International Journal of Latest Engineering and Management Research (IJLEMR)
ISSN: 2455-4847
www.ijlemr.com || Volume 06 - Issue 06 || June 2021 || PP. 46-60

Enterprise Resource Planning System: A strategic Road Map towards Effective Implementation in Lebanon

Wissam El Hajj[1], Charbel Elammar[2]
[1](Accounting, The Bucharest University of Economic Studies, Romania)
[2](Management, The Bucharest University of Economic Studies, Romania)

Abstract: After several years of experience in adopting and implementing enterprise resource planning (ERP) systems in businesses, the effectiveness of enterprise resource planning system (ERPS) remains debatable. The objectives of this study is to examine the issues and challenges affecting the implementation of ERP in private sector organizations, namely, insurance companies and banking sector, by testing and evaluating the ERP process fit and selection, ERP master data, and ERP integration. The paper seeks to offer an organized literature review by illustrating the notion and concept of ERP issues and challenges. A quantitative research method is employed based on a questionnaire to grasp the level of recognition and expertise among executives in several Lebanese insurance companies and private banks. The findings illustrate that ERPS implementation and adoption faced critical issues and challenges. Some Lebanese insurance companies and private banks match the criteria of ERP fit and in others, there is still lack of experience and knowledge in selecting and choosing the right system in order to effectively integrate and evaluate the needed data. The results will contribute to improve and enhance the ERPS by applying a strategic approach that pave the road toward providing the best services, reduce cost, boost transparency and accountability, and increase productivity. This paper will be a guide for ERP implementation and be aware of the challenges facing them since choosing the wrong ERP will lead to project failure in addition to the huge budget associated with the adoption of the project.

Keywords: Enterprise Resource Planning, Organizational Fit, Master Data, ERP Integration, ERP implementation

I. INTRODUCTION

ERP frameworks first arose in the early 1990's as a mean in assisting firms to reorganize their work process using information communication technology (ICT) and one of the main strategic component in organizational reform. ERP is a collection of interconnected software applications and a centralized data provider that may be used to automate and streamline an institution's core activities while enhancing organizational efficiencies through restructuring and data exchange, allocating resources, and reaching accurate data in the context of an active, actual and current situation (Laudon & Laudon, 2015). ERPS may help to bring up consistency throughout the firm by including all of the business processes and daily activities. Researchers consider ERPS a pillar for different tasks and includes distinct modules that promote efficiency and effectiveness in managing organization procedures (Huang &Palvia, 2001). ERP solutions are meant to improve enterprise-wide cross-functional processes (Ifinedo, 2006). Several factors contribute to ERP adoption including increasing the efficiency of the company, placing businesses for development, decreasing financial expenditures, and providing better service to consumers (Panorama Consulting Solutions, 2018). An ERP deployment inside any company may also decrease the time and cost for different tasks, which boosts the productivity and profitability of the company (Subramoniam, Tounsi, &Krishnankutty, 2009).

ERPS is defined as a cross-functional enterprise system that combines and streamlines the essential line of operations in order to improve institutional functions efficiently and effectively. ERP implementation in public or private industries has been increasing fast over the last years. Various issues associated with enhancing strategic choices, boost technology development, encourage operation efficiency, and fiscal performance have been highlighted as reasons for firms to implement ERPS (Simone et al., 2018). Firms that seek to increase its performance and maintain strategic benefits may shift their approach to rely on ERPS instead of built-in information system development. As a result, ERP are widely accepted by enterprises all over the world, and the significance of such technologies has virtually been acknowledged (Wingreen et al., 2014). Any information system architecture must be linked with fundamental company operations in order to be effective and successful in delivering the desired outcomes. ERPSs combine many functions and operations and have the ability to increase the firm's performance and profitability (Somers & Nelson, 2004). Furthermore, when firms concentrate on knowledge assimilation within organizational functions, the combination of these functions may enhance employee job performance (Nwankpa, 2018).

Despite ERPS contributions to enhance organization's assimilation and effectiveness, reducing operating costs, and assisting the establishment of common units to handle and enhance administrative duties, the ability

of ERPSs to fulfill on their promises, unfortunately, is seriously questioned because of a full course of installation problems and high cost overruns (Hall, 2002). Regarding the possible advantages of ERP adoption (Maditinos et al., 2012), the research also reveals a significant fail risk in ERP adoption for a variety of causes (Alsayat&Alenezi, 2018).

The adoption of ERPS in firms differs from the adoption of conventional information systems (Rajgopal et al., 2002). Furthermore, as it includes innovative technology and institutional change management, the effective adoption of ERP in any institution always necessitates effective planning and management in all aspects (Kumar et al., 2002). ERPS are extremely costly, and the adoption process may take one to two years, depending on the modules to be deployed in the firm. As reported in several research, systems can fall even before they reach the final go-live phase in firms; therefore, time appears to be an important element in the ERP adoption process (Ehie & Madsen, 2005).

ERPS have a higher proportion of breakdowns than achievements. ERP breakdowns might be caused by a number of factors identified in previous study (Chen, 2001). Only 13% of organizations achieve their business objectives, whereas more than 50% of organizations demonstrate inadequate ERP strategic implementation (Panorama Consulting Group, 2008). The ERP adoption probability of failure is on the rise due to the high fiscal expenses of ERP project execution (Maditinos et al., 2012). Researchers discovered that ERPSs were 178% over spending plan and had only generated 30% advantages so far (Dezdar, 2012). Other researchers later said that 75% of ERPSs failed or were not approved (Garg & Agarwa, 2014). Panorama Consulting Group (2017) discovered that 66% of ERPSs were delayed, 74% of programs were over-budgeted, and 37% of programs obtained below 50% of projected benefits. Several research have identified many elements that may influence ERP deployment (Ghosh, 2012).

ERP deployment is difficult since firms concentrate on introducing change to an already existing environment, as well as redesigning and optimizing operating procedures (Reascos & Carvalho, 2018). The hazards of ERP adoption in enterprises are considerable. Strategic planning is critical to an effective ERP adoption. Such considerations may guide to an end that ERP deployment is a challenging feat with doubtful results. Despite modern information and communication technology (ICT) and extensive study in this field, the complicated structure of ERP adoption should still be recognized in order to attain the potential results. Some argue that an organizational strategy is required to implement ERPS and realize their positive advantages (Kumar et al., 2002). Previous studies revealed the importance of identifying and comprehending the many concerns and obstacles associated with ERP deployment (Gupta et al., 2017). The goal of this research is to become acquainted with the various obstacles that management may experience during the adoption of ERPS in firms.

A systematic literature review (SLR) method is implemented for this aim to synthesis many concerns and problems already covered in previous research findings, identifying the most significant ones that demand greater attention for the effectiveness of ERP adoption. The findings would be beneficial to firms seeking to implement ERPS in the long run.

