



4th Information Systems International Conference 2017, ISICO 2017, 6-8 November 2017, Bali, Indonesia

# Designing an Effective Collaboration using Information Technology Towards World Class University

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## Abstract

One of the challenges in achieving success in the global competition for the government is to set up higher education institutions to be able to become a World Class University (WCU). It is believed that to address this challenge they need effective collaboration for both internally and externally where information technology (IT) is set as an enabler. However, in fact, this research has found that it is still not utilized effectively although the need for the collaboration has clearly stated in the organization's strategic direction. This paper aims to increase such an effective collaboration model for higher education in Indonesia towards WCU. By using one of reputable state Islamic universities in Indonesia as research object, UIN Maliki Malang, which consist of more than 17,000 students and staffs, this paper proposing a collaboration architecture model equipped with suitable supporting tools. As approaching methods, we use business model design and transformation by mapping study object's business strategic programs into proven collaborative model and their strategic planning of IS/IT. The result of the analysis conducted in the research shows that the majority of the strategic direction of UIN Maliki Malang requires collaboration using information technology both internally and externally. Additionally, UIN Maliki Malang also has facilitated by several collaborations tools within the organization. However, they still need a formal collaboration architecture model to achieve their strategic direction goals effectively. Thus, through the achievement of collaboration effectiveness using information technology, the achievement of a world class university can be realized.

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Peer-review under responsibility of the scientific committee of the 4th Information Systems International Conference 2017.

*Keywords:* Collaboration; Information Technology; World Class University

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### 1. Introduction

Since the implementation of AFTA (ASEAN Free Trade Area) and MEA (ASEAN Economic Community) in 2015, one of the issues that have been facing by the government is the readiness of human resources. It is believed that higher education have an important role in providing such a good human resource capabilities. Therefore, the Government of Indonesia became very focused in the development of higher education competencies, and one of their regulations is directing several universities to become a World Class Universities (WCU). However, there are several challenges in achieving WCU's predicate, and one of them is to build an effective collaboration in both the internal and external structures of the university [1, 2]. One of the enabler that can be used to address the challenges is Information Technology (IT). However, in fact, it cannot be done by building a technical application only [3]. The overall system development and involvement of the factors that supporting IT adoption in the organization are the requirement keys in achieving that success [3–6].

This paper is intended to be one of the scientific reference for higher education institutions who want to use IT as enabler in effective collaboration toward WCU which provide a model and architecture that equipped with suitable supporting tools. The approaching methods used are business model design and transformation through successful adoption of IT [3–7]. Study object that used in the research is State Islamic University Maulana Malik Ibrahim Malang (UIN Maliki Malang), which was one or reputable state Islamic university in Indonesia that currently consist of more than 17,000 students and staffs, and 7 faculties and 24 educational programs [8]. At the end of 2013, UIN Maliki Malang, has been projected by the Government to become one of two WCU in 2019 [9]. In this case, this achievement target was setup a challenge to build such an effective collaboration for UIN Maliki Malang. However, when the research began in 2015, there were still no pattern, model and architecture to address the challenge. Thus the research results could be set as a complement of other studies of achieving such a target.

### 2. Literature Review

A complete study of the literature review and the position of the research is presented in Fig. 1. Since the research uses business model design and transformation as its approaching methods, which were based on business direction of UIN Maliki Malang, it only included aspects that have relevant relations with UIN Maliki Malang’s strategic programs, including several aspects from people, process, materials, and management challenges.

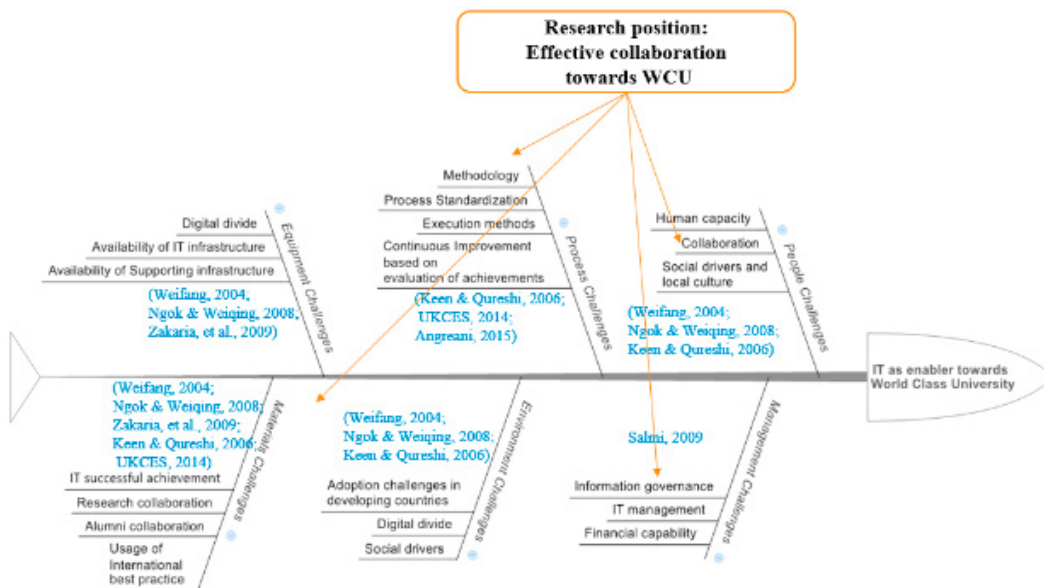


Fig. 1. Position of the research in the literature study.

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