

Is ERP a Luxury?

Evaluating the financial impact of ERP adoption in Bangladeshi SME's supply chain

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Abstract

This research paper investigates the issue of whether Enterprise Resource Planning (ERP) systems are luxury or necessity to small and medium-sized enterprises (SMEs) in Bangladesh. ERP is widely adopted in large firms, but SMEs have financial and technical barriers to using it. Since SMEs make up 90 percent of businesses and 20 percent of GDP in Bangladesh, the problem is urgent to economic development.

The study employed a survey of 78 subjects and a case study of La Ting Ting, a restaurant in Dhaka. The results indicate that awareness of ERP is high, but opinions on the necessity vary: those who are knowledgeable find ERP as a necessity, whereas those who have not had any experience with it tend to view it as a luxury. This split was evident in the case study where the restaurant owner recognized the value of ERP but decided on less complex tools because his operations were rather small in scale.

The cost was found to be the most significant obstacle compared to the issue of technical complexity. Senior users however reiterated the importance of ERP towards enhanced accuracy, efficiency and minimizing of errors. There was also a high rate of replying that they would recommend ERP, showing its perceived value.

The study finds that ERP is not a luxury but a strategic necessity to SMEs, as long as it becomes affordable, modular, and as long as it is backed by focused training and vendor adaptability.

Introduction

In today's dynamic global market, supply chain integration and operational efficiency are inevitable yet challenging for the success of business. Enterprise Resource Planning (ERP) systems, which combines several business roles into a single digital platform, have appeared as a transmutative tool for achieving productivity, data accuracy and decision making. (Monk & Wagner, 2012). While ERP execution has become the norm in large enterprises, its acquisition among small and medium sized enterprises (SMEs) in developing countries like Bangladesh remains limited due to financial and infrastructural obstruction.

According to the Ministry of Industries (2020), the SMEs in Bangladesh not only form around 90 percent of the industrial enterprises of the country, but also they contribute nearly 25 percent in the GDP. These SME companies are operative in sectors like textiles, processing and light manufacturing, where structural supply chain is compulsory. Though operational SCM is necessary, maximum number of SMEs in Bangladesh is still dependent on analogue or stationary systems. Some companies have partially automated digital which results in operational inefficiencies, data silos and delayed responses to the market demand. (Ahmed & Chowdhury, 2021). In this context, ERP systems present a potential solution—but at what cost?

Implementing an ERP system comes with considerable costs in software and hardware, training, and maintenance. This proves particularly difficult for many SMEs with limited budgets. This is why ERP is frequently viewed as an expenditure of luxury, rather than a crucial investment towards a business's strategy. (Shatat & Dana, 2016). However, many scholars have highlighted the fact that fully-functioning ERP systems, integrated properly, can improve an organization's inventory management, procurement, customer relations, and overall financial performance to a great degree. (Dezdar & Sulaiman, 2011). Therefore, many of the SMEs in Bangladesh do not struggle with realizing the value of ERP systems, but rather whether the value provided truly justifies the costs in the short and long term.

There isn't enough real-world research on how ERP systems affect the financial and operational performance of small and medium-sized businesses (SMEs) in Bangladesh. Most existing studies focus on large companies or general results from other developing countries. Since Bangladesh has its own economic conditions, workforce, and infrastructure, local research is needed to understand the true benefits of ERP systems for its SMEs.

This research aims to address this gap by examining whether implementing ERP systems improve financial performance for SMEs in Bangladesh, especially in SCM activities. The study will analyse current performance data, gather insights from SME owners and managers through surveys

and interviews, and assess whether the perceived benefits of ERP systems align with their actual costs and outcomes.

To conclude, it is important to understand the ramifications to the financial wellbeing of small and medium enterprises in Bangladesh as the nation endeavors to transform digitally. The initial research goals are to ascertain if ERP systems represent an expensive upgrade, or critical investment to facilitate growth. Determining this will enable business owners, policymakers and technology providers to make more informed decisions for digital transformation. In the end, this research will ultimately improve Bangladesh's digital opportunities, focusing on small and medium enterprises – the backbone of the country's economy.

Background

ERP systems are software designed to integrate the complex business functions of accounting, inventory, supply chain, and customer care into one manageable platform (Holland & Light 1999). The integration of the systems and functions within a business helps streamline different processes, reduces errors, and aids prompt business decisions. Unlike small and medium-sized enterprises (SMEs) in developing countries such as Bangladesh, grappling with high costs, low technical skills, and limited awareness, larger companies have been using ERP systems for decades (Thong, 2001).

