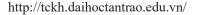


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INTELLECTUAL PROPERTY MANAGEMENT IN THE CONTEXT OF DIGITAL TRANSFORMATION AT THE UNIVERSITY OF SOCIAL SCIENCES AND HUMANITIES, VIETNAM NATIONAL UNIVERSITY HO CHI MINH CITY

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Abstract:

Intellectual property management is a crucial issue in higher education in the context of digital transformation and serves as criteria in the AUN-QA assessment at the institutional level; however, this concept has received limited attention in research conducted in Vietnam. Although intellectual property management at the University of Social Sciences and Humanities, Vietnam National University Ho Chi Minh City (VNU-HCM) has achieved certain results, there are still many difficulties and limitations. The paper presents the results of employing the systematic PDCA (Plan – Do – Check – Act) management cycle to investigate the current state of intellectual property management at the USSH-VNUHCM within the context of digital transformation, aiming to meet the requirements of education in the knowledge economy. The findings of the research on the current state will provide insights for improvement and potential enhancements in intellectual property management practices within similar higher education institutions.



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QUẢN LÝ TÀI SẢN TRÍ TUỆ TRONG BỐI CẢNH CHUYỀN ĐỖI SỐ TẠI TRƯỜNG ĐẠI HỌC KHOA HỌC XÃ HỘI VÀ NHÂN VĂN, ĐẠI HỌC QUỐC GIA THÀNH PHỐ HỒ CHÍ MINH

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Thông tin bài viết

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Từ khóa: Quản lý tài sản trí tuệ, giáo dục đại học, bối cảnh chuyển đổi số, kiểm định AUN-QA, pháp chế ngành giáo dục

Tóm tắt

Quản lý tài sản trí tuệ là một vấn đề quan trọng của giáo dục đại học trong bối cảnh chuyển đổi số và là tiêu chuẩn trong kiểm định AUN-QA cấp cơ sở, nhưng khái niệm này ít được tiếp cận trong các nghiên cứu tại Việt Nam. Thời gian qua, mặc dù công tác quản lý tài sản trí tuệ tại Trường Đại học Khoa học Xã hội và Nhân văn, Đại học Quốc gia Thành phố Hồ Chí Minh đã đạt được những kết quả nhất định nhưng vẫn còn nhiều khó khăn, hạn chế. Bài viết trình bày kết quả nghiên cứu thực trạng về quản lý tài sản trí tuệ trong bối cảnh chuyển đổi số tại Trường Đại học Khoa học Xã hội và Nhân văn, ĐHQG-HCM theo chu trình PDCA (Plan – Do – Check – Act) để đáp ứng yêu cầu của giáo dục trong nền kinh tế tri thức. Kết quả nghiên cứu cung cấp cái nhìn mới về các vấn đề cần cải thiện và tiềm năng phát triển trong việc quản lý tài sản trí tuệ tại các cơ sở giáo dục đại học tương tự.

1. Introduction

In the contemporary era of the knowledge economy and amidst the ongoing digital transformation, intellectual property management emerges as an increasingly critical and essential issue, influencing the production and consumption of goods and services that rely on knowledge-based economic activities. This transformation underscores the growing importance of intellectual assets, driven by human creativity and innovation.

Particularly in the context of digital transformation, characterized by rapid advancements in technology and connectivity, more businesses, organizations, and individuals emphasize the creation and utilization of intellectual assets (Bently, L., Sherman, B., Gangjee, D., & Johnson. P, 2022). To safeguard human creative achievements and innovations in this digital landscape, governments worldwide have established legal mechanisms for intellectual property protection (Berry, R. S. Y, 1999; Dau, H. M., Nguyen, T. H., & Duong,

V. T. V, 2023). In 2005, the Vietnamese National Assembly enacted the Intellectual Property Law, subsequently amended in 2009, 2019, and most recently in 2022 (Di Giorgio, R. C, 2007).

Universities are also integral to this landscape, each needing an effective intellectual property management system (Doan, D. L., Tran, V. H., & Nguyen, T. H. T, 2018). Numerous studies globally affirm the importance of intellectual property management in higher education institutions [8][9] [10][11] (Fernandez. C, 2007; Goldstein. P, 2003); Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L, 2006). Consequently, many studies worldwide have been conducted on intellectual property management in higher education (Harlacher.J, (2016; Holgersson, M., & Aaboen. L, 2019).

