Understanding of Students Continued to Use Electronic Medical Records In Hospital: Task Technology to Performance Chain Approach

by Umi Khoirun Nisak

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Abstract

One of the main goals of research on information systems is to help end users and organizations use information technology effectively. Fieldwork practice aims to train students to apply knowledge and work skills. This activity also prepares students to live in their profession. This study examines the willingness and ability to use electronic medical records in hospitals to determine how well students understand electronic medical records in hospitals and what influences their use of electronic medical records. This study was conducted at a hospital in East Java, where students practice fieldwork. An institutional-based cross-sectional study was conducted to assess the acceptability of the EMR system among students at Mojokerto Hospital from July to 1-31st, 2022. The sampling method uses a total sampling of 39. A structured questionnaire was adopted from the previous studies. The questionnaire consists of 24 questions from the TTF, the expected consequences of use (COU), affect toward use (ATU), and performance impact construct. Data analysis was performed using SmartPLS 3. The result that task-technology fit is associated with the expected consequences of use (sig. 0.000), task-technology fit associated with affect toward use (sig. 0.000), task-technology fit associated with performance impact (sig. 0.000). We can conclude that task technology fit is associated with performance impact. This study has limitations in that not all variables were tested, and there were still few samples. This study can continue by testing the construct variables for healthcare providers, such as nurses and doctors.

Keyword: Task-technology fit, student, electronic medical record

Introduction

One of the main goals of research on information systems is to help end users and organizations use information technology effectively. The rapid development of information technology in various fields is a common phenomenon in today's digital era (1). The health sector is no exception, one form of which is the use of information systems in health services (2). Using information systems in health services can provide many benefits that benefit service providers, in this case, hospitals, clinics and others. Advances in information technology in the health sector are electronic medical records (3). The benefits include economic aspects such as

cost savings, cost avoidance, increased revenue, contribution to profits, and increased productivity. Other uses in clinical elements involve facilitating access to clinical information (in the form of medical history data for patient follow-up consultations), reducing service errors, and improving patient safety. Electronic Medical Records (EMR) are crucial in how healthcare practitioners maintain medical information, give treatment, and handle money. The benefits of EMR software can go beyond better care for patients. For example, it can provide healthcare businesses incentives to use the software(4). They're particularly relevant to single-practice clinics and family doctors who aren't necessarily exchanging patient information across specialities. An EHR brings together information about a patient from many providers and gives a more complete, long-term picture of that person's health. One approach that can help explain to users the role of electronic medical records in improving performance is the Technology to Performance Chain model(5).

Students who study at the hospital are commonly called fieldwork practice activities. Fieldwork practice aims to train students to apply knowledge and work skills. This activity also prepares students to live in their profession. In fieldwork practice, students can achieve learning outcomes related to electronic medical records. In utilizing electronic medical records, students must become professional medical recorders and health information (PMIK).

This study examines the willingness and ability to use electronic medical records in hospitals to determine how well students understand electronic medical records in hospitals and what influences their use of electronic medical records.

The key focus in information systems research is a better understanding of the relationships between systems information and individual performance. For information technology to positively influence the performance of the individual, then the technology must be utilized or exploited and follow the task in question supported.

The research model conducted by Goodhue and Thompson (1995) uses a comprehensive model of two complementary things: user attitude as a predictor of utilization or utilization and Task Technology Fit as performance predictors. The essence of the model is that for information technology to impact performance at the individual and organizational levels positively, the technology utilized and appropriate to the type of work (6). Goodhue and Thompson have tested some of these the task technology to performance chain (TPC) model, with the result that there is an effect significant utilization and Task Technology Fit to performance impact. The TPC model has seven variables namely, the expected consequences of use (COU), affect toward used (ATU), social norms (SN), facilitating conditions (FC), Task Technology Fit (TTF), utilization (U), and performance impacts (PIs). In their research, they did not test the Task Technology Fit relationship against Expected Consequences of Use, Affect Toward Use, Social Norms, habits, and facilitating conditions(7).

This research will re-examine some of the technology to performance chain (TPC) models by using the mandatory use setting on electronic medical records in east java hospital.

