

STUDENTS' KNOWLEDGE-SHARING BEHAVIOR IN ENHANCING THE INTELLECTUAL CAPITAL OF HIGHER EDUCATION INSTITUTIONS: AN EMPIRICAL STUDY IN JAYAPURA

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Abstract. This study examines the effect of students' attitudes on knowledge-sharing behavior among accounting students in Jayapura using a quantitative causal research design complemented by descriptive analysis. The study population comprised university students in Jayapura, and respondents were selected using a purposive sampling technique. Primary data were collected through questionnaires, resulting in 61 usable responses from accounting students. The data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS through the evaluation of the measurement model (outer model) and structural model (inner model). The results show that students' attitudes have a positive and significant effect on knowledge-sharing behavior, indicating that students with more favorable attitudes toward knowledge sharing are more likely to engage in knowledge-sharing activities. The findings also highlight the importance of creating a supportive academic environment that encourages interaction, collaboration, and knowledge exchange among students. This study provides practical implications for lecturers, curriculum designers, and educational planners in developing learning strategies that promote knowledge-sharing practices and integrate them into academic activities. In addition, the findings contribute to the literature on knowledge sharing and intellectual capital development in higher education.

Keywords: knowledge-sharing behavior; intellectual capital; student attitudes; higher education; accounting students

I. INTRODUCTION

In a knowledge-based economy, intellectual capital is increasingly recognized as a strategic resource for value creation and the development of sustainable organizational advantages in both private and public organizations (Low et al., 2015). Intellectual capital encompasses knowledge, experience, professional skills, interpersonal relationships, and technological capacities that, when effectively managed and utilized, can provide organizations with competitive advantages (CIMA, 2004). Its role has become particularly important for organizations whose major activities depend extensively on the creation, management, and dissemination of knowledge.

Higher education institutions are public organizations characterized by a high degree of intangibility because a substantial proportion of their outputs are generated in the form of services and knowledge (Secundo et al., 2016). As knowledge-intensive organizations, universities play a fundamental role in creating, developing, and disseminating knowledge through teaching, research, and other academic activities. Consequently, higher education institutions make substantial investments in research and human resource development. Researchers, professors, lecturers, academic staff, and students constitute interconnected resources involved in the processes of knowledge creation and dissemination. Most activities within universities are closely associated with the development and distribution of

knowledge (Leitner, 2004). Therefore, the knowledge embedded within university human resources represents an important component of intellectual capital and may contribute substantially to institutional success.

One important mechanism for developing intellectual capital in higher education institutions is knowledge sharing. When knowledge remains confined to particular individuals or groups and is not shared with others, the cognitive resources available within an organization may not be optimally utilized (Cabrera & Cabrera, 2005). Conversely, the value of knowledge increases when it is used and shared because this process enables individuals and groups to enhance their competencies and performance and to generate innovative ideas (Al-Kurdi et al., 2020). Within the field of knowledge management, knowledge sharing refers to the exchange and distribution of knowledge among individuals and groups through either direct interpersonal interaction or technology-mediated communication (Cabrera & Cabrera, 2002; Hsu & Lin, 2008; Kipkosgei et al., 2020).

Students represent an important component of university human resources and have the potential to contribute to the development of institutional intellectual capital. Learning in higher education does not occur exclusively through the transfer of knowledge from lecturers to students but also through interaction, discussion, collaboration, and the exchange of information and experiences among students. Knowledge-sharing activities can provide various benefits, including better academic performance, improved

communication and interpersonal skills, greater appreciation of diverse and opposing perspectives, positive interdependence in collaborative learning, and satisfaction derived from contributing to the learning of others (Burns et al., 2014; So & Brush, 2008). Student knowledge-sharing behaviour is therefore essential for creating a collaborative academic environment that supports continuous knowledge development.

