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A Review of the Impact of Key-Users' Characteristics on the Success of ERP Applications

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Abstract

Objective: The general objective of this study is to identify the main characteristics of the key-user that has been studied in the prior literature with a focus on its impact to the success or failure of the ERP implementation.

Theoretical framework: The high-cost ERP implementations aimed at providing rich benefits to the organization often turns sour as the rate of failure is high due to various factors. The key-user group, who are part of the implementation team, helps to maximize the gains of the implemented system during the usage of the ERP system. As such, key-user group has the potential to impact the success or failure of the ERP implementation.

Method: Through a detailed analysis of scientific literature, the studyidentifies the aspects of key users that have been studied prior in the extant literature. The study further explores the literature to understand how each of these aspects have been studied and what questions have been left unanswered.

Results and conclusion: The study identifies that the key-users function as the fulcrum of knowledge in ERP implementation projects, which warrants an elevated level of knowledge transfer between the implementation team and the user community. Further, the study lists the understudied characteristics of the key-user such as competency, motivation and knowledge sharing that can help in the success of the ERP system.

Research implications: The review on the characteristics of the key-user contributes to the body of knowledge about the need for an in-depth study and provides a direction to investigate newer areas for increasing the success of the implemented ERP applications.

Originality/value: The gaps identified in this study are unexplored, unprecedented, and relevant for the scientific community, in the context of improving the success rate of the ERP implementations.

Keywords:*Success and Failure of ERP Projects, ERP Implementation, Key-user, Competency, KnowledgeSharing, Business process*

1. Introduction

The vision of 'single integrated information system' for the enterprise, which remained as mirage in the 1970s, was a thing of past due to the development of integrated software packages in the 1990s(Markus & Tanis, 2000). ERP, these software packages were termed as, is the industry acronym for 'Enterprise Resource Planning' system. Having its roots from MRP of the supply chain functional area, ERP provides the benefit of bringing the entire enterprise into a single system of operation(Klaus et al., 2000). By implementing the ERP,

companies not only increase their efficiency and effectiveness, but they also use the enterprise data to monitor and mitigate organizational risks (Mathrani & Mathrani, 2013). ERPs form part of the digital transformation initiatives of an organization and current studies focus on such digital transformations towards sustainability requirements (Vilas, 2023). Instead of developing their own ERP, organisations started to simply buy commercially available off-the-shelf products, termed as COTS (Commercial Off-The Shelf) software packages for the benefit of standardising the processes according to the industry standards and embedding the best practices from across the globe(Ifinedo, 2011; Parr et al., 1999; Umble et al., 2003; Wang & Ramiller, 2009).
With multiple players in the ERP market and more companies adapting to ERP, the global ERP market segment was valued at $45 billion in the year 2020 and is expected to grow at 10% to reach $120 billion in 2030. (Allied Market Research). Cost of implementing an ERP is remarkably high due to the blend of various cost components such as the license cost, hardware cost, related software licenses cost, services of third-party consultants & system integrators and valuable time of organizational resources. So, the benefit of ERP comes at a very high cost to the organisation(Fui-Hoon Nah et al., 2001). Though enterprise systems can deliver great benefits to the organisation, the bundled risks are equally high. Implementing an ERP successfully in an organisation is said easier than practiced successfully(Davenport, 1998). There are many anecdotal accounts that testify horror-stories of ERP implementations are not as successful as expected. The high rate of failures of ERP implementation projects motivated the research community to identify the reasons for failure and arrive at the factors which aid in successful implementation(Holland & Light, 1999; Somers et al., 2000). Early researchers used the Critical Success Factors, shortly CSFs, from project management guidelines of(Pinto & Slevin, 1987)and added the necessary factors that are specific to ERP projects. While identifying the importance of critical success factors on the success of ERP implementation, 'project team competence', related to the knowledge, skills, abilities and experience of the project team, is found to be second most important factor overall in an implementation(Somers & Nelson, 2001). Numerous studies have been conducted since then to analyse the CSFs either in isolation or in groups including empirical studies that are conducted to analyse the relationship between CSFs and ERP implementation success.

