

Software to Optimize Productivity and Efficiency

M

William Philip Wall

University of Thai Chamber of Commerce, Thailand

Adiwit Sirichoti

Shinawatra International University, Thailand

INTRODUCTION

Employees are usually a company's largest overhead. They play a major role in the determination of a company's overall profitability. In many instances, the bottom line of the organization can be improved with improvement in employee productivity and efficiency. Tracking and improvement of employee productivity and efficiency requires dedicated custom software for enterprise resource planning (ERP), which is specially designed for this purpose and easy to use. Current business dynamics dictates that custom software for enterprise resource planning (ERP) (Krogstie, 2011) is not only expected to identify and schedule the right employee to do the right job, but is also required to ensure such procedures as maximum usage of employees skills and abilities, forecast employee shortfalls or excesses, create and promote a balanced work load across the organization and tracking actual employee usage.

With today's fast changing business dynamics, such planning and scheduling is traditionally either not done at all or done by using a basic employee spreadsheet or calendaring tools. These methods are neither effective nor efficient and become further complicated and cumbersome especially when there is large number of employees distributed across the organization in different parts of world. To overcome these challenges and improve overall employee productivity and efficiency, it is critical to have the right employee custom software for enterprise resource planning (ERP), which is specifically designed for the organization to manage and achieve its goals (Mehrjerdi, 2010). It is also necessary that this software be managed by competent staff who share the common goals of the organization and use ERP to track the productivity and efficiency of the organization's employees.

Employees in most large companies are located within an organizational structure comprised of departments, teams, offices, cities, and countries. This makes it very difficult to track the productivity and usage of employee's capability and availability companywide. This lack of employee visibility may negatively affect smooth work load distribution (Leonardi & Treem, 2012), optimization of employee usage and accurate employee productivity and effectiveness. So it is critical to build up a companywide central system, which records and displays details about the capability and availability of individual employees. Custom software for enterprise resource planning (ERP) is specifically designed for this purpose. This same software can also help in identifying a specific employee from the pool of employees in an organization, making it easier to allocate them to a specific job or task, modify the allocation, reallocate to others with help of a simple drag and drop. Specific software has also been recently developed as a system for designating or tagging an electronic message, such as an email that includes feedback about an employee's performance. The tagged email can be automatically embedded within a performance management document such as a performance review (Yokoi, Lang, Field, Gillibrand, Shah, & Chu, 2013).

To be effective, custom software for enterprise resource planning (ERP) should provide information about employee usage and should be constructed in such a way so as to identify the over and under allocation of the employees to maximize efficiency and productivity (Li & Ku, 2011). In this way, new work can be allocated and existing work can be quickly and easily reallocated to other employees in the organization. This enables optimum usage of employees while creating a balanced work load, which ultimately adds to the profitability of the organization.

DOI: 10.4018/978-1-4666-5888-2.ch520

To improve an organization's long term profitability, it is critical to forecast the future requirements of employees as they relate to future workload and long term company objectives (Harris, Craig, & Light, 2011). This helps the company recruit the right number of employees with the right skills at the right time in future, reorganize the workforce as well as retrain existing employees with new set of skills to improve productivity and efficiency. This custom software can then forecast necessary employee requirements based on future workloads and future strategic initiatives, goals and objectives of the company.

The main purpose of this research therefore was to determine if custom software for enterprise resource planning (ERP) can optimize employee efficiency and performance.

BACKGROUND

Constantly shifting dynamic global markets are radically altering the way companies do business, especially after the economic downturn of 2008 (Gehani, 2013). Today companies are chasing fewer consumer dollars, pressurized competition has ensued and business-as-usual is no longer the format that works well today. Given how uncertain consumer spending has become, most companies are now forced to operate in the context of a new normal where organizational cost control efforts will be a major focus.

Ensuring better connectivity between all individuals in the company and creating and nurturing an environment that supports innovation and committed employee engagement across the company, is the challenge and where a new generation of custom software for enterprise resource planning (ERP) can be of major benefit in optimizing employee productivity and efficiency.

In the past, keeping track of existing stock, ordering from suppliers and shipments to customers all involved a great deal of manual calculation, where collections of an entire group of similar accounts were constructed in double-entry bookkeeping by sometimes many employees. In manual accounting systems, ledgers are usually a loose leaf binder with a separate page for each ledger account. In computerized IT systems, digital files are interlinked to cross check and track categories such as existing stock, incoming orders and pending and

existing shipments, but follows the same accounting principles as the manual system, but utilizing far more efficiency and fewer employees.

This research investigates the optimization of employee's productivity and efficiency through the use of custom software for enterprise resource planning (ERP) and if this process has any benefit for a Thai beverage distributor company. It explores current methods of operations management and how some companies are changing to meet the challenges that will be faced in the near future.

Emphasis here in this research was on how people perceive and interpret their business world and to the many other influences that are integrated into their work environment. It must be stated here that the conclusions drawn from this research can only be assumed to be true for the particular subjects and their responses in this research. It is possible that a more broad based research could be done by testing a wider population by means of a quantitative research.

MAIN FOCUS

While many Thai businesses having previous experience with tracking efficiency and performance with software such as Excel spread sheets, with the introduction of new technologies, some threats and opportunities need to be considered.

First, the global community is constantly upgrading its technology in an effort to improve productivity. Pressurized competition has ensued and business-as-usual is no longer the format that works well today. Thai business could benefit from single source software that is custom designed, allowing more efficiency, therefore more products to be sold, and thereby generating more revenues.

Second, labor migration that is critical to the Thai beverage distributor industry and will begin to occur on a large scale with the advent of the ASEAN Economic Community 2015 (Lee, 2011). Keeping track of employees working in satellite locations will become more complex. Wages and benefits issues will become more competitive and in parallel with performance.

Third, customer will find a larger market to enable them to make smarter choices for the purchase of goods and services (Supadhiloke, 2011).

6 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

www.igi-global.com/chapter/software-to-optimize-productivity-and-efficiency/112975

Related Content

Evaluation of Power Grid Social Risk Early Warning System Based on Deep Learning

Daren Li, Jie Shen, Dali Lin and Yangshang Jiang (2023). *International Journal of Information Technologies and Systems Approach* (pp. 1-12).

www.irma-international.org/article/evaluation-of-power-grid-social-risk-early-warning-system-based-on-deep-learning/326933

A Network Intrusion Detection Method Based on Improved Bi-LSTM in Internet of Things Environment

Xingliang Fan and Ruimei Yang (2023). *International Journal of Information Technologies and Systems Approach* (pp. 1-14).

www.irma-international.org/article/a-network-intrusion-detection-method-based-on-improved-bi-lstm-in-internet-of-things-environment/319737

SDSS Based on GIS

Vilém Pechanec (2015). *Encyclopedia of Information Science and Technology, Third Edition* (pp. 7319-7327).

www.irma-international.org/chapter/sdss-based-on-gis/112429

Addressing Team Dynamics in Virtual Teams: The Role of Soft Systems

Frank Stowell and Shavindrie Cooray (2016). *International Journal of Information Technologies and Systems Approach* (pp. 32-53).

www.irma-international.org/article/addressing-team-dynamics-in-virtual-teams/144306

Workflow Modeling Technologies

Maria N. Koukovini, Eugenia I. Papagiannakopoulou, Georgios V. Lioudakis, Nikolaos L. Dellas, Dimitra I. Kaklamani and Iakovos S. Venieris (2015). *Encyclopedia of Information Science and Technology, Third Edition* (pp. 5348-5356).

www.irma-international.org/chapter/workflow-modeling-technologies/112983