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A Study on “Sourcing Raw Material” with Special Reference to KP Industry at Thanjavur

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ABSTRACT

This study investigates the sourcing strategies and procurement processes of raw materials at KP Industry, located in Thanjavur. As a manufacturing unit heavily dependent on the timely and cost-effective supply of raw materials, KP Industry faces several challenges in maintaining a steady flow of inputs. The research aims to identify the key sources of raw materials, assess supplier reliability, and analyze the criteria used in selecting vendors. Both primary and secondary data were collected through structured questionnaires and organizational records. The study reveals critical factors affecting raw material sourcing such as price fluctuations, transportation logistics, and supplier consistency. Recommendations have been made to streamline procurement practices, enhance supplier relationships, and implement better inventory management techniques to reduce operational disruptions. This research is valuable for improving sourcing efficiency and contributing to overall productivity in similar manufacturing settings.

INTRODUCTION

The small-scale sector constitutes a very important segment of the Indian economy. Its importance has been recognized in India as a solution for the problems of scarcity of capital and wide spread unemployment and underemployment. The small firm has proven to be very difficult to come by. We must take into account factors like the number of employees, asset values, sales volume, financial strength and number of locations, relative size, and other factors to define what a small-scale business is. Small scale businesses have been provided, such as that provided by the industrial research unit. The goal of this study is to identify potential raw material sources for this small business's production as well as potential solutions to some of its problems. To claim that small-scale industries or businesses make up the majority of commercial establishments in most of these emerging nations would be an overstatement

RESEARCH BACKGROUND

Sourcing raw materials is a crucial part of any manufacturing business, especially for small-scale industries that often face challenges like rising costs, limited suppliers, and supply chain disruptions. KP Industry, a plastic products manufacturer based in Thanjavur, depends on raw materials like plastic and polypropylene to produce items such as crates and folders. Since its start in 2022, the company has dealt with issues such as fluctuating material prices and difficulties in finding reliable suppliers. This study looks into how KP Industry sources its raw materials, what qualities it considers important—like cost, quality, and availability—and what problems it faces in the process. Understanding these factors can help small businesses improve their sourcing methods, cut costs, and ensure smooth production.

COMPANY OVERVIEW

KP Industry is a small-scale manufacturing company located in Thanjavur, Tamil Nadu. Established in 2022, the company produces plastic items such as crates, folders, and storage boxes. These products are mainly used in schools, colleges, and for storing food and textile items. KP Industry uses raw materials like plastic and polypropylene, which are sourced from trusted vendors. Our manufacturing unit is vast and is equipped with latest machines and equipment, which helps us in delivering quality products, which help us in delivering the products timely. The company operates with a team of around 132 employees and is known for its large product range, quality products, and timely delivery. It runs as a partnership firm and focuses on providing durable, easy-to-use solutions for everyday storage and handling needs.

IDENTIFIED PROBLEM

The main problem identified in the study is the difficulty faced by KP Industry in sourcing raw materials consistently and cost-effectively. As a small-scale business, the company struggles with issues such as high prices, limited supplier options, transportation delays, and lack of proper planning and control. These challenges affect their production schedules and overall business performance. Additionally, factors like exchange rate fluctuations, lack of government support, and limited access to bulk purchasing make it harder for the company to maintain a steady supply of quality raw materials.

OBJECTIVES OF THE STUDY

To identify how raw material are been sourced.

To identify the general problems of small-scale business and how the problem be solved.

To important and the effects of exchange rate has on the small-scale business.

To identify the problems of planning and control as it effects the management of small-scale business and then to proffer solutions that can help to bring about the availability of raw materials.

REVIEW OF LITERATURE

Choon Tan et al (2014) Raw materials have always been a key factor in supply chain management, diversifying products, and fostering the company's advantages. Thus, raw materials are considered a core of sustainable economic development and the success of high-tech product lines and diversifications. As stated in prior studies; to fortify the effectiveness of supply chain management, enterprises also need to consider sustainability, which is often measured by social responsibility, environment, and economics financial. Supply chain management is key to effective business performance by forming the relationship between manufacturers, suppliers, and customers. Since the demand for different and quality goods has risen in recent years, enterprises have had to swiftly upgrade their production batches to accommodate the requirements.