The information system (IS) life cycle process of an ERP is quite different from the conventional software applications. The conventional IS life cycle prompts for the System Development Life Cycle (SDLC) process where the new software application is developed from scratch by analysing the business requirements and then develop software programmes and put them rigorous testing to meet the business need (Markus & Tanis, 2000). This process typically requires an in-house technical (technology) team to write the programme for the business users. But in the case of an ERP, the software package is readily available for the organization to install and use it for business transactions (Markus & Tanis, 2000; Wu & Wang, 2007). ERPs often comes with rich blend of features and functionalities where the implementing organization uses the required ones to meet their business process. Vendors of ERP software packages constantly enrich their product periodically from the experience they have gained from prior usage of the product by companies under different industries and different geographies (Markus & Tanis, 2000). So, the onus lies with the implementing organization to identify the required features and functionalities that would meet their business process (Wu & Wang, 2007). By setting up the parameters, often termed as the configuration, companies use these ERPs according to their business needs. Thus, configuration of an ERP is significantly different from software programme development. While a hardcore technical knowledge is required to develop a programme, configuration requires a blend of business process knowledge and basic systems knowledge(Markus & Tanis, 2000; Monk & Wagner, 2012).

Having a limitation of knowledge about the features and functionalities of an ERP, implementing organizations heavily depend on external source of knowledge to implement an ERP (Sumner, 1999; Thong et al., 1994). An ERP product is chosen not just based on its features and functionalities, also, checking on the vendor background, and availability of knowledgeable resources in the market who could help the company to implement the ERP (Wu & Wang, 2007; Xu & Ma, 2008).

ERP vendors provide knowledge support to implementing companies either directly or through their partner eco-system. ERP vendors maintain trained and certified partner network to support the growing demand from

implementing companies(Wu & Wang, 2007). These partners often specialise either in a region e.g., EMEA (Europe-Middle East Asia) or an industry e.g., cement manufacturing or in a specific vertical solutione.g., retail point of sale (POS). Partner consultants bring to the table a blend of industry specific business process knowledge and a rich experience of implementing the specific ERP to the companies in the region / industry / vertical (Xu & Ma, 2008).

Such partner consultants often specialise in a particular functional area of business such as finance, supply chain or human resources, christened as 'Functional Consultants.' Functional Consultants are responsible for studying the business process of the implementing organization and configure the ERP system to meet the business requirements. On the other hand, 'Technical Consultants' specialize in technical aspects of the systems such as server installations, back-ups, custom code (programming) development / management i.e., customization, and analytics. Based on the complexity of the business process and size of the project, a team of partner consultants are hired on a limited contract and are deployed in an ERP implementation (Wu & Wang, 2007).

After successfully choosing the ERP product and external partner consultants, the implementing company will designate an internal team from their employee's pool, to work with the external team to implement the ERP (Maas, Van Fenema, et al., 2016). Employees of an organization play a significant role in increasing the innovative potential and sustainable development (Klimovskikh et al., 2023). The internal team consists of employees with sound business process knowledge of the organization and are termed as the 'key-user.' A key-user will represent a specific process or function or department according to the complexity of the business process (Wu & Wang, 2007). During the implementation key-users will explain the external consultants about the business process of the organization and the system requirements to meet the corporate strategy. In parallel, the external consultants would absorb the business process and requirements of the organization and would configure the new ERP system to meet them. During this process, the external consultants constantly interact with the key-user to absorb the business process and requirements and, to share knowledge on the ERP configuration and transaction processing. Key-user would receive all the ERP knowledge directly from consultants and hence they are enriched with the blend of business process knowledge and ERP related knowledge. Key-user take part in the process of configuration, testing of the system, training on transactions and maintenance, and understand the system nuances to manage the ERP in the absence of the external consultants (Maas, Van Fenema, et al., 2016; Wu & Wang, 2007).