II. LITERATURE REVIEW

2.1 ERPSs Organizational Fit

ERP fit with the firm is a critical element in the adoption process. The fit viewpoint can be characterized as the assignment of activity related to technological fit (Goodhue & Thompson, 1995). Fit is the extent (or procedure) of aligning the skills and functions of a specific technological system to the expectations and needs of a specific activity or procedure (Goodhue & Thompson, 1995). This has also been connected to worker job performance, since information system (IS) are more likely to have a beneficial effect on workers or organization effectiveness when the technological functions and characteristics are tailored to user job needs (Wamuyu, 2017). As a result, the first stage in ensuring an effective ERP adoption is to define the ability of the proposed ERPS to support the important business operations of businesses. Researchers stated that firms should not disregard conventional ERP implementation methods, and underlined the need of user interaction throughout the adoption process, as this might assist in preventing ERP breakdowns and inaccurate solution assessments (Haddara & Elragal, 2012). Furthermore, prior to acquire adoption, they have advised for integrating business operations needs with the technological capabilities of a possible system (Haddara &Elraga, 2012). In principle, various IS academics have maintained that institution traits and circumstances have been key study features throughout IS deployments. Similarly, ERP analysts are leading academics to study the effects of contextual elements and organizational features on the ERP adoption process. The bulk of research agrees that the size of the company has a significant influence on the effectiveness of ERP adoption (Staehr et al., 2012). Other characteristics, such as "ERP size," may be more important due to their impact on organizations and adoption difficulties. The alignment of strategic business objectives and ERP targets is also seen as a key component in generating business advantages from ERP implementation projects (Haddara &

Elragal, 2013). In ERP implementations, users must specify the objectives with the new model; how the model's capability may help them accomplish these objectives, and how to manage, adapt, and technologically deploy the system (Constantini & Haddara, 2017).

Researchers investigating IS have typically concentrated on the fit among certain organizational dimensions and IS due to the variety of organizational dimensions (Iivari, 1992). Other researchers discovered in a study of IS emergency that more than 70% of the surveys adopted a theory suggesting that the greater the fit between the contingency factors, the greater the efficiency (Weill & Olson, 1989). They classified the factors of relevance to IS scientists as strategy, design, scale, setting, technologies, activity, and personal traits.

Researchers established the "strategic alignment model," focusing the multidimensional fit among business strategy, information technology (IT) strategy, organizational capability and procedures, and IT infrastructure and procedures to understand the failure to capture value from IT resources (Henderson & Venkatraman, 1993). Researchers argued, using an experimental questionnaire of small businesses, that ERPS effectiveness is significantly correlated with the level of vendor fit with user organization and the level of application fit with user organization, correspondingly (Marius & Ashok, 1996).

Study in ERP fit proposes that while coherence between divisions leads to a greater fit of ERP with worldwide operation demands, diversity between divisions leads to a defective fit of ERP with national operation demands (Gattiker & Goodhue, 2000). ERP mismatch is caused by organization or state needs that do not meet the characteristics of ERP (Sohet al., 2000). Researchers contend that ERP institutional misfit occur because of competing priorities between user organizations and ERP vendors (Swan et al., 1999). As a result, the idea of organizational fit appears to be the central study factor for explaining effective adoption in a variety of IT deployment situations. Nevertheless, the influence of ERP organizational fit has not been scientifically examined in the light of ERP adoption. Organizational fit of ERP is described as the coherence between the initial piece of art of ERP and its organizational environment. In this study, the author will experimentally investigate organizational fit of ERP influence on ERP effective adoption (Markus & Robey, 1988).

Many researchers have highlighted the elements that influence ERP choice in firms and suggested standards to enhance the selection procedure in an attempt to truly comprehend and analyze the process choice and possession. For example, scholars have found various elements that influence the choice guidelines, one of which is ERP fit to the firm (Velcu, 2010). Furthermore, Velcu (2010) contends that all ERP implementation stages are extremely interrelated, with crucial success determinants for each step. Other researcher have also created a design for the ERPS and vendor choice procedure, which is depicted in figure 1. The structure depicts various stages in the choice procedure, starting with specifications and design planning, moving on to finding suitable vendors, evaluating them, and eventually selecting the suitable ERP bundle (Deep et al., 2008). The structure also depicts many repetitive activities that the development group must do at every level.

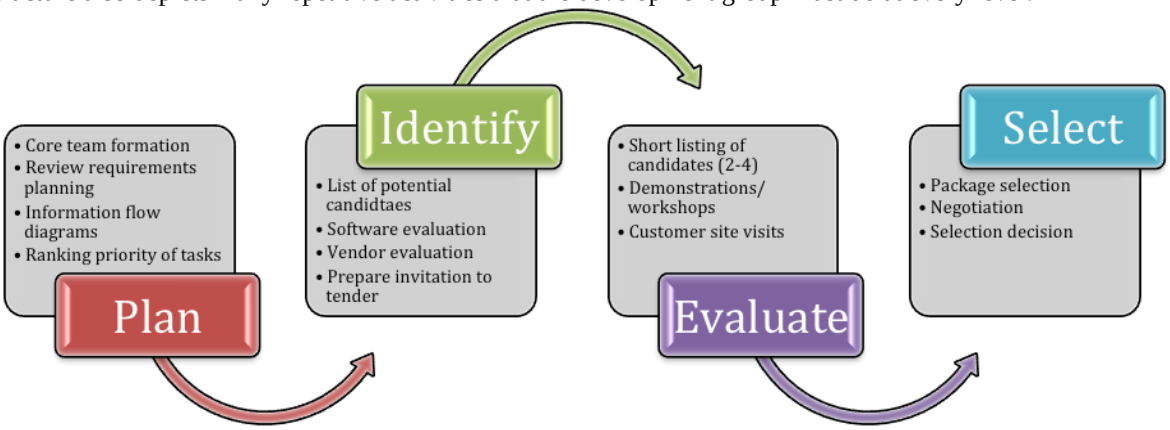

Figure 1: ERP choice structure (Deep, Guttridge, Dani, & Burn, 2008)

Scholars emphasized the relevance of fit among institutional business process needs and ERPS features and abilities in their study on ERP adoption challenges (Aloini et al., 2012). They have identified insufficient ERP bundle choice as the most often stated potential risky cause in ERP deployments (see table.1). They have also argued that the improper bundle choice is a major worry, as it may contribute to delay, significant cost, and high risk, all of which can result to disastrous occurrences leading to entire project breakdowns (Aloini et al., 2012). They have also recommended for a systematic multi-criteria perspective to evaluate the ERPS and supplier. The requirements include numerous variables such as effectiveness, technological improvement, support, and affordability.