In Vietnam, although less explored, some noteworthy studies have been conducted (Huan, C. W., & Mohamad Nasri, N. B, 2022; Kersnik, J., & Klemenc-Ketis, Z, 2021). Recognizing the significance of this issue, the Ministry of Education and Training (MOET) issued Decision No. 78/2008/QD-BGDDT on December 29, 2008, regulating the intellectual property management activities in higher education institutions (Le, T. T. H., & Nguyen, T. K, 2017). In 2016, the ASEAN University Network - Quality Assurance (AUN-QA) issued Quality Assurance Framework at Institutional Level Version 2, which includes a criterion on Intellectual Property Management. The MOET's Quality Assurance Framework for Higher Education Institutions, issued in 2017, also includes a similar criterion on Intellectual Property Management [19]. Responding to these regulations and standards, many universities in Vietnam have developed regulations on intellectual property management (Nguyen L., Mac V. T., & Nguyen C. G, 2009; Nguyen, N. Q, 1998; Nunnally, J. C, 1978).

Among them, the Vietnam National University Ho Chi Minh City (VNU-HCM) was among the pioneers, issuing the Regulation on Intellectual Property Management in 2015 (Nunnally, J. C, 1978).

As the largest research and training center in social sciences and humanities in the Southern region, the University of Social Sciences and Humanities (USSH-VNUHCM), a member of VNU-HCM, plays a crucial role in creating exemplary research works in the fields of social sciences and humanities. With a commitment to meeting the AUN-QA institutional training quality standards and a focus on digital transformation , intellectual property management at USSH-VNUHCM is a vital and necessary issue. To address this, the university has established regulations and policies related to intellectual property management, such as the Regulation on Intellectual Property Management (Reich. R. B. 2010), the Procedure for Supporting Copyright Registration (Richard, F, 2002), and the Regulation on Citation and Anti-Plagiarism [30]. While these regulations contribute to promoting and enhancing the university's scientific research activities, creating a favorable environment for efficient use and exploitation of intellectual property rights and related benefits, they also reveal challenges. Notably, intellectual property management is insufficiently integrated into scientific activities, information dissemination on intellectual property plans is limited, and the university's system for recording intellectual property lacks consistency.

This study aims to fill the gap in understanding and provide insights to enhance intellectual property management at USSH-VNUHCM. Building upon the theoretical framework, survey findings, this study analyzes the current state of intellectual property management at the USSH-VNUHCM. In doing so, it seeks to enhance the efficiency of intellectual property management at the university.

2. Methodology

This study employed a mixed-methods approach, encompassing literature review, survey

questionnaires, activity product analysis, and data processing methods. The literature review served as the theoretical foundation, involving the synthesis and analysis of relevant theoretical frameworks, national and international research on intellectual property management, legal regulations, and university documents. The survey questionnaire gathered quantitative data on intellectual property management and its influencing factors. The questions, carefully formulated, were constructed based on theoretical foundations derived from both domestic and international research. Additionally, the questionnaire was informed by the content of intellectual property management regulations from several universities. This comprehensive approach ensured that the survey instrument was not only methodologically sound but also rooted in the existing body of knowledge, combining insights from prior studies and institutional intellectual property management policies. The questions addressed crucial aspects of intellectual property management, offering a nuanced evaluation of current management practices. To supplement survey results, an analysis of institutional documents, newsletters, and specialized records was conducted. This involved studying the university's intellectual property management plans, relevant meeting minutes, and specialized forms. Quantitative data were analyzed using descriptive statistics in SPSS 27. For qualitative data, content analysis and crossreferencing methods were applied to enhance and clarify the quantitative findings (Vu, T. H., Kieu, D. H., Nguyen, T. T. H., Nguyen, L. K., Dao, T. H. V., & Vu, V. D, 2019).

The survey occurred in May 2023, with online and offline methods. The survey targeted a balanced representation of roles within the university community.

The Likert scale, structured with a five-point range from 1 (Strongly Disagree) to 5 (Strongly Agree), facilitated nuanced responses. The scoring methodology involves calculating the value of each point using the formula: , resulting

in . This approach ensures a consistent and graded response system. The interpretation of the Likert scale is delineated in Table 1, guiding respondents in assigning scores based on their perceptions.

Table 1. Likert Scale Conventions in the Survey Questionnaire

Rating	Interpretation	Average Score Range
1	Strongly Disagree	1.00 – 1.80
2	Disagree	1.81 – 2.60
3	Neutral	2.61 - 3.40
4	Agree	3.41 – 4.20
5	Strongly Agree	4.21 – 5.00

This structured scale facilitates nuanced responses, providing a quantitative basis for evaluating perceptions on intellectual property management within the university context. Each major survey question corresponds to a major aspect, representing the current state of intellectual property management within the university context. To assess the reliability of variables associated with these major aspects, factor analysis, variance extraction, and Cronbach's Alpha coefficient were employed. The results indicate values in the factor analysis ranging from 0.625 to 0.953, surpassing the threshold of 0.5. This suggests that the major aspects are highly suitable for constructing variables representing the current state of intellectual property. The majority of variance extracted falls between 63.56% and 81.27%, exceeding the 60% threshold [33]. Furthermore, the Cronbach's Alpha values, ranging from 0.823 to 0.960 in this study, exceed the thresholds of 0.6 and 0.7. Statistical results affirm the reliability of the assessment regarding the current state of intellectual property management, and the influencing factors within this study. The study included 67 participants, comprising 28 administrators (41.8%), 39 faculty and researchers (58.2%), with diverse demographics in terms of gender, age, academic qualifications, and work experience.