Yunarto and Icu (2015) Regarding the role of raw materials, argued that the source of raw materials has a positive and significant relationship with the performance of enterprises. Firms chose to chase flexibility, cost reduction (including delivery and inventory, advanced products, and sustainable and active suppliers to adapt to the situation. As a result, enterprises' supply chain management became a competitive advantage in establishing their uniqueness, brand, and business success. Additionally, the prior research indicated that, in the short-term, applying supply chain management might foster the effectiveness of firm and suppliers' operation and product life cycle. However, all supply chain members may benefit from customer satisfaction and greater market share when it comes to long-term implications.

Graedel, et al (2015) Small-scale businesses make up at least 60% of Nigeria's industrial operations; however, it is very difficult to say with certainty. However, strolling along the streets of large towns in any state of the nation will demonstrate this. As a result, small businesses account for a sizable amount of Nigeria's gross domestic product (G&P) as well as its foreign exchange earnings. Because of their size, large-scale businesses have been grossly undervalued in comparison to small-scale businesses. This shows that the government is giving large-scale business much more attention than it is giving to small businesses, which are crucial to the health of our economy.

Behrens et al. (2016) Scale matters less in business than in the potential it holds for generating jobs. The promotion of small businesses will aid in the elimination of the disparity between the rates of economic growth in rural and urban areas, enhancing integrated rural development. The issue with most entrepreneurs, particularly in Nigeria, is that they struggle to understand the need of prioritising planning and control, which is a problem in general. Description Since most automobile industries in India are small-scale in nature and as a result, a sizable portion of India's income is produced from small-scale industries, making them among the most significant industries in the country.

Liu, L., Zhao, Q., (2017) argue that firms' success has become increasingly dependent on the source of their raw materials. When it comes to the effects of materials on country and region, most problems come from the unsustainable source of materials due to geographical, technological, economic, regulatory, and principles related to materials. Eventually, the global level caused difficulties, namely the unstable source of supply which directly stems from the price of the source, the shortage, and environmental factors. However, these studies only consider the relationship of critical raw materials on the purpose mentioned above; therefore, in this study, the flow of raw materials is mostly utilized to measure its effects on firm performance. However, to make it even more precise and unique, this study separates the source of raw materials into domestic and international. The importance of raw materials has been well known recently, as well as the constraints caused by a wide range of problems of some kinds of materials on the performance of firms.

Otieno, W.; Chiu, M.C (2017) Despite these pertinent attempts to analyse and synthesize past studies on relationships between raw materials and firm performance, up-to-date and comprehensive review studies, with a specific focus on raw materials, simultaneously addressing precedents, outcomes, and effective factors for SMEs performances in the context of an emerging country such as Vietnam, have so far been lacking. In this study, we estimate the effects of domestic raw materials and international raw materials on firm performance based on this model. These estimations rely on the question of what extent the source of raw materials may affect the effectiveness of firm operation, which also contribute to the sustainable growth of enterprises literature since the role of raw materials has been proved in documents.

Kamasak, R (2018) Additionally, small-scale companies are viable and important in that the majority of individuals cannot afford to make big financial investments in order to launch a firm. Even though automobile and other nonfinancial institutions might grant a loan, it wouldn't be excessive compared

to the person's current assets or financial holdings. Even if a person has the financial means to invest, it is not practical for them to begin on a large scale without any prior business expertise because it would be difficult for them to manage and their entire investment would be at risk.

Ruberti, M (2018) In most developing nations, the automobile industry has emerged as the most dynamic sector. To claim that small-scale industries or businesses make up the majority of commercial establishments in most of these emerging nations would be an overstatement. Making a definitive claim about small businesses is quite challenging, but strolling along the streets of large cities in any state in this country would demonstrate that they account for at least 60% of all industrial activity. As a result, small businesses contribute significantly to the gross domestic product (G&P) and are a major source of foreign exchange earnings. It is quick and simple to launch a virtual assistant business.

