurs and suppliers, price and value, standard practice and social responsibility, supplier sourcing ability to meet customer's requirement, supplier flexibility in sourcing, after-sales service and support, financial status check of suppliers and continuous evaluation and improvement of supplier selection process. Following some guidelines will assist entrepreneurs to develop strategic decision effectively to accomplish sustainable supplier management, implement entrepreneurs' performance as well as strengthen the gems and jewelry industry.

Keywords: Raw Material Supplier Selection, Gems and Jewelry, Decision Making

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INTRODUCTION

Gems and Jewelry industry is a potential industry highly significant to Thailand's economy. Thailand's gem and jewelry actual export value from January to July 2024 amounted to USD 5,103.78 million, 6.65% rise year-on-year. The products ranked as the country's third most important export with a 5.44% share of Thailand's total gross exports. (GIT Information Center, 2024) Thailand has earned a reputation as a hub for production of high-quality gems and jewelry in the ASEAN region and also as a leading global producer and exporter. The combination of skilled craftsmanship, special gem-cutting techniques, unique methods of colored stones enhancement, diverse designs, cost advantage and government support has positioned Thailand as a prominent producer on the global stage (Krungsri GURU SME, 2024). Thailand has numerous diamond, gem and jewelry entrepreneurs, with most of them are small-sized enterprises. These businesses rely on skilled and experienced labor tasks such as designing, sorting gemstones and assembling jewelry, which those tasks require precision and delicacy. Meanwhile, entrepreneurs engaged in export-oriented production tend to be medium and large-sized manufacturing plants with significant investments in machinery and advanced technology. (Department of International Trade Promotion, Ministry of Commerce, 2022). According to a survey of Thai gems and jewelry industry census, 10,296 businesses registered with the Department of Business Development of the Ministry of Commerce and are still in operation. These include 43 large-sized businesses (with registered capital exceed THB 200 million), 777 medium-sized businesses (with registered capital between THB 20-200 million), and 9,467 small-sized businesses (with registered capital does not exceed THB 20 million) (as of July, 2024) (Department of Business Development, Ministry of Commerce, 2024). The study by Jurakarn et al. (2022) revealed that Thai gems and jewelry industry faces many challenges. There is a scarcity of raw materials for the export production. Additionally, the rising of Thai labor costs is relatively expensive compared to key competitors such as India and China. Currently, the industry confronts with increasing competition as other countries improve their competitiveness, substantial challenges of raw material price volatility and economic recession in trading partners such as the United States and European Union countries. Domestic production largely involves a contract manufacturing, with less emphasis on brand development. As a result, both the public and private sectors have proposed various solutions, one of which is to develop product that align with the needs of domestic consumers.

When considering the significant issues in this industry that must be concentrated to ensure the confidence in buying and selling gems and jewelry, one key factor is the supplier selection of raw material, which is the starting point of the supply chain. The problem of undisclosed synthetic gems and diamonds entering the market in large quantities, increasingly complex and diverse methods for enhancing gemstone quality without disclosure, and the growing number of private gem-testing laboratories without industry regulations resulting in erroneous and non-standardized certificates affect the confidence of both entrepreneurs and consumers (Leelawatanasuk, 2020).

Moreover, the fraud of counterfeit diamond is becoming spotlight in the industry. Fraudsters have cut synthetic diamonds to match size and specifications of a natural diamond with a laboratory grading diamond report aiming to trick buyers. In addition, misleading advertisement about lab-grown diamond and natural diamond can be widely seen in the social media platform (Rapaport news, 2024). Apparently, the decision to select raw material suppliers is one of the main topics that industry entrepreneurs must thoroughly concern, since supplier selection is the upstream part of supply chain management. It influences on organization's competitive advantage, cost structure, product quality, profitability, reliability as well as the prospective performance of the business. Therefore, a researcher is interested in studying the guidelines for decision-making in selecting suppliers of raw materials for gems and jewelry industry in Thailand to enhance the operational efficiency for this industry,

maintain trust, implement entrepreneurs' performance as well as strengthen the industry as a key contributor to Thai economy. The research aims to study guidelines for decision-making in selecting suppliers of raw material for gems and jewelry industry in Thailand.

