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FACTORS INFLUENCING THE ACCEPTANCE OF ENTERPRISE RESOURCE PLANNING SYSTEM (ERP) AND FINANCIAL PERFORMANCE OF SAUDI ARABIA LISTED COMPANIES: MULTIVARIATE DATA ANALYSIS USING STRUCTURAL EQUATION MODELING (SEM)

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ABSTRACT: *Purpose – The purpose of this research is to examine the link between the acceptance of enterprise resource planning systems in Saudi Arabia, and the ways in which this can lead to long term acceptance of system. This research examines the issues of ERP acceptance, and the perceived benefits and ease of use, which a user has to deal with. Design/methodology/approach the research suggests the use of quantitative data, through the data analysis using multivariate data analysis. This approach uses structural equation modeling, which can lead to long-term change in the output of the data, and the link between the major hypotheses, which have been suggested. This ensures that the data collection can be undertaken. Findings – A number of findings from this research have been derived. It appears that the acceptance and use of ERP systems is central to the success of information systems today. However, the ease of use needs to be accentuated through training and support of users, which can be facilitated through top-level support for new systems. In order to reduce resistance, organizations need to take a proactive approach in implementing systems, and facilitate user participation, which can ensure that financial performance of systems can be improved.*

KEYWORDS: ERP, Financial Performance, ERP Acceptance, ERP Perceived Usefulness, ERP Perceived Ease of Use, PLS

INTRODUCTION

The importance of the understanding of ERP systems is central to the success of organizations (Boonstra & Govers, 2009; Hsu, Lai, & Weng, 2008). The success or failure of an information system can be a major factor for organizations today, as the importance of information systems has been increasing significantly (Mennes, Wouters, Vanrumste, Lagae, & Stiers, 2010; Van Strien, Langeslag, Strekalova, Gootjes, & Franken, 2009). In this respect, organizations need to ensure that they have a system which can enable them to continuously innovate, and to ensure that these systems can be accepted by the users (Boonstra & Govers, 2009; Hsu et al., 2008). In the case of Saudi Arabia, this is a more important factor, as organizations need to ensure that user acceptance can be managed, due to the cultural differences, as also discussed in research (Bueno & Salmeron, 2008; Carrion, Keenan, & Sebanz, 2010). The perceived ease of use and the perceived benefits can be some of the most important factors which need to be considered in order to ensure long term positive factors which can be considered in order to understand users (Acunzo, MacKenzie, & van Rossum, 2012; Peng & Nunes, 2009). In this

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regard, one of the way that ERP benefits organisations is great, which is to provide the ability to customise systems for users (Chan, Walker, & Mills, 2009; Ki-Young & min-kyung, 2010). This research aims to examine the impact of these two factors on the financial performance of the ERP systems. Although system acceptance is a central issue for many organizations, however in many cases, organizations need to ensure that they can put into place measures which can lead to actual improvements in financial performance, and this aspect needs to be considered in order to ensure long term support by top management for investments in new information systems (Su & Yang, 2010; Velcu, 2010).

LITERATURE REVIEW

ERP Implementation in Saudi Arabia

The acceptance and implementation of the ERP systems within different country setups bear different results (Hofmann, 2008; Hustad & Olsen, 2014). Therefore it is necessary to understand that the challenges faced by managers of implementation of ERP systems within developed and developing countries vary significantly (Forster, Sambo, & Pavone, 2009; Lenart, 2011). ERP implementation remains a highly critical issue in Saudi Arabia, as the acceptance of technology is one of the main factor which can influence the negative issues which have to be addressed (Kwahk & Lee, 2008; Santamaria-Sanchez, Nunez-Nickel, & Gago-Rodriguez, 2010). ERP implementation in Saudi Arabia is often faced with resistance, as the users often feel that the changes in the power structures can lead to significant problems in the changes in output of the firm (R.-S. Chen, Sun, Helms, & Jih, 2008; Vandaie, 2008).

There are many different ways that are advocated to be useful to reduce the user resistance in implementation phase. Training of employees, problems with business justifications and other similar issues remain a highly difficult to attain (Hakim & Hakim, 2010). However, providing training to users of the ERP in order to increase its acceptance is also associated to increased costs for the companies (Noudoostbeni, Yasin, Jenatabadi, & Ieee Computer, 2009; Scott, 2008). One of the ways that managers of company needs to view money spent on training is to view it as an investment rather than expense, the benefits of which are realised in long term (Bueno & Salmeron, 2008)

This is also important to consider, as management needs to ensure that long term sustainability of the operations can be maintained, and that ERP systems can deliver the strategic advantages which have to be addressed by companies (Ke & Wei, 2008; Khateb, Pegna, Landis, Mouthon, & Annoni, 2010). The need for process engineering also need to be sustained in order to ensure the long term competitive advantage, as companies are able to devise systems which are needed in order to ensure the success of ERP systems (S.-G. Chen & Lin, 2009; Stahl, Pickles, Elsabbagh, Johnson, & Team, 2012). The implementation of the ERP systems within Saudi organizations are mostly failed due to cultural barriers offered by the Saudi organisations (Hustad & Olsen, 2014)

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Table 1: few studies in the Saudi context

