THE CRITICAL SUCCESS FACTORS FOR THE ACQUSITION AND IMPLEMENTATION OF ERP SYSTEMS

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Abstract

The main objective of this paper is to identify the success factors that are critical to the acquisition and implementation processes of ERP systems. In this paper, these critical success factors are determined using a two-tier approach. In the first approach, these factors are identified thoroughly scanning the literature. Based on the literature support, a final survey instrument was developed. This was then mailed to Australian companies that had already implemented an ERP system or were in the process of implementing one of them. To enable the IS executives to indicate their degree of agreement with each item, a 7-point Likert rating scale was used. Data from 53 respondents were analysed and interpreted by using various statistical techniques. This paper empirically investigates critical factors that contribute to the success of acquisition and implementation of ERP processes.

The major findings from the analysis are that planning, accurate information, selection criteria, structured process, vendor relationship, top management support, communication, team work, user involvement and consultants' involvement are critical for the acquisition of ERP systems. Project management, business process re-engineering, user training, change management, top management support, effective communication, team work, users' involvement, consultants' involvement and clear goals are found to be important for the ERP implementation process. The intensity of the impact of the critical success factors such as planning, accurate information, top management support and consultants' involvement is greater than that of the remaining factors.

1.   Introduction

Enterprise Resource Planning is an information system which attempts to integrate all departments and functions across a company onto a single computer system. It is a complex system and the decision to implement it can be problematic if certain issues are not properly considered. Clear understandings about the factors that contribute to the success of the acquisition and implementation processes enable an organisation to improve the success rate of their undertakings. This paper investigates the critical success factors that dominate the ERP acquisition and implementation process, and validates these critical success factors empirically.

ERP systems are the software tools that are used to manage enterprise data. They can be viewed also as information technology (IT)-based solutions that attempt to integrate core business processes, share common data and practices across the entire enterprise and produce and access information in a real-time environment. An ERP system is an integrated software package composed of a set of standard functional modules developed or integrated by the vendor, which can be adapted to the specific needs of each customer. It attempts to integrate all departments and functions across a company onto a single computer system that can serve all those different departments' particular needs [13]. An ERP system provides an enterprise database wherein all business transactions are entered, processed, monitored and reported. Data is uploaded into

the system only once, at one single entry point, and then is disseminated instantaneously to wherever else in the system that it needs to go. The aim of ERP is to improve the co-operation and interaction between all the organisations' departments such as the manufacturing, marketing and customer service departments.

In this paper, an ERP system has been defined as a management information system that consists of a single comprehensive database, accomplishes real-time dissemination of data throughout the organisation, and makes available relevant information for decision-making to the appropriate level of management.

During the 1990s, ERP systems were the de-facto standard for the replacement of legacy systems in large companies [27, 28]. The impact of ERP systems is so broad, touching many aspects of an organisation's internal and external operations, that the successful implementation and use of these systems is critical to organisational performance and survival [23]. Indeed, the failure of some ERP system implementations has led to organisational bankruptcy [9, 24].

2.   Benefits of ERP Systems

ERP systems offer immense benefits to organisations. ERP systems offer companies three major benefits: (i) business process automation, (ii) timely access to management information, and (iii) improvement in the supply chain via the use of e-communication and e-commerce. Ahmed et al, [1] suggested that the benefits that are gained by implementing the ERP systems are that they (i) provide an integrating working environment, (ii) enable automation, (iii) provide available information from field to management level, (iv) allow integration in applications in any departments, (v) provide flexibility and facility to standardising processes, accommodating changes and globalisation, (vi) achieve balanced people, process and technology changes across all areas, and (vii) apply planning and program management practices throughout the program lifecycle of a project.

Lozinsky [20] suggests that successful implementation results in operating costs being reduced (leading to an improved return on investment), and improved access to information makes possible more agile decision-making for better negotiating with customers and suppliers; with no need for rewriting reports, reliable figures will be available to analyse business performance. ERP systems are expected to reduce costs by improving efficiencies through computerisation, and enhance decision making by providing accurate and timely enterprise-wide information.