3. Result and Discussions

From various definitions of the concept of intellectual property (Di Giorgio, R. C, 2007) definitions of the concept of higher education institutions [41], and definitions of the concept of intellectual property of higher education institutions [17][39], it can be inferred that: The intellectual property of higher education institutions comprises intellectual property rights and other objects created by individuals within the higher education institution from tasks, budgets, facilities, and working time of the higher education institution in training, scientific, and technological activities.

From the above definition of intellectual property of higher education institutions, combined with definitions of management concepts (Vu, T. H., Kieu, D. H., Nguyen, T. T. H., Nguyen, L. K., Dao, T. H. V., & Vu, V. D, 2019; Wan, L., & Wang, Y, 2018; Wang, W.-L, 2012) and an understanding of the objectives of intellectual property management, it can be deduced that: Intellectual property management of higher education institutions is the purposeful impact process of the management entity on the managed object through planning, organizing, directing, and monitoring to stimulate creative activities, promote the exploitation, and transfer of intellectual property rights of organizations and individuals within the higher education institution.

This study delves into the current state of intellectual property management at the USSH-VNUHCM, employing the systematic PDCA (Plan - Do - Check - Act) management cycle. The PDCA model, first introduced in 1950, is symbolized as a circular motion, illustrating the cyclical nature of continuous improvement within the management process (WIPO, 2020), Aligned with international quality assurance principles, the AUN-QA quality assurance model is inherently grounded in the PDCA operational framework. Notably, each criterion in the AUN-QA standards corresponds to specific steps within the PDCA cycle. In the AUN-QA standard for intellectual property management (institutional level, version 2) under criterion 19, the breakdown is explicit: sub-criterion 19.1 aligns with Plan, 19.2 with Do, 19.3 with Check, and 19.4 with Act. In higher education, applying a quality assurance approach to intellectual property management requires administrators to rigorously follow the PDCA cycle. This comprehensive adoption ensures a structured and continuous improvement approach, bridging theoretical foundations with practical implementation in the university's intellectual property management.

3.1. The current state of P – Planning in intellectual property management at USSH-VNUHCM

The survey results regarding P – Planning for intellectual property within the USSH-VNUHCM are summarized in Table 2 below:

Table 2. The current state of P – Planning in intellectual property management

No.	P – Planning in intellectual property	Administrators		Faculty & Researchers		Overall		Rank
	management	Mean	SD	Mean	SD	Mean	SD	
1	Understanding and analysis of intellectual property needs and current state	3.61	0.74	3.69	0.69	3.66	0.71	9
2	Identification of types of intellectual property to be managed	3.86	0.65	3.87	0.70	3.87	0.67	5
3	Identification of the lifecycle of intellectual property to be managed	3.68	0.77	3.87	0.66	3.79	0.71	6

No.	P – Planning in intellectual property	Administrators		Faculty & Researchers		Overall		Rank
	management	Mean	SD	Mean	SD	Mean	SD	
4	Establishment of a system for managing and protecting inventions, patents, copyrights, and research results	4.04	0.64	3.85	0.71	3.93	0.6	
5	Establishment of a framework for managing intellectual property to encourage and protect research, innovation, inventions, creative work, technology transfer, and commercialization	4.07	0.66	3.85	0.59	3.9		
6	Establishment of a framework for managing intellectual property to meet institutional and regulatory requirements	4.18	0.77	3.92	0.74	4.03	0.7	
7	Establishment of communication channels for intellectual property management with relevant parties	4.04	0.74	3.90	0.64	3.96	0.	
8	Identification of risks and opportunities regarding intellectual property	3.64	0.78	3.87	0.70	3.78	0.73	7
9	Identification of appropriate intellectual property management processes	3.68	0.90	3.85	0.71	3.78	0.79	8
	Overall	3.87	0.57	3.85	0.57	3.86	0.56	

The current state of P-Planning for intellectual property at USSH-VNUHCM is evaluated to be "Agree" with a Mean score of 3.86 and a Standard Deviation of 0.56. Each aspect of the Planning phase also receives an overall "Agree" rating.

