Optimizing B2B Relationships with Post-Covid Sales and Marketing Automation Through ERP Implementation: A Value-Driven Approach in Bangladesh

Sayeda Rahnuma Akthar¹¹¹⁰^a, Mohammad Sajjad Khan²¹^b Farzana Sadia³⁰^c and Mahady Hasan²¹^b

¹Department of Computer Science, Independent University, Bangladesh, Dhaka, Bangladesh

²Department of Computer Science and Engineering, Independent University, Bangladesh, Dhaka, Bangladesh ³Faculty of Electronic Engineering & Technology, Universiti Malaysia Perlis (UniMAP), Perlis, Malaysia

- Keywords: B2B Relationships, Covid-19, Sales and Marketing, ERP Bangladesh, Oracle Fusion Application, Tailored Marketing Experience, Value-Driven Data, Implementation Stages, Implementation Process, Responsibility Sharing, Methodology Model Diagram.
- Abstract: Enterprise Resource Planning (ERP) is a powerful software program created to combine and streamline several company processes. Companies in developed countries frequently use it to increase their general effectiveness. ERP enables companies to meet the specific demands, interests, and behaviours of their customers, who are increasingly seeking individualized experiences. Even with the help of an implementation partner, deploying ERP properly necessitates a solid understanding of the involved process. During the implementation stage, effective communication and responsibility sharing can be challenging. The main goal of this paper is to create a thorough guidebook that offers insightful advice to businesses and their clients throughout the whole ERP deployment process. Six interviews were done to obtain information and address any implementation-related worries in order to accomplish this. These talks led to the creation of an implementation handbook that addressed important challenges and offered useful solutions. A methodology model diagram is also suggested to act as a visual roadmap for an organized and fruitful ERP installation. The objective is to equip businesses and their clients with the information and resources they need to successfully complete the deployment process and get the most out of their ERP system.

1 INTRODUCTION

The Enterprise Resource Planning (ERP) has become an indispensable tool for managing critical aspects of organizational operations. With the support of comprehensive multi-module software, manufacturers and service providers can efficiently handle a wide range of tasks (Maguire, S., Ojiako, & Said, 2010). ERP systems have evolved over the years, replacing outdated Material Requirements Planning (MRP) systems and emerging as a fundamental component of IT infrastructure.

Large corporations with diverse business units often face challenges in managing their databases and

generating timely reports on their operations. Previously, organizations relied on in-house databases and software solutions to handle data, with the accounting system being linked to the overall database (Barker, T., & Frolick, M. N., 2003). However, the process of gathering information from various factories and generating reports for higher authorities was time-consuming.

Implementing ERP requires a comprehensive understanding of the fundamental steps and technical intricacies involved, which can be challenging for marketers to grasp (Khan, M. R., & K., 2012). Although implementation partners are available to provide support, effective communication and

Akthar, S., Khan, M., Sadia, F. and Hasan, M

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^a https://orcid.org/0009-0009-6049-8182

^b https://orcid.org/0009-0002-0118-9039

^c https://orcid.org/0009-0005-1895-1044

^d https://orcid.org/0000-0002-9037-0181

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responsibility sharing can sometimes be difficult, necessitating additional assistance.

To enhance understanding and discuss ERP practices worldwide, a framework is proposed that examines ERP installations in both industrialized and developing nations. This framework provides valuable insights for practitioners and researchers, highlighting the implications and considerations associated with ERP implementations (Achard, F., 2005; Maxwell, James Clerk).

It is important to note that the abundance of ERP solutions in the market does not necessarily correlate with the availability of up-to-date content. Technological advancements and evolving practices render literature older than ten years obsolete, and the most recent information is predominantly accessible through online articles. As a result, this study relied on freely accessible web articles to

2 FACTORS OF THE ERP

Based on the publication (Huang, Z., & Palvia, P., 2001)) the factors of the ERP given down below

2.1 Economy and Economic Growth

An economy's health is a reliable barometer of a nation's IT/IS development. Rapid economic expansion drives IT/IS development because companies are eager to gain a competitive edge. As a result, the development of IT/IS and the adoption of ERP require a solid economic foundation.



Figure 1: ERP Implementation Factors and Frameworks.

2.2 Infrastructure

Infrastructure, which comprises both fundamental and IT infrastructure, is a crucial requirement for ERP deployment. The company's internal operations, as well as those of its suppliers, clients, and banks, are all impacted by ERP. The entire infrastructure must be reliable to implement complete value chain management made possible by ERP.