No	**Author**	**Method**	**Variables**	**Findings (Positive Negative Insignificant /No Relationship**
1.	(Alhirz & Sajeev, 2015)	Quantitative	Culture, user satisfaction	Positive relationship between user satisfaction and Earp implementation
2.	(Althonayan & Papazafeiropoulou, 2011)	Mixed Methods	Task, user,	Despite risks, ERP is progressing and highly successful. A positive relationship between user satisfaction and ERP implementation
3.	(Al-Turki, 2011)	Qualitative	Management commitment, clear strategic objectives	Positive relationship between user satisfaction and ERP implementation

ERP systems and Technology Acceptance Model (TAM)

The technology acceptance is also needed as this is one of the key defining characteristic for companies, as they need to deliver changes in the market (Salmeron & Lopez, 2010). The acceptance of new technologies can in effect be an important consideration, which has to be considered in order to ensure that the management of technology acceptance is also politically difficult to attain (S.-G. Chen & Lin, 2009; Law, Chen, & Wu, 2010). One of the challenge for ERP systems is that the perceived usefulness of new technologies also needs to be managed in order to ensure that new technologies are accepted at all times (Uwizeyemungu & Raymond, 2010).

One of the factor which is important to consider is that if the user feels that the technology can be useful for them, they are more liable to use these technologies in a significant manner (H.-F. Lin, 2010; Rothenberger & Srite, 2009). The acceptance of new technologies is also influenced by the use of technologies can have a direct impact on the different factors which have to be considered (H.-F. Lin, 2010; Rothenberger & Srite, 2009).

This is also important to take into account, as companies need to ensure that they can derive a high level of benefit from the use of new technologies (Buchmann, Gierow, Reis, & Haessler, 2011; Ifinedo & Nahar, 2009). One of the factors which is important to take into account is that the perceived usefulness of a new technology and have a direct influence of on the adoption of new technologies (Ansorge, Kiss, Worschech, & Eimer, 2011; Karsak & Ozogul, 2009). This would suggest that if a new technology to be implemented is believed to be linked to productivity is more likely to be accepted by its users (Schumacher, Wirth, Perrig, Strik, & Koenig, 2009).

FACTORS INFLUENCING THE ACCEPTANCE OF ERP SYSTEMS

ERP User Training and Education

Evidence from literature highlights that the ERP planning is one of the underlying issues which often needs to be addressed by companies in order to ensure the long term survival of companies (Chou & Chen, 2009; Sternad, Gradisar, & Bobek, 2011). It has been found that companies that fail to adopt ERP within organisational boundaries face the challenges of lack of interaction, which is needed at an organizational level (Lee, 2010 ;Lopez, 2014) . In

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this regard, one of the challenge for companies is that through comprehensive training of employees, companies can improve their output (Chou & Chang, 2008; Parry & Graves, 2008). In this regard, there is a need to ensure that education is provided to the various members of staff, which can lead to continuous improvement in the acceptance of ERP systems (Amid, Moalagh, & Ravasan, 2012; Jemel, Coutya, Langer, & Roy, 2009). However, another side of the argument is based on the associated increased cost regarding providing training to user for increased acceptance of ERP systems, which should not be avoided by managers, as it is more likely to increase the skill sets of employees (Liu, 2012). Additionally, the belief that skilled employees is an asset to organisation and such skills cannot be replicated by competitors (Lopez & Salmeron, 2014a).

ERP Change Management

Information systems management literature has also highlighted that change management can often be one of the major factor which can lead to continuous improvements in the output of the different arrangements (L. Liu, Feng, Hu, & Huang, 2011; Salmeron & Lopez, 2012). The change management is also important to consider, as organizations need to ensure that they have a robust system for dealing with employee concerns when a new system is implemented (Kaufmann, Schulz, Gruenzinger, & Kuebler, 2011; Lage-Castellanos, Martinez-Montes, Hernandez-Cabrera, & Galan, 2010). This is also important to consider, as organizations need to manage the different expectations from the system (Sun, Bhattacherjee, & Ma, 2009; Tang, Avison, Gatenby, & Gore, 2008). The implementation of ERP systems within organisation boundaries have been argued to be good for managers and employees themselves (Sprondel, Kipp, & Mecklinger, 2011; Su Chuan, 2009) Academics are of the view that implementing new systems within an organisational setting has a significant impact both in terms of technological advancement and bringing behavioural change among employees (Bradford, Earp, & Grabski, 2014; Leger et al., 2012). By implementing newer systems within organisations is believed to teach new ways of doings this and also bring changes structurally (Catt, Barbour, & Robb, 2008; Shih & Huang, 2009). The adoption of these new systems within organisation boundaries is also linked to the increased organisational objectives (Leger et al., 2012).