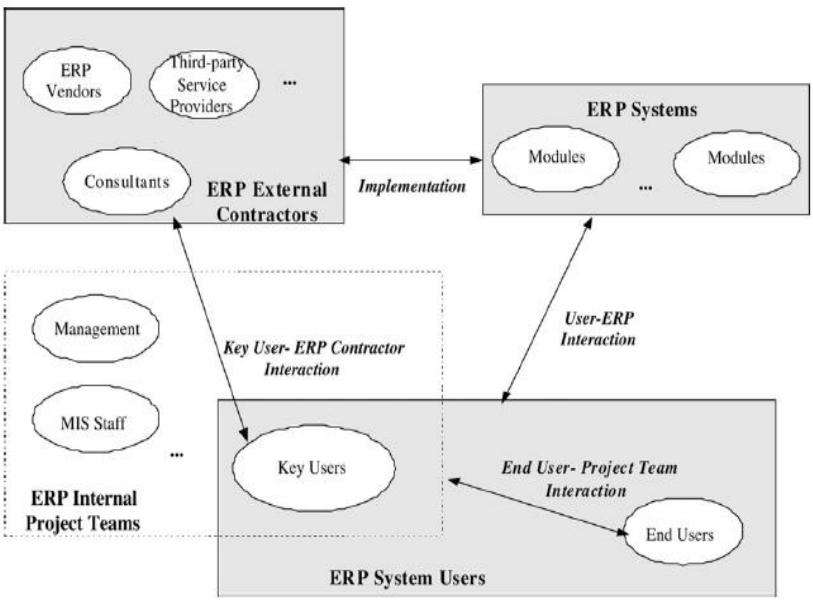

Fig: 1; People Involved in ERP Implementation (Reference (Wu & Wang, 2007))

Having hired on a limited contract, external consultants act swift to understand the business requirements, configure the ERP system, and train the key-users to manage it in the long run and they exit the project once the system has gone live i.e., being used for live transactions (Maas, Van Fenema, et al., 2016). In the absence of external team, key-user serve as the fulcrum of knowledge related to ERP and the reengineered business process of the organization (Cronan & Douglas, 2013). It's the responsibility of this key-user team to manage the system according to the dynamics of business in the long run of business (Ha & Ahn, 2014).

Source	Recipient	Knowledge Area
Mangers, Process-owners, Department Heads	Key-user	Organization's business process knowledge gained by cutting across organizational boundaries
Key-user	ERP Consultant	Organization's business process knowledge
ERP Consultant	Key-user	ERP transaction knowledge and ERP management knowledge
Key-user	ERP user	Business process knowledge + ERP transaction knowledge + ERP management knowledge

Fig: 2; 4 types of knowledge transfers involving key-user

Though every off-the-shelf ERP vendor comes with a unique methodology of implementation, the failure rate is still soaring. According to the Gartner's report, the failure rate of ERP is anywhere between 55-75% (Proprietary Gartner Report). An analysis by both academic and industry experts over the years, could identify that success in an ERP project is a complex combination of a range of factors and dimensions. These factors, also termed as risks, cover a long list including people, processes, organization, product, technology, project management, methodology, and ERP vendor (Belassi & Tukel, 1996). These factors were analysed by both industry experts and research communities to be classified as Critical Success Factors, CSF in short, such as top management support, project team competence, project management, to name a few(Somers & Nelson, 2001)&(Fui-Hoon Nah et al., 2001), as Project failure categories, such as organizational fit, skill mix, user involvement and training to name a few(Sumner, 1999) and as key risks factors in ERP implementation, such as user risk, project risk, technological risk to name a few(Garg & Khurana, 2017). Studies showed either the presence of certain factors favoured the success, or the absence of certain factors led to the failure of the ERP system.

While some studies classified these factors into two major groups as 'strategic' and 'tactical factors(Holland & Light, 1999), some other studies classified them into a framework of factors as factors related to project, project manager & team members, organisation and the external environment(Belassi & Tukel, 1996). In a specific study to collate these factors from across various researches, a list of 22 factors were identified as the most important and frequent ones(Somers & Nelson, 2001). To have a fair understanding of the list few items are listed here - Top management support, Project team competence(where key-user is a part), Interdepartmental cooperation, Clear goals and objectives, Project management,Project champion, Vendor support, Dedicated resources, User training on software, Education on new business processes, Business Process Reengineering, and Use of consultants. This specific study went on to identify the top five critical factors for each stage of the implementation process and notably 'project team competence' emerged as one among them. Then on, there are many studies conducted empirically on these factors as an antecedent and their role is scrutinised with respect to either success of the ERP system or as the reason for the failure of the ERP system. Though there are enough studies available on top management support (Hung et al., 2014; Ifinedo, 2008), external expertise (Ifinedo, 2011), organisation culture (Shao et al., 2012), and computer self-efficacy (Rajan & Baral, 2015), not enough work has been established on the role of key-users on the ERP success.