ERP is critical to competitiveness because this sophisticated information technology not only helps organisations perform above average, but may also help them survive in the long term. However, its capabilities and functionalities are not being implemented and utilised to the extent possible. One of the main barriers to the implementation of an ERP system is the resistance on the part of some employees.

3.   ERP Problems

ERP system projects are large, complex and costly and require large investment in capital, staff and management time. A long implementation process is needed to customise a company's processes to match the system. Huge storage needs, networking requirements and training overheads are frequently mentioned as ERP problems [33]. Yen [48] identified the following disadvantages of ERP: its high cost prevents small businesses from setting up an ERP system, the privacy concern within an ERP system, and the lack of trained people may affect ERPs efficiency. There are various shortcomings of ERP systems, such as functionality (project tracking and reporting deficiencies, cash-flow and planning deficiencies, report production limitations), technicality (integration between ERP system and non-ERP system, deficiencies in data interfaces, input and handling by an ERP system), usability (the learning curve is too steep, low user-friendliness for the occasional user, system input is not logical, report terminology can be difficult to understand, ability to cut and paste, online help capability and accounting rules are difficult to understand), cost and implementation (very costly, long implementation process to customise a company's processes to match the system).

ERP problems are classified into two categories: implementation and structural. Implementation problems are mistakes made during implementation. Typical problems encountered after the implementation are:

- Members of the organisation are unwilling, or unable, to upgrade to a new technology [24].
- ERP systems are not flexible enough to adapt to the processes of the particular organisation and usually need to go through a major re-engineering process [21].
- ERP requires that processes be described very precisely. Often the formal information is not complete, and the implementers do not know where the different types of process knowledge reside in the organisation [37].
- Organisational memory mismatches.

Structural problems are a mismatch between the structure of the ERP system and the structure of the organisation. Problems here include:

- These systems require fixed processes or routings and ignore alternative processes.
- ERP systems do not have the possibility of optimising, in real time, the use of capacity, and this assumes either infinite capacity or may cause substantial non-optimal use of capacity.
- No single vendor ERP system provides all required functions for all parts of the organisation.
- ERP systems assume that supply lead times are known and do not vary with demand and flow but, in practice, these lead times are either not known or, what is more difficult, they do vary with utilisation.

4.   Critical Success Factors (CSFs)

Rockart [30] defines CSFs as those few key areas of activity in which favourable results are absolutely necessary for a particular manager to reach her or his goals. He proposed the CSF method to help CEOs specify their own information needs about issues that were critical to their organisations, so that information systems could be developed to meet those needs. Other researchers, who have similar conclusions to Rockart, include Zahedi [49] and Soliman [34]. CSFs for any information systems project have been a topic for research in the IS research community for quite some time [3]. CSFs for an organisation are the limited number of areas in which results, if they are satisfactory, will ensure the successful competitive performance of the company.

4.1   CSFs for Acquisition of ERP Systems

According to Verville and Halington [41, 42] and Strathman et al [38], planning is highly critical for ERP acquisition. It helps ensure that acquisition goals are aligned with the needs of the organisation [7, 19, 32]. Planning characterises an organisation's aptitude for matching IT capabilities with the changing, cross-functional business requirements of the enterprise. With proper planning during the acquisition of ERP, the management team can exercise control over communications, scope, expenditures, and time-line, plus the inclusion of key stakeholders and the support of top management. Ranganathan and Sethi [29] found a positive relationship between shared domain knowledge and planning rationality. When business managers share their competencies with IT managers, tacit understanding of business needs can be transformed into the appropriate supporting technologies and systems [8]. Project analysis and development also requires proper rigour and participation by those most knowledgeable in the area [14]. With so many activities and issues that need to be considered in the acquisition and implementation, the odds of having a successful acquisition will greatly increase if care is taken to undertake this activity well.

The project team for ERP acquisition is another critical success factor discussed in the literature. The objective when forming an acquisition team is to bring together users and project people who would not only be part of the acquisition process, but would also be involved with the subsequent implementation of the ERP system [41]. The important reason for forming an acquisition team at acquisition is to cross over the team to implementation process later, so it will be able to share its experience and knowledge during the implementation stage.

