
FACTORS INFLUENCING THE SUCCESS OF THE INNOVATION DEVELOPMENT PROCESS FOR COMMERCIALIZATION AT SUAN SUNANDHA RAJABHAT UNIVERSITY

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Abstract

This research study the factors that affect the success of innovation commercialization, the purposes are: 1) to carry out innovation commercialization research, 2) to find ways or strategies for the development of innovation and commercialization, and 3) to promote the commercialization and effective implementation of innovation. The samples of this study used 10 successful cases of innovative commercialization projects, and questionnaires were used as data collection tools.

Keywords: Innovation Development, Transferring technology

Introduction

At present, digital technologies and various innovations have brought about profound and transformative changes as a result of the transition into the digital era. This transition is not only a revolutionary trend in the global industrial sector but has also driven changes across all sectors of society. A key instrument for organizational transformation that is widely discussed is the application of innovation to enhance organizational competitiveness. Such innovations include product and service innovations, as well as innovative approaches to restructuring organizational frameworks and improving work processes. These innovations play a crucial role in enabling organizations to sustain their competitive advantage and to develop new products and services for the market.

At the same time, process innovation helps organizations reduce operational costs and improve operational efficiency. Therefore, organizations that are able to adapt and transform themselves into “innovation-driven organizations” can achieve development in multiple dimensions, gaining the flexibility needed to respond effectively to both internal and external changes. Such organizations are better able to identify areas for improvement and to enhance internal systems in order to meet the needs and expectations of consumers in the present and the future. Innovation, therefore, serves as a critical strategic solution that enables organizations to grow and achieve long-term sustainability (Wasin Charoenkiat, 2023).

The development of innovation and its commercialization is a crucial factor in driving a country’s economic and social advancement. Research and development play a vital role in generating knowledge, technologies, and innovations that can be effectively utilized for commercial purposes. Suan Sunandha Rajabhat University actively promotes and supports the development of innovation, the exhibition of and the expansion of innovations toward

commercialization, as well as the public dissemination of research outputs and innovations through national and international exhibitions.

Research Objectives

1. To develop research and innovations toward commercialization by academic staff of Suan Sunandha Rajabhat University.
2. To identify approaches or strategies for enhancing the innovation commercialization process.
3. To promote the effective development of innovations and their application in commercial contexts

Scope of the study

Population and Sample

The population and sample consisted of lecturers and researchers from Suan Sunandha Rajabhat University and external personnel.

Literature Review

The concept of innovation has been explained by scholars from multiple perspectives. Schumpeter (1934) described innovation as the creation of new ideas or the improvement of existing ones to generate added value, which may take the form of new products, processes, services, or business models. Similarly, Rogers (2003) defined innovation as an idea or object that is perceived as new by an individual or an organization and is applied to create value.

This perspective is consistent with the study by Suwandej, Thongves, and Kleebbuabarn (2025), who argued that innovation is not limited solely to the invention of new technologies. Rather, it also encompasses an organization's capability to adopt strategic concepts, such as green innovation strategies, to enhance overall innovation performance. This view reflects that innovation constitutes both a "process" and an "outcome," requiring systematic and effective management.

Therefore, in the context of universities, innovation refers to research outputs or bodies of knowledge that can be developed, extended, and utilized for commercial purposes in order to generate income, create economic value, and contribute benefits to society.

Commercialization of Innovation

The development of innovation from research outputs toward commercial application requires multiple supporting mechanisms and enabling factors. These include:

1. Research and Development (R&D), which serves as a fundamental foundation for the creation of new knowledge.
2. Technology Transfer, which facilitates the application of innovations developed in laboratories to industrial and practical contexts.
3. Support from universities and relevant organizations, such as business incubators or technology transfer offices, which play a key role in fostering innovation commercialization.
4. Collaboration with the private sector, which is crucial for market development and the generation of economic value.

The study by Suwandej et al. (2025) supports this perspective, demonstrating that the presence of a clear innovation strategy, particularly a green innovation strategy, is a critical mechanism that links an organization's technical capabilities and research capacity with

innovation performance outcomes. Such strategic alignment can be further leveraged to create sustainable commercial value in the long term.

Related Theories

This study can be explained through several key theories and conceptual frameworks. One of the principal theories is Rogers' Diffusion of Innovation Theory (2003), which posits that the adoption of innovation depends on specific attributes of the innovation, including relative advantage, compatibility, complexity, trialability, and observability. This theoretical perspective is consistent with the findings of Suwandej et al. (2025), who reported that the adoption of green innovation strategies enhances both the acceptance and effectiveness of innovation within organizations.

