Technology Readiness Index in Adoption Academic Information System

I Wayan Gede Antok Setiawan Jodi¹, I Made Surya Prayoga², Bagus Nyoman Kusuma Putra³

¹,²,³ Faculty of Economics and Business, University of Mahasaraswati Denpasar

Abstract: The rapid development of information technology has caused many changes in how to obtain information, including in the world of education. An integrated academic information system has now become an absolute necessity for educational institutions such as universities to meet the information needs of all stakeholders. Before knowing whether information technology in this case is an academic information system can be accepted or not, it is necessary to measure the level of readiness of the user through the technology readiness index, which consists of four dimensions, namely: optimism, innovativeness, discomfort and insecurity. This research was conducted at Mahasaraswati University Denpasar with a sample of 98 people. The results of this study found that the average score for the dimensions of optimism and innovativeness included in the category of very high scores, while the other two dimensions namely discomfort and insecurity were included in the low value category.

Keywords: Technology Readiness Index, Optimism, Innovativeness, Discomfort, Insecurity.

Introduction

Information technology according to (Sutabri, 2012) is a technology used to process data, including processing, obtaining, compiling, storing, manipulating data in various ways to produce quality information, namely information that is relevant, accurate and timely, which is used personal, business, and government and is strategic information for decision making. Views on the importance of information systems can be seen from their application in various types of organizations such as banking, insurance, manufacturing, education, hospitality, and retail (Sutabri, 2012). There are various types of information systems such as financial information systems, academic information systems, human resource information systems, marketing information systems, manufacturing information systems and others (Mulyanto, 2009). The use of information systems in organizations today has increased. This was stated by (Handayani, 2005) that the use of systems in organizations increased dramatically. This increase is not only due to the demands of modern organizations, but also due to students who are hungry for information. Information systems will help make it easy for organizations to present information quickly, accurately and openly as expected by students.

Davis (1989) defines perceived usefulness as a possible perspective on the user's perspective where using a specific application system will improve its performance. Related to internet technology, it can be said that perceived usefulness is the level where an individual believes using an internet technology will improve its performance. Perceived ease of use is defined as the degree to which the user's expectations by using a system are free from effort (Davis, 1989).

Research Problem

Based on the background described above, the writer formulates the problem as follows:

What is the level of readiness of the Faculty of Economics, University of Mahasaraswati in adopting an academic information system?

Research Objectives

Based on the research problem raised, the objectives of this study are:

To find out the level of readiness of the Faculty of Economics, Mahasaraswati University in adopting an academic information system.

Research Contribution

This research is expected to provide contribution both theoretically and practically. Can enrich the literature on technology readiness index, especially technology readiness index in adopting academic information systems. Can be a reference for further research in more relevant topics. Can give an idea to the university or policy holders relating to academic
information systems at the institution regarding the readiness of students in adopting technology, in an effort to help develop the process and service system of the institution.

**Literature Review**

**Technology Readiness Index**

Pasuraman and Colby in Ling and Moi (2006) define technology readiness as "the tendency of people to embrace and use new technology to achieve goals in home life and at work". TRI (Technology Readiness Index) was developed by Parasuraman to measure people's beliefs and support for technology. One's view of technology can be positive, namely optimism in responding to technology and also a tendency to be a pioneer in the use of new technology, as well as negative views, namely adjustments to uncomfortable and skeptical comfort of technology. This causes the difficulty of technological readiness, namely optimism, innovation, inconvenience and insecurity.

1. **Optimism**

Optimism is defined as a positive view of technology and believes that technology can provide increased control, flexibility, and efficiency in life (Walczuch et al, 2007).

2. **Innovation**

Innovativeness is defined as the tendency to be a pioneer or a leader in the use of technology (Parasuraman and Colby, 2001 in Godoe and Johansen, 2012).

3. **Discomfort**

Discomfort is defined as the perception of a lack of control over technology and the feeling of being burdened by the use of technology (Parasuraman and Colby, 2001 in Godoe and Johansen, 2012).

4. **Insecurity**

Insecurity is defined as the user's concern in working with technology and conducting transactions or sending information (Parasuraman and Colby, 2001 in Godoe and Johansen, 2012).