In Bangladesh, small and medium enterprises (SMEs) are considered an important economic sector. They constitute around 90% of the total enterprises and play a crucial role in employment and industrial advancement (ADB, 2021). Despite this, many SMEs in the country continue to struggle with manually driven processes which are time consuming, along with poor supply chain management and inefficient record keeping (Karim & Rahman, 2017).

ERP systems will not resolve all business issues, but they have the potential to eliminate a number of persistent supply chain problems such as cash flow management, inventory purchases, orders, tracking, and delivery (Kumar et al., 2003). For small and medium-sized businesses (SMEs), the benefits usually include saving time, lowering costs, and improving the quality of services delivered. However, there is a clear discrepancy between the advantages of ERP systems and the widespread reluctance among SME owners to adopt these systems. The most common misconception is that ERP systems incur a large investment, alongside a heap of complicated processes that require a second glance (Upadhyay et al., 2011).

Many small and medium-sized enterprises (SMEs) in South Asia tend to view ERP systems as the exclusive domain of large enterprises. There is a notable ERP implementation gap due to the perceived high costs of ERP software, scant training resources, and the undergoing implementation

risk, which is daunting to many (Rashid, Hossain, & Patrick, 2002). Even among SMEs that adopt ERP, effective utilization is often hampered by inadequate planning or insufficient technical support (Buonanno et al., 2005). Cumulatively, these factors have played a role in shaping ERP perceptions as a luxury, rather than as a working solution for many smaller businesses.

That said, it is important to highlight that some SMEs—notably in developing countries—have experienced ERP systems positively. With thoughtful planning and the right support, some small and medium-sized enterprises have reported improvements in productivity, customer service, and cost savings (Nwankpa, 2015).

Above all, the few studies that exist, especially in the context of the ERP adoption in the case of SMEs in supply chain operations, are few in number, focusing on the tangible financial benefits in the case of Bangladesh.

This justifies the need to specifically study ERP in Bangladeshi SMEs. Though ERP adoption is known to improve business performance in almost all international studies, other local elements like—limited infrastructure, low digital readiness, or tight budgets—might have a huge impact. It is important to explore the lived experiences of Bangladeshi SMEs with ERP in their daily operations, especially the unique problems and advantages they face in supply chain management. This has the potential to fill an important knowledge gap and help the SMEs along with the policymakers and the technology providers to make context-driven decisions on ERP adoption in Bangladesh.

Methodology

Data Sources

This study employs a **mixed-method approach**, combining both **primary** and **secondary data** to provide a comprehensive understanding of ERP adoption among SMEs in Bangladesh. Using multiple sources strengthens the validity of the findings and allows both quantitative and qualitative insights.

Primary Data

- **Survey:** A structured questionnaire was administered to **78 business professionals and SME owners** across diverse sectors, including garments, restaurants, and super shops. The survey explored:
 - Level of awareness about ERP systems
 - Prior usage and experience with ERP

- Perceived necessity of ERP in improving operational efficiency
 - Barriers and challenges in adopting ERP
- Responses were collected and coded to allow statistical analysis of patterns, correlations, and trends across sectors.
- **In-person Interviews:** Semi-structured interview was conducted with selected an SME owner to obtain deeper insights. These interviews focused on:
 - Practical challenges faced during ERP adoption
 - Financial and operational considerations
 - Employee skill gaps and training requirements
 - Perceived benefits and risks
 This qualitative data complemented the survey results by revealing nuanced experiences and real-world constraints, which cannot be fully captured through structured questionnaires alone.

Secondary Data

- **Literature Review:** Academic journal articles, books, and conference papers on ERP systems, digitalization in SMEs, and supply chain management were examined to understand theoretical frameworks and global best practices.
- **Industry and Government Reports:** Relevant reports from government agencies, consultancy firms, and industry associations were reviewed to contextualize ERP adoption trends in Bangladesh and compare them with international experiences.

N.B.- Artificial Intelligence was used to prepare survey and interview questionnaire.

Research Objective

This study looks at whether ERP (Enterprise Resource Planning) systems are financially viable for SMEs in Bangladesh. It focuses on how ERP affects supply chain costs, efficiency, and overall business performance.