The Prevalence of Risk Variables in ERP Literary Works

Risk factor	**Frequency rate**
Inadequate ERP selection	High
Poor project team skills	Medium
Low top management involvement	Medium
Ineffective communication system	Medium
Low key user involvement	Medium
Inadequate training and instruction	Medium
Complex architecture and high number of modules	Low
Inadequate business process reengineering (BPR)	Medium
Bad managerial conduction	Medium
Inadequate financial management	Low
Inadequate change management	Medium
Inadequate legacy system management	Low

(Aloini, Dulmin, & Mininno, 2012)

According to a multi-case research done in Egypt, weighted rating SMART assessment, which refers to Simple, Multi-attribute, Rating, and Technique, is often utilized as an ERP choice approach across Egyptian firms (Haddara &Paivarinta, 2011). Furthermore, the research claimed that answers from the supplier's recommendations were one of the most important determining elements in the ERP choice in their decision scenario. Even though it is simple to implement and commonly utilized in application, the accuracy and effectiveness of the SMART evaluation differs among firms, based on the components and ratings they establish and build in the assessments. While there has been a lot of study done on the ERP decision stage, just a few studies give actual examples. Because of the scarcity of sufficient resources and knowledge, the great difficulty of ERPSs, and the variety of choice criteria, picking the right ERPS is not an easy process.

2.2 ERP Master Data Management

Big and tiny businesses alike spend billions of dollars developing and sustaining platforms that allow them to make wiser, quicker, and more cost efficiency judgments. ERP is one such endeavor that covers an organization's many strategic initiatives. The goal of employing an ERP is to provide unambiguous insight into the business, both historical and current, to assist the firm in making the best strategic choices (Prashanth& Venkataram, 2017. Nevertheless, even with ready platforms, most top leadership of these organizations are unable to gain a true understanding of the business, mainly due to the inaccuracy of the information in such platforms.

When firms migrate from one ERP to another, or migrate from legacy-based platforms to an ERP comprehensive life cycle adoption, they confront the dilemma of handling historical information (Gaur, 2020). This information indicates years, if not centuries, of unique sales, client, staff, associate, or other sort of operation crucial data. A robust data transformation plan will guarantee that only the necessary data is moved to the modern model (Balasubramanian & Selladurai, 2018). Only then will executives be able to build and produce the educated judgments necessary to flourish in a competitive environment.

ERP adoption efforts frequently place too much emphasis on functionalities. Professional operational strategists are frequently appointed as execution experts to facilitate an easy transformation (Amid et al., 2012). Their primary responsibility is generally to create structures, modules, and configure/customize operational resources in the new ERPS. Although data transformation and management need extensive planning and preparation, they often rarely receive recognition they need in execution. With senior executives insisting on a speedy ERP launch, data transformation and management strategy appear to be the first victim (Jeng& Dunk, 2013). As a result, trash data enters the new ERPS making the entire adoption inefficient from the start.

Migration is more than just shifting data; it is also about data functioning. A true ERPS design can take place only if there is relevant data in the model. Data loading and transformation are not projects that can be

completed after everything else has been completed. The extraction and purification of data from the previous model may be the sole most time-consuming activity in the process (Saini et al., 2013). Matching current data to new ERPS design is typically a painful lesson that must be learned to be acknowledged. If data transfer and data management are handled inadequately, your ERP deployment is likely to collapse. Many big firms are utilizing an evolving concept known as Master Data Management (MDM) to integrate and combine information about clients, goods and services, and firms; data that is frequently dispersed across numerous platforms. MDM is a set of standards and technology that centralizes, purifies, and enhances organization master data while also synchronizing it with all operations, workflows, and analysis techniques (Maedche, 2010). Consequently, increased productivity, transparency and accountability, and reality in judgment increase significantly.

Many software products feature data sets that are distributed and utilized by numerous of the platform's programs. A standard ERPS, for instance, will contain at basic essentials a Client Master, an Item Master, and an Account Master(Jayawickrama & Yapa, 2013). This master data is frequently one of an organization's most significant resources. Since it is utilized by several programs, an inaccuracy in master data might create issues in all of them. For example, an inaccurate location in the customer master might result in transactions, invoices, and market analysis being delivered to the wrong destination. Likewise, an inappropriate item master pricing may be an advertising catastrophe and an inaccurate account number in an account master might result in massive penalties or even criminal charges for the CEO. It would have been optimal if the firms had a single piece of master data, but this is not frequently the case.

Several firms move through merging and acquiring form. Each firm you own has its private client master, item master, and so on. If it had been feasible to simply integrate the new master data with your present one, this would have been a solution to the problem, but this is also not always straightforward to do. Consequently, many of your clients and goods will often exist in various pieces of master data, with distinct style and database solutions. All of these concerns must be resolved before migrating to your new ERPS. Various masters must be moved to the new model during data transition, such as, Vendor master, client master, chart of accounts master (for every section), banking master, monetary master, regional master, nation master, geographical master, taxation master, and so on. These masters might be categorized as little masters or crucial masters based on their difficulty.

2.3 ERPS Integration

The ERPS Integration (SI) primary emphasis is to setup and manage the various ERP modules to meet the demands of the customer (Hwang & Grant, 2011). Nevertheless, SI are frequently confronted with certain complexities and challenges (Jagoda & Samaranayake, 2017). First, data design and class utilized in the organization are typically unconnected to the SI previous experiences. Furthermore, most ERPSs have specified data types in which the SI assume corporate data to occur, which may or may not be the scenario. Second, SI partners lack the competence needed to recover and improve corrupted and missing data. Data reformation tasks such as data cleaning, data simplification, data amelioration, data improvement, and so on should be automated and need knowledge of data tendencies and data governance frameworks that occur in historical data (Intezari & Gressel, 2017). SI lack knowledge in data-improvement procedures that rely on automated processes and strong analytical skills.

As a standard, SI should prepare adequate data transfer methods in advance, employing depth industry understanding and customized patterns that are valuable and specific to a firm (Nazemi et al., 2012). Unfortunately, several SI vendors do not prioritize this, leading to poor data movement throughout ERP initiatives (Meghana et al., 2018). Qualified third-party data management providers with business best practices knowledge are required. They may then apply their experience to improve and fulfill data attribute requirements, resulting in quality ERP legacy data that facilitates efficient data transfer.

With the programming language in major organizations evolving all the time, innovative datasets and information are continually being incorporated. The ambiguity of ERP data management and transfer procedures grows as a result. A comprehensive data management or movement strategy must involve the creation and monitoring of big data standards, as well as the management of big data knowledge resources to eliminate discrepancies and duplication. For effective master data characteristic enhancement, active existing resources are required. These resources change and analyze data items simultaneously, permitting for apparently smooth coordination and interaction across business domains in the ERPS structure.