ERP Perceived Usefulness and Ease of Use

The literature on perceived usefulness also shows that managers need to account for the different attributes which have to be considered in order to ensure that the usefulness of the ERP system is fully communicated to the users (Helo, Anussornnitisarn, & Phusavat, 2008; Uwizeyemungu & Raymond, 2009), which can facilitate the end user, and can lead to long term innovations in the delivery of services (C.-T. Lin, Chen, & Ting, 2011; Longinidis & Gotzamani, 2009). The usefulness of the different systems is also needed as one of the most important factor which needs to be considered in order to ensure that long term management of the different tools and techniques can be managed (Hofmann, 2008; Maguire, Ojiako, & Said, 2010). Regarding the Perceived Ease of Use, unless a system is easy to use, it would be virtually difficult to manage the different outputs of the system, and the ways in which these systems can be managed (Forster et al., 2009; Snider, da Silveira, & Balakrishnan, 2009). This is also important to consider, as companies need to ensure that ease of use also needs to be managed as it can lead to long term sustainability of the different stakeholders to be taken into account (Kang, Park, & Yang, 2008).

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ERP Acceptance

The acceptance of ERP is a considerable factor, and needs to be based on the user facilitation (C.-T. Lin et al., 2011; Mehta, Jerger, Jerger, & Martin, 2009). One of the factor which is especially important to consider is that ERP use has to facilitate the different users (Lee, Lee, Olson, & Chung, 2010), which can lead to continuous changes in the output of the firm (Xu & Ma, 2008). Another factor which is significant is to understand the domain in which the ERP is implemented, which is directly linked to the ERP acceptance (Van Nieuwenhuyse, De Boeck, Lambrecht, & Vandaele, 2011). This means that cultural factors of developed and developing countries are different and lead to different acceptance levels of ERP (Haug, Arlbjorn, & Pedersen, 2009). On one dimension of user acceptance is that employees and managers need to deliver and understand the different ways in which organizational improvements have to be sustained in order to ensure long term survival of the firm (Johansson & Newman, 2010; Wang, Shih, Jiang, & Klein, 2008). ERP acceptance is also an important factor for organizations, as the use of the different systems is contained which can lead to improvement in the accountability of organizational members, as well as improving the efficiency of the organization (Haug et al., 2009).

Improved Financial Performance

Financial performance of the firm and its link with ERP acceptance and use has not been well established (Van Nieuwenhuyse et al., 2011). Although the current literature seeks to highlight the use of ERP, it is often linked to improved customer performance (E. L. Wagner, Moll, & Newell, 2011; L.-C. Wu, Ong, & Hsu, 2008), which can lead to improved financial performance for the firm (Shih & Huang, 2009). This has to be understood by companies in order to deliver improvements (Catt et al., 2008). The various kinds of improvements which have to be undertaken by a firm are also important to consider, as companies need to ensure that they have a proper system for dealing with changes which are sustainable (Tsai, Li, Lee, & Tung, 2011). The changes that are brought at an organisational level with the implementation of new ERP is linked to the increased performance measures (Chan et al., 2009). The increased performance in shape of productivigty of employees is also lijnked to increased financial performance for the business (Rossi & Pourtois, 2012).This in effect can lead to improved financial performance, which is needed by the firms in order to deliver and understand the different factors which are necessary for the development of the various systems (H. Wu & Cao, 2009).