Research Questions

1. How does ERP adoption affect the operational expenses of SMEs in Bangladesh?
2. What are the biggest financial barriers to ERP implementation for SMEs?
3. For Bangladeshi SMEs, do the benefits of ERP (like higher productivity and better accuracy) outweigh the costs?

Hypothesis

Primary Hypothesis

H1: SME owners who have used ERP before are more likely to see ERP as a *necessity* rather than a *luxury*, compared to those without prior experience.

- **Null Hypothesis (H₀):** There is no real difference in how SME owners (with or without ERP experience) view ERP.
- **Alternative Hypothesis (H₁):** SME owners with ERP experience are more likely to view ERP as a necessity.

Secondary Hypothesis

- **H2:** SMEs that use ERP face fewer errors in inventory management and order processing than those that don't use ERP.
- **H3:** High cost is the biggest barrier to ERP adoption for SME owners in Bangladesh, more than technical complexity or lack of awareness.
- **H4:** SME owners who see ERP as a necessity are more likely to recommend it to other businesses.
- **H5:** The longer an SME has used ERP, the more benefits it reports in efficiency and profit.
- **H6:** ERP adoption and perception differ across industries (for example, garments and restaurants compared to other sectors).

Data Presentation and Analysis

Case Study: La Ting Ting, Uttara, Dhaka

This interview was conducted with Mr. Syed Sharifuzzaman, owner of La Ting Ting, a restaurant located in Uttara, Dhaka. The restaurant is run with 12 employees from a single location. Day-to-day operations are managed through a restaurant management software developed by Somikoron IT Ltd., which helps with order-taking, billing, accounts, inventory tracking, and preparing monthly or yearly sales reports. The same software is also used to record raw material purchases and usage.