Key-user role and their competency requirements remained an understudied area in the ERP implementation projects. Though, the importance is felt in real-world scenarios, not enough academic studies are available on

key-user competency. Hence, the literature review begun on the key-user competency and other associated factors that influences the success of ERP.

2. THERETICAL FRAMEWORK

In this sectionthe aspects of the key-user that are studied in the extant of literature that formed the basis of the work is presented.

2.1 Aspects of key-user Available in Literature

The systematic review of literature on key-users helped the authors to group the literary works related to key-users into 1) role/s played by the key-user, 2) Competencies and skills of the key-user, 3) knowledge capability of the key-user, 4) motivation of the key-user, and 5) key-user relationship with ERP success.

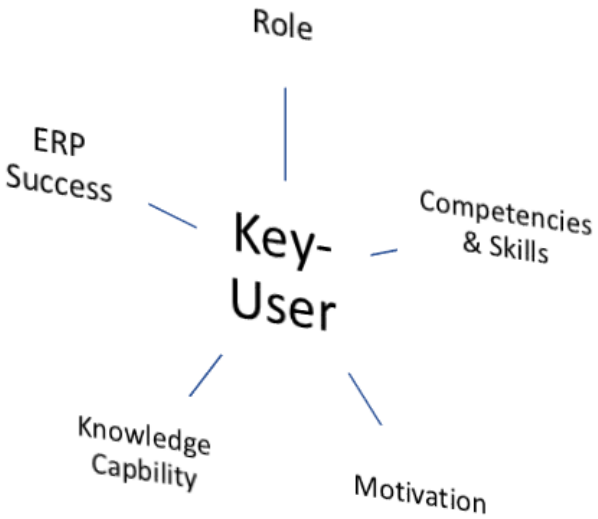

Fig: 3; Classification of key-user literature

2.2Role of Key-Users in ERP Implementation

While identifying the type of role a key-user plays in the ERP implementations, few studies claim the key-user's role is equivalent to an administrator's role. By virtue of directing the activities of other ERP users in the organization and being responsible for achieving ERP adoption success across the organization, key-user plays the role of an administrator (Maryam Mahdavian & Mostajeran, 2013; Obwegeser et al., 2019). The comparison and justification are well grounded with the definition of an administrator by Katz, (1955), that an administrator directs the activities of others and undertake the responsibility of achieving certain objectives through such efforts. Another study points out that key-users wear 3 types of hats in an implementation namely an expert, a collaborator and an educator to facilitate knowledge transfer(Maas, van Fenema, et al., 2016). Since key-users have expertise in specific domain of the ERP, multiple stakeholders regard them as an expert and needed them to share their knowledge and skill. As a collaborator, a key-user acts as a linking pin between users and managers to bridge their knowledge gaps or differences. In the educator role a key-user provide their help for other users to absorb the ERP knowledge and to perform the day-to-day transactions. A key-user plays the role of a key informant since key-user satisfaction about the ERP system is closely related to the perceived success of the implemented ERP (Wu & Wang, 2007). This study empirically proves that key-user's viewpoint about the implemented ERP can be considered for overall measurement of ERP success in the organization.

2.3 Key-User ERP Competencies and Skills

While empirically assessing the importance of critical success factors on the success of ERP implementation, 'project team competence', related to the knowledge, skills, abilities and experience of the project team, is found to be second most important factor overall in an implementation by (Somers & Nelson, 2001). Key user

competence is the level of knowledge, skill and ability of the key-user who are assigned to successfully implement the ERP project (Sumner, 2018). While analysing the effects of key-user skills, namely human skills, technical skills & conceptual skills, it was found that the human skills such as teaching and training, team, communication, and leadership and technical skills such as ERP technical knowledge, business process knowledge, project management, information literacy, and change management are found have an impact on the success of the ERP(M Mahdavian, 2016).

