

**Performance Assessment of the ERP packages and degree of customization**Mr.Parag p. Lomate¹, Dr.A.C.Attar², Mr.Kuldip P Mali³

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Abstract- Enterprise Resource Planning (ERP) packages developed by ERP vendors to implement existing business processes in the organization, not only in line with, but are designed to bring some of the industry best practices. In the past, there are a lot of studies on evaluating the efficiency of the standard ERP project; However, no up-to-date customization of packages and performance evaluation skills ERP date has been carried out from the perspective of the determination. Evaluating the effectiveness of best practices custom ERP customization package is essential for benchmarking. In this study, we data envelope analysis (DEA) was going to test the efficiency of using the custom ERP package. We have examined the relationship between the degree of customization of ERP packages and their skills. ERP packages and organization of the data in the products of an IT provider are implemented where it had been deployed are collected from. Results will suggest that the degree of customization in ERP system performance and adversely affect the effectiveness of the ERP package. The impact of the results of research and practice is discussed.

Keywords: Enterprise Resource Planning(ERP);degree of customization; planning; Effectiveness of ERP

I. INTRODUCTION

Many have developed business management software providers Special solutions for the construction industry, such as construction, Enterprise Resource Planning System . C-ERP can A business management system that integrates all processes defined as And the signature and information related to the project, including business, Engineering / design, planning, procurement, construction and Maintenance / operation. The effectiveness of C-ERP The construction of the project life cycle. C-ERP, with construction companies.

Enterprise Resource Planning (ERP) packages developed by AP Not only existing business vendors is designed to match the size The implementation of organizational processes, but also to take Some of the best practices in the industry. Each institution Your way of doing business, there is always a gap between This set of business processes and encapsulation.

The business processes of the organization. In fact, this void is addressed You can customize the ERP package, a new Business processes, or a mixture of both. To minimize the risk of change Management of business processes associated with the incidence, Like most organizations in your chosen ERP package. In doing so, however, skills are not usually put to the test As a result, ERP packages. [1] [2] [3].

By customizing ERP to address the effects of mismatch Package and its impact on the efficiency of this type of packages It has not been investigated yet. Previous studies have [4] [5] ERP value in skills assessment draft; However, no research has been carried out to date Use this project to evaluate the efficiency of ERP packages Perspective of personalization. On the other hand, existing research Evaluation of ERP efficiency [6] [7] It mainly focuses on AP management. ERP packages involved. The customization is technical in nature and needs to be studied At the end of the process of personalizing your skills. It is essential to evaluate the efficiency of custom ERP package Comparative evaluation of personalization practices If you do, it helps the answer Such questions as: (1) How much customization should be done? (2) Does customization affect efficiency of ERP packages?

It helps organizations analyze the software processes of such packages and utilize the knowledge gained from such analysis in future ERP implementations [5] [2].Learning best practices from efficient customized packages yields lessons that, if put in to practice, will likely lead to better performance. The purpose of this study is two fold.

First, it is evaluated Customized efficiency ERP package. This evaluation consists of ERP packages are based on the actual measurement of efficiency effort, function points (FP) and lines of code (LOC) using the Data Envelopment

Analysis Variable Returns to Scale (DEA VRS) model. Second, customization being a critical factor for the success of ERP implementation [7] [8] [9] [10] [11] This is an ERP study also examined the relationship between the degree of customization package, and its efficiency. This paper makes contribution to both theory and practice. From a theoretical perspective, it complements Stensrud and Myrtveit [5] and Parthasarathy and Anbazhagan [2], both of them The study did not take into account the degree of ERP package. When customizing evaluation of ERP projects. The study also Custom ERP complements previous investigations examined Model VRS DEA for the analysis of the efficiency of the packages used.

The correlation with the degree of customization of the package skills. From a practical point of view, it is recommended ERP implementation to optimize customization The package, to maximize efficiency.