**Academic Information System**

Academic information system is a system created to facilitate academic administration activities on campus, all of which are managed online. Some examples of administrative activities on campus are New Student Admissions (PMB), compilation of curriculum and class schedules, filling in Study Plan Cards (KRS), filling student grades (for lecturers), managing data of lecturers, staff and students.

**Research Method**

This research was conducted in the Faculty of Economics, University of Mahasaraswati University, Denpasar by distributing questionnaires and requesting secondary data from the Faculty of Economics, Mahasaraswati University, Denpasar. The objects in this study were students in the Faculty of Economics, University of Mahasaraswati, Denpasar. The population in this study were students in the Faculty of Economics, University of Mahasaraswati, Denpasar, totaling 4852 people. In this research, the Slovin formula is used to determine the number of samples. The number of samples used in this study consisted of 98 students of the Faculty of Economics, Mahasaraswati University, Denpasar. The sample is determined by simple random sampling technique. Data collection methods used are primary data collection (questionnaire) and secondary data collection (data on the number of students of the Faculty of Economics, University of Mahasaraswati, Denpasar).

**Result and Discussion**

Based on the results of the questionnaire it was found that the results of the distribution of respondents' answers are presented in Table 1 as follows.

**Table 1 Distribution Result of Technology Readiness Index**

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Amount</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Optimism</td>
<td></td>
<td></td>
</tr>
<tr>
<td>OP1</td>
<td>340</td>
<td>3.47</td>
</tr>
<tr>
<td>OP2</td>
<td>328</td>
<td>3.35</td>
</tr>
<tr>
<td>OP3</td>
<td>329</td>
<td>3.36</td>
</tr>
<tr>
<td>OP4</td>
<td>334</td>
<td>3.41</td>
</tr>
<tr>
<td>OP5</td>
<td>332</td>
<td>3.39</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>3.39</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Innovativeness</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>IN1</td>
<td>327</td>
<td>3.34</td>
</tr>
<tr>
<td>IN2</td>
<td>336</td>
<td>3.43</td>
</tr>
<tr>
<td>IN3</td>
<td>333</td>
<td>3.40</td>
</tr>
<tr>
<td>IN4</td>
<td>332</td>
<td>3.39</td>
</tr>
<tr>
<td>IN5</td>
<td>335</td>
<td>3.42</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>3.39</strong></td>
</tr>
</tbody>
</table>

**Discomfort**

<table>
<thead>
<tr>
<th>Indicators</th>
<th>Jumlah</th>
<th>Rata-rata</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Based on the results of respondents' answers in the previous section, it was found that the average score for each dimension was 3.39 for optimism, 3.39 for innovativeness, 2.10 for discomfort, and 2.13 for insecurity. These figures indicate that only the dimensions of optimism and innovativeness fall into the very high value category, while the other two dimensions namely discomfort and insecurity fall into the low value category.

1) The total score in the optimism dimension is in the very high category, which is 3.39. This means that students of the Faculty of Economics at Mahasraswati University in Denpasar have a very high positive view of technology and believe that technology can provide increased control, flexibility, and efficiency.

2) The total score in the innovativeness dimension is in the very high category, which is 3.39. This means that students of the Faculty of Economics, Mahasraswati University, Denpasar have a very high tendency to be at the forefront in the use of academic information system technology.

3) The total score on the discomfort dimension is in the low category, which is 2.10. This means that students of the Faculty of Economics at Mahasraswati University in Denpasar have a low perception of the lack of technological control and a low feeling of being burdened in the use of technology such as academic information systems.

4) The total score on the insecurity dimension is in the low category, which is 2.13. This means that students of the Faculty of Economics at Mahasraswati University in Denpasar have relatively low concerns about using academic information system technology in presenting information.

**Recommendations**

Recommendations from this research are as follows:

1) Future studies are expected to add reference to the TRI (Technology Readiness Index) concept so that the indicators used in measuring the TRI (Technology Readiness Index) concept can be more varied.

2) Future studies are expected to be able to use more diverse research analysis methods to obtain more varied and informative results regarding the concept of TRI (Technology Readiness Index).

3) Broaden the scope of research by using different research objects, so as to enrich references regarding the concept of TRI (Technology Readiness Index).

**References**


Universitas Udayana. Skripsi. Jurusan Ilmu Komunikasi, Fakultas Ilmu Sosial dan Ilmu Politik, Universitas Udayana.


17. Parasuraman A., 2001, C.L. Colby, Techno-