Specifically, the highest-rated aspect is the "Establishment of a framework for managing intellectual property to meet institutional and regulatory requirements" (Mean=4.03, SD=0.76). This is evident from the issuance of Regulation No. 10/QD-XHNV-TTPC-SHTT dated June 22, 2020, by the University Rector, outlining the guidelines for intellectual property management, aligned with various legal and directive documents [28]. Following closely is the "Establishment of communication channels for intellectual property management with relevant parties" (Mean = 3.96, SD=0.68), highlighting the university's emphasis on effective communication related to intellectual property management.

Subsequently, the aspects "Establishment of a framework for managing intellectual property to encourage and protect research, innovation, inventions, creative work, technology transfer, and commercialization" (Mean = 3.94, SD = 0.62) and "Establishment of a system for managing and protecting inventions, patents, copyrights, and research results" (Mean = 3.93, SD = 0.68) demonstrate progress in establishing management systems for intellectual property. Additionally, the need for enhancement is identified in the areas of "Identification of types of intellectual property to be managed" (Mean = 3.87, SD = 0.67) and "Identification of the lifecycle of intellectual property to be managed" (Mean = 3.79, SD = 0.71), emphasizing the importance of accurately classifying and understanding intellectual property types and lifecycles. Moreover, "Identification of risks and opportunities regarding intellectual property" (Mean = 3.78, SD = 0.73) and

"Identification of appropriate intellectual property management processes" (Mean = 3.78, SD = 0.79) reveal the necessity for continued improvement in risk assessment and process definition for effective intellectual property management.

The aspect "Understanding and analysis of intellectual property needs and current state" receives the lowest rating (Mean = 3.66, SD = 0.71), indicating the need for enhanced capability in understanding and accurately assessing intellectual property needs and current state within the university.

Overall, despite some challenges and areas for improvement, USSH-VNUHCM has made

significant efforts in planning and managing intellectual property. To optimize and maximize intellectual property protection, continued capacity enhancement and necessary activities such as market research, risk and opportunity identification, and the development of appropriate management processes are essential.

3.2. The current state of D – Doing in intellectual property management at USSH-VNUHCM

The survey results regarding the D – Doing in intellectual property management within the USSH-VNUHCM is depicted in Table 3 below:

Table 3. The current state of D – Doing in intellectual property management

No.	D – Doing in intellectual property	Administrators		Facult Resear	•	Overall		Rank
	management	Mean	SD	Mean	SD	Mean	SD	
1	Development of new intellectual property	3.79	0.79	3.77	0.63	3.78	0.69	2
2	University identifies, records, and determines intellectual property rights	3.79	0.79	3.87	0.70	3.84	0.7	
3	Implementation of storage and retrieval system for intellectual property	3.57	0.84	3.64	0.58	3.61	0.70	5
4	University enhances awareness of intellectual property and internal regulations	3.86	0.76	3.69	0.69	3.76	0.	
5	University protects intellectual property rights, resolves disputes, and handles infringements	3.71	0.71	3.72	0.51	3.72	0.	
6	Exploitation of intellectual property	3.46	0.79	3.62	0.63	3.55	0.70	6
7	Distribution of benefits from intellectual property exploitation	3.36	0.83	3.51	0.64	3.45	0.72	7
	Overall	3.65	0.63	3.69	0.44	3.67	0.52	

The USSH-VNUHCM has made efforts in the D – Doing in intellectual property management, with a Mean score of 3.67 and a Standard Deviation of 0.52, indicating "Agree". Each aspect of the Doing also receives an overall "Agree" rating.

The highest-rated aspect is "University identifies, records, and determines intellectual property rights" (Mean = 3.84, SD = 0.73),

demonstrating concentration and effectiveness in identifying and determining the University's intellectual property rights.

The aspects "Development of new intellectual property" (Mean: 3.78, SD = 0.69) and "Implementation of storage and retrieval system for intellectual property" (Mean = 3.61, SD = 0.70) are evaluated to be "Agree", indicating

efforts in developing new intellectual property and implementing storage and retrieval systems. However, further enhancements are needed to achieve better results. The aspect "University enhances awareness of intellectual property and internal regulations" (Mean = 3.76, SD = 0.72), at the "Agree" level, signifies efforts in raising awareness of intellectual property. In relation to this, the University's Intellectual Property Management Regulations are part of the subject matter of two legal knowledge competitions organized by the Office of Educational inspectorate - Legality - Intellectual property in coordination with various organizations within the University (WIPO, 2022; Wurzer, A., Soon-Kesteloot, J., Best, B., Wennemer, N., Wilming, M., Calsbach, S., Berres, W., Wolke, D. S., Tümmler, D. H.-P., & Mittelstaedt, A, 2022).

The aspect "University protects intellectual property rights, resolves disputes, and handles infringements" (Mean = 3.72, SD = 0.60), at the "Agree" level, indicates efforts in enforcing intellectual property regulations.