2.3 IT Maturity

How a firm chooses to purchase and implement IT/IS can be significantly influenced by the level of IT maturity. Because they have a better understanding of IS implementation, can successfully communicate with ERP vendors, and have a better understanding of IS implementation, IT mature organizations are more likely to succeed in ERP adoption. (I. S. Jacobs, 1963). (Jacobs, I. S, 1963)

2.4 Computer Culture

This relates to the organization's computing history, employee attitudes toward computers, and organizational computer dependency even though it is related to IT maturity. A company with a solid culture will have more understanding of ERP system acceptance, data management, and application functionality.

2.5 Business Size

The size of a company has a big impact on how much money it spends on IT and how often it uses it. Many major systems began in huge corporations, and ERP systems were pioneered by large corporations. Smaller businesses are starting to embrace ERP as a result of two considerations. First, ERP companies are focusing more on small and medium businesses, and second, small businesses are feeling the push to use ERP to gain a competitive advantage.

2.6 BPR Experience

How much a company spends on IT and how frequently it uses it are significantly influenced by its size. Large enterprises were the forerunners of many important systems, including ERP systems. Due to two factors, smaller companies are beginning to use ERP. First, small and medium-sized firms are receiving increasing attention from ERP providers, and second, small businesses are sensing pressure to embrace ERP to gain a competitive edge.

2.7 Manufacturing Strengths

Although this is changing, historically, ERP solutions have been more functional in the manufacturing areas. Despite the fact that service providers have started to enter this sector, manufacturers are more likely to use ERP.

2.8 Government Regulations

Regulations can either help or impede the use of IT, and governments can encourage it. For instance, in order to be audited, several government departments in China are compelled to replace manual accounting processes with accounting software. Software for accounting and finance has therefore been widely used.

2.9 Management Commitment

Given the complexity and resource demands, this management commitment is essential to the implementation of ERP in both developed and developing countries. Given the fundamental status of ERP in undeveloped countries, it might even be more crucial in these nations.

2.10 Regional Environment

The use of IT and ERP in a country may be influenced by its geographical surroundings and culture. Bangladesh is a great case in point. Bangladesh should have a sizable future ERP market because it is a developing nation, but its presence is still quite young. The bulk of big Bangladeshi firms have moved their manufacturing activities to other Asian countries, which is one of the factors. In these Asian countries, ERP usage is not very common. Because collaborating nations do not use ERP, which is not a stand-alone system. The geographical setting and cultural traditions of a nation may affect how it uses IT and ERP. Bangladesh is a great case in point. Bangladesh should have a sizable future ERP market because it is a developing nation, but its presence is still quite young. One aspect is that.

3 LITERATURE REVIEW

ERP is difficult to install due of its complexity. In recent years, there have been a number of studies on ERP deployment, among those there were numerous count of failed implementation of the ERP. (Barker, T., & Frolick, M. N,2003) ERP implementation should be considered as a new company venture and a team effort, not simply a software installation. (Chen, C. C., Law, C. C., & Yang, S. C., 2009) For ERP to be a success, companies must involve all employees and sell the notion of ERP to them absolutely and completely.(King, W. R. ,2005)Involving, supervising, recognizing, and retaining those who have worked or will work closely with the system is critical to a successful implementation. (Chakravorty, S. S., Dulaney, R. E., & Franza, R. M. 2016)The findings suggest a roadmap for firms adopting ERP to follow in order to avoid making significant, yet often overlooked, project management blunders. Despite the widespread use of ERP systems, there remains substantial worry about ERP installation failure. (Grabski, S. V., & Leech, S. A. ,2007) Escalation of commitment could be one reason for many ERP implementation failures. The tendency of decisionmakers to continue investing in a poor course of action is referred to as escalation of commitment. Two main kinds of factors influence ERP national/environmental implementation: and organizational/internal, each of which has five variables. (Dezdar, S., & Ainin, S. ,2011) This study compares the AISs and ERPs that are currently most widely utilized in the United Arab Emirates while also examining the market and the size of local firms. The study emphasized the benefits and drawbacks of the present information systems as well as the traits of the businesses that influenced how widely the programs were used.