LITERATURE REVIEWS

Concepts and Theories Related to Decision-Making in Supplier Selection

Supplier selection is mostly seen as the most fundamental role in organization performance since organization's suppliers have a significant impact on product cost, quality, delivery, reliability and overall availability of its products (Das & Buddress, 2017). To clarify, raw material supplier selection can help the businesses reduce production costs, ensure quality and consistency of goods and services and obtain great after-sales services. The study by Cheptora et al. (2018) highlighted that businesses also face many challenges in selecting potential raw supplier including establishing the evaluation of various criteria and sub-criteria for selection. The study of criteria evaluation for potential suppliers has been practiced in businesses for a long time.

As mentioned previously, choosing the appropriate suppliers can bring the most value for money and profitability to businesses. Therefore, supplier selection is a significant step for all businesses. Akudo (2016) revealed that the majority problems of businesses are defective raw material quality resulting to unstandardized products and services. In other words, having potential supplier can lead to good reputation and future business's performance (Das & Buddress, 2017).

Currently, most business organizations choose to emphasis on their core business activities and do outsourcing non-core functions. Businesses of different sizes often have different criteria for selecting suppliers. For small businesses, the suppliers that give lowest price criteria are determined. However, large businesses tend to look for supplier's performance and build long-term supplier relationships. In global market, building strong relationships with all stakeholders in the supply chain contribute to more effective distribution channels and a competitive advantage. A literature review pointed that frequent problem businesses encountering is the delivery delays and poor after-sales services. Conversely, the more efficient network relationship between businesses and suppliers, the more flexibility in operational businesses and profitability in the long run (Alatas et al., 2016).

In practical, organizations frequently delegate the responsibility of supplier selection to the procurement department only. Nevertheless, the process of supplier selection must be enclosed in business strategies. This means that supplier selection is the significant function to all departments in organization (Das & Buddress, 2017). Setting criteria for supplier selection is a complex issue especially under the influence of unpredictable and uncontrollable factors and members in supply chain. Alatas et al. (2016) stated that supplier selection criteria and evaluation should vary from each organization and must be carefully taken in account. Some criteria may be measured by numerical data, while others may be measured by interviews or observations. Likewise, Were (2016) further explained that supplier selection is complicated process due to many uncertain factors. Consequently, effective decision-making requires both quantitative and qualitative criteria.

A widely accepted the concept of consumer decision-making process is the model of Engel et al. (1968) described the 5 steps including problem recognition, information search, alternative evaluation, purchase and post-purchase about buying decision. Later, Blackwell et al. (2005) developed this model into 7 steps including need recognition, search for information, pre-purchase evaluation of alternatives, purchase, consumption, post-purchase evaluation and divestment. Smithikrai (2020) suggested that the model of consumer decision-making process is classified into 4 stages: purchase decision, purchase, use, and post-purchase evaluation.

- 1) Purchase decision is the first stage of buying process. Consumers become aware of problem/need for products and services. Then, they search for information about products or services from various sources. Afterward, consumers develop the criteria used in evaluation of alternatives before making a purchase decision.
- 2) Purchase is the stage of consumers buy products and services by concerning places of purchase, items purchased and methods of payment.
- 3) Use is the stage of consumers bring the products and services into action and dispose of the waste with various methods.
- 4) Post-purchase evaluation is the final stage of consumer decision-making process. It involves satisfaction or dissatisfaction with the products and services, repeat purchase, discontinuing purchase, and feedback sharing.