While the careful selection of team members is critical for any project, it is especially so for the acquisition of an ERP. As the ERP is a complex system and diverse in nature, the acquisition team needs to be equally diverse in the skills that are required of its team members. Hence, each individual team member needs to have the appropriate skills necessary for the completion of specific sets of tasks or responsibilities within the project. Moreover, each individual team member needs to be selected to perform functional advisory roles based on her or his abilities or past experience [4].

Another critical success factor for acquisition is clear authority within the project team. Any ambiguous authority tends to diffuse accountability and increase the possibility of the process being diverted, or unduly shortened or abbreviated, or conflict arising, not only on complex issues, but on minor ones as well. This authority or project leader/manager/ director need not be an individual from the IT department, but should be someone with strong leadership skills and a good sense of objectivity.

Information search is considered as another critical success factor for the acquisition process by Bernroider and Koch [4] and Verville and Halington [43, 44]. It is imperative that the information about the ERP vendors and system be accurate and reliable. Bernroider and Koch [4] suggested that organisations may gather information while working with vendors through presentations, analysis of marketing material, use of consultants, design of questionnaire, relevant training, analysis of a prototype system, analysis of relevant studies and through other activities.

It is critically important that the acquisition team thoroughly assess and define all of the current and desired requirements that are relevant to the packaged ERP [45]. This means defining the organisation's needs at all of its different levels and in all of the functional areas on which the ERP will have a direct or indirect impact. It is important that this activity be completed before contacting vendors or commencing a marketplace analysis.

Another factor critical for the success of ERP acquisition is the establishment of selection and evaluation criteria. As with the definition of all organisational requirements, it is important and critical that the acquisition team establishes its selection and evaluation criteria prior to contacting any vendor or looking at ERP solutions.

Verville and Halington [41, 42] note that rigour is another factor that is critical for the success of ERP acquisition. If the acquisition team is laid back in carrying out any part of the acquisition process, the results are likely to show in the final choice of an ERP solution for the organisation. Moreover, since much of the preliminary work which is done during the acquisition process (that is, definition of requirements etc.) could be used during the implementation, the more rigorous the acquisition process, the better the implementation.

User buy-in is another critical success factor in the success of the acquisition process. While much has already been presented on the importance of this factor in the process, user buy-in on the final choice undoubtedly results in user acceptance of the software following implementation. User involvement in the acquisition can minimise resistance from the users. By involving the users in the acquisition process, management could minimise the users' resistance to adoption of an ERP system once it goes live.

Marius and Ashok [22], in their study, mentioned that vendor support is critical to the success of the software implementation. Without vendor support it can be difficult to complete the acquisition project. The long-term relationship with the prospective vendor was mentioned as being very important. The question that is frequently asked by all concerned is, "can we work with them (vendors)?" The element of trust is factored into this characteristic and all parties felt the need to create an atmosphere of trust right from the start of their dealings with the vendors.

Considering the nature of the ERP acquisition process, it is very important that the management and team members are aware of the success factors for the acquisition process. Not many studies are available on this area and it offers an opportunity to identify the success factors and validate them empirically.