Research model and hypotheses

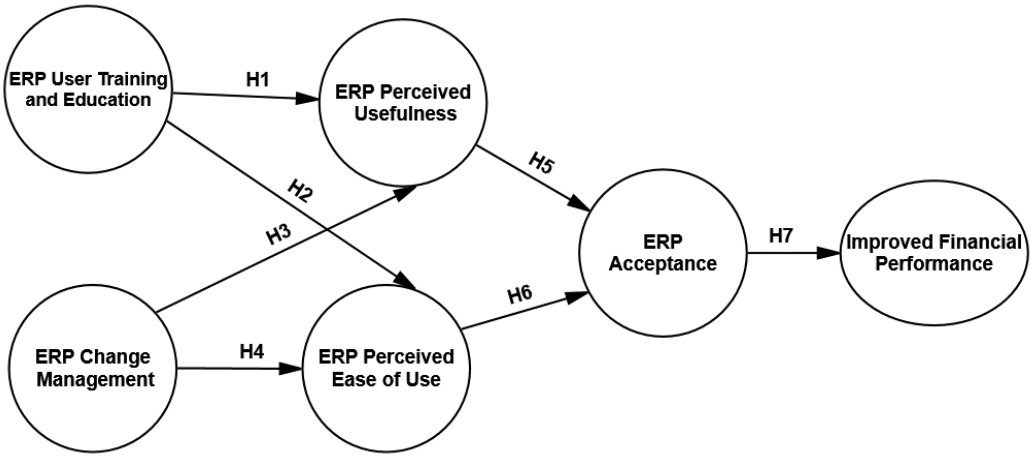

Figure 1: conceptual model

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Figure 1 The shows the conceptual model in which the ERP use, training and development can lead to an increase ERP acceptance in a developing country such as Saudi Arabia (Aubert, Leger, & Larocque, 2012; May, Dhillon, & Caldeira, 2013). The cultural factor disparities in developing and developed countries needs to be taken into account. This would mean that provision of user training and development is a way to deal with reduced acceptance of the ERP system at different levels. Another way which can be adopted by company managers is to identify weak areas of employees and provide training according to that, which is linked to reduced wasted resources. Therefore it can lead to improved financial performance by the firm (Lopez & Salmeron, 2014a). This models shows that two main variables are the starting point of any discussion in relation to the different factors which have to be considered (P.-L. Liu, 2011; Otieno, 2008). The change management and ERP user training and education can then lead to improvement in the perceived usefulness and the perceived ease of use of ERP systems (Kirsch & Hennighausen, 2010; Liang, Zhong, Lu, & Liu, 2010). It is also imperative that managers along with user training, brainwash employees and highlighting the benefits which are offered by new ERP systems is beneficial both for organisations and themselves (Blankertz, Lemm, Treder, Haufe, & Mueller, 2011), which can be realised in the shape of increased employees productivity. Increased employee productivity is not only beneficial for company but results in quick achievement of objectives that required longer working hours previously (Kwahk & Lee, 2008). Both these factors will lead to an increase in the ERP acceptance, and this factor can then lead to improved financial performance of the firm (Forslund, 2010; Yang, Qi, Ding, & Song, 2011). The increased financial performance is reflected in increased revenues and higher market acceptance by its customers, which is beneficial for company and employees (Y. Zeng & Skibniewski, 2013).

Hypothesis Development

ERP User Training and Education

User training can have a direct impact on the way in which ERP systems are used and implemented (Ifinedo, 2011; Ruivo, Oliveira, & Neto, 2012). In many instances the user resistance to new ERP systems is also linked to the scepticism of users regarding the skills that new system demands. This can also mean that new systems will result in losing jobs for many of the staff members, which is linked to the repercussions for organisational performance. The research suggests that ERP user training and education is important to consider, as organizations need to ensure that they can deliver the different changes, and understand the perspectives which have to be considered in order to develop and understand the use of these systems (Sumner, 2009). There is ample evidence to suggest that user training if dealt in a streamlined manner can have the potential to increased ERP acceptance and financial performance of the firm. User training regarding adoption of new systems have been highlighted in literature, which is based on a systematic process highlighting weaker areas of the user and designing innovative ways through which newer skills sets are transferred to the employees. It has also been observed that users resist any developmental challenges offered to them. This is because the users feel the training that will be provided to them requires huge time for learning and then to be able to implement them accurately at an organizational level. One of the ways to deal with this doubt in user mind is to highlight the increased marketability of the employees in the wider market. This is also important as the employees with career development can have avenues to learn innovative ways of using systems that benefit both the company and employees. Providing user education is also challenging for managers as it dictates in increased costs incurred by the managers.

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H1: ERP User training and education is positively affected with ERP perceived Usefulness
H2: ERP User training and education is positively affected with ERP perceived Ease of use

ERP Change Management

The importance of change management in the implementation of new systems remains critically important, this is also important to consider, as management needs to ensure that they can deliver high quality results (Dezdar & Ainin, 2011; W. Wagner & Antonucci, 2009). Change management is also important to consider, as management needs to ensure that they have a proper system for dealing with the different needs of companies, as well as ensuring that the perceived ease of use can be facilitated (Andersson & Linderoth, 2008; Fritzsche, Stahl, & Gibbons, 2010). In this respect, one of the main challenge which is faced by organizations is that they need to ensure that they have a proper way of dealing with the political and social needs of individuals, which also needs to be addressed by organizational members (Hung, Ho, Jou, & Kung, 2012; Y. Zeng & Skibniewski, 2013). In this regard, one of the main challenge which is faced by the organization is based on its ability to deal with the various changes, and ensure that the sustainability of change management is maintained (Forslund & Jonsson, 2010; Hwang & Grant, 2011). The ERP received ease of use can also influence the users in using and adopting the systems, as they can increasingly understand the different ways in which systems are used, and this can have a direct impact on the output of the organization (Lenart, 2011; Sangster, Leech, & Grabski, 2009). One of the challenge for organizations is that they need to facilitate the perceived usefulness as these systems are part of the development process, and this needs to be facilitated in order to have a proper system for dealing with new organizational arrangements (Fritzsche et al., 2010; Koslowski & Strueker, 2011).

H3 ERP Change management is positively affected with ERP perceived Ease of use
H4 ERP Change management is positively affected d with ERP perceived Usefulness

ERP Perceived Usefulness and ERP Acceptance

The link between the acceptance of ERP and its usefulness has also been widely accepted and generated in the literature (Wickramasinghe & Karunasekara, 2012). The literature highlights that in many instances, organizations need to ensure that they have a proper system for improving the acceptance of new systems by the users (Hasan, Trinh, Chan, Chan, & Chung, 2011; Spano, Carta, & Mascia, 2009). This is also needed in order to ensure that system acceptance can lead to long term acceptance of the changes which have to be made in the systems (Karimi, Somers, & Bhattacherjee, 2009) . This is significantly important as the acceptance of the changes in the systems need to be structured in order to deliver more usefulness of the systems (Chauncey, Grainger, & Holcomb, 2011). One of the options which is especially important to take into account is that new systems have to be managed in order to ensure that user acceptance can be controlled (Onut & Efendigil, 2010; W.-W. Wu, 2011), which can lead to long term acceptance of new systems (Noudoostbeni et al., 2009). Another advantage of the increased user acceptance of the new systems is that it results in reduced time spent on making staff members understand about the usefulness and benefits that are offered by the new systems. One of the perspectives which has been highlighted in the literature is that in many instances, organizations need to facilitate the user's participation, which can also be a major factor which can lead to continuous changes in the output arrangements, and lead to system acceptance (Kwak, Park, Chung, & Ghosh, 2012; Trebuchon, Demonet, Chauvel, & Liegeois-Chauvel, 2013). One of the factors which is also important to take into account is that organizations also need to facilitate the different users, and this can lead to a sustainable policy

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for the management of different operations (Benders, Schouteten, & el Kadi, 2009; J. Zeng, Wang, & Zhang, 2012).