Thorenz, A.; Reller, A (2018) In this small business, you'll assist other business owners with a range of administrative responsibilities, including data entry, travel arrangements, writing blog articles, and social media content scheduling. You can advance your business by enrolling in you're interested in becoming a virtual assistant. The virtual assistant business from a part-time gig to one that brings in over six figures annually. You will learn how to determine your prices, define your services, and attract your first customers in this small business.

Trang H (2018) You'll create blog entries, research papers, white papers, and other written content as a freelance writer. Work for newspapers, periodicals, websites, online journals, and other companies. If you enjoy writing and research, think about beginning this little business. It providing a course for prospective independent contractors. the techniques she employs to bring in six figures a year, such as how to pitch well, where to find high-paying clients, and how to interact with editors. Social media managers assist small businesses with setting up, planning, and maintaining a presence on sites like Twitter, Facebook, Instagram, and LinkedIn. You'll be in charge of scheduling social media posts, answering queries and comments, producing photos, and performing other duties.

Bach et al. (2019) Sustainability is increasingly pivotal in all kinds of raw materials in today's world. Parallel with that, the demand for all products has significantly risen, exceeding the number of available selling products, and this situation partially stems from the shortage of raw materials and the capacity of firms. A previous study has dictated that some special products may require various materials to finalize. Therefore, it raises firms' demands depending on several different material sources to accommodate the supply chains, which puts more strain on economic-related issues, namely shortages, environmental and social problems, and suppliers. Moreover, in several countries, the regulations on some exclusive raw materials cause a host of constraints on firm performance and the production of those enterprises. Consequently, the concern of sourcing raw materials has al-ways been considered carefully throughout the years.

Habib, K.; et al. (2020) To have a broader perspective on this important role of raw materials, several studies have been devoted to developing and utilizing the assessment of the criticality of raw materials to mitigate the risk, as well as the concern, of the source of materials. Prior studies have been conducted to measure the effects of critical raw materials on a specific product. To be more precise, predicted that the risk that the source of materials brings to a particular product is the restrictions in accessing materials due to problems in this automobile industry.

Cimprich et al. (2021) Besides, indicated that the constraints caused by supply disruptions also affect product processing plans, supply chain management, and the source of materials. Meanwhile, found that the supply disruptions in a short period had significant effects on the deployment of energy technologies. In addition, most studies that examined the impact of materials on technology were constrained by geographical factors, political factors, and the availability of materials.

Duclos et al. (2022) argue that firms' success has become increasingly dependent on the source of their raw materials. When it comes to the effects of materials on country and region, most problems come from the unsustainable source of materials due to geographical, techno-logical, economic, regulatory, and principles related to materials. Eventually, the global level caused difficulties, namely the unstable source of supply which directly stems from the price of the source, the shortage, and environmental factors.

Aron, D.J (2023) However, these studies only consider the relationship of critical raw materials on the purpose mentioned above; therefore, in this study, the flow of raw materials is mostly utilized to measure its effects on firm performance. However, to make it even more precise and unique, this study separates the source of raw materials into domestic and international. The importance of raw materials has been well known recently, as well as the constraints caused by a wide range of problems of some kinds of materials on the performance of firms and the country's economy. Materials inputs contain raw materials from non-state enterprises.

RESEARCH GAP

Most of the available research on raw material sourcing focuses on large companies that have well-developed supply chains and strong financial support. However, small-scale industries like KP Industry often face different and more serious challenges, such as limited access to suppliers, price sensitivity, and lack of proper sourcing systems. There is very little research that specifically looks at how small industries in smaller towns like Thanjavur manage these issues. Moreover, existing studies rarely explore the practical day-to-day problems small businesses face, such as delays in delivery, transportation issues, lack of government support, and the impact of changing raw material prices. Few studies also consider how local factors—such as workforce availability, infrastructure, and access to finance—affect raw material sourcing. Another gap is the lack of studies that include direct feedback from employees or management in such firms, which is important for understanding real-world sourcing problems. Therefore, this study aims to bridge these gaps by focusing on the specific sourcing practices, challenges, and improvement areas for KP Industry, offering insights that can benefit similar small-scale businesses.