4.2   CSFs for Implementation of ERP Systems

CSFs are the number of factors that may affect the ERP implementation process, and the probability of conversion success has been identified in the IT implementation, IT failures, and business process re-engineering literature. Among the more important factors are top management support and involvement, need for a project champion, user training, technological competence, project planning, change management and project management [35]. From the perspective of ERP implementation, additional issues which could be incorporated are business process re-engineering, business teams and others.
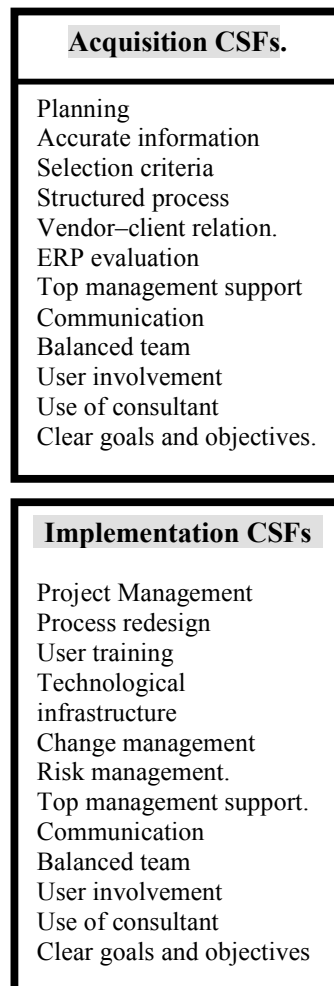
Within an ERP context, CSFs for ERP implementations are defined as "factors needed to ensure a successful ERP project" [15]. Research conducted earlier on CSFs for ERP implementations have developed different factor checklists for ERP implementations. CSFs analysis may be beneficial in identifying "the limited number of areas in which results, if they are satisfactory, will ensure successful competitive performance for the organisation" [35]. The following table 1 outlines the identification of CSFs for implementation from various authors.

Table 1   CSFs of ERP Implementation

Authors	CSFs of ERP implementation
Al-Mashari, Al-Mudimigh and Zairi (2003)	Management and leadership, visioning and planning, ERP package selection, communication, process management, training and education, project management
Jung (2003)	User training and effective change management, handling the risks of project management, and continued executive commitment. involvement of senior management, cross-functional implementation teams, detailed plans for implementation and training, guidelines for using outside consultants, and an established process for transferring knowledge from outside consultants to in-house experts,
Nah, Zuckwiler and Lau (2003)	Top management support, project champion, ERP teamwork and composition, project management, and change management program and culture
Umble, Haft and Umble (2003)	Clear understanding of strategic goals, commitment by top management, excellent project management, organisational change management, data accuracy, user education and training, focused performance measures
Zhang and Banerjee (2003)	Business process re-engineering and organisational culture
Esteeves, Pastor and Casanovas (2002)	Management support, organisational change management, training, upgrading infrastructure, project management and stabilising ERP systems, testing and quality assurance, meeting incompatibilities between organisational needs
Hong and Kim (2002)	Organisational fit of ERP and certain implementation contingencies
Kania (2002)	Project management, top management support, organisational culture, business plan and vision, business process re-engineering, project champion, employee attitudes and the use of outside consultants
Nah and Lau (2001)	Top management support, project champion, ERP teamwork and composition, project management and change management program and culture
Somers and Nelson (2001)	Top management support, project champion, user training and education, management of expectations, vendor–customer partnerships, use of vendor's development tools, careful selection of the appropriate package, project management, steering committee, use of consultants, minimal

	customisation, data analysis and conversion, business process re-engineering, defining the architecture, dedicated resources, project team competence, change management, clear goals and objectives, interdepartmental communication, interdepartmental co-operation, ongoing vendor support
Parr and Shanks (2000)	Management support, best people full-time, empowered decision-makers, deliverable dates, champion, vanilla ERP, smaller scope, definition of scope and goal, balanced team, commitment change
Rosario (2000)	ERP teamwork and composition, business plan and vision, change management and culture, BPR and minimum customisation, effective communication, project management, project champion
Stefanou (2000)	ERP teamwork and composition, project champion
Wee (2000)	ERP teamwork and composition, top management support, business plan and vision, change management and culture, BPR and minimum customisation, effective communication, project management, software development
Bingi, Sharma and Godla (1999)	ERP teamwork and composition, change management and culture, top management support, BPR and minimum customization, finding and retaining competent consultants, selecting a suitable ERP package, and user training, commitment from top management, re-engineering of the existing processes, integration of ERP with other business information systems, selection and management of consultants and employees and training on the new system
Buckhout (1999)	ERP teamwork and composition, top management support, BPR and minimum customisation
Holland and Light (1999)	**Strategic**: Legacy systems, business vision, ERP strategy, top management support, project scheduling and planning **Tactical**: Client consultation, software configuration, client acceptance, monitoring and feedback, communication, troubleshooting ERP teamwork and composition, top management support, business plan and vision, change management and culture, BPR and minimum customisation, effective communication, project management, software development, monitoring and evaluations of performance, project champion, appropriate business and IT legacy systems
Sumner (1999)	ERP teamwork and composition, top management support, change management and culture, BPR and minimum customisation, effective communication, project management, monitoring and evaluation of performance, project champion
Falkowski (1998)	ERP teamwork and composition, change management and culture, BPR and minimum customisation, effective communication, project management, monitoring and evaluation of performance, project champion

Based on the literature review, a list of major CSFs for the acquisition and implementation processes of ERP systems are identified and summarized in the following Figure 1. These CSFs are then validated empirically in the following sections.