Key-user with higher level of competence is better in handling the obstacles to successfully to implement the ERP projects in an organisation(Krell et al., 2016; Wixom & Watson, 2001). The competency of key-user is found to have a significant impact on the business process performance during the post implementation stage, where the benefits of the ERP is fully harvested (Ha & Ahn, 2014).

Knowledgeable and skilled users are critical to the success of the ERP implementation and to derive the best benefit out of the implemented ERP (Cronan & Douglas, 2013). While defining the attributes of a productive IT user under a collaborative environment like ERP, it's defined business context / process knowledge, software application knowledge and collaborative task knowledge are essential (Cronan & Douglas, 2013). As the key-user brings the knowledge of firm's business processes, organization context and competitive situation, key-user's knowledge on the firm's business process is highly important in an implementation (Maas, Van Fenema, et al., 2016; Wu & Wang, 2007; Xu & Ma, 2008). Key-user is an early bird to acclimatise to the new ERP application and master the transactional skills in the new ERP. Due to the proximity to the external consultants, key-user's transactional skills on the ERP application is high (Maas, Van Fenema, et al., 2016; Wu & Wang, 2007; Xu & Ma, 2008). The key-user is well exposed to the process flows in the new ERP and how each task is interrelated and interdependent(Wu & Wang, 2007). Though, these three competencies of the key-user namely business process knowledge, ERP transaction skills and enterprise system management knowledge, were discussed in the literature to play significant role in the ERP implementation, such competencies are not studied enough empirically. Though, other competencies and skills such as project management, team skills, and communication are equally essential and are empirically studied, the primary ERP related skills and competencies are not empirically studied enough.

2.4 Motivation of Key-User

Motivation determines one's behaviour related to technology acceptance, work-related and knowledge transfer. Based on self-determination theory, motivation is classified based on the orientation as extrinsic and intrinsic motivation. Extrinsic motivation defines an individual's certain behaviour are driven by separable outcomes or external rewards. The most common rewards are monetary benefits, formal recognition, and job promotion. The intrinsic motivation is driven by one's satisfaction by exhibiting certain behaviour. It is the reinforcement and enjoyment of performing a behaviour irrespective of whatever the external outcomes are (Deci & Ryan, 2012).

Key-user's willingness to share the acquired knowledge during the implementation is very critical in utilising the knowledge across the organisation and reap the benefits of the implemented ERP (Shao et al., 2012). Willingness to transfer knowledge i.e., motivation of the source positively affects the knowledge transfer (Xu & Ma, 2008). Motivation of both the source and recipient of knowledge are essential for ERP knowledge transfer from external consultants to key-users (Ko et al., 2005). Lack of motivation at the source of knowledge or at the receipt of knowledge is an important impediment to the knowledge transfer (Szulanski, 1996; Xu & Ma, 2008). One of extrinsic motivation factor, the performance-based reward system, is found to be one of factors that affect significantly the knowledge sharing capabilities of the employees (Kim & Lee, 2006). Higher intrinsic motivation results in higher knowledge sharing behaviour (Chou et al., 2014). Intrinsic motivation is one of the user characteristics that aids in the usage of ERP through sharing of knowledge among ERP users during the post implementation stage(Chou et al., 2014). Though it is evident that individual's motivation plays a significant role in the context of knowledge transfer in the organisation, the authors identified that limited studies existed that analysed the motivation of the key-user with respect to his/her knowledge sharing behaviour during usage phase of an ERP adoption.