(Faccia, A., Mosteanu, N. R., Fahed, M., & Capitanio, F. ,2019) It demonstrates that basic physical, economic, cultural, and cultural difficulties present extra challenges for ERP systems in emerging nations. By contrasting developed and developing nations, this essay identifies a variety of problems with ERP deployment.(Huang, Z., & Palvia, P,2001) Daniela Corsaro, Isabella Maggioni, Mirko Olivieri examine how S&MA generates value for companies in the post-Covid-19 scenario. They propose a conceptual model that considers various value drivers, including customer-centric, operational, and integration-based factors. (Corsaro et al., 2021)

4 RESEARCH DESIGN

This paper proposes a framework for driving value creation through ERP implementation in B2B relationships, focusing on the perspective of Bangladesh. The research addresses two main questions: (RQ1) What is the proper methodology for ERP implementation? and (RQ2) How does data-

driven value creation occur through SMA in B2B relationships? Interviews were conducted to gather relevant insights, and the following interview questions were considered:

- Does the vendor possess the necessary skills to set up the modules?

- Are all business heads aware of the implementation and providing timely support?

- Do team members responsible for ERP have adequate knowledge and experience?

- Are decisions made by the team leader timely and effective?

- Can the company afford the cost of ERP implementation?

- Is the vendor providing proper training and support to the end user?

- Is the funding for implementation being utilized effectively?

- Are the data being migrated from legacy systems to ERP transparent and accurately reported?

- Do end users exhibit a tendency to use ERP in the same way as their legacy systems?

- Is the UAT session conducted appropriately before going live with ERP?

4.1 Data Collection Method

Google Forms was used to gather the data for this article during the qualitative phase. The authors chose to directly interview people involved in the relevant subject, nonetheless, as the initial responses looked unrelated. Four project managers from various firms, one managing director, and an Oracle representative involved in the rollout of the Oracle Fusion ERP system were all interviewed via Skype by the team. The aforementioned questions were asked to the interviewees, and the answers were used to develop the solutions.

4.2 Limitations

For a business to avoid ERP deployment failure, which could be financially draining, it is essential to analyze the process. Typically, when establishing an ERP system, businesses must follow a particular framework and process. Companies can guarantee more efficient execution by adhering to this structure and organizing the implementation process. Accessing larger businesses or enough resources, however, can be difficult because there may not be enough communication and teamwork among employees.

4.3 **Problem and Existed Solution**

Some problems and existed solutions (Tom Millar, 2023) are discussed here:

4.3.1 Insufficient Software Fit

Understanding the requirements is essential for an ERP deployment to be successful. Meet with stakeholders from many disciplines, discuss existing problems, and foresee upcoming difficulties. Make a thorough list of the requirements and features that are necessary. Put functionality before superfluous embellishments. Continue looking for an ERP system that satisfies all needs if a potential candidate falls short.

4.3.2 The Implementation Is Not Dedicated by Business Leadership

For an ERP project to be successful, organizational leadership commitment is essential. To ensure proper resource allocation, consider postponing the project if they are not totally committed. Resources like money and people should be taken into account. Important people involved in the deployment should finish off their previous tasks, and if necessary, plans should be prepared for interim replacements. The entire organization must be involved in the ERP adoption.

4.3.3 Limited Team Resources

Building the ideal ERP team is essential for a successful implementation. It's crucial to allot enough time and resources. Think about hiring freelancers, contract workers, or existing staff who have time set aside for the project. If employing internal resources, give the ERP implementation more importance than other activities. For particular purposes, such as data conversion programming, seek outside assistance. The project will be managed by a committed team manager who will report to high management and a steering team.

4.3.4 Failure to Hold People Accountable for Making Timely, High-Quality Decisions

Early on in the ERP installation process, establish defined decision-making roles. Failure may be caused by indecisive, bad decisions. Instead of relying primarily on top management, promote group decision-making that involves team members knowledgeable with processes and changes.

4.3.5 Underfunding of Change Management

A successful ERP installation depends on putting careful planning and strong communication first. The justifications and expected advantages of the ERP implementation should be extensively communicated to keep everyone informed and engaged. You shouldn't assume that everyone will embrace the change immediately away because resistance can lead to failure. Change management experts can be helpful additions to the implementation team since they can encourage acceptance of the future by identifying individuals' individual personalities and addressing their concerns.

4.3.6 Inadequate Coaching/Support

User education is necessary for ERP installation. Users who haven't had any prior training are using up the resources of the implementation support team. When there aren't enough support resources to handle go-live issues, the implementation fails.

4.3.7 Minimal Resources

An ERP system budget must account for both the initial cost and recurring costs. Increase your expected budget by 25% to account for unforeseen charges. Be prepared to spend more money on top of the cost of the ERP system itself for payroll expenses, consultancy fees, infrastructure upgrades, continuing support, and maintenance. Although long-term savings may be feasible, it's important to set aside cash to make sure the implementation works well.