Acquisition CSFs.

Planning
Accurate information
Selection criteria
Structured process
Vendor–client relation.
ERP evaluation
Top management support
Communication
Balanced team
User involvement
Use of consultant
Clear goals and objectives.

Implementation CSFs

Project Management
Process redesign
User training
Technological
infrastructure
Change management
Risk management.
Top management support.
Communication
Balanced team
User involvement
Use of consultant
Clear goals and objectives

Fig. 1 CSFs for Acquisition and Implementation of ERP Systems

5.   Empirical Validation of Critical Success Factors for Acquisition of ERP Systems

In this section, the above factors that are found to be critical for the acquisition and implementation processes are validated using an empirical approach. To enable the IS executives to indicate their degree of agreement with each factor, a 7-point Likert rating scale was used. Data collected from 53 respondents out of 500 top Australian companies that have been sent with the mail surveys, were analysed and interpreted by using various statistical techniques. In order to empirically validate the CSFs, the following research question and hypotheses have been established:

5.1   Research question and Hypotheses

Research question	What are the critical success factors for ERP acquisition and implementation processes?
Hypotheses 1 – 2	H_1: The factors such as planning, accurate information, selection criteria, structured process, vendor relationship, top management support, communication,

teamwork, users' involvement and consultants' involvement are critical to the ERP acquisition process.
H₂: The factors such as project management, business process re-engineering, user training, change management, top management support, effective communication, team work, users' involvement, consultants' involvement and clear goals are important for the ERP implementation process.

5.2   Analysis of Acquisition and Implementation CSFs

Analysis of the critical success factors is presented in this section. A successful organisation requires high performance on important factors and do not waste resources on factors of low importance. Table 2 reflects the viewpoint of respondents on their degree of agreement with each factor on a 7-point Likert rating scale, and summarises the results of the survey in terms of the factors.

In order to investigate the overall results of the respondents, the various means for the perception of importance of the acquisition and implementation CSFs were analysed. Table 2 shows the overall means for each factor obtained to explore the level of importance perceived by the respondents. The results reveal that the importance values ranged from important to very important for the success of acquisition and implementation. In the acquisition of ERP, CSFs were arranged in order of importance. Communication, planning and user involvements were perceived to be the three top critical success factors for the acquisition of ERP process. Top management, communication and teamwork were ranked as the top three CSFs for ERP implementation by the respondents. There are some interesting similarities between the top three factors and three least important CSFs of ERP acquisition and ERP implementation. Both top management support and communication were ranked in the top three, while consultants' involvement was among the bottom three in perception of importance between acquisition and implementation. This indicates that the importance of top management support in providing resources, commitment and champion is very important for both acquisition and implementation. Similarly, communication is important for both processes as well. The survey result demonstrates that most organisations believe that planning, top management support and communication in the first place are critical for successfully acquiring ERP systems. Furthermore, the results also show that top management support, communication and teamwork are critical for the success of ERP implementation process.

Table 2   Mean and SD Importance of Acquisition and Implementation CSFs

Acquisition CSFs			Implementation CSF		
Measure	**Mean**	**SD**	**Measure**	**Mean**	**SD**
Communication	6.01	.732	Teamwork	6.17	.865
Planning	5.90	.980	Top management	6.17	.82
Top management	5.88	1.0	Communication	6.07	.72
Users' involvement	5.85	.91	Users' involvement	5.97	.93
Teamwork	5.81	1.0	Technological infrastructure	5.95	1.0
Vendor relationship.	5.66	.94	Process re-engineering	5.93	1.0
Structured process	5.63	1.06	User training	5.90	.96
Appraisal criteria	5.61	1.18	Project Management	5.90	.90
Information	5.60	1.07	Clear Goals	5.90	1.07
Consultants' involvement	5.55	1.18	Change management	5.88	1.06
			Consultants' involvement	5.68	1.15

5.3   Hypothesis Testing

In this section, the hypotheses for this study are tested and the results are discussed.