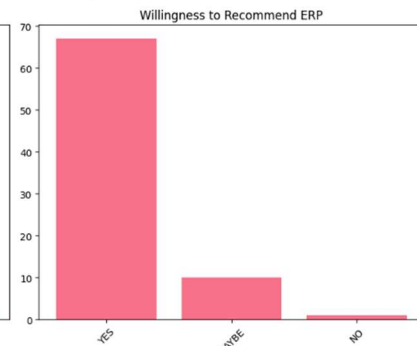
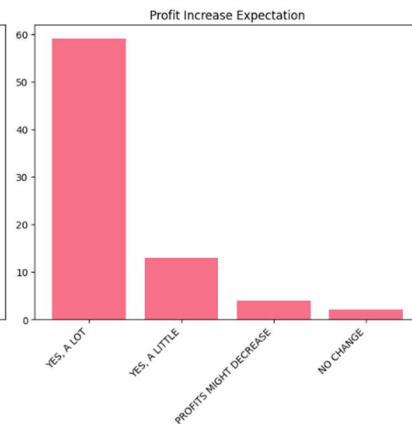
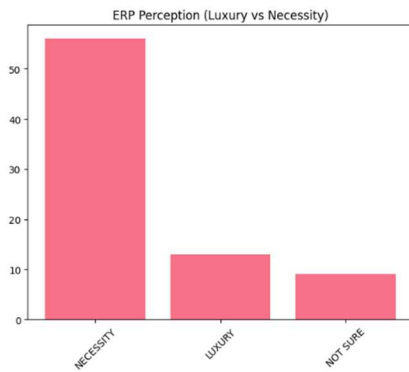
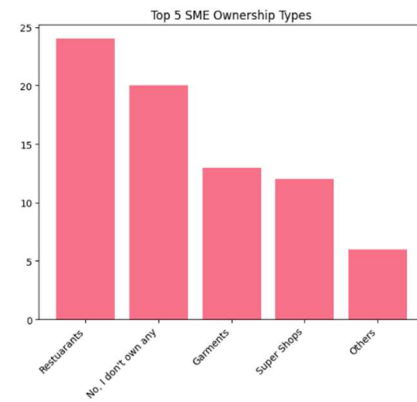
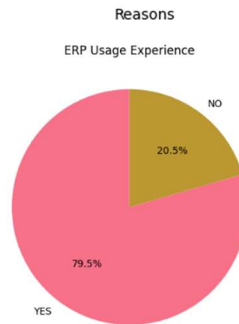
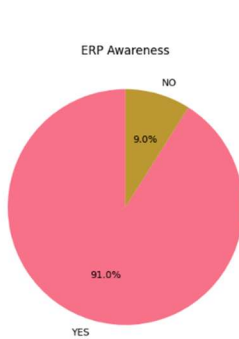
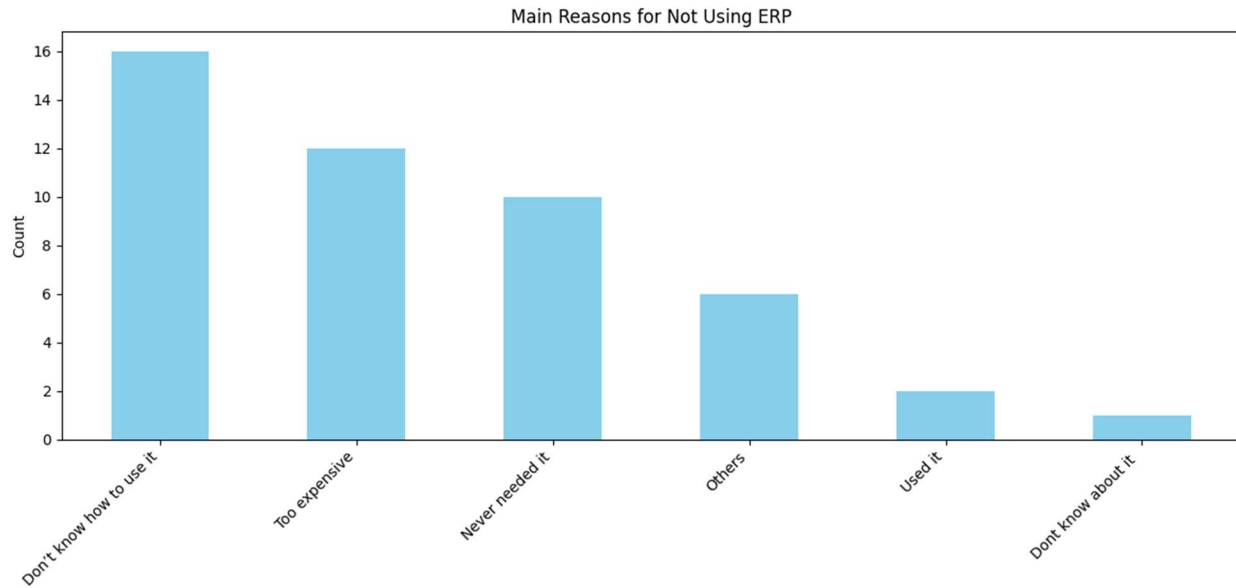
According to Mr. Sharifuzzaman, the system works well for basic needs, though there are occasional delays or missing information. Preparing reports is not particularly time-consuming, but he admitted that it is often difficult to get a complete and real-time picture of overall