Typically, master data in existing systems is discovered to be inaccurate because of years of bad management by various users. Migration is an excellent opportunity to examine and update such data. As a guideline, it is recommended to purify and enhance this in the historical database before the migration, so that matters are much smoother during the real transition. To effectively improve data standards of historical data

before data is moved to the new ERPS, specialized data cleaning and enrichment technologies that use automated technology and technical knowledge are necessary.

2.4 Master Data Management: An ERP Blueprint

Corporate leaders sometimes see MDM as mainly ERP infrastructure upgrade solutions with the absence of future organizational advantages. As a result, facing management tension to maximize on the organizational advantages of the new ERPS, the ERPS blueprint typically lacks suitable structures and processes for managing important masters. However, monitoring, improving, cleaning, expanding, and moving critical masters is a critical operation that has a strong influence on the effectiveness of an ERP venture and should not be left until the completion of the program.

Master Data Cleansing should be prepared from the start of the process and must make use of third-party experience, with extensive subject knowledge and automated ability to improve faulty or insufficient data. Data teams must grasp how historical data occurs in existing models and how it may be changed in the greatest feasible way to be compatible with the new model.

Data transfer may be the final action on an ERPS's screen since actual evidence might move as the program is ready to go live, but it is an issue that should be addressed far earlier, at the beginning of the journey. Incorporating MDM of important masters as part of the management strategy will guarantee that your organization earns the most actual and legitimate business advantages from a new ERPS.

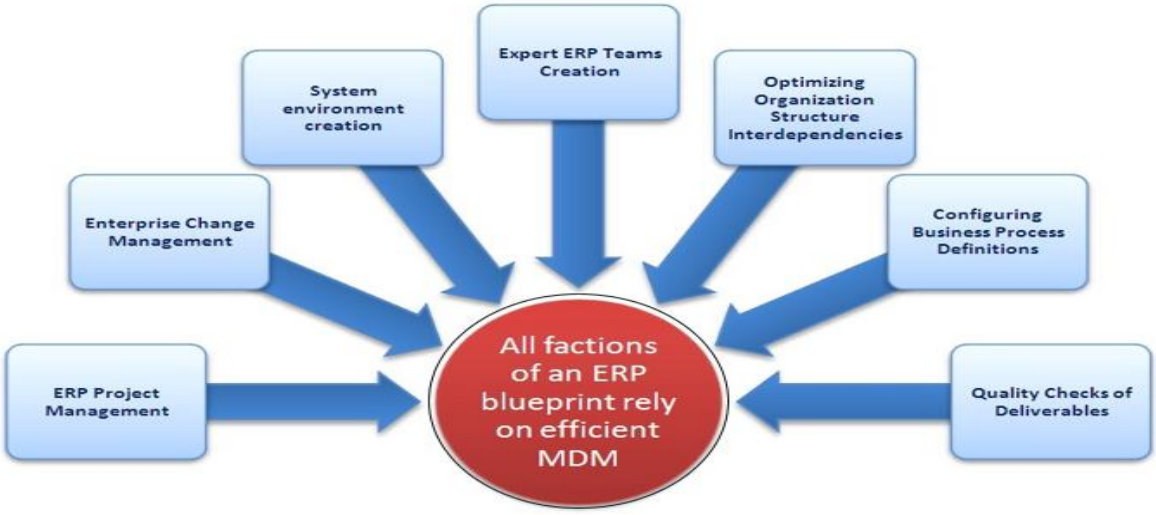

Figure 2: Author own presentation based on literature review

III. METHODOLOGY

The methodology of this paper clarifies the awareness and recognition of the situation. A questionnaire, distributed among several Lebanese executives in both insurance companies and private banks, includes both explanatory and exploratory indicators based on data gathered on ERP implementation issues and challenges. Twenty-five questions using Likert scale for 1 to 5 is being used to gather data on ERP fit, ERP master data, and ERP integration. In the first part of the questionnaire, data was collected based on the general and professional information of executives. In the second part, data was gathered based on the process and organizational fit to ERP adoption. In the third part, data was gathered based in the ERP master data challenges facing company's management. The study included managers and executives from 33 Lebanese insurance companies and 31 banks. Descriptive analysis of the issues and challenges facing ERP adoption was examined by using SPSS version 22. Mean and standard deviation were analyzed to assess the accuracy of the data value. In addition, regression analysis was made to investigate which variables has the most influential weight on the success of ERP fit and ERP master data management success.The factors with their abbreviations used in the questionnaire study were described as follow:

Ease of Use	A1	Managing Business Risks	A13
Information Sharing	A2	Stakeholder Involvement	A14
ERP User satisfaction	A3	Data Integration	B1
Business Process Support	A4	Data Migration	B2

IT support	A5	Data Conversion	B3
Automation of Routine Tasks	A6	Compatible Infrastructure	B4
Adequate Training	A7	Data Integrity	B5
Vendors Competence & Support	A8	Data Format	B6
Customer Requirements	A9	Real Time	B7
Business process Reengineering	A10	Decision Making Improvement	B8
Cross Functional Coordination	A11	Handling Legacy Data	B9
Resolving Resistance to Change	A12	Data Mapping	B10

The factors with their abbreviations used in the questionnaire study were described as follow:

IV. RESULTS AND DISCUSSION

One of the key objectives of the research is to respond and gather the information needed from the questions as mentioned in the methodology of the paper. The first category of the questionnaire is analyzed based on the type of business, level of education, position, gender, and work experience of managers in both Lebanese insurance companies and private banks.

Table1: Type of Business

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Insurance	33	51.6	51.6	51.6
	Banks	31	48.4	48.4	100.0
	Total	64	100.0	100.0	

Source: Authors' own research

Table 2: Position

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	General Manger	24	37.5	37.5	37.5
	IT Manager	21	32.8	32.8	70.3
	Financial manager	19	29.7	29.7	100.0
	Total	64	100.0	100.0	

Source: Authors' own research

Table 3: Level of Education

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Bachelor's Degree	11	17.2	17.2	17.2
	Master's Degree	43	67.2	67.2	84.4
	PHD	10	15.6	15.6	100.0
	Total	64	100.0	100.0	

Source: Authors' own research

Table 4: Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	7	10.9	10.9	10.9
	Male	57	89.1	89.1	100.0
	Total	64	100.0	100.0	

Source: Authors' own research

Table 5: Work Experience

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0 - 10 Years	6	9.4	9.4	9.4
	11 - 20 Years	38	59.4	59.4	68.8
	Above 20 Years	20	31.3	31.3	100.0
	Total	64	100.0	100.0	