I. Methods

1.1 Efficiency of ERP packages

The basic process of assessing the effectiveness of a softwareProduct Parameters Contributing to Marke Skills and the appropriate use of these analyzed parameters methodology [11]. The efficiency of large-scale software packages ERP can be evaluated for its productivity as [12] [11] [13]. Therefore, the term "efficiency" by, we mean the software ERP productivity packages, which is consistent with the previous work [12] [13] [14] Productivity is the quantity of product per unit Using the introduction. In general, productivity is difficult to measure because Exit and entry are often very diverse and frequently. It is difficult to measure themselves. In the context of softwareProductivity measures are generally based on the size of the product and effort [15] The efficiency of large-scale software packages ERP can be evaluated for its productivity as [13] [16] the. The line of code in any line of text that the program is not a comment. A blank line, regardless of the number of statements or declaration of line parts [17]. Function point (FP) measures from the point of view of the functionality of the users who What is the basis of the user's requests, and receive in return system [17]. Each ERP package should be developed.

Estimate the effort required to complete the software development. Try the most suitable device person. Which means that the number of months for the persons concerned, A specified number of months [17]. Try to use the Software package, working points and lines of code is Package of productivity can be measured. Stensrud and Myrtveit [5] Proposals such as the use of multi-dimensional measures.

Administration modules, users, EDI, etc. to investigate productivity. ERP projects. However, productivity measurement Software projects, which differs significantly from the product. When ERP is a research project, and as parameters. Last Others do not. Generate reports, EDI complexity, no. on the Implementation of modules and sub-modules, etc., could contribute to [17] [18]. However, we prevented solver.

Software production is the bathtub and only software try measurement based productivity, job number, and lines of code, which remains in force despite software package is custom-built or Commercial-Off-The-Shelf (COTS) such as ERP. ERP solution for the increasing demand.

The high rate of ERP implementation and direct disruption many ERP projects to cancel the call for assessment ERP packages for efficiency [19] highly learned Effective software packages are the key to improving software Increase the efficiency of processes and future ERP implementation's.

2.2 Customization of ERP packages

A good fit between the needs to implement Organization and ERP package increases the chance Successful ERP implementation and organizational grows profit [20]. However, the organizational benefits can not be if there is no alignment between the organization knew, Business strategy and IT strategy. the way organizations. The process of organizing its business strategy is determined.

A strategy for achieving IT organizations will be used to determine how Business strategy. As mentioned in the introduction, it is always a difference between the ERP. Encapsulation and implementation of business processes, packaged business processes organization. This was solved by empty. It usually takes ERP implementation during the optimization. Two-way-trade process optimization, and packages Location adaptation [3]. In some cases, a hybrid of the two Implementation. Optimization of business processes involves modification ERP package for compatibility with business processes [3]. ERP package Optimization includes one or more modified.

The following components module, database, code, news, and user interface [3, 1]. Most organizations prefer to customize their chosen ERP package to align it with their business and IT goals. This document, as we term "optimization" is defined Edit selected ERP package to meet customer Seller that is not supported by the organization's needs As standard features [1]. There are many options that organizations adopt ERP packages While optimizing package. Brehm et al. [21] It provides a typology. Different ERP optimization approach: (i) To configure ERP through its package components, packages, (ii) Using a third party. These challenges require the need Optimize the effectiveness of ERP packages and assess comparable the standard packages of ERP Otherwise, it will also be a each of the required capacity for improvement identified these packages will try and functions in terms of points. However, Most organizations use ERP difficult to know to use. Highly customized ERP packages to complete the functionality of the

ERP package. (iii) To change the user interface and the corresponding source code addressing the specific needs of the customer. ERP to optimize business processes brings changes.

Entrepreneurs as well as execution time package. In doing so, it is often only makes implementation difficult, But the impact on its success and cost, now incur high Standard installation than projects involving the project period, many of them fail Optimization stage and establish a link between As a result, the efficiency packages. Therefore optimize ERP, ERP packages are optimized to determine effectiveness, except. This study examines the extent of the Optimization and efficiency package.

2.3 Efficiency evaluation of customized ERP packages

As mentioned in Section 1, the only study to have a few

ERP packages that analyze the effectiveness of direct or indirect. Stensrud and Myrtveit [5] identified high performance ERP projects The multidimensional measures, ie, user, web-based administration review and modules. not considered. When evaluating ERP projects ERP optimization peace. Parthasarathy and Anbazhagan [2] ERP Productivity Rate try functional and line of code analysis and projects These projects use the DEA. Also, I do not think that level Compatibility ERP packages. Other related work. Propose a methodological framework that ERP projects are ranked based on management factors; this framework ERP software does not focus on the engineering side. Daneva [5] report is ERP project in the reuse of a large low, it means that is the standard component and a high degree of optimization of restriction suggests. He mentioned that other high Project one ERP can be used to display levels are relatively reference and similar practices may also be limited by the performance of ERP projects [5] it is observed that the ERP implementation times to optimize the impact.