Nevertheless, knowledge sharing among students does not always occur effectively. Several factors may hinder students' willingness to share knowledge, one of which is their attitude toward knowledge-sharing activities (Bello & Oyekunle, 2014; Jolaee et al., 2014). Students may be reluctant to exchange information or share their knowledge with their peers. In addition, insufficient incentives, ineffective communication, inadequate supportive environments, and limited individual willingness to share may influence the effectiveness of knowledge-sharing processes (Hung et al., 2011; Lagerström & Andersson, 2003). Students' attitudes are therefore particularly important because positive attitudes toward knowledge sharing may encourage the development of actual knowledge-sharing behaviour.

Previous studies have examined knowledge-sharing patterns among university students. Jer Yuen and Shaheen Majid (2007), for example, investigated knowledge-sharing behaviour among undergraduate students in Singapore by examining several dimensions, including attitudes, preferred information sources, frequency of knowledge sharing, types of information shared, barriers, and motivations for sharing knowledge. Similarly, Chin Wei et al. (2012) investigated knowledge-sharing practices among university students in Malaysia. These studies indicate that both individual characteristics and academic environments play important roles in supporting student knowledge-sharing activities.

However, much of the existing knowledge-sharing literature has focused predominantly on organizational and workplace settings, while studies specifically examining student knowledge-sharing behaviour within higher education remain relatively limited. Furthermore, empirical evidence concerning the influence of students' attitudes on knowledge-sharing behaviour, particularly among accounting students in higher education institutions in Jayapura, remains insufficiently explored. This limitation highlights the need to examine not only the relationship between attitudes and knowledge-sharing behaviour but also broader patterns of student knowledge sharing, including the types of materials shared, preferred sources of information, communication activities and channels, and the factors that motivate or inhibit knowledge-sharing activities.

Addressing this gap, the present study aims to examine the influence of students' attitudes on the knowledge-sharing behaviour of accounting students in learning activities and to identify factors associated with students' knowledge-sharing practices. The study focuses on accounting students within the higher education context in Jayapura. By integrating an examination of the relationship between attitudes and behaviour with a broader analysis of knowledge-sharing patterns, this study seeks to provide a more comprehensive

understanding of student knowledge-sharing behaviour in an academic environment.

Theoretically, this study is expected to extend the literature on knowledge sharing and intellectual capital management in higher education by positioning students as important actors in the creation and dissemination of institutional knowledge. Practically, the findings are expected to provide useful insights for universities, lecturers, curriculum designers, and educational planners in designing learning strategies and academic environments that more effectively facilitate knowledge-sharing activities. Integrating knowledge sharing into classroom discussions, collaborative learning, group assignments, student presentations, and other academic activities may contribute to optimizing students' knowledge development while simultaneously strengthening the intellectual capital of higher education institutions.

Knowledge-Based View

The *Knowledge-Based View* (KBV) is an extension of the *Resource-Based View* (RBV) that regards knowledge as one of the most important strategic resources determining organizational performance and competitiveness. From this perspective, knowledge-based resources play a fundamental role in creating and sustaining competitive advantages. The KBV has become increasingly relevant in a knowledge-based economy because an organization's ability to create, manage, utilize, and disseminate knowledge can substantially determine its success.

The collective knowledge possessed by an organization constitutes an important component of its intellectual capital (Vaz et al., 2019). The KBV provides a theoretical foundation for explaining how individual knowledge-sharing activities contribute to the effectiveness of organizational knowledge management. Through knowledge sharing, knowledge possessed by individuals can be transferred, exchanged, and developed to generate broader benefits for the organization. Such practices also contribute to the development of human capital by enhancing the competencies, skills, and knowledge of organizational members, which constitute a major component of intellectual capital (Widén-Wulff & Suomi, 2007).

Theory of Planned Behavior

The *Theory of Planned Behavior* (TPB) proposes that behavioral intention is one of the most important factors in predicting individual behavior (Madden et al., 1992; So & Bolloju, 2005). Ajzen (2002) explains that an individual's intention to perform a particular behavior is influenced by a combination of attitudes toward the behavior, subjective norms, and perceived behavioral control. A positive attitude toward a behavior, together with favorable subjective norms and adequate perceived behavioral control, is expected to strengthen an individual's intention to perform that behavior.