In addition, Innovation System Theory highlights the importance of establishing an innovation-supportive ecosystem, encompassing policy frameworks, research and development, financial support, and market mechanisms. This perspective aligns with the Triple Helix Model proposed by Etzkowitz and Leydesdorff (2000), which emphasizes collaboration among universities, industry, and government as a driving force for advancing innovation toward sustainable commercialization.

Research Methodology

Population and Sampling

The population of this study consists of researchers and academic staff who have developed innovations for commercialization. As the exact size of the population cannot be clearly identified, the sample size for this study was therefore set at ten (10) participants.

Research Instruments and Instrument Quality Assessment

The questionnaire was employed as the research instrument for quantitative research.

Data Collection

A questionnaire (survey) was used as the data collection instrument. The target sample was asked to respond to the questionnaire by rating their level of agreement on a five-point Likert scale, where 5 indicates the highest level of agreement.

Research Results

This study examines the factors influencing the success of innovation commercialization at Suan Sunandha Rajabhat University. Data were collected from questionnaires administered to researchers and lecturers involved in innovation commercialization. Ten respondents participated in the survey, which employed a five-point Likert scale. The data were analyzed, and the results are presented as follows:

Table 1: Factors Related to Innovation Development (Research and Development (R&D) and Capability in Creating New Products/Services)

General Information	Number of Respondents (Persons)	Percentage (%)
Innovation Development		
Research and Development (R&D)	6	60
Capability to Create New Products/Services	4	40

Based on the collected data, the mean score among the 10 respondents was 4.60, indicating that the quality of research outputs and their innovative advancement plays a critical role in success, serving as a foundation for the generation of new knowledge and technologies with commercialization potential.

Table 2: Business Sector Collaboration in Joint Investment and Distribution Support

General Information	Number of Respondents (Persons)	Percentage (%)
Collaboration with the Business Sector		
Joint Investment	8	80
Distribution Support	2	20

Based on data from 10 respondents, the mean score was high at 4.80, indicating the importance of both researchers' innovative capabilities (Section 1) and university support, including funding, infrastructure, and facilities (Section 4), as key foundations for driving innovation.

Conclusions

This study aimed to investigate the success of factors researchers and academic staff in commercializing innovations. The sample consisted of ten participants, and a questionnaire was employed as the data collection instrument. The research findings can be summarized as follows:

1. Section 1: Innovation Development Factors

The mean score was 4.80, indicating that the respondents perceived the capability to develop innovations as a very significant factor contributing to success.

2. Section 2: Research and Development (R&D) Capability Factors

The mean score was 4.60, reflecting that research skills and expertise are highly important, while there remains potential for further capacity enhancement.

3. Section 3: Technology Transfer Factors

This factor recorded the highest mean score of 4.90, demonstrating that effective technology transfer is the core determinant of success in advancing innovations toward commercialization.

4. Section 4: University Support Factors

With a mean score of 4.80, the results highlight the importance of institutional policies, support mechanisms, and resources provided by universities.

5. Section 5: Collaboration with the Business Sector Factors

The mean score was 4.60, suggesting that networking and collaboration with entrepreneurs constitute another essential component in driving innovation forward.

In conclusion, the success factor with the highest mean score was technology transfer (4.90), followed by innovation development and university support (4.80).

Discussion

The research findings are consistent with Rogers' *Diffusion of Innovations Theory*, which emphasizes that the dissemination of innovations and support from networks play a crucial role in adoption and commercial diffusion. The high ratings given by the sample group in the area of technology transfer highlight the importance of linking knowledge generated in laboratories to practical, real-world applications.

Furthermore, the high scores for university support factors indicate that the presence of supportive systems—such as funding sources, resources, qualified personnel, and research-friendly policies—facilitates the smooth progression of innovation development toward commercialization. While factors related to R&D capacity and collaboration with the business sector also received relatively high scores, they were slightly lower than other dimensions. This may reflect ongoing challenges in establishing effective collaborative networks between researchers and entrepreneurs, as well as the need for further enhancement of advanced research and development capabilities.

Recommendations

Policy Recommendations

1. Universities should establish a Technology Transfer Office (TTO) to serve as an intermediary between researchers and entrepreneurs, facilitating the effective transfer and commercialization of research outcomes.
2. Clear business networking and matching strategies (Business Matching) should be formulated to link research outputs with targeted markets and potential industry partners.
3. The government and relevant agencies should provide commercialization grants (Commercialization Grants) to encourage the scaling up and further development of innovations toward practical and market-ready applications.

Academic Recommendations

1. Researchers should place greater emphasis on designing innovations that are responsive to market needs and capable of adapting to changing consumer demands.
2. Curricula or training programs in innovative business management should be expanded for faculty members and researchers in order to strengthen commercial competencies alongside research skills.
3. Future studies should employ larger sample sizes and include participants from a wider range of universities to enhance the validity, reliability, and generalizability of the findings.

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