H5: ERP Perceived Usefulness is positively affected with ERP Acceptance

ERP Perceived Ease of Use ERP Acceptance

The perceived ease of use and ERP use acceptance has also been widely discussed in the literature (Wei & Ma, 2014; Zheng, Pan, Ren, Fang, & Soc, 2008). In this instance, it appears that the user perspectives can also have a direct impact about their technological adoption (Johansson, 2011). If the user feels that they are unable to learn or gain from the system, then they would be less willing to learn from their mistakes, and therefore they would find it increasingly difficult to make the users accept change (Manuel Esteves, 2014; Perry, Rubinsten, Peled, & Shamay-Tsoory, 2013). Therefore, important is the role of project developer in this case. It is increasingly important that any system that is to be brought in organisations is designed in a manner that firstly achieves organisational objectives and secondly has user friendly interface (Chan et al., 2009; Scott, 2008). The functionality that is offered by the ERP system needs to be easy to comprehend and implement, in order to make the system acceptance easy and less time consuming (Bueno & Salmeron, 2008; Jin et al., 2013)Use perceived ease of use also facilities them to adopt new systems, which can be a major factor in the implementation and acceptance of new systems, and can lead to continuous innovation (Grabot, Mayere, Lauroua, & Houe, 2014; Ruivo, Oliveira, Johansson, & Neto, 2014). One of the factors which is important to consider for organizations is that they need to ensure that the end user is able to understand the changes, and this can also lead to sustainability of the different operations (Dumitru, Albu, Albu, & Dumitru, 2013; Hustad & Olsen, 2014). Another factor, which is imperative for managers to understand, is the robustness and flexibility that new system offers, so that it can be changed when required by its different stakeholders.

H6: ERP Perceived Ease of use are positively affected with ERP Acceptance

ERP Acceptance and Improved Financial Performance

This model also aims to link the financial performance of the company with the ERP acceptance (Zach, Munkvold, & Olsen, 2014). There is ample evidence to suggest that in many cases, ERP implementation is also important to take into account, as the use of the new systems can lead to continuous level of innovation, which also needs to be considered in order to have a proper system for the management of the various resources (Chang, Yen, Ng, Chang, & Yu, 2011; Maas, van Fenema, & Soeters, 2014). In this instance, there is a need to ensure that the development of new systems can be facilitated, leading to process changes and this can have a direct impact on the way in which an organization can meet its targets (Acikalin, Kuruoglu, Isikdag, & Underwood, 2009; Romero, Menon, Banker, & Anderson, 2010). One of the challenge for organizations is that user participation needs to be facilitated in order to ensure that the system delivery can be improved, which can lead to long term changes in the output of the firm (Kaatiala, Yrttiaho, Forssman, Perdue, & Leppanen, 2014; Staehr, Shanks, & Seddon, 2012). Organizations also need to ensure that they have a system which can be facilitated in a manner which can lead to long term innovations, which will improve the financial health of the new systems (Ha & Ahn, 2014). Increased financial performance linked to the adoption of new ERP system is critical for organisations as organisations are competing against one another in a global world. Therefore, with implementation of system which allows users to perform

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organisational function in a robust and innovative manner gives the companies edge against its rivals which is directly linked to increased financial performance (Scott, 2008).

H7: ERP Perceived Ease of use is positively affected with ERP Acceptance.

METHODOLOGY

Sample and procedure

One of the research techniques deployed for this particular research piece is the survey design where questionnaires are distributed among the ERP users that are currently employed within companies listed in Saudi Arabia, as also discussed in literature (Brett, 2007). A number of ERP users that were selected are the ones making use of the ERP system for a number of tasks, as discussed in literature (Boonstra & Govers, 2009; Hwang & Grant, 2011). It includes using ERP modules for management of material, accounting and finance, quality management control, the management of human resource as well as sales and distribution (Onut & Efendigil, 2010; Su & Yang, 2010). Among these ERP users are the ones that make use of different brands of ERP such as Oracle, SAP, JDA and Microsoft Dynamics, which is also mentioned in literature (Hwang & Grant, 2011). These ERP users are the native of Saudi country and it is possible that English is not widely understood by them. Therefore, one of measure undertaken by researcher is the formulation of questionnaires both in the language of English and Saudi version, in order to make the understanding of the issues highlighted easy for ERP users, as also discussed in social science research (Pundt, Martins, Horsmann, & Nerdinger, 2008). This measure of translating questionnaires in two different languages helped the researcher to gain higher understanding of the questions on respondent's behalf and gain higher number of responses related to it (Guldenmund, 2007; Orosa, Pinto, & Sales, 2008). One of the issue with Arabic version of questionnaire is the examination of constructors that are useful in another language, which was achieved by an Arab expert language for making correct understanding and avoiding any mistakes, also mentioned in literature (Burnside, 2008; Dasborough, 2010; Foddy, 1993).