The lowest-rated aspects are "Exploitation of intellectual property" (Mean = 3.55, SD = 0.70)

and "Distribution of benefits from intellectual property exploitation" (Mean = 3.45, SD = 0.72), indicating potential for enhancing exploitation activities and benefit distribution from intellectual property. This is a characteristic point in the current state of Doing in intellectual property management at USSH-VNUHCM, as studies have analyzed that intellectual property management in universities, both domestically and internationally, often focuses on exploiting intellectual property. Overall, despite some progress and efforts in Doing intellectual property activities, the University needs to continue enhancing awareness, establishing effective storage and management systems, ensuring intellectual property rights protection, and maximizing benefits from intellectual property exploitation to achieve better results.

3.3. The current state of C – Checking in intellectual property management at USSH-VNUHCM

The survey results regarding C – Checking within the USSH-VNUHCM are presented in the following table:

Table 4. The current state of C – Checking in intellectual property management

No.	C – Checking in intellectual property	Administrators		Faculty & Researchers		Overall		Rank
	management	Mean	SD	Mean	SD	Mean	SD	
1	University reviews the established intellectual property management system, assessing its effectiveness and efficiency	3.21	0.79	3.33	0.58	3.28	0.67	7
2	University checks and records information on newly developed intellectual property, ensuring accurate and comprehensive ownership recognition	3.43	0.79	3.62	0.54	3.54	0.66	2
3	University identifies and records issues related to intellectual property protection, including disputes, infringements, and new opportunities	3.64	0.68	3.64	0.54	3.64	0	

No.	C – Checking in intellectual property	Administrators		Faculty & Researchers		Overall		Rank
	management	Mean	SD	Mean	SD	Mean	SD	
4	University checks the efficiency of the intellectual property storage and retrieval system, ensuring all intellectual property information is stored comprehensively and easily accessible	3.43	0.74	3.54	0.64	3.49	0.68	3
5	University checks the exploitation of intellectual property and the distribution of benefits from this activity	3.25	0.75	3.31	0.57	3.28	0.	
6	University checks the efficiency of the applied intellectual property procedures	3.36	0.83	3.36	0.67	3.36	0.7	
7	Relevant parties participate in the checking process to ensure their feedback is incorporated into the program's improvement plan	3.39	0.79	3.44	0.64	3.42		
	Overall	3.39	0.69	3.46	0.48	3.43	0.57	

The survey results on the current state of intellectual property C – Checking at the USSH-VNUHCM indicate a moderate level "Agree", with a mean of 3.43 and a standard deviation of 0.57. This research outcome suggests that the fundamental intellectual property checking requirements have been met, but there are still certain limitations, with 3 out of 7 aspects evaluated at a level of "Neutral".

The two highest-rated aspects are "University and records issues related to identifies intellectual property protection, including disputes, infringements, and new opportunities" (Mean = 3.64, SD = 0.60) and "University checks and records information on newly developed intellectual property, ensuring accurate and recognition" comprehensive ownership (Mean = 3.54, SD = 0.66), indicating the university's efforts in checking and recording crucial information related to intellectual property. The content of Decision No. 10/QĐ-XHNV-TTPC-SHTT dated March 15, 2022, by the university president regarding the inspection

of intellectual property activities in departments/ units aligns with these survey results. During this inspection, the inspection team examined the documentation and evidence submitted by the reporting units.

The aspect "Relevant parties participate in the checking process to ensure their feedback is incorporated into the program's improvement plan" (Mean = 3.42, SD = 0.70) indicates the involvement and participation of relevant parties in the checking process. The two lower-rated aspects are "University checks the efficiency of the applied intellectual property procedures" (Mean = 3.36, SD = 0.73) and "University checks the exploitation of intellectual property and the distribution of benefits from this activity" (Mean = 3.28, SD = 0.65).

The aspect with the lowest rating is "University reviews the established intellectual property management system, assessing its effectiveness and efficiency" (Mean = 3.28, SD = 0.67), showing a level of "Neutral". According to these results, the review and assessment of the effectiveness and

efficiency of the intellectual property management system require further improvement.

Overall, despite efforts made in intellectual property Checking, the university needs to continue enhancing its Checking phase.