RESEARCH METHODOLOG

This study uses a descriptive research design to understand how KP Industry sources its raw materials and the challenges involved. Both primary and secondary data were used in the research. Primary data was collected through a structured questionnaire given to 120 employees and staff members at KP Industry in Thanjavur. The responses helped in identifying the methods of sourcing, problems faced, and the qualities considered while selecting raw materials. Secondary data was gathered from websites, research articles, company records, and published reports to support the study. The sampling method used was random sampling, and the sample size was 120 respondents. To analyze the collected data, various statistical tools such as percentage analysis, chi-square test, correlation, and ANOVA were used. These tools helped in understanding the relationships between different factors such as age, experience, sourcing processes, and satisfaction with raw material availability. Overall, this methodology helped provide a clear picture of the sourcing challenges and practices followed by KP Industry.

DATA ANALYSIS AND INTERPRETATION

Table 1. Qualities Considered in Sourcing Raw Materials

Qualities Considered	No. Of Respondents	Percentage (%)
Quality	28	23.3%
Cost	26	21.7%
Availability	25	20.8%
Consistency	22	18.3%
Safety	19	15.8%

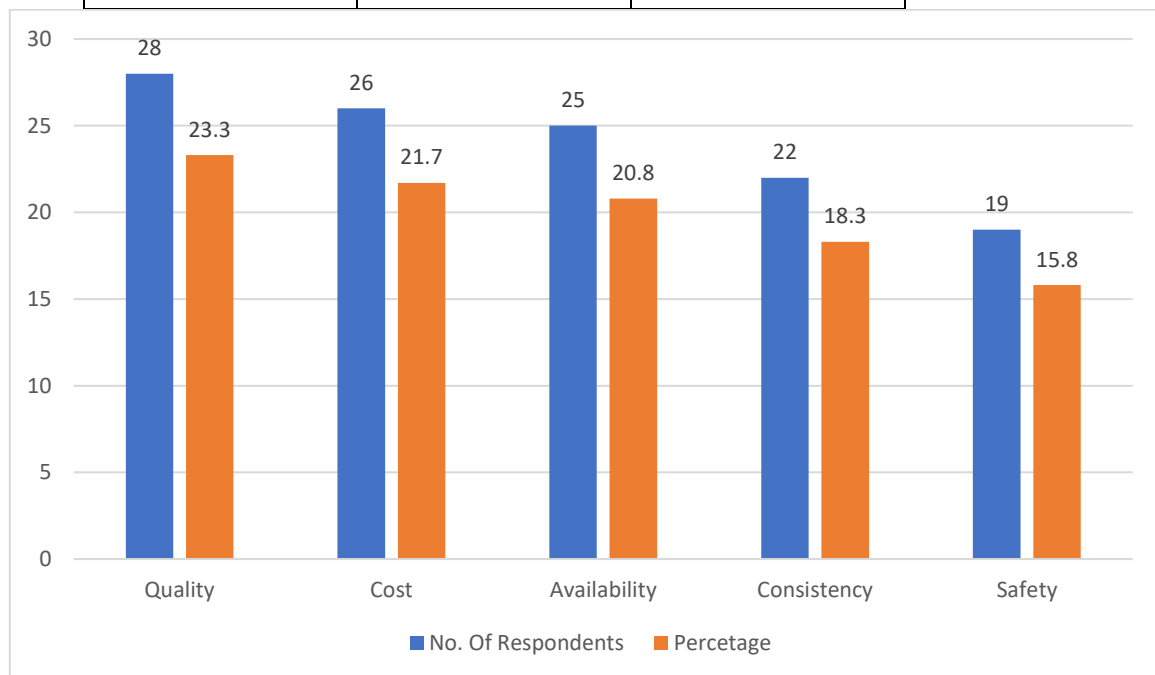


Chart 1. Qualities Considered in Sourcing Raw Materials

INTERPRETATION:

Most respondents at KP Industry consider quality as the most important factor when sourcing raw materials, showing their focus on producing good products. Cost is also very important, as keeping expenses low helps the business stay profitable. Availability matters too, since having materials ready on time is needed to keep production running smoothly. Consistency is valued to ensure materials are reliable and uniform. Safety is the least considered factor but still plays a role. Overall, the company tries to balance quality, cost, and timely supply in their sourcing decisions.

