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A study of success factors in online learning on application: A case study of the College of Logistics and Supply Chain, Suan Sunandha Rajabhat University

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Abstract

This research aims to investigate the learning behaviors of students in online application-based systems and analyze the factors contributing to their success. The study utilized a sample of 100 students from the College of Logistics and Supply Chain at Suan Sunandha Rajabhat University. Data were collected via questionnaires and analyzed using frequency, percentage, mean, standard deviation, and ranking. The findings indicate that the overall success factors are at the highest level ($\bar{x} = 4.58$, S.D. = 0.69). Motivation for online learning was identified as the most significant factor, followed by content quality, instructor support, platform technology, and student self-management

Keywords: Education, Success, Online Learning, Applications

1.Introduction

In the digital era, Information and Communication Technology (ICT) has become a fundamental infrastructure in higher education, driving a significant shift toward digital ecosystems within universities. Online learning via applications is a key mechanism for enhancing educational quality and supporting lifelong learning. This transition is not limited to instructional methods but extends to the digital lifestyle of students within the campus.

According to Lertamornsak (2023), the adoption of innovative electronic money (e-Mobile) for tuition fee payments among Suan Sunandha Rajabhat University students demonstrates a high level of digital literacy and readiness to engage with mobile-based platforms. This reflects a broader trend where students are increasingly reliant on mobile applications for both administrative transactions and academic purposes. As students become more familiar with mobile technology for financial services, it paves the way for integrating similar technologies into the learning process. Therefore, understanding the success factors of online learning applications is crucial. Success depends on various elements, including learner characteristics, instructor capabilities, and institutional support, which this study aims to explore within the specific context of logistics and supply chain students at Suan Sunandha Rajabhat University

1.1 Research Objective

1. To study the learning behavior of students in the online system on the application.
2. To analyze factors that affect the success of online learning, such as technological factors, personal factors, environmental factors, and teaching factors.
3. To propose guidelines for developing more effective online teaching and learning.

2. Literature review

Based on the review of national and international literature (2022–2025), the critical success factors for online learning via applications can be synthesized into five primary dimensions

1. **Learner Dynamics:** The primary driver of success is the learner's capacity for Self-Regulated Learning (SRL). High levels of self-efficacy and digital literacy empower students to navigate the autonomous nature of online education, ensuring better time management and sustained academic achievement.

2. **Instructor Facilitation:** The educator's role has shifted toward being a digital facilitator. Success depends on Pedagogical Design—specifically the ability to create engaging multimedia content and maintain a strong social presence through timely feedback, which mitigates the sense of isolation common in virtual environments.

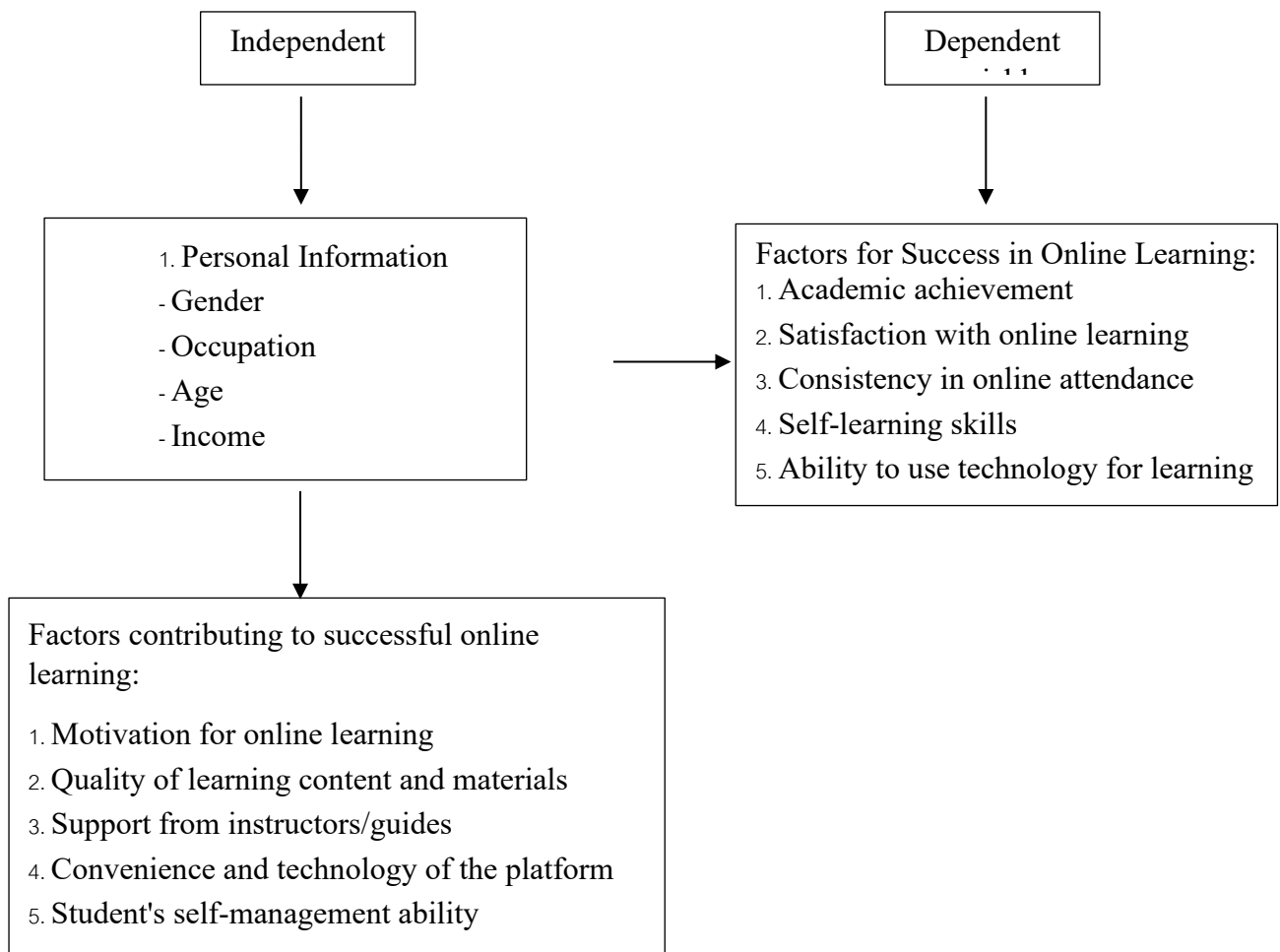
3. **Technological Infrastructure:** A seamless experience is contingent upon Task-Technology Fit (TTF). The learning application must be user-friendly and stable, offering robust communication tools (e.g., high-quality video/chat) that minimize technical barriers and ensure learning continuity.