3.4. The current state of A – Acting in intellectual property management

The results of the survey on A – Acting in intellectual property within the University are presented in the table below:

Table 5. The current state of Acting in intellectual property management

No.	A – Acting in intellectual property	Administrators		Faculty & Researchers		Overall		Rank
	management	Mean	SD	Mean	SD	Mean	SD	
1	Improved and supplemented strategies to encourage creativity and innovation	3.50	0.79	3.77	0.48	3.66		
2	Improved and supplemented policies to enhance intellectual property protection	3.50	0.75	3.49	0.64	3.49	0.68	3
3	Adjusted intellectual property management system to comply with new regulations	3.50	0.79	3.46	0.72	3.48	0.	
4	Improved and supplemented intellectual property management procedures, meeting practical management needs	3.57	0.74	3.49	0.68	3.52	0.70	2
5	University timely encourages, promotes, and rewards departments, units, and individuals for their good performance in intellectual property management	3.57	0.74	3.41	0.68	3.48	0.	
	Overall	3.53	0.66	3.52	0.55	3.53	0.59	

The survey results on the current state of Acting in intellectual property at the USSH-VNUHCM achieved a level "Agree", with a mean of 3.53 and a standard deviation of 0.59. Each aspect was also evaluated at an "Agree" level. This research outcome indicates that the basic intellectual property inspection has met the set requirements.

The aspect rated highest is the "Improved and supplemented strategies to encourage creativity and innovation" (Mean = 3.66, SD = 0.64), demonstrating the University's attention and effort in creating favorable conditions for staff and students to develop and apply new ideas.

The next two aspects, "Improved and supplemented intellectual property management procedures, meeting practical management needs" (Mean = 3.52, SD = 0.70) and "Improved

and supplemented policies to enhance intellectual property protection" (Mean = 3.49, SD = 0.68), were both evaluated at an "Agree" level, reflecting the University's efforts to improve processes and policies related to intellectual property.

3.5. The overall current state of intellectual property management at USSH-VNUHCM

The University has demonstrated interest and effort in managing intellectual property according to the PDCA cycle, indicative of "Agree" across all stages. Notably, the P – Planning phase for intellectual property management received the highest rating (Mean = 3.86, SD = 0.56), underscoring the University's commitment and diligence in crafting detailed plans related to intellectual property management. Both the

D-Doing phase (Mean = 3.67, SD = 0.52) and the A-Act phase (Mean = 3.53, SD = 0.59) were also rated "Agree", demonstrating the University's effective execution and enhancement of activities pertaining to intellectual property. However, the C - Checking phase regarding intellectual property received the lowest rating (Mean = 3.43, SD = 0.57), being the only phase where some aspects were evaluated with uncertainty. This score indicates a need for further efforts to ensure comprehensive and effective checking of intellectual property.

In conclusion, the University has shown interest and effort in managing intellectual property according to the PDCA cycle. Notably, the University has shown a strong understanding of intellectual property's significance, implemented frameworks comprehensive and fostered innovation through improved strategies and policies. Furthermore, it has effectively addressed disputes and ensured efficient data management systems. However, there is room for improvement, particularly in enhancing the Checking phase to ensure comprehensive and effective management. remain in fully understanding Challenges intellectual property needs, implementing effective storage systems, and motivating stakeholders. Addressing these weaknesses will be vital for enhancing the overall effectiveness of intellectual property management. To enhance the effectiveness of intellectual property management at the USSH-VNUHCM, proactive measures are imperative.

4. Conclusion and Recommendations

Amidst the dynamic landscape of the knowledge economy and the accelerating digital transformation, this study elucidates the intricate interplay between intellectual property management, higher education institutions, and the imperative need for innovative strategies to optimize intellectual asset utilization and safeguard creative endeavors in the contemporary digital milieu. Through an examination of the

current state of intellectual property management at the USSH-VNUHCM, it becomes apparent that a significant portion of administrators, faculty, and researchers grasp the significance and role of intellectual property. Intellectual property within the university setting embodies diverse groups with varying statuses, encompassing complete life cycles, and effectively encapsulating the common characteristics of intellectual property. While strides have been made in aspects such as Planning, Doing, Checking, and Acting within the management framework, there persist limitations. Certain areas, such as understanding the needs and analyzing the current state of intellectual property, warrant more attention. Additionally, the commercial exploitation of intellectual property has fallen short of desired outcomes, and the evaluation of the effectiveness and efficiency of the intellectual property management system remains insufficient. Moreover, there exists a need for timely encouragement and recognition of units excelling in intellectual property management.

enhance the intellectual property management practices at USSH-VNUHCM and similar higher education institutions, several recommendations are proposed. Firstly, fostering a culture of awareness and appreciation for intellectual property rights among all stakeholders is paramount. This can be achieved through regular training sessions, workshops, awareness campaigns. Secondly, establishing clear guidelines and procedures for intellectual property identification, protection, and commercialization will streamline the management process. Thirdly, strengthening collaboration between academia and industry can facilitate the transfer of knowledge and technology, leading to more impactful research outcomes. Fourthly, investing in infrastructure and resources dedicated to intellectual property management will ensure the efficient handling of intellectual assets. Finally, continuous evaluation and improvement of the intellectual property management system are essential to adapt to evolving trends and challenges in the digital

era. By implementing these measures, USSH-VNUHCM and similar institutions can effectively navigate the complexities of intellectual property management and harness the full potential of their creative endeavors.