Table 2. Problems Solved by Small Scale Business

Problem Solved	No. of Respondents	Percentage (%)
Lack of Demand	39	32.5%
Finance	36	30.0%

Time Management	20	16.7%
Record Keeping	15	12.5%
Goods and Services	10	8.3%

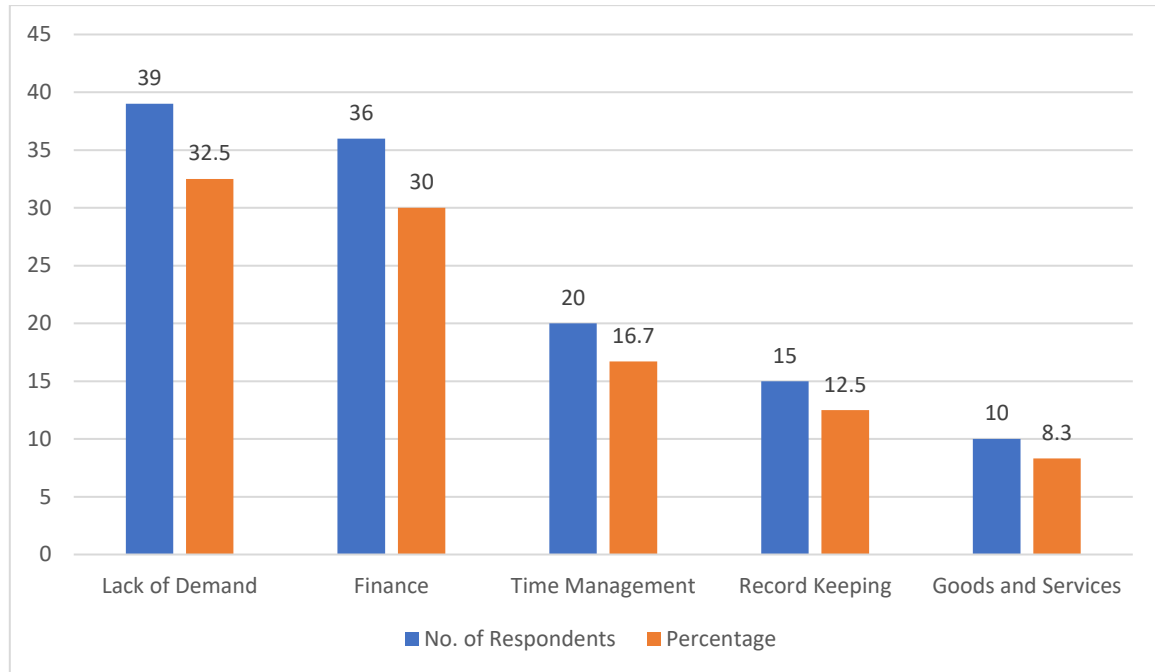


Chart 2. Problems Solved by Small Scale Business

INTERPRETATION

The table shows that the biggest problem solved by small scale businesses is lack of demand, with 32.5% of respondents identifying it as a key issue. This means many businesses struggle with finding enough customers to buy their products. The second major problem is finance, mentioned by 30% of respondents, highlighting challenges in managing money and funding operations. Time management is also a concern for 16.7%, showing the difficulty in organizing work efficiently. Record keeping is a problem for 12.5% of the respondents, indicating some struggle with maintaining proper business records. Lastly, only 8.3% noted issues with goods and services, making it the least common problem among those surveyed. Overall, demand and finance are the top challenges small businesses face.