Data collection

As table 2 shows below, most of the respondents that participated in the survey are males. The total percentage of males that participated in the survey design accounted for a total of 82.9% of the total population, whereas 17.1% of the respondents accounted for females out of total population. One of the important indicators that one can extract from the table below is the fact that there is less number of females that enter the professional field compared to men. Another factor that could be highlighted as important is the Saudi culture reflecting the trend of fewer professional women than men. This particular research reflects more number of males than females. One of the overriding factor in this regard is the cultural factor that has resulted in more number of men. The society of Saudi Arabia is conservative enough to give women the room to go up the ladder and make their career, which is an important factor to consider. However, the number of respondents that have filled in the survey account for a total of 67.7% who have completed their bachelor's degrees. Additionally, it is also important to note that around 22.4% of respondent were the ones that have competed their Master's Degree and the participants that have finished their high schools only accounted for a total of 6.5% of the total population. A few of the respondents that took part in the survey also had competed their PhD degrees, which according to the statistics were a total of 3.4%. Experience was also an important factor that was gathered in this survey, and therefore it was gathered that around

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most of the people had at least 5-10 years of working experience. A total of 73.4% of the population accounted for 5-10 years working experience within their field. 15.8% of the respondents revealed that their experience of work in their field was less than 5-10 years. There were also some participants that had supervisory level working experience and it accounted for a total of 50% of them. 36.7% of the participants revealed that they had the working experience related to middle level management whereas only around 13.3% of the participants had the top level experience. The people who were in the job and had more than 10 years of experience in their related field were found to be around 10.8%.

Table 2: Participants demographics

ERP Participants	**Category**	**Percentage (%)**
Gender	Male Female	82.9 17.1
Education	High-School Bachelor Master's PhD	6.5 67.7 22.4 3.4
Experience	<5 5 – 10 >10	15.8 73.4 10.8
Job Level	Top Mid Supervisory	13.3 36.7 50

RESULTS AND ANALYSIS

Structural Equation Modeling (SEM) and Hypotheses test

This research deploys statistical software for structural equation modeling such as the Smart PLS version 3. This software is used in order to analyze to gather data results regarding measuring the quality and path model for hypothesis testing (Koskey & Stewart, 2014; Stone, 2014). Another rational for using Smart PLS software is its ability to validate and make the research results more authentic and reliable (DeLyser & Sui, 2014; Skinner, Edwards, & Corbett, 2015). Later, the analysis of the structural model is constructed where the hypothesis that are developed by the researcher are tested for their quality and validity respectively (Banducci, 2014; Zhang, 2014).

Quality of Measurement Model

One of the accepted way that is adopted by the researchers in order to examine the measurement model is the examination of the convergent validity (Cascetta, Carteni, Pagliara, & Montanino, 2015; Zvoch, 2014). Validity is adopted by researchers along with the analysis of the reliability and internal consistency of the results that is gained, which has been argued to be imperative for any research (Adriaensen, Coremans, & Kerremans, 2014; Penman-Aguilar, Macaluso, Peacock, Snead, & Posner, 2014).

ISSN: 2052-6393(Print), ISSN: 2052-6407(Online)

One of the common way which is adopted by the researcher in order to examine the convergent validity is through examining the average variance extraction (AVE) (Smith et al., 2014; Thomas, Boucher, & Pulliam, 2015), which is important for a valid research results. One way of calculating the average variance extracted is through averaging the variance percentage of each construct from its relevant indicators that are gathered (Fu, 2014; Moskal, Reed, & Strong, 2014). In order to know if the AVE is correct or not, the AVE calculated should be either equaling 0.5 or must be greater than 0.5 in order for the AVE to be valid (Fu, 2014; Has, 2014).

According to the table 3, it has been gathered that all the constructs gathered have a value greater than 0.9, with the only exception of perceived organizational learning and culture. It is also important to calculate the discriminant validity which helps to provide useful information regarding the uniqueness of the different constructs of the research (Della-Piana, Della-Piana, & Gardner, 2014; Groeneveld, Tummers, Bronkhorst, Ashikali, & van Thiel, 2015). Researchers have commonly deployed two methods for calculating the discriminant validity (Faulin, 2015; Maestri, Ode, & Hegde, 2014). The methods that has been deployed in this particular research is through comparing square root of average variance extracted of the constructs one by one and then correlation of one construct is compared with other constructs of the research (Grimaud, Astagneau, Desvarieux, & Chambaud, 2014; Morsa, 2014). In order to support the discriminant validity it is checked if the square root of the construct is relatively greater than the correlations of that constructs with all the other constructs of the research (Coben, Mohammad-Rezazadeh, & Cannon, 2014; Greeff et al., 2014). Table 4 shows the actual values of the AVE which can be observed by looking at the diagonal values of each construct, which is primarily linked with the good discriminant validity. Table 3 can be observed in order to collect data on the cross loadings on all latent variable, which is an indicator of the good discriminant validity.