Source: Authors' own research

Table 6: Descriptive Statistics

	N	Range	Mean	Std. Deviation	Variance	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
A1	64	4	3.56	1.125	1.266	-.368	.299	-.510	.590
A2	64	4	3.77	1.065	1.135	-.487	.299	-.632	.590
A3	64	4	3.27	1.383	1.912	-.460	.299	-1.217	.590
A4	64	2	3.25	.976	.952	-.529	.299	-1.777	.590
A5	64	4	3.17	1.032	1.065	.001	.299	-.425	.590
A6	64	3	3.52	1.084	1.174	-.080	.299	-1.258	.590
A7	64	4	3.47	1.699	2.888	-.496	.299	-1.559	.590
A8	64	3	3.72	.786	.618	-.260	.299	-.203	.590
A9	64	4	3.22	.967	.936	-.242	.299	-.583	.590
A10	64	4	3.33	1.512	2.287	-.356	.299	-1.427	.590
A11	64	4	3.27	1.073	1.151	-.079	.299	-.559	.590
A12	64	2	4.20	.694	.482	-.296	.299	-.872	.590
A13	64	4	3.31	1.457	2.123	-.283	.299	-1.399	.590
A14	64	2	4.03	.796	.634	-.057	.299	-1.411	.590
B1	64	4	3.22	1.133	1.285	-.245	.299	-.401	.590
B2	64	4	3.64	1.132	1.281	-.531	.299	-.662	.590
B3	64	4	3.22	1.657	2.745	-.404	.299	-1.572	.590
B4	64	2	4.13	.745	.556	-.208	.299	-1.150	.590
B5	64	2	4.36	.764	.583	-.720	.299	-.909	.590
B6	64	4	2.69	1.296	1.679	.069	.299	-1.136	.590
B7	64	1	3.59	.495	.245	-.391	.299	-1.908	.590
B8	64	2	4.12	.655	.429	-.131	.299	-.622	.590
B9	64	1	4.14	.350	.123	2.118	.299	2.563	.590
B10	64	3	3.52	1.084	1.174	-.466	.299	-1.235	.590
Valid N	64								

Source: Authors' own research

Based on the descriptive statistics, table 6 shows the average mean of participants relying on the questions related to ERP organizational fit and selection, ERP master data, and ERP integration. All the answers with a mean below 3.0 suggest a poor connection on the effective implementation and adoption of ERP. It was noticed that answers from respondents on ERPS information clearly formatted and presented show a mean of 2.69 that illustrates that the ERPS in insurance companies and private banks lacks a clear information design and style that is not presented in an adequate and professional manner, which lead to ambiguity in managing data. Data integrity affects the business performance represents the highest rate with a value of 4.36 which indicates that managers agreed on that the accuracy and transparency of data will directly and indirectly affect the business performance and lead to efficiency and effectiveness in service delivery and provide quality value of service provision. The fulfillment of ERPS for customer and client needs and desires, the integration of data across divisions and departments, and the accuracy of data conversion represent the average mean with a rate of 3.22 which illustrates that executives in insurance companies and private banks are satisfied to an average extent with the benefit of the ERP implementation in terms of customer satisfaction, data incorporated across divisions, and the conversion of data.

Lebanese insurance companies and private banks should invest more in the development and migration of data and information in their ERPS so that the smooth transition of data will be clearly presented in an innovative and simple format. In addition, to mention that the key strategic mission of these companies is the delivery of services, more efforts should be made to enhance the implementation of ERPS in order to fit these needs. To meet this goal, data should be successfully integrated across all divisions and departments to ensure its efficiency and adequate results without losing the value in the conversion process whenever adopting a new ERPS.

Table 7: ERPS Organizational Fit

ERPS Organizational fit							
		Does Not Fit			Fit		
		N		Mean	N		Mean
		Valid	Missing		Valid	Missing	
1.	**A7**	24	0	1.38	40	0	4.73
2.	**A10**	24	0	1.54	40	0	4.40
3.	**A2**	24	0	2.83	40	0	4.33
4.	**A13**	24	0	1.63	40	0	4.32
5.	**A3**	24	0	1.63	40	0	4.25
6.	**A12**	24	0	4.13	40	0	4.25
7.	**A6**	24	0	2.42	40	0	4.18
8.	**A14**	24	0	3.92	40	0	4.10
9.	**A1**	24	0	2.83	40	0	4.00
10.	**A4**	24	0	2.00	40	0	4.00
11.	**A8**	24	0	3.46	40	0	3.88
12.	**A11**	24	0	2.25	40	0	3.88
13.	**A5**	24	0	2.21	40	0	3.75
14.	**A9**	24	0	2.42	40	0	3.70

Source: Authors' own research

As table 6 shows the overall evaluation of the issues and challenges in the implementation process of ERPS, it would be extremely accurate to assess the level of each stage in terms of whether ERP fit or not and in terms of the successful management of master data. In doing so, table 7 and table 8 based on descriptive statistics clearly represents the level of commitment toward both stages. In terms of ERPS, organizational fit, specifically regarding the unfit approach, table 7 shows the lowest mean with a value of 1.54 related to changing the business process to fit ERP.It can be noticed that one of the main reasons behind ERP failure is that some Lebanese insurance companies and private banks failed to modify their business processes to fit the ERPSs because they prefer to customize the ERPS instead of their own processes. This demands high level of customization, which consequently causes a bottleneck that, contradicts the motivations behind ERP implementation to reap its benefits.In addition, Lebanese insurance companies and private banks face a deficiency in improving and managing business risks and challenges through the ERPS in addition to a dissatisfaction with the present ERPS with a mean value of 1.63 and that what contradict with the attempts and efforts made by management of these companies to help employees to overcome the resistance to change which represents the highest rate with a mean value of 4.13. Moreover, there is a gap in fulfilling the customer needs and requirements through the ERPS that does fit the organization process fit and represents an average mean that is below the real average with a mean value of 2.42. Although that the management of Lebanese insurance companies and private banks place a huge effort on training employees in order to be ready to face the resistance to change, still this concept does not fit these companies due to the deficiencies in the current ERP in meeting

and fulfilling customer needs and demands. In the other hand, and based on the fit stage, it was noticed that all Lebanese insurance companies and private banks shows a high rate with a mean above 3.0 across all functions of organizational fit.

Table 8: ERP Master Data

ERP Master Data							
		ERP was not successful in managing master data			**ERP was successful in managing master data**		
		N		Mean	N		Mean
		Valid	Missing		Valid	Missing	
1.	B8	20	0	3.80	44	0	4.27
2.	B5	20	0	4.60	44	0	4.25
3.	B9	20	0	4.00	44	0	4.20
4.	B3	20	0	1.30	44	0	4.09
5.	B4	20	0	4.20	44	0	4.09
6.	B10	20	0	2.30	44	0	4.07
7.	B2	20	0	2.85	44	0	4.00
8.	B7	20	0	3.05	44	0	3.84
9.	B1	20	0	2.35	44	0	3.61
10.	B6	20	0	1.60	44	0	3.18

Source: Authors' own research

.