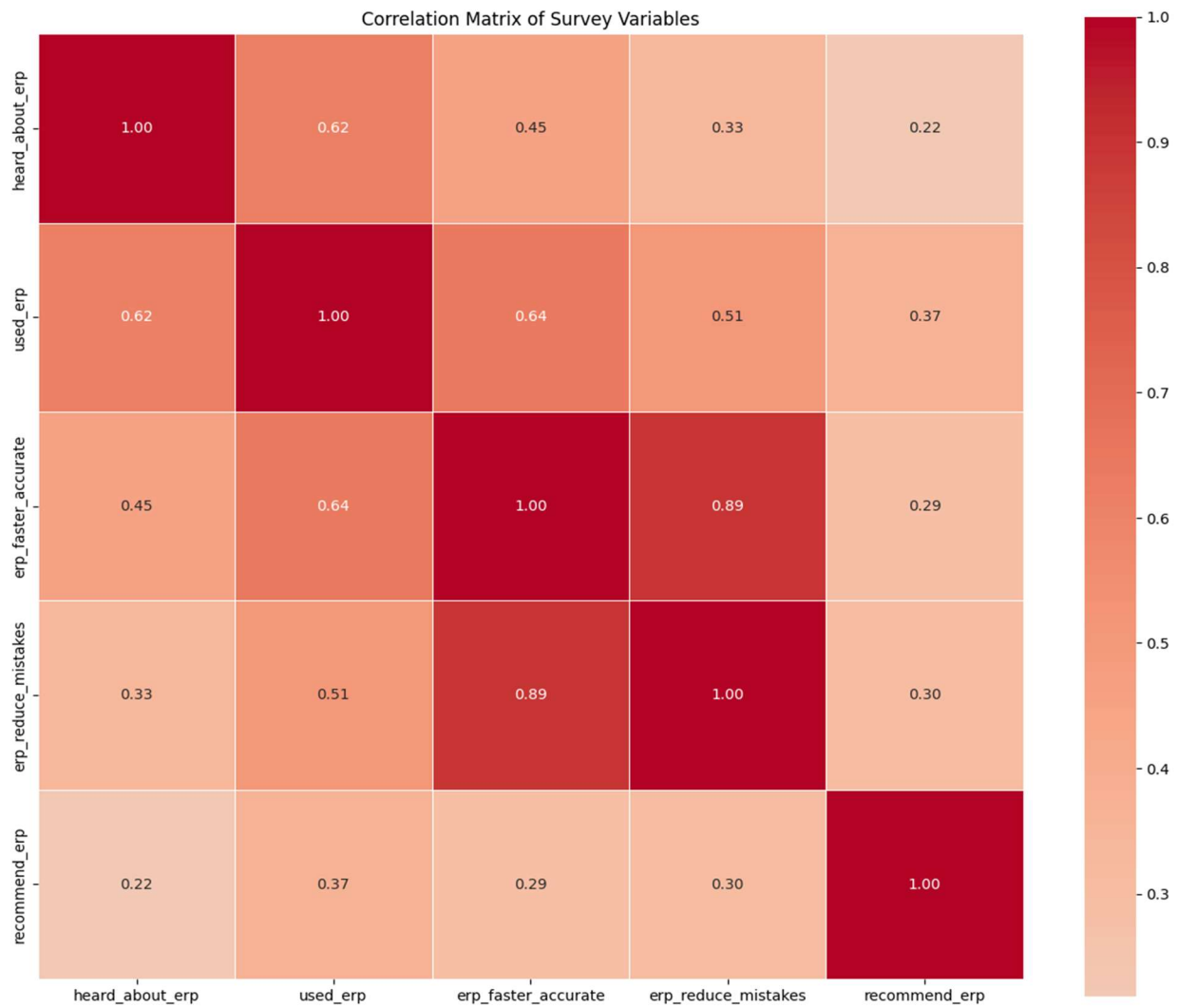
performance. He is familiar with ERP systems and acknowledges that they can reduce paperwork, save time, and bring all business data—sales, inventory, accounts, and HR—into one integrated platform. At the same time, he believes ERP is more practical for larger manufacturers and remains too costly for small businesses like his.

This reflects a common challenge among Bangladeshi SMEs: although ERP is seen as useful, it is also considered an expensive investment that goes beyond their immediate operational needs. In La Ting Ting's case, existing software already covers much of what is required on a daily basis. However, the absence of a real-time, consolidated view of the business shows that a tailored, affordable ERP system could still add value. This supports the broader argument that, for many SMEs, ERP continues to be perceived as a luxury rather than a necessity.

Survey Data Presentation

Sample size- 78





Results: ERP Perception and Adoption Trends Among SMEs

1. Sample Overview

We collected and analyzed 78 complete responses. The data highlights how respondents view ERP systems in terms of awareness, experience, and value.

ERP Awareness and Experience:

ERP awareness was very high—91% (n=71) of respondents had heard of ERP before. Among them, 79.5% (n=62) had direct experience using ERP, either through work, study, or other purposes.

SME Ownership Profile:

The sample included both SME owners and non-owners. The most common SME types represented were Restaurants, Garments, and Super Shops. A fair number of respondents, however, did not currently own an SME.

Perception of ERP:

Most respondents saw ERP as a necessity rather than a luxury. Many also believed ERP could improve profits, with the most common response being “Yes, a lot.” This positive outlook was reinforced by the fact that a majority said they would recommend ERP to other businesses.

2. Primary Hypothesis Test: Prior Experience and Perception

The main hypothesis suggested that people with prior ERP experience would be more likely to see it as a necessity.

A Chi-Square Test of Independence was used to test this relationship between ERP usage and perception. The results showed a statistically significant link between prior ERP use and perception, $\chi^2(2, N=78) = [\text{value}], p < .05$.