Table 3. Processes of Sourcing Raw Materials

Sourcing Process	No. of Respondents	Percentage (%)
Identifying Raw Materials Needed	31	25.8%
Evaluating Suppliers	29	24.2%
Researching Potential Suppliers	25	20.8%
Managing Logistics and Inventory	23	19.2%
Shipping of Raw Materials	12	10.0%

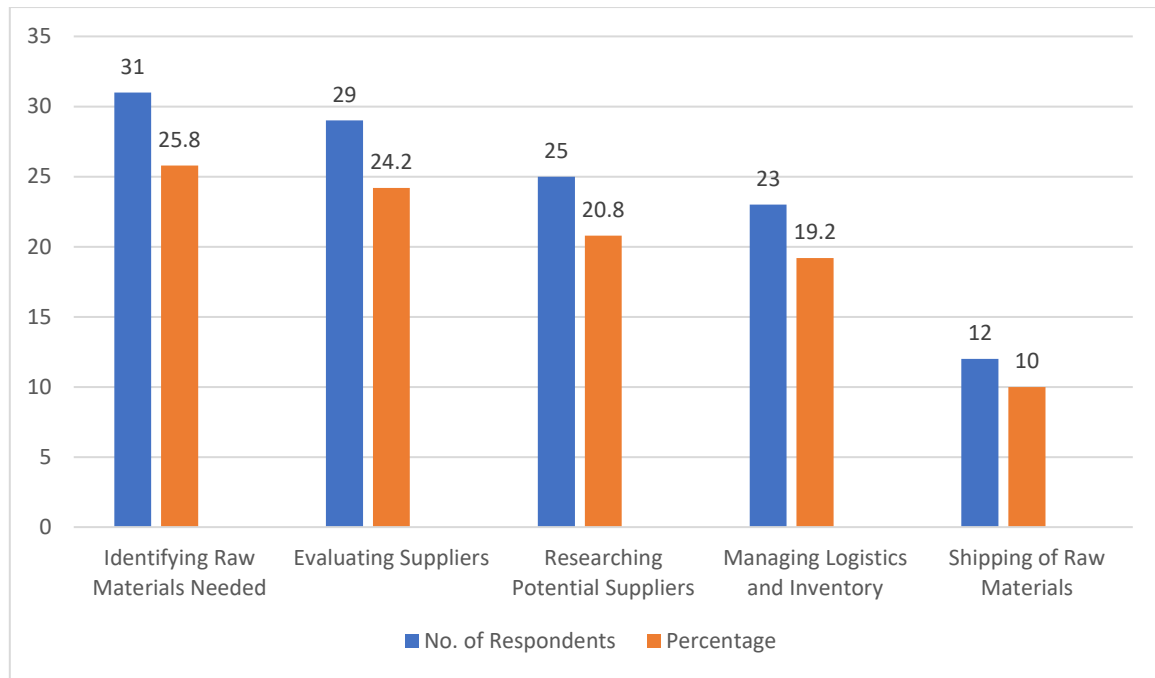


Chart 3. Processes of Sourcing Raw Materials

INTERPRETATION

The table shows that the most important step in the sourcing process for KP Industry is identifying raw materials needed, with 25.8% of respondents selecting this. This means the company places strong focus on knowing exactly what materials are required before starting procurement. Evaluating suppliers is the next key step at 24.2%, showing that checking supplier quality, price, and reliability is also a high priority. Researching potential suppliers follows at 20.8%, indicating that many respondents spend time exploring different sources to find the best options. Managing logistics and inventory accounts for 19.2%, highlighting the importance of organizing storage and transport. The shipping of raw materials is the least mentioned step at 10%, suggesting that this part of the process might be handled externally or seen as less challenging. Overall, the data shows that planning and supplier assessment are the main focus areas in KP Industry's sourcing process.