In terms of ERP master data evaluation, table 8 shows the effectiveness and ineffectiveness of managing master data. Based on the ineffectiveness of managing master data, the accuracy of data conversion represent the average mean with a rate of 1.30 which illustrate the absence of clear ERPS design in transmitting these data from current format to a new format which lead to contradiction in information and data process. ERPS information in real time represent a critical issue to managing master data, even though it represents an average mean with a value of 3.05. This stage represents an interrelationship gap between the design and format of ERP and the processing of information, which lead to a crucial issue in transmitting and the data and an inability to clearly grasp the right information in the right time with the right system. Data Integrity affects the business performance represents the highest rate with a mean value of 4.36 which indicates that managers of both companies agreed on that the accuracy and transparency of data will directly and indirectly affect the business performance and lead to efficiency and effectiveness in service delivery and provide quality value of service provision. However, unfortunately, data integrity impacts on business performance is still unsuccessful in the management of master data. In the other hand, and based on the effectiveness of managing master data, it was noticed that all Lebanese insurance companies and private banks shows a high rate with a mean above 3.0 across all functions related to managing master data.

Tables 9 and 10 shows the regression results of the factors that affect ERP organization fit. The F value is statistically significant where p is less than 0.05. This indicates that the variables included in the research provide good indicators for predicting the fit of ERPS to the organization. The R-square is 0.964, which indicates that there is a strong relation between the model and the dependent variable. The results show that A3, A5, A7, A8, A12 are statistically significant to the fitness of ERPS. The results agreed with many authors in ERP literature. User satisfaction is considered one of the important factors that enhances user's acceptance to the new ERP (Wu & Wang, 2007). ERPSs are complex systems that require experienced and compatible IT support team who can handle with vendors the hindrances facing ERP implementation and make a balance between customization and business process reengineering (Luo & Strong, 2004). Implementing ERPSs without providing adequate training for users will lead to undesired circumstances in implementation and consequently either failure or inefficient implementation (Almajali et al., 2016; Dezdar &Ainin, 2011). Researchers paid attention particularly to such topics as confidence in ERP vendor and vendor competency, which are important aspects in determining the overall success of an ERP implementation. It is not only critical to consider a long lasting relationship with vendors based on solid grounds, but also to the processes and methodology where

vendors recognize and advise their clients in a quite significant manner (Elragala & Haddara, 2013). Organizations make ongoing adjustments to their organizational structure by moving away from misalignment. Every ERP adoption runs against resistance, which might be due to perceived anomalies. Regardless of how efficient the ERPS is, employees must be trained and motivated to overcome resistance to change (Beijsterveld&Groenendaal, 2016).

Table 09: Regression Results: ERP Organizational Fit

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.986[a]	.972	.964	.092	.972	131.401	13	50	.000	1.694

Source: Authors' own research

Table 10: Multiple Regression results ERP Organizational Fit

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
(Constant)	2.665	0.15		17.784	0.000	2.364	2.966
A1	0.019	0.017	0.041	1.08	0.285	0.016	0.054
A2	0.012	0.018	0.017	0.671	0.505	0.002	0.048
A3	0.074	0.019	0.222	3.865	0.001	0.036	0.312
A4	0.024	0.017	0.039	1.389	0.171	0.011	0.059
A5	0.019	0.017	0.003	1.104	0.015	0.001	0.053
A6	0.013	0.018	0.026	0.756	0.453	0.006	0.048
A7	0.059	0.024	0.181	2.44	0.018	0.021	0.213
A8	0.081	0.026	0.281	3.062	0.004	0.028	0.352
A9	0.018	0.02	0.039	0.903	0.371	0.007	0.132
A10	0.016	0.014	0.038	1.154	0.254	0.012	0.045
A11	0.005	0.016	0.012	0.327	0.745	0.004	0.038
A12	0.09	0.022	0.255	0.093	0.003	0.046	0.315
A13	0.023	0.017	0.048	1.347	0.184	0.011	0.056

Source: Authors' own research

Tables 11 and 12 presents the regression analysis showing the factors that are statistically significant with the success of data management, migration and conversion. The independent variables affects the predicate of the dependent variable (ERP Master Data Management Success) where R square is 90.9%. B3, B4, B5 and B7 are positively associated with the success of ERP master data management and they are statistically significant at the 95% confidence level. The results correspond with other researchers. The ERP implementation and system success depend on the team's ability to assure data authenticity in the conversion process (Somers & Nelson, 2001). Suspect data may also be cleared at this stage of installation (Yusuf et al., 2004). The relevant master data and history transaction information must be migrated into the new system from the old legacy system before the completion. Since data structure and data design are different from the new system in previous systems, data conversion was necessary to comply with the new business requirements (Ahmad et al., 2013). ERPS give managers with an overall view of all functions in the timely manner, overcoming disintegration issues and dispersion of data, as well as computerized procedures (Mohamed, 2015). The data in the ERPS will be completed by a quickly enhanced ERP infrastructure and improved data integration. This will ensure that the ERPS is well maintained (Tarigan et al., 2019).

Table 11: Regression Summary: ERP Master Data

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.953[a]	.909	.892	.161	.909	52.819	10	53	.000	1.816

Source: Authors' own research

Table 12: Multiple Regression Results ERP Master Data

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
Constant	2.782	0.505		5.507	0	1.769	3.796
B1	0.028	0.026	0.065	1.078	0.286	0.023	0.094
B2	0.039	0.026	0.091	1.521	0.134	0.011	0.121
B3	0.132	0.031	0.449	4.239	0.005	0.070	0.595
B4	0.038	0.035	0.059	1.088	0.282	0.032	0.109
B5	0.113	0.039	0.351	0.086	0.032	0.012	0.474
B6	0.025	0.031	0.065	0.798	0.428	0.037	0.087
B7	0.275	0.106	0.279	2.579	0.013	0.061	0.448
B8	1.551	0.039	0	0	1	0.078	0.078
B9	0.105	0.083	0.075	1.264	0.212	0.062	0.271
B10	0.116	0.046	0.058	2.51	0.15	0.009	0.312

Source: Authors' own research

V. CONCLUSION

The benefits associated with the implementation of ERPS in countries such as Lebanon is extremely needed, and these technologies may surely assist Lebanese insurance companies and private banks in boosting efficiency and improve the effectiveness of work performance. However, high failure rates continue to prevent any advantages from being delivered. Several studies tend to be incomplete, concentrating on only particular elements of system output and focused solely on certain adoption issues and challenges of ERP. Thus, this study comes to fill the gap. Organizations must be skilled in choosing the right ERPS that best suits its needs, however, businesses are required to change their processes to fit the ERPS and not to have excessive customization that can prevent businesses from getting a competitive advantage from the ERPS features and functionalities. Moreover, involvement of different stakeholders is crucial for having a clear strategy to create an innovative environment where all users embrace the new change that can enhance the user's tasks, decision-making processes, and client needs fulfillment. Another challenge facing the Lebanese insurance companies and private banks is their ability to manage data among the old and new system. Data integration, conversion, and integrity are crucial steps that should be successfully achieved to maintain the accuracy of data reporting and streamlining of business processes. Inefficient management of data will lead businesses to be dependent on both old and new systems to be able to manage previous and current data, which causes operational inefficiency, high maintenance cost, high license cost, insecurity of data, and data fragmentation. This paper contributes to the understanding of some of the critical factors that must be considered in the ERP implementation process. A future research to include additional variables and processes from different stakeholder's perspectives can enrich the ERP literature context about the challenges and issues facing entities in achieving a successful ERP implementation journey.