Method

This study was conducted at a hospital in East Java, where students practice fieldwork. An institutional-based cross-sectional study was conducted to assess the acceptability of the EMR system among students at Mojokerto Hospital from July to 1-31st, 2022. The sampling method uses a total sampling of 39. A structured questionnaire was adopted from the previous studies. The questionnaire consists of 24 questions from the TTF, the expected consequences of use (COU), affect toward use (ATU), and performance impact construct. Data analyze using smartPLS 3(8). This research has 3 hypotheses:

H1: Task-technology fit will be positively associated with expected consequences of use

H2: Task-technology fit will be positively associated with affect toward use
H3: Task-technology fit will be positively associated with performance impact

Result and Discussion

Based on the regulation of health ministry No 24, 2022 The hospital must carry out the implementation of electronic medical records(9). This research describes the implementation of electronic medical records through user technology acceptance analysis. The process of creating and using EHRs, despite the potential benefits, is not easy and requires technical and organizational infrastructure and training of human resources(10). The unit of analysis used was individual thought units. There were codes from the expected consequences of use (COU), affect toward used (ATU), and performance impact construct. Data showed a significant value (sig. 0.000) from TTF that affected the expected consequences of use (COU), and TTF affected the affect toward used (ATU) and the last TTF affected performance impact. Table 1. data shown below:

	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
TTF -> ATU	0,954	0,013	75,263	**0,000**
TTF -> COU	0,853	0,045	18,764	**0,000**
TTF -> PI	0,710	0,085	8,341	**0,000**

Source: Primary Data

The result indicates that students continued to use the EMR and know it makes it easy to improve productivity.

Fig. 1 Smartpls output
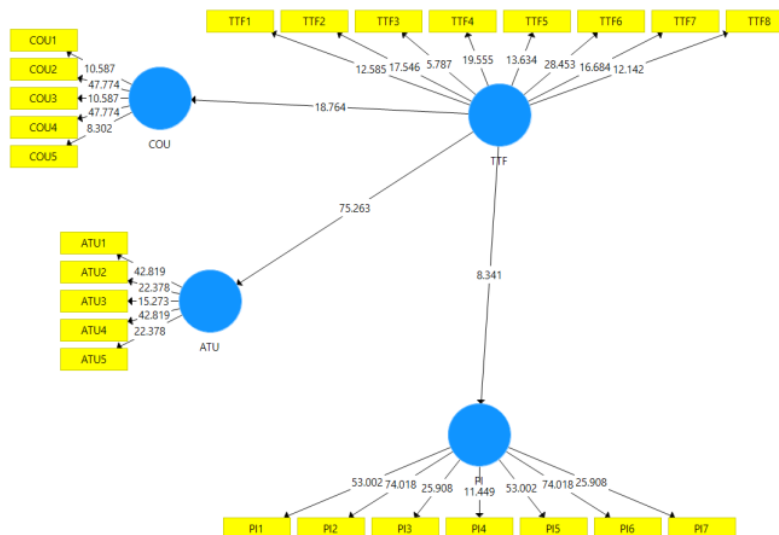
Based on table 1 and figure.1 we can showed the hypothesis:

H1: Task-technology fit associated with expected consequences of use

Based on the results of hypothesis testing, it is known that the TTF of EMR influences student COU so that EMR, which is easy to use, easy to learn, user friendly, and compatible, can increase productivity, effectiveness, performance, and complete student activities more quickly. Another study result verified that both task characteristics and technology characteristics affected students' perceived TTF, which significantly contributed to their perceived usefulness, confirmation, and satisfaction with technology (11).

H2: Task-technology fit associated with affect toward use

Based on the results of hypothesis testing, it is known that the TTF of EMR influences student ATU, which is easy in use, easy to learn, user friendly, and compatible and affects the impression of students during the use of EMR that is good, great, useful, and valuable. Students who have a positive impression of their activities will be able to increase the intensity of using EMR.

H3: Task-technology fit associated with performance impact

Based on the results of hypothesis testing, it is known that the TTF of EMR influences student performance impact (PI). Which is easy to use, easy to learn, user friendly, and compatible with student activities affecting the performance impact felt by students. RME is a solution that effective for the needs of the task or activity of a student(12). Overall, by using the EMR, students will feel satisfaction so that their performance can increase. This shows that task suitability will be able to improve individual performance(13). The result match with other study that the key issues here included the appropriate use of systems in communicating with other healthcare providers, miscommunication about updates and changes, and miscommunication because of documentation in different places. Prior studies have also identified issues in communication-related to the use of specific e-health innovation products, such as telemedicine, CDSS, and health information system(14).

Conclusion
The result that Task-technology fit associated with expected consequences of use, Task-technology fit associated with affect toward use, Task-technology fit associated with performance impact. We can conclude that task technology fit is associated with performance impact. This study has limitations in that not all variables were tested, and there were still few samples. As such, the results show associations only, and we could not evaluate causality for factors such as the institution and, thus, student experience. This study can continue by testing the construct variables for healthcare providers, such as nurses and doctors.

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