4. **Institutional Support & Engagement:** Beyond the classroom, Institutional Support through technical training and infrastructure is vital. Furthermore, fostering Perceived Enjoyment within the system design is a critical factor in maintaining long-term student engagement and platform loyalty.

5. **Motivational Drivers:** At the core of these interactions is Intrinsic Motivation. Learners driven by internal interest and satisfaction demonstrate higher persistence and better learning outcomes compared to those motivated by external pressures.

A review of the literature and related research reveals that factors contributing to the success of online learning encompass learners, instructors, technology, institutions, and motivation, all of which are complexly interconnected with educational outcomes. This research therefore aims to study and analyze these factors within the context of the College of Logistics and Supply Chain, Suan Sunandha Rajabhat University, in order to provide empirical recommendations for developing an effective online learning system.

2.1 Conceptual



Show the relationship between independent and dependent variables.

3. Methodology

This study employs a survey research design to investigate the success factors of online learning on applications, specifically focusing on a case study of the College of Logistics and Supply Chain at Suan Sunandha Rajabhat University¹.

Population and Sample

The population includes students and academic staff from the College of Logistics and Supply Chain². The sample consists of 100 individuals (60 females and 40 males), with the sample size determined using Yamane's formula at a specified error level³.

Research Instrument

A questionnaire serves as the primary tool for data collection, divided into two main parts⁴:

- Part 1: Demographic information including gender, age, occupation, and income⁵.

- Part 2: Factors affecting online learning success based on the SERVQUAL model, covering performance expectancy, effort expectancy, perceived usefulness, technology, empathy, and public relations⁶.

Quality of the Instrument

The instrument's quality was ensured through two primary processes⁷:

1. Validity: Content validity was verified by experts and advisors to ensure alignment with research objectives and clarity of language⁸.
2. Reliability: A Try Out was conducted with 50 non-sample individuals to test for internal consistency using Cronbach's Alpha Coefficient⁹.

Data Collection and Analysis

- Location & Duration: The study is conducted at the Nakhon Pathom Campus from October 1, 2024, to August 31, 2025.
- Statistical Analysis: Data are analyzed using statistical software. Descriptive statistics (Frequency and Percentage) are used for demographic data. Inference statistics, including Mean (\bar{x}) and Standard Deviation (S.D.), are used to assess satisfaction and success factors¹³¹³.
- Interpretation: Mean scores are interpreted using a 5-point scale, where 4.50–5.00 represents the "Highest" level and 1.00–1.49 represents the "Lowest".

4. Results

The research entitled "Factors for Success in Online Learning via Applications: A Case Study of the College of Logistics and Supply Chain, Suan Sunandha Rajabhat University" can be applied to the college's daily work and online teaching management as follows:

1. Improving Online Teaching

- Using the research findings to improve the quality of content, teaching methods, and learning materials on the application.
- Developing activities that motivate and increase student participation.

2. Developing Students' Online Learning Skills

- Using the research findings to provide training or guidance to students on self-directed learning skills and the use of technology for learning.
- Encouraging students to manage their time and plan their online learning effectively.

3. Planning and Evaluating Learning Outcomes

- Using indicators from the research findings, such as satisfaction, attendance continuity, and academic achievement, to systematically monitor and evaluate student performance.
- Establishing measures to support students at risk of failing their studies.

4. Improving the Application System and Technology

- Using the research findings to develop and improve the application's features for user-friendliness. Responding to the needs of students and instructors:

- Reducing technical problems and increasing the efficiency of online learning.
5. Policy and guidelines for managing teaching and learning:
- Using research findings to support strategic planning for online learning at the college or university level.
 - Providing guidance in creating effective online teaching and learning standards that are appropriate to the student context.

5. Conclusion

The study concludes that student performance is the most correlated factor with success in online learning, followed by the quality of learning content and materials, and overall instructor performance. While technology and self-control remain at a high level, there is room for further development to explore and continue in online learning.

The study views online learning success as a sum of multiple factors, including student performance, learning materials, and supportive instructors. These factors, along with student performance, have a significant impact on academic achievement and student evaluation.

Acknowledgment

The author would like to extend heartfelt gratitude to Suan Sunandha Rajabhat University for providing financial support and to the faculty of college of logistics and supply chain for their invaluable assistance in ensuring the successful completion of this research. Additionally, the author is deeply appreciative of the insightful suggestions and guidance offered by all those who generously provided consulting advice throughout the course of this study

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