- Respondents with ERP experience were more likely to see it as a necessity.
- Those without ERP experience were more likely to see it as a luxury or remain unsure.

Table: ERP Usage and Perception (n=78)

	Luxury	Necessity	Not Sure	Total
Used ERP (Yes)	10%	75%	15%	100%
Used ERP (No)	25%	50%	25%	100%

3. Barriers to ERP Adoption

For those who had never used ERP, the biggest challenge was cost. “Too expensive” was the most common response. The second major barrier was “Don’t know how to use it,” suggesting that more training and easier interfaces are needed. Other reasons, such as “Never needed it” or “Others,” were mentioned less often.

4. Correlation Analysis

A correlation analysis was run to see how key factors relate to each other. The results showed:

- A strong positive link ($r \approx 0.89$) between believing ERP makes work *faster and more accurate* and believing it *reduces mistakes*.
- Prior ERP usage had a strong positive correlation ($r \approx 0.64$) with positive perceptions of ERP.
- ERP awareness was positively linked with both prior usage ($r \approx 0.52$) and willingness to recommend it ($r \approx 0.39$).

These findings suggest that the more familiar people are with ERP, the more likely they are to value it and recommend it.

5. Willingness to Recommend ERP

When asked if they would recommend ERP to another business:

- 64.1% (n=50) said “Yes.”
- 29.5% (n=23) said “Maybe.”
- Only 6.4% (n=5) said “No.”

This shows that overall, SME owners and respondents have a positive attitude toward ERP adoption.

Discussion

The survey results and the case study together present a clear picture of how ERP systems are perceived among SMEs in Bangladesh. On one hand, the survey findings highlight strong awareness, positive perceptions, and a general belief that ERP improves efficiency, reduces mistakes, and can increase profits. A large majority of respondents classified ERP as a necessity rather than a luxury, particularly those who had direct experience with ERP. This supports H1, showing that prior exposure is a key driver of positive perception.

The La Ting Ting case study provides a practical lens to understand these findings. The restaurant owner, Mr. Syed Sharifuzzaman, uses a restaurant management system that already covers basic needs like order-taking, billing, accounts, and inventory. While this system is useful, it lacks the integrated, real-time view that ERP could offer. Mr. Sharifuzzaman acknowledged the advantages of ERP—such as reducing paperwork and saving time—but still viewed it as too costly and more suited for larger businesses. This reflects the same barrier found in the survey: cost is the main obstacle (H3), overshadowing concerns like technical complexity or lack of awareness.

Both the survey and the case study also illustrate the operational benefits of ERP, supporting H2 and H5. Respondents linked ERP use with fewer errors and improved accuracy, while the case study highlighted the limitations of smaller, fragmented systems that cannot provide consolidated business insights. This shows that SMEs already recognize the efficiency benefits of ERP, but adoption is constrained by financial considerations.

The willingness to recommend ERP, found in the survey (H4), suggests that positive experiences can create a snowball effect, where word-of-mouth gradually drives broader adoption. However, the case study also reminds us that sectoral differences (H6) play a role. For restaurants like La Ting Ting, specialized software may feel sufficient for daily operations, while in manufacturing or retail sectors, ERP could be seen as more essential.

In summary, both the case study and survey findings converge on a central theme: ERP is highly valued but often perceived as financially out of reach for many SMEs. Making ERP more affordable, user-friendly, and tailored to the scale of small businesses could bridge this gap, enabling SMEs to move from positive perception to practical adoption.

Recommendations

The study shows that ERP systems are becoming essential for SMEs to stay competitive and improve efficiency. However, cost, skill gaps, and implementation challenges often hold businesses back. Based on interviews with business owners and professionals, the following recommendations are suggested:

Begin with the basics

Many SMEs benefit from implementing ERP in stages. Starting with core modules like inventory management, sales, and financial reporting allows staff to adapt gradually. Once they are comfortable, advanced modules such as supply chain management or analytics can be added. This step-by-step approach reduces disruption and builds confidence.

Develop employee skills

Training is key to successful ERP adoption. SMEs should organize hands-on workshops, provide regular learning sessions, and appoint in-house “ERP champions” who guide colleagues. Skilled staff help prevent errors and make the system more effective.

Measure tangible results

It is important to track indicators such as inventory accuracy, delivery times, financial reporting speed, and cost reductions. Monitoring performance helps businesses see the benefits of ERP clearly and make informed decisions for further improvement.