5.3.1   Hypothesis 1: CSFs for Acquisition of ERP System

The factors such as planning, accurate information, selection criteria, structured process, vendor relationship, top management support, communication, teamwork, users' involvement and consultants' involvement are critical to the ERP acquisition process.

Table 3 shows the hypothesis testing of ten factors that are critical to the ERP acquisition process. The mean values range from 5.55 to 6.0 representing "important for success" to "very important for success" and the p-value for all factors is 0.000, which is much less than the significance level of 0.01. The data provides very strong support that all these factors are statically significant. The finding of our research for this hypothesis confirms that respondents consider that planning, accurate information, selection criteria, structured process, vendor relationship, top management support, communication, teamwork, users' involvement and consultants' involvement are critical factors to the ERP acquisition.

Table 3   Summary of Test of Hypothesis 1

	Ho (Null Hypothesis)	Ha (Alternate Hypothesis)	Mean (x)	P value	conclusion
H1a	μ planning ≤ 5 Planning is not critical to ERP acquisition	μ planning > 5 Planning is critical to ERP acquisition	5.90	.000	Reject null hypothesis. Planning is critical to ERP acquisition.
H1b	μ accurate information ≤ 5 Accurate information is not critical to ERP acquisition	μ accurate information > 5 Accurate information is critical for ERP acquisition	5.60	.000	Reject null hypothesis. Accurate information is critical to ERP acquisition.
H1c	μ Appraisal criteria ≤ 5 Appraisal Criteria is not critical to ERP acquisition	μ selection criteria > 5 Appraisal Criteria is critical for ERP acquisition	5.61	.000	Reject null hypothesis. Selection criteria are critical to ERP acquisition.
H1d	μ proper structure ≤ 5 Proper structure is not critical to ERP acquisition.	μ proper structure > 5 Proper structure is critical for ERP acquisition.	5.63	.000	Reject null hypothesis. Proper structure is critical to ERP acquisition.
H1e	μ vendor support ≤ 5 Vendor support is not critical to ERP acquisition	μ vendor support > 5 Vendor support is critical to ERP acquisition.	5.66	.000	Reject null hypothesis. Vendor support is critical to ERP acquisition.
H1f	μ Top management support ≤ 5 Top management support is not critical to ERP acquisition.	μ Top management support > 5 Top management support is critical to ERP acquisition.	5.88	.000	Reject null hypothesis. Top management support is critical to ERP acquisition.
H1g	μ Communication ≤ 5	μ Communication > 5 Communication support	6.01	.000	Reject null hypothesis.

	Communication support is not critical to ERP acquisition.	is critical to ERP acquisition.			Communication is critical to ERP acquisition.
H1h	μ Teamwork ≤ 5 Teamwork is not critical to ERP acquisition.	μ Teamwork > 5 Teamwork is critical for ERP acquisition.	5.81	.000	Reject null hypothesis. Teamwork is critical to ERP acquisition.
H1i	μ User involvement ≤ 5 User involvement is not critical to ERP acquisition.	μ User involvement > 5 User involvement is critical to ERP acquisition.	5.85	.000	Reject null hypothesis. User involvement is critical to ERP acquisition.
H1j	μ Use of Consultant ≤ 5 Use of Consultant is not critical to ERP acquisition	μ Use of Consultant > 5 Use of Consultant is critical to ERP acquisition	5.55	.000	Reject null hypothesis. Use of consultants is critical to ERP acquisition.

5.3.2   Hypothesis 2: CSFs for Implementation of ERP

The factors such as project management, business process re-engineering, users training, change management, top management support, effective communication, teamwork, users' involvement, consultants' involvement and clear goals are important for the ERP implementation process.