As a result, the quality of ERP packages. This may be due to When the database to correct deficiencies that arise Source code or system has been taken in the design of ERP Process optimization. Unable to remove a procedural irregularity With adequate resources may affect the efficiency of processes Optimized ERP package as well as to manage quality, quality modeling prediction optimizing ERP package. They are suitable to investigate the quality of optimized package before use.

Examining the relationship between productivity lifecycle Software product quality and compliance. This study Pack size (function points), personnel of impact Capacity, Software Process, tools to use, and high front productivity and investment in the quality of the final match. ERP implementation failure factor sought Project management perspective and only report Core ERP functionality to meet critical business failure Requirements optimization should consider. Which can contribute to the optimization of uncontrolled Follow Poor performance of ERP implementation.

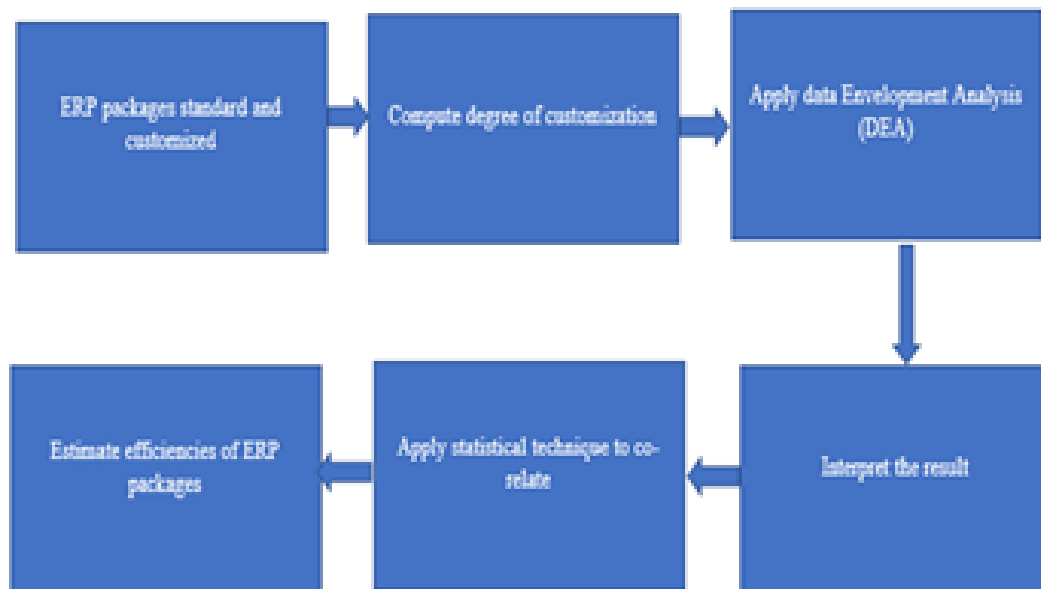


Figure 1 The process work flow

II. Conclusion

Given the growing importance of products such as beds ERP and its adaptation to the obvious necessity it is necessary to examine the effects of optimization on you efficiency. The results presented in this paper will provide insight into Potential impact to optimize efficiency Package as a result. This study will contribute to the three research Way. First, the This is the first study to show the effectiveness of the optimization will not fall As a result, ERP package. It is assumed

that the standard ERP results will Custom packages and the small ones are more efficient Productivity software packages include more than one of his terms Optimization enough. Secondly, it establishes a relationship between optimization And efficiency. The high degree of customization, lower ERP packages for efficiency. Third it will give clear picture to the expectation of ERP before and after implementation.