REFERENCES

[1] Laudon, K., & Laudon, J. (2015). Management Information Systems: Managing the Digital Firm (14th ed. ed.). New York: Prentice Hall.
[2] Huang, Z., & Palvia, P. (2001). ERP Implementation Issues in Advanced and Developing Countries. Business Process Management Journal, Vol. 10(No. 1), pp.39-54.
[3] Ifinedo, P. (2006). Extending the Gable et al. Enterprise Systems Success Measurement Model: A Preliminary Study. Journal of Information Technology Management, Vol. 17(No. 1), pp.14-33.
[4] Panorama Consulting Solutions. (2018). ERP Report. Quebec: Panorama Consulting Solutions. Retrieved from https://cdn2.hubspot.net/hubfs/2184246/2018%20ERP%20Report.pdf
[5] Subramoniam, S., Tounsi, M., & Krishnankutty, K. (2009). The Role of BPR in the Implementation of ERPSs. Business Process Management Journal, Vol. 15(No. 5), pp.653-668.
[6] Simone, S., Célio, S., & Julliane, E. (2018). Critical Success Factors for ERP Implementation in Sector Public: An Analysis Based on Literature and a Real Case. Twenty-Sixth European Conference on Information Systems (ECIS2018). Portsmouth, UK.
[7] Wingreen, S., Mahdavian, M., & Gupta, H. (2014). An Investigation into Enterprise Resource Planning Implementation Success: Evidence from Private and Public Sector Organizations. Proceedings of the Pacific Asia Conference on Information Systems. PACIS 2014.
[8] Somers, T., & Nelson, K. (2004). A Taxonomy of Players and Activities Across the ERP Project Life Cycle. Information and Management, Vol. 41(No. 3), pp.257-278.
[9] Nwankpa, J. (2018). ERPSs Benefit Realization and the Role of ERP-Enabled Application Integration. In Encyclopedia of Information Science and Technology (4th ed. ed., pp. pp. 2953-2964). IGI Global.
[10] Hall, H. (2002). Enterprise Resource Planning Systems and Organizational Change: Transforming Work Organization? Startegic Change, Vol. 11(No. 5), pp.263-270.
[11] Maditinos, D., Chatzoudes, D., & Tsairidis, C. (2012). Factors Affecting ERPS Implementation Effectiveness. Journal of Enterprise Information Management, Vol. 25(No. 1), pp.60-78.
[12] Alsayat, M., & Alenezi, M. (2018). ERP Implementation failure in Saudi Arabia: Key Findings. International Business Journal, Vol. 12(No. 1), pp.10-22.
[13] Rajgopal, S., Venkatachalam, M., & Kotha, S. (2002). Managerial Actions, Stock Returns, and Earnings: The Case of Business-to-Business Internet Firms. Journal of Accounting Research, Vol. 40(No. 2), pp.529-556.
[14] Kumar, V., Maheshwari, B., & Kumar, U. (2002). ERPSs Implementation: Best Practices in Canadian Government Organizations. Government Information Quarterly, Vol. 19(No.2), pp.147-172.
[15] Ehie, I., & Madsen, M. (2005). Identifying Critical Issues in Enterprise Resource Planning (ERP) Implementation. Computers in Industry, Vol. 56(No. 6), pp.545-557.
[16] Chen, I. (2001). Planning for ERPSs: Analysis and Future Trend. Business Process Management Journal, Vol. 7(No. 5), pp.374-386
[17] Panorama Consulting Group. (2009). Panorama Consulting Group 2008 ERP Report. Denver: Panorama Consulting Group
[18] Dezhar, S. (2012). Strategic and Tactical Factors for Successful ERP Projects: Insights from an Asian Country. Management Research Review, Vol. 35(No. 11), pp.1070-1087.
[19] Garg, P., & Agarwa, D. (2014). Critical Success Factors for ERP Implementation in a Fortis Hospital: An Empirical Investigation. Journal of Enterprise Information Management, Vol. 27(No. 4), pp.402-423.
[20] Panorama Consulting Group. (2017). Report on ERPSs and Enterprise Software. Greenwood Village: Panorama Consulting Solutions. Retrieved from www.panorama-consulting.com/wp-content/uploads/2017/07/2017-ERP-Report.pdf.
[21] Ghosh, R. (2012). A Comprehensive Study on ERP Failures Stressing on Reluctance to Change as a Cause of Failure. Journal of Marketing and Managemen, Vol. 3(No. 1), pp.123-134.
[22] Reascos, I., & Carvalho, J. (2018). A Conceptual Framework for the Implantation of Enterprise Applications in Small and Medium Enterprises (SMEs). Proceedings of the International Conference on Information Technology and Systems (ICITS 2018). Vol. 721. Springer.
[23] Gupta, S., Misra, S., Kumar, V., & Kumar, U. (2017). Identification of challenges and their ranking in the implementation of cloud ERP: a comparative study for SMEs and large organizations. International Journal of Quality and Reliability Management, Vol. 34(No. 7), pp.1056-1072.
[24] Goodhue , D., & Thompson, R. (1995). Task-Technology Fit and Individual Performance. MIS Quarterly, pp.213-236.
[25] Wamuyu, P. (2017). Use of Cloud Computing Services in Micro and Small Enterprises: A Fit Perspective. SciKA-Association for Promotion and Dissemination of Scientific Knowledge.