2.5 Key-User Knowledge Capability

Unlike simpler systems, ERP systems are knowledge intensive as its effects are spread across the organisation and not just an individual. This warrants a high-level of knowledge absorption and knowledge sharing among the employees of the adopting organisations. ERP brings in a quest for knowledge across the organisation which makes the users more knowledgeable on what others are doing in the organisation and also to know how their act affects others in the process (Lee & Lee, 2000). The key-users are responsible for the adoption of the ERP across the organization by all end-users (Sumner, 2018; Wu & Wang, 2007). Due to their higher-level knowledge acquisition directly from the knowledge sources both within the organisation and external consultants, key-users remain as the pivotal of knowledge source and knowledge transfer across various phases of the implementation (Maas, Van Fenema, et al., 2016). Key-user's willingness to share the acquired knowledge during the implementation is very critical in utilising the knowledge across the organisation and reap the benefits of the implemented ERP (Shao et al., 2012). Earlier studies describe that willingness to share knowledge is an outcome of personal characteristics such as cost and benefit of sharing, intrinsic and extrinsic motivation for sharing, reward systems for sharing and environmental factors such as organisational climate and top management support. (Hsu et al., 2007).

Based on the characteristics, knowledge is classified as explicit knowledge and tacit knowledge. Knowledge is explicit if it is formal and systematic, that could be shared in the form of documents, training manuals, and through formal discussions. Tacit knowledge is difficult to share through formal means as it is more personal, subjective to the individual's experience, and specific to a context. Tacit knowledge is expressed in the form of metaphors, opinions, non-verbal communications, attitudes, evaluations, and practical expertise. ERP implementation knowledge is both explicit and tacit, covers wide range of activities associated with configuration and testing of ERP modules, training the end-user of the organisation to perform the day-to-day business transactions, on-going maintenance, and support. Such knowledge includes, as an example, any changes in the configurations of the ERP system to meet the dynamics of business requirements, and knowledge about the interdependency and interrelation of the process tasks to acquire the overall picture about the process from end-to-end (Bancroft & Seip, 1996; Ko et al., 2005).

Knowledge transfer has said to have taken place when one unit of the organisation, such as user group, division, department, is affected by the experience of another, say the key-user group(Argote, 2012; Ko et al., 2005). The key-users' tacit knowledge sharing such as beliefs, perceptions, and entertaining informal discussions with other users of the system has a better influence on the better usage of the system, which is an indicator of the system success, than the extrinsic knowledge sharing behaviour such as formal training and technical support provided (Gallivan et al., 2005). It's often quoted in earlier studies that ERP gains appreciation from the user community when the tacit knowledge is well integrated into the system process and procedures (Jones, 2005; Lee & Lee, 2000).

Knowledge sharing is determined by a number of sociological and psychological characteristics of ERP users such as intrinsic motivation, extrinsic motivation, self-efficacy, and social capital(Chou et al., 2014). Lack of motivation at the source of knowledge or at the receipt of knowledge is an important impediment to the knowledge transfer (Kim & Lee, 2006; Szulanski, 1996; Xu & Ma, 2008). Intrinsic motivation is positively related to knowledge sharing and tacit knowledge sharing is more influenced than explicit knowledge sharing(Shao et al., 2012, 2016). Both intrinsic motivation and extrinsic motivation positively affects knowledge sharing attitude and knowledge sharing behaviour (Lin, 2007).

Most of the prior studies on knowledge transfer in an ERP implementation have focussed on consultant – key-user combination, where consultant is considered as the source of knowledge and key-user the recipient of knowledge. The careful analysis of literature by the authors identified that key-user's knowledge sharing behaviour to other users,where the key-user serve as the knowledge source and other ERP users serve as the recipient, during the post implementation stage (usage phase) is not studied enough and a vacuum exists in the body of literature.

2.6 Key-User and ERP Success

The significant role of the key-user in ERP adoption across the organization is well recognised in the body of knowledge. One of the studies points out that key-user skills such as human, ERP technical and ERP conceptual skills, are positively related to ERP success(Mahdavian, Maryam Wingreen, Stephen C Ghlichlee, 2016). The competency of key-user is found to have a significant impact on the business process performance during the post implementation stage, where the benefits of the ERP is fully harvested (Ha & Ahn, 2014). Another study proved that knowledge sharing by the user community of ERP, especially in the post implementation stage, increases the ERP usage among the community, where usage is one of the significant dimension of ERP success(Chou et al., 2014). Due to the high complexity of the enterprise system, the amount of knowledge acquired by the users increases during the actual usage of the system, i.e., post-implementation / usage stage of the enterprise system (Yi & Davis, 2003). Through the formative construct of knowledge management competence, knowledge transfer during an ERP implementation along with knowledge creation, knowledge retention, and knowledge application, positively affects the ERP success, namely system quality, information quality, individual impact and organisation impact (Sedera et al., 2003).

