

Factors Influencing Technology Adoption in Vietnam's Educational System

Nga TRAN¹, Thanh LE², Lan NGUYEN³, Linh HOANG⁴, Thuy NGUYEN⁵

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Abstract

This research aims to shed light on the technology adoption process and its drivers in the Vietnamese educational system. Research data was collected with an online questionnaire from more than 600 teachers in primary schools, secondary schools, high schools, colleges, and universities in Vietnam in 2020. Based on a holistic literature review, we develop a model of two extrinsic factors (global needs and school-infrastructure), and two intrinsic factors (teachers' technological literacy and their beliefs), which are correlated with the teachers' technological adoption. We measure the dependent variable by asking the teachers' ability and their efficacy to implement technology in teaching according to a Likert scale. With the support of SPSS_22 and STATA_2015, we find that over 70% of changes in technology adoption are explained by the changes in four independent variables and three control variables related to age, gender, and teaching-level of the teachers. Furthermore, these independent variables are significantly and positively associated with two dependent variables. However, a significant difference in technology integration ability can be seen among teachers' gender, age, and school-level. Specifically, male teachers seem to adopt technology at schools than female teachers better, and university teachers have the lowest level of technology adoption compared to other school-level teachers.

Keywords: Teaching Practices, Vietnamese Teachers, Technology Adoption, Technological Ability, Technological Efficacy

JEL Classification Code: M16, M30, M31

1. Introduction

It is no exaggeration to say that the Information Communication and Technology (ICT) has brought

remarkable educational changes, and influenced the advanced social orders since the late twentieth century (Kia, Shayan, & Ghotb, 2000; Marcinkiewicz, 1996; Byun, 2018). ICT is a unique mechanical system for any organization and country to achieve commercial and instructional development before ensuring competitive advantages because it is progressively imperative in our educational framework (Taylor, 2015; Nguyen & Luu, 2020). Indeed, it is used as an intelligent communicating device, which is sufficiently sensible to capture the dramatic shifts in the educational environment, to deal with practical issues related to learning and teaching methods (Knezek & Christensen, 2008; Muneer, 2020). Consequently, the necessity of ICT adoption in teaching has been arising due to the high demand for aptitude and knowledge of students in the era of universal integration. According to Knezek and Christensen (2008), in the fourth industrial revolution, teachers need to equip themselves with essential skills and practical knowledge about ICT implementation to enhance further their teaching techniques as well as the students' absorption process. This, therefore, raises the question of what is the nature of ICT and its determinants?

¹First Author. Teacher, Thi Tran High School, Kien Giang, Viet Nam. Email: tranthithanhnga3587@gmail.com

²School of Human Resource, Hanoi University of Home Affairs, Vietnam. Email: lethanh.huha@gmail.com

³Corresponding Author. School of Accounting and Auditing, Van Lang University, Ho Chi Minh City, Vietnam [Postal Address: 45 Nguyen Khac Nhu Street, Co Giang Ward, District 1, Ho Chi Minh City, 700000, Vietnam] Email: ntnlan@vanlanguni.edu.vn; nguyenthingoclan29071997@gmail.com

⁴Department of Basis Science, Van Lang University, Ho Chi Minh City, Vietnam. Email: linhan274.lh@gmail.com

⁵Quality Management Division, Department of Education and Training, Hung Yen, Vietnam. Email: thuythptmyhao@gmail.com