While this study has made significant contributions to our understanding of intellectual property management in higher education, there remains much to explore and uncover. By embarking on these future research avenues, scholars can continue to advance knowledge and inform practice in this vital area, ensuring that institutions like USSH-VNUHCM remain at the forefront of intellectual property management excellence.

REFERENCES

- ASEAN University Network (2016). Guide to AUN-QA Assessment at Institutional Level Version 2.0.
- Association for University Research and Industry Links, & Universities UK. (2002). A Guide to Managing Intellectual Property: Strategic Decision-making in Universities. Association for University Research and Industry Links/ Universities UK.
- Bently, L., Sherman, B., Gangjee, D., & Johnson,P (2022). *Intellectual property law*. Oxford University Press.
- Berry, R. S. Y (1999). *Collecting data by in-depth interviewing*. British Educational Research Association Annual Conference 1999.
- Dau, H. M., Nguyen, T. H., & Duong, V. T. V (2023). The Digitization of Administrative Documents at the University of Social Sciences and Humanities, *Vietnam National University Ho Chi Minh City Status quo and Solutions.*Proceedings of the Conference on "Digital Transformation in Office Management," 362–378.

- Di Giorgio, R. C (2007). From university to industry: technology transfer at Unicamp in Brazil. Intellectual Property Management in Health and Agricultural Innovation: A Handbook of Best Practices, Volumes 1 and 2, 1747–1752.
- Doan, D. L., Tran, V. H., & Nguyen, T. H. T. (2018). *Intellectual Property Textbook (In the field of Educational Science)*. Hue University Publishing House.
- Fernandez, C (2007). How to set up a technology transfer system in a developing country. Intellectual Property Management in Health and Agricultural Innovation: A Handbook of Best Practices, Volumes 1 and 2, 567–573.
- Goldstein, P (2003). Copyright's highway: From Gutenberg to the celestial jukebox. Stanford University Press.
- Hair, J. F., Black, W. C., Babin, B. J., Anderson, R.E., & Tatham, R. L. (2006). *Multivariate data*analysis (6th ed.). Pearson Prentice Hall.
- Hanoi University of Pharmacy (2022). Decision No. 133/QD-DHN dated March 15, 2022, on the promulgation of regulations on the Intellectual Property Management Assets of Hanoi University of Pharmacy.
- Hanoi Law University (2020). Decision No. 4366/ QD-DHLHN dated November 18, 2020, on the promulgation of the "Regulation on the Intellectual Property Management Activities".
- Harlacher, J (2016). An Educator's Guide to Questionnaire Development. U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance, Regional Educational Laboratory Central.
- Holgersson, M., & Aaboen, L (2019). A literature review of intellectual property management in technology transfer offices: From appropriation to utilization. Technology in Society, 59, 101132.

- Huan, C. W., & Mohamad Nasri, N. B (2022).

 Teacher Teaching Practices Based on the PDCA Model: A Systematic Literature Review.

 International Journal of Academic Research in Progressive Education and Development, 11(3). https://doi.org/10.6007/IJARPED/v11-i3/14126
- Kersnik, J., & Klemenc-Ketis, Z (2021). 3
 The relation of performance assessment to quality management. In *Assessment of General Practitioners' Performance in Daily Practice* (pp. 21–22). De Gruyter. https://doi.org/10.1515/9783110720105-004
- Le, T. T. H., & Nguyen, T. K (2017). Intellectual property management at universities in Vietnam. *Scientific Journal of Van Lang University*, 10, 27–38.
- Ministry of Education and Training (2008). Decision No. 78/2008/QD-BGDDT of December 29, 2008, issuing regulations on the intellectual property management activities in higher education institutions. In Government Gazette No. 21+22, January 12, 2009 (pp. 1268–1276).
- Ministry of Education and Training (2017). Circular No. 12/2017/TT-BGDDT dated May 19, 2017, promulgating regulations on quality assurance of higher education institutions.
- National Assembly Office (2019). Consolidated Document No. 42/VBHN-VPQH, 2018, consolidating the Higher Education Law. In *Government Gazette No. 107+108, dated January 29, 2019* (pp. 56–107).
- National Assembly Office (2022). Consolidated Document No. 11/VBHN-VPQH dated 2022 consolidating the Intellectual Property Law. Hanoi.
- Nguyen L., Mac V. T., & Nguyen C. G (2009). The theoretical foundation of management in educational organizations (Postgraduate textbook in Educational Management). University of Education Publisher.