The definition of ERP success and its measurement was another area of knowledge where extensive research work existed in the body of knowledge. Defining and measuring the success of an implemented ERP system is complex when compared to conventional software application implementations. Ambiguity exists both in practice and in academics on the definition of success of ERP. While one school of thought defines it in terms implementation project as the new system was introduced to usage within the budgeted time and cost, while another thought identifies it in terms of business results as the organization realised the business goals for the project (Markus & Tanis, 2000). Some studies even point it out that success may look different under different dimensions, at different points of time and from different point of view, thus success is not a monolithic concept but rather a multidimensional and a relative concept (Larsen & Myers, 1997; Markus & Tanis, 2000). Measuring the success of an ERP is a fuzzy concept as the perception of the success varies between the stakeholders in an organisation (Ifinedo, 2007). Majority of the studies recognises that both early operational metrices and long-term business results are the metrices that could define the success of the ERP in achieving the organisational goals(Gable et al., 2008; Markus & Tanis, 2000). The measure of success of an ERP can be based on either user perceptions or key performance indicators.Certain studies suggest to exclude financial indicators and technical installation success such as cost and time metrices, as the former is an outcome of various other parameters in a real-world scenario while the latter has no significant bearing on the usage or benefit of the system(Ifinedo, 2007).

Measures of ERP success often used two types of metrices, either a perceptual, attitudinal, and subjective measures, or other measures from organisation performance like financial and objective parameters. Though earlier studies used an ineffective and inadequate single measure of success, later studies accepted and extensively applied the multi-dimensional and inter-related IS Success Model proposed by Delone & McLean, (1992). The IS Success Model was later refined by the same authors to accommodate the recommendations and drawbacks proposed by fellow researchers(Delone & McLean, 2003). Gable et al., (2008) proposed a model to measure the effectiveness of the ERP based on D&M Model. This model is more specific to measure the success of ERP as ERP significantly differs from the traditional single-functional IS. The D&M model which proposed six constructs to capture the multi-dimension of success namely information quality, system quality, user satisfaction, use, individual impact, and organisational impact. Gable's model reconceptualised the D&M model and proposed only four constructs namely system quality, information quality, individual impact, and organisational impact. This model is more suitable to measure the success of ERP during the post implementation stage, as the two impact constructs measure the benefits that are derived till date whereas the two quality constructs measure the benefits for the future period. These constructs are mutually exclusive as they measure different dimensions of success and can be used in combination to improve the outcome of the overall measure of ERP success(Gable et al., 2008; Ifinedo et al., 2010). While one the earlier studies identifies that success of the ERP is largely determined by quality dimensions (Chien & Tsaur, 2007), another study

points out that technological characteristics under the quality dimensions positively affects the user's continuance intension and behaviour towards the implemented ERP (Sun & Mouakket, 2015)

The key-user's ERP related competencies, namely the business process knowledge, ERP transaction skills and enterprise systems management knowledge, are not studied with respect to knowledge transfer between the key-user and other ERP users in the organisation. Also, how the knowledge transfer between key user and other ERP users plays a role in the increasing the success of the ERP during the usage phase of the ERP adoption remains unaddressed.

3. Methods

To fulfil the objective of this study, a general scientific method was employed. The method consists of theoretical analysis of scientific sources on the problem under this study through the extant literature. The review of scientific literature started with the review of knowledge articles through specific knowledge portals. To conduct this extensive review, the study benefited from Google Scholar and EBSCO to unearth the related publications pertaining to ERP in the academic area. This literature survey was intended to highlight the role of key-user in ERP implementations and to identify the various key-user related constructs with their established relationships.

This search was conducted by first using the term "ERP." The related terms such as key-user, power user, super user, knowledge transfer etc. are than searched. Top one hundred headings, abstracts and key words for each term were independently analysed to ensure the comprehensiveness of the review process. The review of initial literature snowballed to underlying research frameworks and theories. This helped the study to move across the extant of literature and identify the relevant studies pertaining the problem under this study.