As stated previously, the decision process model can be applied to the decision-making in selecting suppliers of raw materials for gems and jewelry industry in Thailand. The researcher focuses on the process of post-purchase evaluation since the decision-making of gems and jewelry entrepreneurs is same as large-sized businesses that require long-term relationships with trusted suppliers. Decision making is much more complex procedure and need time for careful consideration. Thus, decision-making in selecting suppliers of raw materials for gems and jewelry industry relatively involves with customer loyalty concept more than the general consumer decision-making process.

Customer loyalty play a crucial role in organization's performance (Reichheld, 1993), as loyal customers are willing to pay a higher price (Reichheld & Sasser, 1990). Correspondingly, Oliver (1999) defined customer loyalty as deeply held commitment to repurchase or patronize a preferred product or service consistently in the future, situational influences and marketing efforts with the potential to cause switching behavior. Oliver (1999) classified customer loyalty into two perspectives: attitudinal and behavioral loyalty. However, Jacoby and Chestnut (1978) suggested that customer loyalty has been defined into three dimensions: behavioral, attitudinal and composite loyalty. Behavioral loyalty is measured by the frequency of customer purchase, the amount of purchase and the intension for product range/brand. Attitudinal loyalty is measured by the customer satisfaction, commitment to brand, and positive recommendation to others. However, some scholars agree that behavioral loyalty is not adequate for measuring because it is lack of customer's psychological emotion. Therefore, composite loyalty combines both behavioral and attitudinal loyalty (Day, 1969; Jacoby & Chestnut, 1978; Oliver, 1999).

As pointed above, customer loyalty reflects the attitudinal and behavioral aspects of customers towards the entrepreneurs' loyalty. This can be referred that when entrepreneurs decide to choose suppliers by concerning the factors of the long-term relationship, it also indicates about attitudinal and behavioral loyalty at a certain point. From literature reviews, customer loyalty is one of the observed variables of decision-making for selecting suppliers.

According to the literature reviews earlier, it is found that decision-making can be divided into several concepts. One part involves decision-making based on the consumer decision-making process, while another part reflects long-term relationship building. Nevertheless, it can be observed that repeat purchase intention, willingness to purchase, purchase intention, and word-of-mouth are attitudinal and behavioral loyalty measurement embedded in the final stage of decision-making process. These factors influence future decisions based on previous purchase experiences evaluation.

In conclusion, raw material supplier selection decision-making refers to the intention to choose a particular supplier to establish a close relationship between the entrepreneurs and the supplier.

RESEARCH METHODOLOGY

This research methodology employed a qualitative approach to fully comprehend the factors affecting the decision-making and establish guidelines for raw material supplier selection. Data collection involved in-depth interviews with 16 key informants: 1) ten entrepreneurs registered with the Department of Business Development of the Ministry of Commerce, 2) two committee members of Thai Gem and Jewelry Association, 3) two committee members of The Jeweller Association and 4) two committee members of The Gem and Jewelry Institute of Thailand. The number of key informants was determined using the principle of theoretical saturation where emerging information becomes redundant (Hennink & Kaiser, 2022). The research further conducted with documentary research which explored the perspective and experience of entrepreneurs in raw material supplier selection.

The researcher created a semi-structured interview which was tested for content validity to act as a framework and scope for the interview. Data collection was conducted through in-depth interviews and relevant document analysis. Data analysis used the qualitative content analysis.

RESEARCH RESULTS

The results of this research indicate various factors for decision-making in selecting suppliers of raw materials for gems and jewelry industry in Thailand. These are complex issue and need careful consideration of multiple factors to ensure competitiveness in the market. The selection of raw material supplier is an essential step to guarantee the quality of the company's products or services, customer satisfaction and good management of the company's activities. Therefore, the decision to select raw material suppliers is significant to business success. Factors listed below demonstrate entrepreneurs' consideration for selecting raw material suppliers:

Quality of Raw materials

The decision to select suppliers must begin with regarding the quality of raw materials. In gems and jewelry industry, the quality of raw materials directly impacts on the value and the quality of final product. Color, clarity, luster, durability, and specific characteristics of gems and diamonds must be cautiously examined. In addition, gold purity for making jewelry pieces should meet standard. Disclosures of raw materials are necessary to this industry. Therefore, entrepreneurs should choose suppliers having quality control before delivery.