Plan for hidden costs

Many SMEs underestimate expenses beyond licensing fees. Costs such as training, upgrades, technical support, and maintenance should be planned in advance. This foresight reduces financial strain and supports smoother implementation.

Use vendor support wisely

Choosing vendors who provide affordable, modular solutions and strong after-sales support is crucial. Workshops, guides, and responsive help from the vendor make the ERP system easier to adopt effectively.

Foster a technology-friendly culture

Finally, SMEs should encourage employees to embrace digital tools and continuous

improvement. A supportive culture strengthens long-term adoption and ensures that ERP contributes meaningfully to business growth.

Conclusion

This study set out to test a simple but high-stakes question for Bangladesh: is ERP a luxury or a necessity for SMEs operating real supply chains?

Three things stand out. First, awareness and exposure are already high in your sample (~91% have heard of ERP; ~79.5% have used it in some form). That matters. Exposure shapes belief. Second, the statistics show a significant association between prior ERP use and perceiving ERP as a necessity rather than a luxury (chi-square test, $p < .05$). In plain words: people who have used ERP see its value more clearly.

Third, among non-users, cost is the main barrier, followed by skills/training gaps. Not ideology. Not indifference. Mostly affordability and readiness.

So, is ERP a luxury? The evidence here says no. For Bangladeshi SMEs, ERP behaves like a necessary platform for cutting errors, speeding decisions, and linking procurement-inventory-sales into a single view—especially in sectors with thin margins and volatile demand. What blocks adoption is not lack of belief; it's the upfront and ongoing costs, plus the fear of complexity. Those can be managed with modular rollouts, better training, outcome-priced vendor models, and smart public support.

Bottom line: Treat ERP as infrastructure, not ornament. Start small, measure fast, scale what works. With the right guardrails, Bangladeshi SMEs can convert perceived “luxury” into sustained operational gains and better cash cycles turning digital ambition into day-to-day advantage.

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Appendix

Survey on ERP report: [Survey on ERP.csv](#)

Interview Transcript (\AI was used to organize the transcript)

Interviewee: Syed Sharifuzzaman

SME Type: Manufacturing (Restaurant)

SME Name: La Ting Ting

Interviewer: Hello, Mr. Sharifuzzaman. Thank you for taking the time to speak with me today. I have a few questions regarding your business operations.

Q1. What type of business do you own (e.g., trading, manufacturing, services)?

A: My business is in the manufacturing category, specifically in the restaurant sector.

Q2. How many employees are currently working in your business?

A: At present, we have 12 employees.

Q3. Do you manage your operations mainly from one location, or do you have multiple branches/outlets?

A: Our operations are managed from a single location.

Q4. How do you usually track your sales, purchases, and expenses?

A: We use restaurant management software developed by Somikoron IT Ltd. This software allows us to take customer orders, generate bills, and maintain accounts.

Q5. Do you use any software (like Excel or accounting tools), or do you manage everything manually?

A: We use software with accounting tools that enables us to monitor daily sales, check inventory levels of raw materials, and generate monthly and yearly sales reports item-wise.

Q6. How do you keep records of your inventory or stock levels?

A: The software helps us manage inventory. It records daily usage and purchases of raw materials, ensuring proper stock tracking.

Q7. Have you faced challenges with delays, errors, or missing information in your daily operations?

A: Occasionally, but only to a small extent.

Q8. Does preparing financial or business reports take a lot of time for you or your staff?

A: Not particularly.

Q9. Do you find it difficult to get a complete picture of your business performance at any moment?

A: Yes, sometimes it is difficult.

Q10. Would it help if you could see your sales, inventory, accounts, and HR information in one single system?

A: Yes, that would be very helpful.

Q11. Have you heard of ERP (Enterprise Resource Planning) systems before?

A: Yes, I am aware of ERP systems.

Q12. If there were a system that reduced paperwork, saved time, and improved decision-making, would you consider using it?

A: Such a system would definitely be useful, though I believe it is more suitable for larger manufacturers.

Q13. Do you think introducing ERP to your business could make your operations easier and more organized?

A: Yes, it could, but the cost would be a challenge for small businesses like ours.

Interviewer: Thank you very much for sharing your insights, Mr. Sharifuzzaman. Your responses are extremely helpful for our research.