4. Results And Discussion

The review of literature in this study identified that people-side of ERP is an understudied area and requires a greater focus to improve the success of the ERP implementations. The study lists in detail in section 2 (Theoretical framework) on what has been studied prior about key-users and their contribution to ERP success. The study identified the below areas with lesser footfalls and synchronised with contemporaries to focus the direction of the future research.

1. Though there are notable research works about the competency of external consultants that aids for implementation success, there is a dearth of academic studies on the key-user competencies (skills, knowledge, and attitudes) (Sumner, 2018).
2. Few studies demonstrated the role of key-user motivation in an ERP implementation, but such studies considered key-users as recipient of knowledge and not as the source of knowledge.
3. Though it is evident that individual's motivation plays a significant role in the context of knowledge transfer in the organization, there is no study that analysed the motivation of the key-user with respect to one's knowledge sharing behaviour during the usage phase of the ERP adoption.

The study finally arrived at the interesting stage of the exploration and lists the following high-level research questions for a deeper exploration.

1. Is there any relationship between of key-user ERP competency and the success components of ERP during the realisation phase (post go-live) of the ERP implementation?
2. Is there any relationship between the dimensions of key-user motivation, namely extrinsic and intrinsic, and the success of ERP during the realisation phase (post go-live) of the ERP implementation?
3. Is there any influence of key-user ERP competency on their knowledge sharing behaviour components namely explicit and tacit knowledge sharing behaviour during the realisation phase (post go-live) of the ERP implementation?
4. Is there any relationship between the dimensions of key-user motivation, namely extrinsic and intrinsic, and their knowledge sharing behaviour components namely explicit and tacit knowledge sharing behaviour during the realisation phase (post go-live) of the ERP implementation?

5. Is there any relationship between the knowledge sharing of the key-user, namely explicit knowledge sharing and tacit knowledge sharing, and the success of the ERP during the realisation phase (usage) of the ERP?

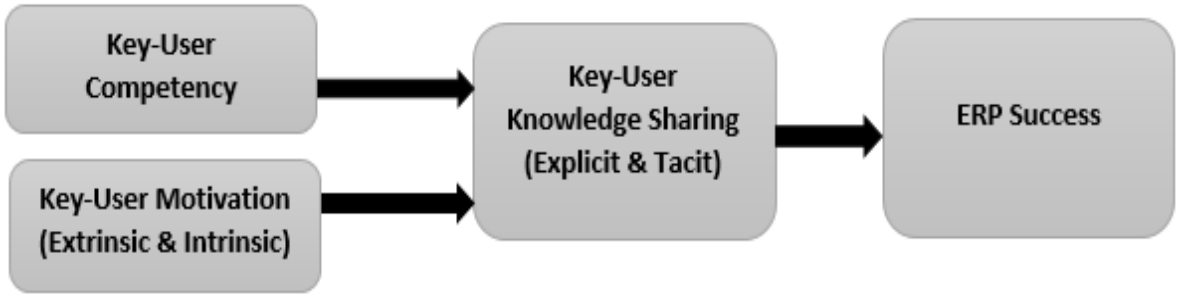

Fig 4: Key-user's Characteristics on ERP Success

6. Conclusion

It is evident from this study through the above argument that there is a void in the literature about empirical studies on key-users' role during the post-implementation or usage phase of the ERP. Also, limited work exists on considering the key-user as a source of knowledge during the post-implementation or usage phase of the ERP. Thus, the lack of studies on key-users' competency, motivation and knowledge sharing has made them as areas for more deeper exploration in consideration with ERP success. It is significant to study the post implementation stage of an ERP project to empirically to explain how the individual key-users' ERP competencies influence the knowledge sharing (both explicit and tacit) within the organisation context, how the key-user motivation (intrinsic and extrinsic) affects the knowledge sharing (both explicit and tacit), and how knowledge sharing behaviour of the key-user (both explicit and tacit) affects the outcome i.e., the ERP success across its various dimensions.

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