Reliability and Reputation of Suppliers

Working with reputable suppliers is the key for jewelry entrepreneurs. Businesses need to make sure the references from other companies such as enquiring about suppliers' experiences, performance and the creditworthiness. The reliable suppliers can consistently fulfil orders on time, delivering consistent the quality products and resolving problems promptly.

Relationship between Entrepreneurs and Suppliers

Building good relationship with raw material supplier can give a much-needed business supporter and implement problem solving. Moreover, a clear and consistency communication is key to establish strong supplier relationships. Both entrepreneurs and suppliers should address mutual agreement, work process and expectation outcomes together. For instance, gems and jewelry suppliers can determine allocations of special pieces, terms of payment, and pending permission to retail stores. Especially, Thai hospitality is the strength point that other nations can negotiate when do businesses.

Price and Value

Price of raw materials is a main factor that entrepreneurs concern when selecting gems, diamonds and precious metal. Their prices fluctuate depending on trends, demands and economic world. Price is not everything, however entrepreneurs need to ensure getting a fair deal. Golds and diamonds have global standard price, but colored stones do not have. Entrepreneurs will be happy to choose raw material with value for money, appropriate price,

customer budget cover, and cost effective. In addition, a transparent pricing system generates a trustworthy supplier.

Standard Practice and Social Responsibility

Currently, consumers pay attention to sustainability and social responsibility. Thus, entrepreneurs should seek for raw material suppliers that implement their management systems to address the most important sustainability issues across the jewelry supply chain such as human rights, labor rights and working condition, responsible sourcing, environment and health safety.

Ability to Source Required Raw Materials

The gems and jewelry businesses often get orders with specific properties, such as size, shape, or color that must meet customer requirement. Consequently, entrepreneurs should look for whether choosing local or international suppliers that have ability to provide raw materials for customer's order. For instance, Thailand is the outstanding gemstone sourcing places. Some suppliers can recut or repolish gems with low labor cost to meet the clients' demand. Indian supplier can give a variety of diamonds and emeralds. Moreover, the suppliers who have ability to demonstrate a commitment to innovation and consistency are obviously attracted because advanced technology can help entrepreneurs minimize human errors, speed productivity, increase competitiveness such as inventory process.

Flexibility in Raw Material sourcing

Flexible sourcing is ability to react to a change in supply needs. In rapid market trend and technology change, gems and jewelry suppliers should adapt sourcing to be more flexible and diverse. Entrepreneurs will choose suppliers who can adjust ability to scale supply in volatile economy and adapt to change in raw materials and accommodate customization request. As well as suppliers can present new products and knowledge such as lab-grown diamond or gem treatment. Eventually, entrepreneurs can also adapt to market change by having greater access to a variety of products.

After-Sales Service and Support

Normally, entrepreneurs should select suppliers who provide good service and immediate after-sales support. Quality assurance of raw materials, problem-solving, complaint handling, suggestion for use and maintenance, as well as replacement goods in case of defects are in concern. Offering suitable after-sales service and support can increase customer loyalty.

Financial Status Check of Suppliers

The financial status of suppliers should not be overlooked. Doing business with high-priced raw material suppliers who have stable financial status and good payment history will help reducing risks about raw materials supply in time and within a contract term and increase trust. Good financial stability of suppliers can be a safeguard against unforeseen difficulties for entrepreneurs.

Continuous Evaluation and Improvement of Raw Material Sourcing

Even when supplier has been secured, it is important to continually evaluate and regularly monitor raw material sourcing practices to identify areas for improvement. Through checking supplier efficiency, improving relationships, inspecting the quality of raw materials, and modifying sourcing strategies can ensure the supplier's capabilities to meet optimum results.

