



Enhancing Operational Performance through ERP Performance

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ABSTRACT

Changes are required within the Palm Oil Company in Indonesia to achieve competitive market advantages and become a World Class Company. Enterprise Resource Planning (ERP) is an integrated business process, assisting in enhancing efficiency and productivity of any organization through trust, leadership, and mobility, playing an effective role in operational performances. The aim of this study is to collect data through a survey from 79 companies doing business in oil palm plantation which are using ERP to enhance their operational performances in Indonesia. SmartPLS 3.0 software were use to complete the analysis in this study. The study found ERP implementation, organizational trust, transformational leadership and mobility strategy have greater roles in impacting the operational enhancement. Operational performances can be achieved through sustained and trusted improvements.

Keywords: Performance, ERP, Mobility, Trust, Transformational Leadership, Palm Oil.

1. INTRODUCTION

Indonesia's role is very high in the world's palm oil production with total Crude Palm Oil (CPO) exportation reaching US\$19.01 billion in 2014 [1]. In 2016, Indonesia's total CPO production was approximately 33.95 million tons, and the country exported 25.41 million tons in the same year [2]. At present, the CPO needed by every country in the world, forcing oil palm plantation companies improves its global competitiveness.

According to World Economic Forum (2016), Indonesia was ranked 37 in the Palm Oil global production, whereas the country was ranked 34 in the last two years [3]. Palm Oil companies contribute to significant improvement in palm oil business in Indonesia, and an adoption of IT is becoming a critical tool in managing farm-based enterprises [4]. Many oil palm plantation companies have implemented the information systems to improve their performances, but the systems have failed to provide any significant roles in their operational efficiencies. However, mobility strategy is an effective tool in enhancing innovation in the business process, productivity, and efficiency [5], [6], using the ERP to increase the operational performances.

2. LITERATURE REVIEW

Satisfactions that businesses derive from Enterprise Resource Planning (ERP) continue to decline over the last few years [7]. Despite that the ERP aims to increase productivity and effectiveness [8]; it still requires the user engagement and support of management [9]. Moreover, an effective leadership support is still critical in deriving better performances from the ERP's implementation [10], [11], with an organizational trust as an important factor for employee's engagement [12], needing to be fulfilled to increase the ERP performances [13]. Mobility strategy is an important tool for improving the ERP's performances, because it has the ability to create innovation in a business process [14], increase productivity and efficiency [6] with unique ability to grab the information in real-time [15].

The purpose of this research is to investigate the impact of organizational trust, strategy mobility, and transformational leadership on operational performance through ERP's application in the oil palm companies in Indonesia.

3. METHODS

The analysis focuses on the oil palm organizations which have successfully implemented the ERP software in order to gained more productivity in Indonesia. The observational data are collected from employees working in both the field operations and head office in the oil palm business. This research uses survey method to collect data from state-owned and private enterprises.

In Indonesia, the numbers of palm oil companies implementing ERP was 79. Using one-shoot-cross sectional timeframe in answering the research questions, multivariate statistic via Structural Equation Modelling (SEM) based on a variant of Partial Least Square (PLS) with SmartPLS program is used for the analysis [16].

Figure 1 represents the SEM research model that indicates the relationship between variables (organizational trust, transformational leadership, and mobility strategy, through ERP performance, to operational performance).

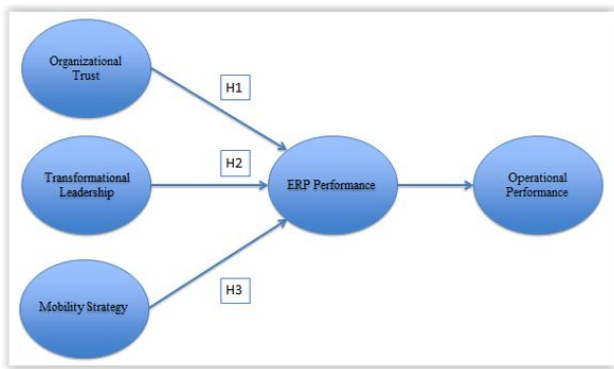


Figure 1: SEM Research Model

The hypotheses are as follows:

H1: Organizational trust affects operational performances through ERP’s applications.

H2: Transformational leadership affects operational performances through ERP’s applications.

H3: Mobility strategy affects operational performances through ERP’s applications.

4. RESULTS AND DISCUSSIONS

The results revealed that all hypotheses are accepted, showing their significant levels as displayed in Table 1. The research found that organizational trust affects operational performance through ERP’s applications. These results fill the gap of previous research. However, there is a need for more research on organizational trust as it is considered an important success factors for ERP’s implementation [13](Schniederjans & Yadav, 2013). Application of ERP within an organization requires trustworthy people since organizational trust has a great influence on a performances relationships [17].

Table 1: SEM-PLS Results

Hypotheses	Path Coefficient	T Statistics	P Values	Results
H1 Organizational trust effecting operational performance through ERP performance	0.116	2.095	0.018	Accepted
H2 Transformational leadership effecting operational performance through ERP performance	0.117	1.758	0.040	Accepted
H3 Mobility strategy is also effecting operational performance through ERP performance	0.095	2.305	0.011	Accepted

Transformational leadership effects operational performances through ERP applications. Transformational leadership is not the only the most important factors in running ERP [13], [18], rather its utility is more desirable to increase the operational performances. Typically, labor-intensive oil palm plantations will involve enormous human resources to achieve successful changes, an increase in the ERP’s applications can make mobility strategy to influence the operational performances. This result (H3) is aligned with the previous research, revealing that the

implementation of mobility in ERP can improve the ERP’s performances [6], [19], bringing an increase in corporate productivity, efficiency and effectiveness.

5. CONCLUSION

Oil palm plantations are a big business that requires enormous financial and human resources. However, operational performance milestones are required to achieve speed, productivity, and integration of the business processes. ERP systems enable an organization to achieve performances, efficiency. The ERP performances can be enhanced by optimizing organizational trust, doing transformational leadership within the organization, and implementing mobility strategy for leveraging transaction speed. Improved operational performances can also be achieved through sustained and trusted leadership to accomplish faster changes, connectivity and enhance the speed of information for elevated achievement.

Thus, digitalization will be an important tool for productivity in the plantation industry [20]. Industries in Indonesia, especially oil palm plantations, must integrate the IT tools in their business process because of a recent advancement in the contemporary digital environment. Organizations should focus on the ERP’s modules already successfully implemented and executed to achieve a continuous development and improve operational performances.

In the future, big data applications needed to explore more useful knowledge in order to make precise decisions related to operational performance [21], while increasing application security from threats which can be a serious problem for IT systems within the organizations [22].

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