

PROPOSAL FOR COLLABORATIVE RESEARCH FUNDING

THE UTILIZATION OF DATA ANALYTICS TO FORMULATE POSSIBLE BUSINESS PROCESS IMPROVEMENT FOR FINANCE SERVICES OF ACADEMIC SECTOR



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VALIDITY SHEET

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RESEARCH SUMMARY

In the rapidly growing competition era nowadays, continuous improvement of business process is imperative for any organization, be it an academic institution, to stay feasibly operational. In this research, the problem of identifying operational inefficiency and potential venue of improvement in a higher education environment will be addressed. This proposed research aims at two main tasks. First, it identifies operational bottlenecking, waste, non-compliance, and other inefficiencies in finance service operations of a higher education institution. The research objects are a private university in Indonesia and a university in Malaysia. In finding the problem, data analytics approach is employed to assist in identifying problems based on facts intelligently. Second, it proposes business process improvement addressing identified operational inefficiency, in which the six sigma and other suitable decision methods will be utilized.

1 BACKGROUND

In a very dynamic competition of the world today, it is important for a company to respond challenges that arise with right business decision making to keep the company's business process continuously improved for more efficient and better in delivering service to customers.. In the reign of higher education institutions, the motivation to improve business processes is usually to reduce the wastages, i.e., achieving a lean organization, and improve the services delivered to their students, industry partners, faculty and researchers (Svensson, Antony, Ba-Essa, Bakhsh, & Albliwi, 2015). Among common wastages in higher education institutions include human resources, processes, information, assets—the improper use of the university's human, infrastructural, and service provision resources (Balzer, Brodke, & Kizhakethalackal, 2015).

With the advance of information technology, the use of data analytics has been adopted by many in assisting managerial decision making in achieving more lean, efficient business operation. Organizations employing data analytics have realized benefit from it. Chen *et al.* (2012) identified business sectors that reaped big benefit from implementing data analytics include e-commerce, government, health, public safety, and science and technology. In higher education sector, big data analytic is an interest priority for most universities in which it can significantly advance an institution in strategic areas, such as resource allocation, student success, and finance (Ong, 2016). Further, Daniel (2017) stated that universities nowadays are constantly searching for insights from data analytic, to generate strategies can be used to meet their increasing demands. Business Process Improvement (BPI) is a systematic modeling to open new venues in doing business to attain continuous improvement. Although it is common in for-profit firms, non-profit organization such as higher education institutions also start to benefit from the BPI aimed at efficiency improvement (Vukšićić, Bach, & Tomićićić-Pupek, 2014). This research seeks to obtain a Business Process Improvement for finance service of UHAMKA and UTP.

2 RESEARCH OBJECTIVE

The objective of this research consists of the following points:

1. To identify current problems of business process of UHAMKA focusing on Bureau of Finance of UHAMKA (and Finance Services of UTP) based on data analytics.
2. To formulate suitable improvement of business process in Bureau of Finance of UHAMKA (and Finance Services of UTP) conducted by the approach of decision-