RECOMMENDATION

The recommendation from this qualitative study provides valuable guidelines for entrepreneurs, suppliers and all stakeholders in the industry to comply with and to achieve the business goals.

1) Gems and jewelry entrepreneurs should think strategically and invest time in researching when selecting potential suppliers. Entrepreneurs must precisely evaluate their business requirement, establish clear criteria and select suppliers who have core competencies align with

business strategies in organizations. For example, nowadays the issue of sustainability and traceability has been frequently spoken in the industry. If entrepreneurs want to modernize and focus this issue, they must select suppliers who can handle environmental responsibility, disclosing responsible sourcing, or ethical labor practices. If entrepreneurs are interested in high-end jewelry producing, they should look for suppliers who can offer exceptional quality of diamonds and gems. These suppliers are reputable, strong financial status and trusted that can stock high-quality raw materials. By selecting supplier associating with entrepreneur's business strategy and operation, it can enhance organizational achievement.

2) Gems and jewelry entrepreneurs should establish for multiple suppliers. It is always worth having multiple suppliers when in unexpected situations. Multiple suppliers provide entrepreneurs greater flexibility and adaptability. Particularly, entrepreneurs should spend time to discuss and inspect with the suppliers to know their abilities and experiences. Diamonds, gems, and precious metal are natural resources with high value and scarcity. Thus, it should be accurately considered suppliers and jewelry manufacturers to avoid damage in production process. Furthermore, to be successful in jewelry industry, strong supplier relationships matter. Entrepreneurs should communicate clearly and be transparent with suppliers. Make sure to be friendly and courteous, even small-sized businesses can negotiate effectively about pricing, payment terms, and pending permission. Turn trusted relationships of both parties into simplified success.

3) When making raw material purchase, gems and jewelry entrepreneurs should always seek for the certifications of products to increase buying with confidence. Businesses are increasingly relying on the certificates that guarantee quality of raw materials. For instance, from 30 points to bigger carat size of diamond should be bought with the certifications from gemological laboratories such as The Gemological Institute of America (GIA), HRD Antwerp (HRD), and International Gemological Institute (IGI). Also, gemstones should have certifications stated about natural, synthetic, appearances, treatment and a country of origin from reputable gemological testing laboratories. Jewelry pieces should be checked the purity of percentage gold and metal composing in the pieces.

4) Gem and jewelry trader association should create a guidebook for how to select potential raw material suppliers in the industry. The guidebook should be based on research and data gathered from experienced entrepreneurs. Additionally, seminar or training course about supplier selection should be provided. Creating the guidebook and training would help entrepreneurs to follow strategical supplier selection process and increase industry standards.

5) Government sector such as Ministry of Commerce and Department of International Trade should support sourcing quality and sustainable raw materials by implementing policies allowing entrepreneurs to access to reliable sources. This can include gems and jewelry trade show and exhibition which offer a unique platform for both suppliers and buyers with networking opportunities, updating knowledge and product sourcing. Moreover, government sector should suggest strategic plans for small-sized businesses in gems and jewelry industry to survive in competitive economy such as supplier selection, negotiation, marketing trend, innovation technology, import tax and sourcing of funding. In addition, if problems about frauds occur, government sector should support the police report process and inform news to the public to raise entrepreneur's awareness in the industry. So that appropriate action can be taken against any perpetrators.

6) Raw material suppliers need to ensure the capability, performance, relationship quality and customer loyalty to facilitate entrepreneurs' requirement. It is crucial for the industry to engage in honest and confidence across the industry. Word of mouth can be a powerful indicator of supplier's reliability and expert.

7) Raw material suppliers should enhance and promote best practices of sourcing raw materials with ethical standards, transparency and sustainability from mining to retail since the industry

faces pressure to demonstrate ethical sourcing, environmentally friendly practices, and complete traceability of products from mine to market. Additionally, being a member of reputable organizations such as Responsible Jewellery Council (RJC) can build trust, loyalty, creditability and reputation. As a result, suppliers can ultimately benefit in the long term.

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