Table 3: cross loadings and discriminant validity.

	ERP Acceptance (ERPA)	Intention to improved financial performance (IFP)	ERP perceived usefulness (EPU)	ERP User training and education (TE))	ERP Change Management (CM)	ERP Perceived Ease of Use (PEU)
ERP Acceptance (ERPA)	**0.877**					
Intention to improved financial performance (IFP)	0.794	**0.963**				
ERP perceived usefulness (EPU)	0.813	0.722	**0.833**			
ERP User training and education (TE)	0.369	0.323	0.325	**0.791**		
ERP Change Management(CM)	0.119	0.106	0.153	0.103	**0.801**	
ERP Perceived Ease of Use (PEU)	0.600	0.550	0.455	0.445	0.035	**0.893**

ISSN: 2052-6393(Print), ISSN: 2052-6407(Online)

Table 4: items loading and AVE

Latent verbal	Items	Loadings	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
ERP User training and education (TE)	TE1 TE2 TE3 TE4 TE5 TE6 TE7	0.821 0.784 0.838 0.780 0.744 0.812 0.751	α= 0.898	0.921	0.625
ERP Change Management	CM1 CM2 CM3 CM4 CM5	0.754 0.753 0.767 0.882 0.838	α =.867	0.899	0.641
ERP perceived usefulness (EPU)	PUS1 PUS2 PUS3 PUS4 PUS5 PUS6 PUS7 PUS8	0.882 0.873 0.882 0.642 0.794 0.830 0.837 0.893	α= .935	0.947	0.693
ERP perceived Ease of use (PEU)	PEU1 PEU2 PEU3 PEU4 PEU5	0.918 0.839 0.910 0.885 0.914	α =.933	0.952	0.798
ERP Acceptance (ERPA)	ERPA1 ERPA2 ERPA3 ERPA4 ERPA5 ERPA6	0.847 0.884 0.904 0.906 0.873 0.843	α =.934	0.952	0.768
Intention to Improved Financial Performance (IFP)	IFP1 IFP2 IFP3 IFP4 IFP5	0.979 0.970 0.960 0.948 0.957	α =.924	0.985	0.927

Structural model

By analyzing the structural model, one can gather detailed information regarding data on factors such as path coefficients (p), P values (p), T-values (T) along with the squared R^2 (Lach, 2014; Piraino et al., 2013). The relative importance of the Path Coefficients (β) cannot be

ISSN: 2052-6393(Print), ISSN: 2052-6407(Online)

ignored for the fact that it highlights the dependent and independent variables and also identifies the relations that exist between dependent and independent variables (Bilkova, 2014; Rich, 2013). Path Coefficients (β) can be standardised because it can be identified on the basis of correlation. On the other hand standardization of the path regression is impossible (Junge & Reisenzein, 2013). In order to calculate the T-Value path significance can be achieved with the help of test values with the help of method of boot strapping (Frognier, 2013). In order to widely accept the T-Values, it must have a value greater than 1.96 which means that it is significant (Arendasy & Sommer, 2013; Lapide, 2013). In order to calculate P values, it can be measured as one of the quantitative measure which is of numeric importance for testing a hypothesis (Dogar & Mare, 2014). Gathering information on the research conducted in the past, it can be gathered that the P value which is less than 0.05 indicates the importance of related hypothesis (Cuffy, 2013; Cumming, 2013). The value of Squared R (R^2) indicates the effect of model of variables that are dependent with the help of calculating percentages of a constructs variance in the used model (Long & Nelson, 2013). Indicated in table 5 below, it is revealed that hypothesis H1 to H4 are accepted having a P less than 0.001. Figure 2 shows path testing.

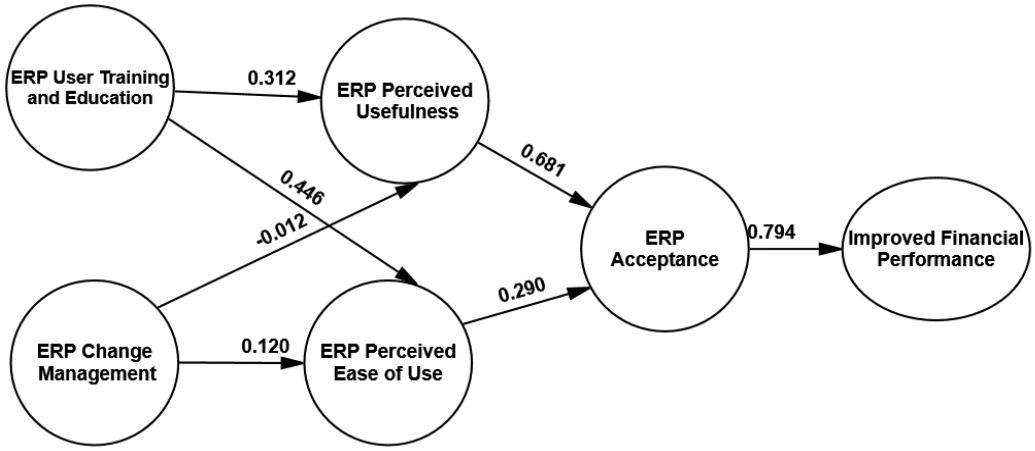

Figure 2: path testing

Table 1 Hypotheses Testing

Hypotheses	Causal path	Path Coefficient	T-Value	P-Value	Remark
H1	User training and education is positively associated with ERP perceived Usefulness	0.312	7.194	0.000	Supported
H2	User training and education is positively associated with ERP perceived Ease of use	0.446	10.817	0.000	Supported
H3	ERP Change management is positively associated with ERP perceived Ease of use	-0.012	0.259	0.796	NOT Supported
H4	ERP Change management is positively associated with ERP perceived Usefulness	0.120	2.735	0.006	Supported