In Table 4 the hypothesis analysis of eleven factors that are critical for ERP implementation process is shown. The mean values range from 5.68 to 6.27, representing "important for success" to "very important for success" and the p-value for all factors is 0.000, which is much less than the significance level of 0.01. The data provides very strong support that all these factors are statistically significant. The finding of our research for this hypothesis confirms that respondents consider that project management, business process re-engineering, users training, change management, top management support, effective communication, teamwork, users' involvement, consultants' involvement and clear goals are important for ERP implementation process.

Table 4   Summary of Test of Hypothesis 2

	Ho (Null Hypothesis)	Ha (Alternate Hypothesis)	Mean (x)	p value	conclusion
H2a	μ Project management ≤ 5 Project management is not critical to ERP Implementation.	μ Project management > 5 Project management is critical to ERP Implementation.	5.90	.000	Reject null hypothesis. Project management is critical for ERP implementation.
H2b	μ Process re-engineering ≤ 5 Process re-engineering is not critical to ERP implementation.	μ Process re-engineering > 5 Process re-engineering is critical for ERP implementation.	5.93	.000	Reject null hypothesis. Process re-engineering is critical to ERP implementation.
H2c	μ User training ≤ 5 User training is not	μ User training > 5 User training is critical	5.90	.000	Reject null hypothesis. User

	critical to ERP implementation.	for ERP implementation.			training is critical to ERP implementation.
H2d	μ Technological infrastructure ≤ 5 Technological infrastructure is not critical to ERP implementation.	μ Technological infrastructure > 5 User training is critical to ERP implementation.	5.95	.000	Reject null hypothesis. Technological infrastructure is critical to ERP implementation.
H2e	μ Change management ≤ 5 Change management is not critical to ERP implementation.	μ Change management > 5 Change management is critical to ERP implementation.	5.88	.000	Reject null hypothesis. Change management is critical to ERP implementation.
H2f	μ Top management support ≤ 5 Top management support is not critical to ERP implementation.	μ Top management support > 5 Top management support is critical to ERP implementation	6.17	.000	Reject null hypothesis. Top management support is critical to ERP implementation.
H2g	μ Communication ≤ 5 Communication is not critical to ERP implementation.	μ Communication > 5 Communication is critical to ERP implementation.	6.07	.000	Reject null hypothesis. Communication is critical to ERP implementation.
H2h	μ Teamwork ≤ 5 Teamwork is not critical to ERP implementation.	μ Teamwork > 5 Teamwork is critical to ERP implementation.	6.27	.000	Reject null hypothesis. Teamwork is critical to ERP implementation.
H2i	μ User involvement ≤ 5 User involvement is not critical to ERP implementation.	μ User involvement > 5 User involvement is not critical to ERP implementation.	5.97	.000	Reject null hypothesis. User involvement is critical to ERP implementation.
H2j	μ Use of Consultant ≤ 5 Use of Consultant is not critical to ERP implementation.	μ Use of Consultant > 5 Use of Consultant is not critical to ERP implementation.	5.68	.000	Reject null hypothesis. Use of consultants is critical to ERP implementation.
H2k	μ Clear goals ≤ 5 Clear goals are not critical to ERP implementation.	μ Clear goals > 5 Use of Consultant is not critical to ERP implementation.	5.90	.000	Reject null hypothesis. Clear goals are critical to ERP implementation.

6.   Conclusions

From the analysis of 53 respondents out of 500 top Australian companies that have been sent with the mail surveys, 10 critical success factors were found to influence the acquisition process and 11 factors have influence on the implementation process. The major findings from the analysis are that planning, accurate information, selection criteria, structured process, vendor relationship, top management support, communication, team work, user involvement and consultants' involvement are critical for the acquisition of ERP systems. Project management, business process re-engineering, user training, change management, top management support, effective communication, team work, users' involvement, consultants' involvement and clear goals are found to be important for the ERP implementation process. Both acquisition and implementation processes share five common factors: top management support, effective communication, teamwork and composition, users' involvement and use of consultants.

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