4.3.8 Inadequate Cleaning of Information

Preparing and cleaning data are two essential but challenging steps in deploying ERP. System development and data cleansing should happen simultaneously to avoid implementation problems. Sort data into categories that are static (transactional) and dynamic (once-entered). In the new ERP system, tables with columns of static data will be present. Data from previous sources is duplicated and mapped to the new ERP while accounting for mandatory and optional fields. Send only the most recent and essential information to avoid unnecessary clutter. Keep legacy systems running in read-only mode so that historical data can be accessed. Double-check the data and make any necessary corrections before entering it into the new ERP. Paying close attention to every last detail throughout the data preparation stage is essential for a successful deployment.

4.3.9 ERP's Insistence on Appearing Outdated

Excessive ERP system customization can be harmful, limiting functionality, making upgrades and testing more challenging, increasing costs and risks, and other negative effects. Users may be accustomed to old systems, but because the new ERP incorporates best practices, they will quickly become accustomed to it. Priority should be given to meeting specific business requirements over aesthetic considerations. Customization should only be done when absolutely necessary due to its high cost. Most ERP systems offer setup options with little to no customization.

4.3.10 Failure During Testing

An ERP implementation must undergo comprehensive testing on a regular basis to be successful. Test each important business process individually before moving on to volume tests and simulated go-live scenarios. Testing helps identify and address issues, such as problems with data migration. Just one data element with the wrong format can cause a test to fail. Data migration is an essential part of testing. Make the necessary adjustments based on testing results and go through numerous iterations to achieve a smooth transition.

Document the migration procedure and locate techniques that permit speedy loading of all required data to ensure effective data migration during go-live. Automated robotics testing can find and fix a variety of potential problems, lowering the possibility of implementation failures. While there may be other dangers, avoiding these ten major ones greatly raises the likelihood that an ERP crisis won't occur and enables your company to quickly restart operations.

5 RESULT/ FINDINGS

The research was consists of few interviews from different organizations in Bangladesh.

Table 1 provides a detailed overview of the sample profile of the employees who participated in the study, which can be useful for understanding the demographics of the participants and analyzing the results of the study.

Category	Characteristic	Sample amount	Perce- ntage (%)	Valid Percent
Gender	Male	6	100	92
	Female	0	0	0
Age (Years)	31-35	1	16.67	10
	36-40	4	66.67	60
	41-45	1	16.67	16.67
Designation	Project-Manger	4	66.67	66.67
	Managing- direction	1	16.67	30.10
	Brand- Ambassador	1	16.67	50.55
Year	3-5	1	16.67	31.51
of	6-10	4	66.67	70.21
Designation	>10	1	16.67	30.66

Table 1: Details of Sample Profile.

In this paper, there is a proposed model diagram framework for ERP system. To help to visualize the system there is a sample scenario given down below:



Figure 2: Proposed Model Framework to Implement ERP System.

Here is detailed discussion of the proposed model Framework:

5.1 Sign off Agreement

Sign off agreements are formal declarations between the client and the implementation team, certifying the successful implementation of the ERP system and meeting all client requirements. • Vendors present system solution and discuss rules and support.

5.2 BPR

BPR involves redesigning processes to improve key performance indicators and align with the new ERP system.

• Map current processes, identify gaps, and design future state blueprint.

• Implement changes and consider dependencies.

5.3 CRP

A select group tests system functionality in a simulated environment before full implementation. • Scope, design, and build.

5.4 Design Documents Sign Off

When Formal acceptance and approval of design documents by stakeholders to ensure their needs are addressed.

• Approve CRP build.

5.5 Sign off UAT

Obtain official clearance from users or stakeholders after thorough testing.

• Provide test server and module testing.

5.6 Go Live

Stage when the ERP system is fully operational and used for regular business operations.Go live after successful UAT.

5.7 Post Go Live

Continuously optimize and address user requirements for ongoing improvements.

• Address user requirements, fix issues, and test.

Previously, organizations relied on in-house software Legacy, which was easy to use but lacked proper record-keeping. Shifting to Oracle Fusion ERP provided a convenient solution, as it stores and tracks all user input, ensuring data integrity. The COVID-19 pandemic accelerated the adoption of cloud ERP, offering significant benefits for remote work. As more companies in Bangladesh transition from legacy systems to ERP, the demand has increased. However, limited experienced professionals and computer literacy among employees pose challenges in implementation.