- Nguyen, N. Q.(1998). *The faculty: Contributors to the Innovation of Teaching Theory*. University of Education Publisher.
- Nunnally, J. C (1978). *Psychometric Theory* (2nd ed.). McGraw-Hill.
- Office of Educational Inspectorate Legality Intellectual property University of Social Sciences and Humanities Vietnam National University Ho Chi Minh City. (2021). *Process of supporting copyright registration*.
- Pham, T. T. H (2021). Intellectual Property

 Management in Universities in the Central

 Vietnam Region. Ho Chi Minh City University
 of Education
- Pham, T. Q., & Dang, M. N (2017). Impact factors of personal digital piracy behavior in Vietnam. *Science & Technology Development Journal: Economics-Law & Management, 1*(Q4), 78-87.
- Reich, R. B.(2010). *The work of nations: Preparing ourselves for 21st century capitalis*. Vintage.
- Richard, F (2002). The rise of the creative class: and how it's transforming work, leisure, community and everyday life. New York: Basic Books.
- Stoner, J. A. F., Freeman, R. E., & Gilbert, D. R (1995). *Management*. Prentice Hall.
- Tran, K (1997). School Education Management. Hanoi Publishing House.
- Truong, T. T (2007). Commercialization of intellectual property: Supporting university
 R&D for economic development and integration. Ho Chi Minh City Open University
 Journal of Science, 2(1), 26–34.
- University of Medicine and Pharmacy at Ho Chi Minh City (2019). Decision No. 2027/QD-DHYD dated July 3, 2019, on the promulgation of regulations on the Intellectual Property Management Assets of the University of Medicine and Pharmacy at Ho Chi Minh City.

- University of Social Sciences and Humanities Vietnam National University Ho Chi Minh City (2019). *Quality Assurance Handbook*.
- University of Social Sciences and Humanities Vietnam National University Ho Chi Minh City (2020). Decision No. 10/QD-XHNV-TTPC-SHTT dated June 22, 2020, on the issuance of the Regulation on Intellectual Property Management at the University of Social Sciences and Humanities, Vietnam National University Ho Chi Minh City.
- University of Social Sciences and Humanities
 Vietnam National University, Ho Chi Minh
 City (2024). Decision No. 03/QD-XHNVTTPC-SHTT on January 23, 2024, regarding
 the issuance of regulations on citation and
 plagiarism prevention at the University of
 Social Sciences and Humanities, Vietnam
 National University, Ho Chi Minh City.
- University of Social Sciences and Humanities Vietnam National University Ho Chi Minh City (2022). Decision No. 10/QD-XHNV-TTPC-SHTT dated March 15, 2022, regarding the inspection of intellectual property activities in departments/units.
- University of Social Sciences and Humanities Vietnam National University Ho Chi Minh City (2023). Joint Plan No. 16/KHLT-XHNV-TTPC-SHTT-CĐ dated March 24, 2023, organizing the "USSH-er Companion with Law" competition in 2023.
- University of Social Sciences and Humanities Vietnam National University Ho Chi Minh City (2022). Joint Plan No. 12/KHLT-XHNV-TTPC-SHTT-ĐTN dated March 18, 2022, organizing the "Legal Arena V" competition in 2022.
- Vietnam National University Hanoi (2021).

 Decision No. 3416/QD-DHQGHN dated

 November 2, 2021, on the promulgation
 of regulations on intellectual property
 management at Vietnam National University
 Hanoi.

- Vietnam National University Ho Chi Minh City (2015). Decision No. 84/QD-ĐHQG dated February 6, 2015, on the promulgation of the "Regulation on the Intellectual Property Management in Ho Chi Minh City National University".
- Vietnam National University Ho Chi Minh City (2021). Decision No. 1554/QD-ĐHQG dated December 7, 2021, on the approval of the Strategic Plan for the period 2021-2025 of the University of Social Sciences and Humanities.
- Vu, T. H., Kieu, D. H., Nguyen, T. T. H., Nguyen, L. K., Dao, T. H. V., & Vu, V. D. (2019). Solutions for Developing Intellectual Property Activities at Hanoi National University.
- Wan, L., & Wang, Y (2018). Study on the Intellectual Property Management in Colleges and Universities at New Stage. 2018 Symposium on Health and Education (SOHE 2018), 222–228.
- Wang, W.-L (2012). Review of the legal scheme and practice of technology transfer in Taiwan.

 National Taipei University of Technology

 Journal of Intellectual Property and

 Management, 1, 200–201.
- WIPO (2020). What is intellectual property?
- WIPO (2022). World Intellectual Property Indicators 2022. Geneva.
- Wurzer, A., Soon-Kesteloot, J., Best, B.,
 Wennemer, N., Wilming, M., Calsbach, S.,
 Berres, W., Wolke, D. S., Tümmler, D. H.-P.,
 & Mittelstaedt, A. (2022). Standards for the
 Quality of IP Management. Les Nouvelles-Journal of the Licensing Executives Society,
 57(3).