[26] Haddara, M., & Elraga, A. (2012). ERP Lifecycle: A Retirement Case Study. Information Resources Management Journal (IRMJ), Vol.26, pp.1-11.
[27] Staehr, L., Shanks, G., & Seddon, P. (2012). An Explanatory Framework for Achieving Business Benefits from ERPSs. Journal of the Association for Information Systems (JAIS).
[28] Haddara, M., & Elragal, A. (2013). ERP adoption cost factors identification and classification: a study in SMEs. International Journal of Information Systems and Project Management, Vol. 1, pp.5-22.
[29] Constantini, A., & Haddara, M. (2017). ERP II is Dead-Long Live CRM. Procedia Computer Science, pp.950-959
[30] Iivari, J. (1992). The Organizational Fit of Information Systems. Journal of Information Systems, pp.3-29.
[31] Weill, P., & Olson, M. (1989). An Assessment of the Contingency Theory of Management Information Systems. Journal of Management Information Systems, Vol. 6(No. 1), pp.59-85.
[32] Henderson, J., & Venkatraman, N. (1993). Strategic Alignment: Leveraging Information Technology for Transforming Organizations. IBM Systems Journal, Vol. 32(No. 1), pp.4-16.
[33] Marius, J., & Ashok, S. (1996). Package Software: Selection and Implementation Policies. INFOR, pp.133-151.
[34] Gattiker, T., & Goodhue, D. (2000). Understanding the Plant Level Cost and Benefits of ERP: Will the Ugly Duckling Always Turn into Swan? Proceedings of the 33rd Annual Hawaii International Conference on System Sciences.
[35] Soh, C., Kien, S., & Tay-Yap, J. (2000). Cultural Fits and Misfits: Is ERP a Universal Solution? CACM, pp.47-51.
[36] Swan, J., Newell, S., & Robertson, M. (1999). The Illusion of "Best Practice' in Information Systems for Operations Management. European Journal of Information Systems, Vol.8, pp.284-293.
[37] Markus, M., & Robey, D. (1988). Information Technology and Organizational Change: Causal Structure in Theory and Research. Management Science, Vol. 34(No. 5), pp.583-598.
[38] Velcu, O. (2010). Strategic Alignment of ERP Implementation Stages: An Empirical Investigation. Information and Management, Vol.19, pp.158-166.
[39] Deep, A., Guttridge, P., Dani, S., & Burn, N. (2008). Investigating Factors Affecting ERP Selection in Made-to-Order SME Sector. Journal of Manufacturing Technology Management, Vol. 19, pp.430-446.
[40] Aloini, D., Dulmin, R., & Mininno, V. (2012). Risk Assessment in ERP Projects. Information Systems, Vol. 37, pp.183-199.
[41] Haddara, M., & Paivarinta, T. (2011). Why Benefits Realization from ERP in SMEs Doesn't Seem to Matter? 44th Hawaii International Conference in System Sciences, (pp. pp.1-10). Prashanth, B. N., & Venkataram, R. (2017). Development of modular integration framework between PLM and ERP systems. *Materials Today: Proceedings*, *4*(2), 2269-2278.
[42] Gaur, M. (2020). ERP Migration Challenges and Solution Approach Focused on SAP customers. *International Journal of Advanced Research in Computer Science & Technology*, *8*(3), 15-21.
[43] Balasubramanian, K., & Selladurai, V. (2018). Contemporary ERP solution to Indian small and medium scale enterprises through constructive performance metrics. *International Journal of Business Excellence*, *15*(4), 445-466.
[44] Amid, A., Moalagh, M., & Ravasan, A. Z. (2012). Identification and classification of ERP critical failure factors in Iranian industries. *Information Systems*, *37*(3), 227-237.
[45] Jeng, D. J. F., & Dunk, N. (2013). Knowledge management enablers and knowledge creation in ERP system success. *International Journal of Electronic Business Management*, *11*(1), 49.
[46] Saini, S., Nigam, S., & Misra, S. C. (2013). Identifying success factors for implementation of ERP at Indian SMEs: A comparative study with Indian large organizations and the global trend. *Journal of Modelling in Management*.
[47] Maedche, A. (2010). An ERP-centric Master Data Management Approach. In *AMCIS* (p. 384).
[48] Jayawickrama, U., & Yapa, S. (2013). Factors affecting ERP implementations: client and consultant perspectives. *Journal of Enterprise Resource Planning Studies*, *2013*(online), 1-13.
[49] Hwang, Y., & Grant, D. (2011). Understanding the influence of integration on ERP performance. *Information Technology and Management*, *12*(3), 229-240.
[50] Jagoda, K., & Samaranayake, P. (2017). An integrated framework for ERP system implementation. *International Journal of Accounting & Information Management*.
[51] Intezari, A., & Gressel, S. (2017). Information and reformation in KM systems: big data and strategic decision-making. *Journal of Knowledge Management*.
[52] Nazemi, E., Tarokh, M. J., & Djavanshir, G. R. (2012). ERP: a literature survey. *The International Journal of Advanced Manufacturing Technology*, *61*(9-12), 999-1018.

[53] Meghana, H. L., Mathew, A. O., & Rodrigues, L. L. (2018). Prioritizing the factors affecting cloud ERP adoption–an analytic hierarchy process approach. *International Journal of Emerging Markets*.
[54] Wu, J., & Wang, Y. (2007). Measuring ERP success: The key-users' viewpoint of the ERP to produce a viable IS in the organization. Computers in Human Behavior, Vol. 23, pp. 1582–1596.
[55] Luo , W., & Strong, D. (2004). A Framework for Evaluating ERP Implementation Choices. IEEE Transactions on Engineering Management, Vol. 51(No. 3), pp.322-333.
[56] Almajali, D., Masadeh, R., & Tarhini, A. (2016). Antecedents of ERPSs Implementation Success: A Study on Jordanian Healthcare Sector. Journal of Enterprise Information Management, Vol. 29(No. 4), pp.549-565.
[57] Dezdar, S., & Ainin, S. (2011). The Influence of Organizational Factors on Successful ERP Implementation. Management Decision, Vol. 49(No. 6), pp.911-926.
[58] Elragala, A., & Haddara, M. (2013). The Impact of ERP Partnership Formation Regulations on the Failure of ERP Implementations. Procedia Technology, Vol. 9, pp. 527-535.
[59] Van Beijsterveld, J., & Van Groenendaal, W. (2016). Solving Misfits in ERP Implementations by SMEs. Information Systems Journal, Vol. 26, pp.369-393.
[60] Somers, T., & Nelson, K. (2001). The Impact of Critical Success Factors across the Stages of Enterprise Resource Planning Implementations. Proceedings of the 34th Hawaii International Conference on System Sciences.
[61] Yusuf, Y., Gunasekaranb, A., & Abthorpe, M. (2004). Enterprise information systems project implementation: A case study of ERP in Rolls-Royce. International Journal of Production Economics, Vol.87(No.3), pp.251-266.
[62] Ahmad, R., Othman, Z., & Mukhtar, M. (2013). Integrating CSF and change management for implementing campus ERPS. International Journal of Information Systems and Change Management, Vol.6(No.3), pp.189-204.
[63] Mohamed, L. (2015). Exploring the Critical Success Factors (CSF) and Limitations of Enterprise Resource Planning (ERP) Systems: The Case of Egyptian Hotels. Journal of Hospitality and Management Tourism, Vol. 6(No. 3), pp.17-29.
[64] Tarigan, Z., Lianto, & Basana, S. (2019). The Impact of Organizational Commitment on Upgrading ERP for Maintaining the Quality of Information and the ERP Performance. IOP Conf. Series: Materials Science and Engineering.