SUMMARY OF FINDINGS

1. KP Industry primarily sources its raw materials locally, relying on small and medium-sized suppliers for materials like mild steel scrap and ferroalloys. This local procurement strategy supports cost-efficiency and quicker logistics but also brings challenges related to consistency and scalability.
2. The company faces significant price fluctuations in raw materials, particularly scrap metal, which adversely affects budgeting, financial planning, and overall profitability. These fluctuations are driven by market dynamics, international trade conditions, and local supply availability.
3. Inconsistencies in the quality of raw materials sourced locally have led to production inefficiencies, including increased rejection rates and rework. These issues compromise the final product quality and customer satisfaction, highlighting the need for stricter quality control measures.
4. Overdependence on a limited pool of local suppliers exposes KP Industry to risks of supply disruption.
5. The company currently lacks a structured, strategic procurement process. There are minimal long-term agreements and the procurement decisions are often reactive rather than planned, leading to inefficiencies and missed cost-saving opportunities.
6. There is a strong opportunity for KP Industry to expand its supplier base beyond local sources. Engaging regional and national suppliers can help mitigate supply risks, ensure quality consistency, and provide better leverage in price negotiations.
7. KP Industry could benefit from enhanced inventory management practices. Improved forecasting, stock tracking, and procurement planning would help reduce both excess inventory and stockouts, thereby optimizing production schedules.
8. Integrating digital procurement tools and enterprise resource planning (ERP) systems can streamline the purchasing process, enhance visibility across the supply chain, and support data-driven decision-making in material sourcing.
9. The approach would align with environmental and social governance (ESG) trends and enhance corporate responsibility.

10. To address the identified challenges, it is recommended that KP Industry develop a comprehensive vendor evaluation and management system to improve overall supply chain resilience and performance.

SUGGESTION

According to the results from our analysis, firm performance tends to largely depend on the inflow of raw materials from non-state enterprises and state agencies, which means that firms are highly recommended to increase their sourcing of raw materials from those sources due to the importance of domestic raw materials in forming relationships with suppliers. Conversely, to foster the productivity of firms' operation, firms should prioritize reducing the input of international raw materials because political issues and substantial taxes negatively affect the effectiveness of firm performance. However, despite the positive effect that materials from non-state enterprises offer to SMEs, excess inflow should be avoided since the inflexibility, government policies, and accessing costs may impede the firm's sustainable growth. Regarding each firm's size, when it comes to raw materials from non-state enterprises, medium-scaled firms seem to have the greatest benefits from this source. Meanwhile, importing materials presents disadvantages to all sizes of firms in our empirical data, except medium-scaled firms.

CONCLUSION

Supply chain management has become a vital role in developing an enterprise specifically, and the sustainable growth of the economy in general, since the demand for a variety of products is increasingly soaring. Therefore, the source of raw materials in several industrialized countries becomes scarce, which directly makes them choose suppliers from other countries to maintain the stability of the firm's operation. Thus, this study was conducted to address and identify the impacts of domestic raw materials and international ones on firm performance, which would help firms facilitate their enterprises in diversifying products and generating products, while accommodating the harsh requirements of today's market. However, even when customers demand new and high-tech devices or products, SMEs prefer to use local raw materials instead of international ones. This tendency is explained by the characteristic of industrial countries as well as the cost of approaching materials from international being relatively high. Barriers to accessing international raw materials also stem from the government's policies, supplier relationships, and risks; therefore, no matter how the demand raises, this source still presents negative results in the effectiveness of firm performance in SMEs.

DIRECTIONS FOR FUTURE RESEARCH

Future research can compare the efficiency, cost-effectiveness, and quality outcomes of local versus national and international raw material sourcing in small-scale industries. An investigation into how digital tools (e.g., ERP systems, AI-based supplier analytics) improve procurement accuracy, cost control, and supply chain responsiveness in small-scale manufacturing units. Explore different models of supplier relationship management (SRM) and their effectiveness in building long-term, quality-driven, and sustainable vendor partnerships. A study focusing on the environmental and economic impact of using recycled or eco-friendly raw materials in plastic and manufacturing sectors. Research could evaluate various risk mitigation strategies (e.g., supplier diversification, buffer inventory, hedging) to address price volatility and supply disruptions. Future studies could examine how government schemes, subsidies, and regulatory frameworks affect raw material accessibility and affordability for small-scale industries in India. A deeper financial analysis to understand how long-term contracts, bulk purchasing, or consortium buying impact procurement costs and profitability in the long run. Develop and test a robust, quantitative framework for evaluating vendors based on multiple criteria such as quality, reliability, cost, sustainability, and delivery performance. Investigate how the educational level and procurement training of supply chain staff influence sourcing efficiency and decision-making in small industries. Research how the end-user's perception of product quality is influenced by the raw material sources and whether branding sustainable sourcing adds market value.

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