6 FUTURE WORK

Additional Study on ERP Adoption in SMEs: doing more thorough investigations to investigate the difficulties SMEs in Bangladesh have implementing ERP systems. This might entail examining elements like price, technical proficiency, and change management tactics to offer insightful information to practitioners and policymakers. Impact Assessment of ERP Implementation: Examining the ERP implementation's long-term effects on Bangladeshi SMEs. To evaluate the concrete benefits and outcomes of ERP deployment, this may entail measuring variables such as productivity, efficiency, cost savings, customer satisfaction, and overall business performance.

7 CONCLUSIONS

Bangladesh's economic growth has been remarkable, but there is a significant earnings gap between small and medium-sized enterprises (SMEs) and larger corporations. To further boost GDP growth and support SMEs, it is essential to facilitate the growth of these smaller businesses. In the digital age, the success of businesses is closely linked to their ability to manage big data and leverage advanced technologies. Therefore, providing SMEs with access to ERP systems, which offer benefits beyond basic accounting information systems (AIS), becomes a crucial challenge for the country. A study aimed to identify the best ERP system for SMEs and found that cloud-based Oracle Fusion Applications are the most suitable choice. This is because SMEs are better equipped to manage lower-tier ERP systems compared to higher-tier ones. Regardless of the industry or organizational structure, ERP systems are designed to handle key functions of a company and are already widely adopted by large corporations, gaining popularity among small and medium-sized businesses. However, the study reveals that SMEs in Bangladesh have not received sufficient attention regarding ERP adoption. Policymakers should consider signing agreements to expedite the ERP deployment process for SMEs, as this could contribute to the success, growth, job stability, and overall excellence of SMEs in the region. (Eason, G.,

Noble, B., & Sneddon, I. N., 1955; Faccia, A., Mosteanu, N. R., Fahed, M., & Capitanio, F., 2019).

REFERENCES

- Barker, T., & Frolick, M. N. (2003). ERP implementation failure: A case study. *Information systems* management, 20(4), 43-49..
- Chakravorty, S. S., Dulaney, R. E., & Franza, R. M. (2016). ERP implementation failures: a case study and analysis. *International Journal of Business Information Systems*, 21(4), 462-476.
- Chen, C. C., Law, C. C., & Yang, S. C. (2009). Managing ERP implementation failure: a project management perspective. *IEEE transactions on engineering management*, 56(1), 157-170..
- Dezdar, S., & Ainin, S. (2011). Examining ERP implementation success from a project environment perspective. *Business Process Management Journal*, 17(6), 919-939.
- Eason, G., Noble, B., & Sneddon, I. N. (1955). On certain integrals of Lipschitz-Hankel type involving products of Bessel functions. *Philosophical Transactions of the Royal Society of London. Series A, Mathematical and Physical Sciences*, 247(935), 529-551.
- Frazee, K., & Khan, M. R. (2012). ERP implementation for corporate growth and sustainability. *International Journal of Business and Social Science*, 3(3).
- Grabski, S. V., & Leech, S. A. (2007). Complementary controls and ERP implementation success. *International Journal of Accounting Information Systems*, 8(1), 17-39.
- Jacobs, I. S. (1963). Fine particles, thin films and exchange anisotropy. *Magnetism*, 271-350.
- King, W. R. (2005). Ensuring ERP implementation success. Information Systems Management, 22(3), 83-84.
- Maguire, S., Ojiako, U., & Said, A. (2010). ERP implementation in Omantel: a case study. *Industrial Management & Data Systems*.
- Achard, F. (2005). James Clerk Maxwell, A treatise on electricity and magnetism, (1873). In *Landmark Writings in Western Mathematics 1640-1940* (pp. 564-587). Elsevier Science.
- Huang, Z., & Palvia, P. (2001). ERP implementation issues in advanced and developing countries. *Business process management journal*.
- Faccia, A., Mosteanu, N. R., Fahed, M., & Capitanio, F. (2019, August). Accounting information systems and ERP in the UAE: an assessment of the current and future challenges to handle big data. In *Proceedings of the 2019 3rd International Conference on Cloud and Big Data Computing* (pp. 90-94).
- Daniela Corsaro, Isabella Maggioni, Mirko Olivieri (2021, May).Sales and marketing automation in the post-Covid-19 scenario: value drivers in B2B relationships
- Tom Miller (2023, February).Top 10 causes of ERP implementation failure (and how to avoid it).