ISSN: 2052-6393(Print), ISSN: 2052-6407(Online)

H5	ERP Perceived Usefulness is positively associated with ERP Acceptance	0.681	29.328	0.000	Supported
H6	ERP Perceived Ease of use are positively associated with ERP Acceptance	0.290	10.215	0.000	Supported
H7	ERP Acceptance is positively associated with intention to improved financial performance	0.794	52.449	0.000	Supported
*significant at the 0.001 level **significant at the 0.01 level ***significant at the 0.05 level					

DISCUSSION

The role ERP is increasingly important for organizations (Chan et al., 2009; Kwak et al., 2012), as they need to ensure that they have a sustainable policy for managing the different expectations of managers (Acunzo et al., 2012; Carrion et al., 2010). Organizations need to ensure that they can use new systems which can lead to continuous innovation, which allows organizations to bring in new systems (Velcu, 2010; W.-W. Wu, 2011). The use of ERP is also important to take into account, which can lead to innovations which are important for sustainability of operations (Hung et al., 2012; Vandaie, 2008). The implementation of the new ERP system within organizations is useful as it is linked to bringing sacksful change management in organizations. New systems within organizations can bring changes which are imperative in order to remain competitive in the global world. Use of ERP acceptance and perceived use of systems is also important to take into account, which can lead to long term strategic change (Klcova, Sulova, & Sodomka, 2009; Y. Zeng & Skibniewski, 2013). This is also important to consider, as management needs to ensure that they can have a long term reduction in operating costs and administration costs (R. Lin, Zhao, & Wei, 2014; Lopez & Salmeron, 2014b), which have to be considered in order to develop innovation, which can lead to long term competitive advantage for the company (S.-G. Chen & Lin, 2009; Fritzsche et al., 2010). The development and implementation of new system incurs huge costs but such costs should not be considered wasted as it is linked to increased performance and financial gains of company.

Theoretical and practical implications

A number of theoretical and practical implications can also be discussed. One of the main theoretical implication for the companies is that management needs to understand the different implications of ERP use (Karsak & Ozogul, 2009; Sternad et al., 2011), and therefore it is necessary that the user is able to understand better ways of managing information systems resources (Parry & Graves, 2008). The practical implication of this research is that management will be able to use the different innovations, and develop improved ERP systems which can lead to long term change for organizational members (Sternad et al., 2011; Sumner, 2009).

Limitations of the study

A number of limitations of this study can be understood. One of the main limitation is that it was only focused on Saudi Arabia, and therefore the researchers could not compare the ERP issues with other countries (Kaatiala et al., 2014). This particular limitation was also important

ISSN: 2052-6393(Print), ISSN: 2052-6407(Online)

to consider, as the use of different scales, and this would also lead to long term innovations. This is also important to consider as management needs to ensure that ethnographic research is undertaken in order to understand the different perspectives which have to be undertaken in order to develop research (Berridge, Mackintosh, & Freeth, 2010; Spradley, 1979). The research focuses primarily on secondary data and primary data. However, due to limited funds for research the researcher could not gather first hand data which was possible by going physically into the field. Due to emphasizing the research only on Saudi Arabia reduces the ability of researcher to generalize its results.

CONCLUSIONS

A number of conclusions can be drawn from this research. The understanding of ERP systems needs to be accentuated in order to get financial performance for the company (Carrion et al., 2010; Hwang & Grant, 2011). The link between the acceptance of ERP systems, and the ability to understand the perceived use and ease of use of system (Bueno & Salmeron, 2008; Scott, 2008). This research found that the use of the different organisational arrangements needs to be sustained in order to ensure that the ERP implementation can be accepted, which can lead to long term change for the organization (Blankertz et al., 2011; Forslund & Jonsson, 2010; Orekhova et al., 2009). One of the ways that managers can adopt in order to reduce the user resistance to change and develop a system that has increased user functionality is through involving users at an early stage of the software development. With the help of an iterative process where different users are referred to back and forth in between design phase is useful for companies. This is also linked to the development of system which is accurate and reduces development costs for the managers. The ERP acceptance and use needs to be improved further, as well as ensuring that this can lead to increase in sales and material improvement in the output of the company (Hakim & Hakim, 2010; Ke & Wei, 2008; Ueno & Kluender, 2009). Top level support and user participation are some of the central factors which have to be addressed in order to ensure that organizations can have a positive financial performance due to the use of ERP systems (Elragal & Haddara, 2012; Sumner, 2009).

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