III. REFERENCES

- [1] J. K. N. ↑, "ERP system usage and benefit: A model of antecedents and outcomes," *Computers in Human Behavior* by ELSEVIER.
- [2] P.-L. L. ↑, "Empirical study on influence of critical success factors on ERP knowledge," ELSEVIER.
- [3] C. S. U. F. C. C. 8. U. A. VON MAYRHAUSER Computer Science Department, "Assessing and Understanding Efficiency and Success of Software Production," *Empirical Software Engineering*, 5, 125–154 (2000).
- [4] I. d. L. B. B. P.-7. A. J. C. F.-6. V. C. F. aLaboratoire PRISMA, "A survey on the recent research literature on ERP systems," ELSEVER *Computers in Industry* 56 (2005) 510–522, 13 February 2005.
- [5] T.-B. Andriy Semenyuk, "Applying of Fuzzy Logic Modeling for the Assessment".
- [6] C. o. B. A. A. K. Asst. Prof., "The Pyramid of IT Implementation," *ARNP Journal of Systems and Software*, May 2014.
- [7] T. Chandrakumar, "An approach to estimate the size of ERP package using package points," *ACM Computer Standards & Interfaces*, august 2016.
- [8] M. Daneva, "Balancing uncertainty of context in ERP project estimation: An approach and a case study," *Journal of Software Maintenance and Evolution Research and Practice*, no. Reserch gate, August 2010.
- [9] S. N. E. Stensrud Norwegian Sch. of Manage., "Identifying high performance ERP projects," *IEEE*, 21 May 2003.
- [10] C. G. P. S. Filomena Ferrucci, "Investigating Functional and Code Size Measures for Mobile Applications".
- [11] C. Francalanci, "Predicting the implementation effort of ERP projects: empirical evidence on SAP," *Journal of Information Technology*, no. SPINGER.
- [12] M. J. S. a. S. Ghosh2, "Determination of Key Performance Indicators with Enterprise," *IEEE*.
- [13] L. B. & A. Heinzl, "Tailoring ERP Systems: A Spectrum of Choices and their Implications," *Proceedings of the 34th Hawaii International Conference on System Sciences - 2001*, no. IEEE.
- [14] A. A. IBM, "Software Function, Source Lines of Code, and Development Effort Prediction: A Software Science Validation," *IEEE IEEE Transactions on Software...*
- [15] D. C. M.-L. W. Jiwat Ram, "Implementation Critical Success Factors (CSFs) for ERP," *Int. J. Production Economics*.
- [16] W. Y. Z. Q. Kang Yuena1, "A Mode of Combined ERP and KMS Knowledge," ELSEVIER, 2012.
- [17] M. Kirchmer, Business Process Oriented Implementation of Standard Software, 1999.
- [18] B. Light, "Potential pitfalls in packaged software adoption.," *Communications of the ACM*, 2005.
- [19] C. & M. Martin Shepperd School of Information Systems, "Software project economics: a roadmap".
- [20] C. C. Peter B. Seddon, "A MULTI-PROJECT MODEL OF KEY FACTORS AFFECTING ORGANIZATIONAL BENEFITS FROM ENTERPRISE SYSTEMS," *MIS QUARTERLY*.
- [21] P. Roger S. Pressman, Software Engineering A PRACTITIONER'S APPROACH, McGraw-Hill Series in Computer Science.
- [22] T. C. o. E. I. S. Parthasarathy, "Evaluating ErP Implementation choices using AhP," *IGI PUBLISHING*, 2007.
- [23] C. U. 3. S. H. I. N. U. School of Hotel Administration, "'Best' for whom?: the tension between 'best practice' ERP packages and diverse epistemic cultures in a university context," *Journal of Strategic Information Systems* 13 (2004) 305–328, no. ELSEVER.
- [24] W. L. a. D. M. Strong, "A Framework for Evaluating ERP Implementation Choices," *IEEE TRANSACTIONS ON ENGINEERING MANAGEMENT, VOL. 51, NO. 3*, , AUGUST 2004.
- [25] A. TELTUMBDEy, "A framework for evaluating ERP projects," *Semantic Scholar*, 2000.
- [26] S.-J. L. W.-R. L. J.-Y. L. W.-H. Tsai1, "The Relationship between Planning & Control Risk and ERP Project Success," *2009 IEEE*, 2009 IEEE.
- [27] D. B. Wong and D. Tein, "Critical Success Factors for ERP Projects," 2015.