Studies of knowledge-sharing behavior have also frequently drawn upon the *Theory of Reasoned Action* (TRA) and TPB (Akhavan et al., 2015; Abdel Fattah et al., 2021). TRA proposes that an individual's intention to perform a particular behavior is primarily determined by attitudes toward that behavior and subjective norms. In the context of knowledge sharing, these theoretical perspectives suggest that students' attitudes toward sharing knowledge may influence

their tendency to engage in knowledge-sharing behavior with their peers.

Knowledge Sharing

Knowledge sharing is regarded as one of the core activities of knowledge management. Davenport and Prusak (1998) define knowledge sharing as a process involving the exchange of knowledge among individuals and groups. Connelly and Kelloway (2003) describe knowledge sharing as a set of behaviors involving the exchange of information or assistance with others. Similarly, McAdam et al. (2012) define knowledge sharing as an activity through which various forms of knowledge are transferred or exchanged from one individual, group, or organization to another.

In both organizational and educational settings, knowledge sharing is important because knowledge retained exclusively by individuals cannot be fully utilized if it is not communicated to others. Through knowledge-sharing activities, individual cognitive resources can be used more broadly to facilitate learning, problem solving, and performance improvement. Conversely, when knowledge is not shared, the effectiveness of knowledge management may decline, and organizations may gradually lose their capacity to develop competencies and maintain their competitive position. Identifying the factors that encourage individuals to share their knowledge is therefore considered an important issue in knowledge management.

Attitude Toward Knowledge Sharing

Attitude is an important determinant of individual behavior (Ajzen, 1985). In the context of knowledge sharing, attitude refers to an individual's positive or negative evaluation of activities involving the exchange of opinions, thoughts, ideas, information, and knowledge with others. Sadiq Sohail and Daud (2009) describe knowledge sharing as a process in which individuals communicate their opinions, thoughts, ideas, and information to other people.

Individuals' attitudes toward a particular behavior may differ depending on their perceived benefits, beliefs, and feelings regarding that behavior (Lin et al., 2020). Bello and Oyekunle (2014) further indicate that personal attitudes significantly influence behavioral intentions and individuals' tendencies to perform particular actions. Therefore, individuals who hold positive evaluations of knowledge-sharing activities are more likely to share their knowledge with others (Sadiq Sohail & Daud, 2009; Bello & Oyekunle, 2014).

Within higher education, students' positive attitudes toward knowledge sharing may be reflected in their perception that sharing knowledge with peers is beneficial, helpful, enjoyable, advantageous, and valuable. Such attitudes may subsequently encourage students to exchange information more actively, respond to their peers' questions, provide assistance when needed, and communicate newly acquired knowledge during learning activities.

Previous Studies and Hypothesis Development

Hsu and Sabherwal (2012) demonstrate that knowledge sharing plays an important role in utilizing knowledge for the development of organizational intellectual capital. Widén-Wulff and Suomi (2007) also provide evidence that intellectual capital requires knowledge-sharing mechanisms

to generate meaningful effects on organizational performance. In the context of higher education institutions in Jayapura, Christina (2021) provides empirical evidence regarding the influence of knowledge-sharing activities on university intellectual capital.

A number of previous studies have also examined knowledge-sharing behavior among university students. Yuen and Majid (2007) found that undergraduate students in Singapore generally held positive attitudes toward knowledge sharing and regarded it as important for their learning. However, their study also revealed that students tended to be more reluctant to share knowledge when academic activities were subject to formal assessment. Jer Yuen and Shaheen Majid (2007) further investigated undergraduate knowledge-sharing behavior through several dimensions, including attitudes, preferred information sources, frequency of knowledge sharing, types of information shared, barriers to knowledge sharing, and motivations for sharing knowledge.

Chong et al. (2014) examined the influence of personality traits, classroom environments, and technological factors on student knowledge sharing. Chen et al. (2007) reported that team-based activities and positive instructor attitudes tended to encourage greater knowledge sharing among students. Furthermore, Chin Wei et al. (2012), in a study involving 423 undergraduate students in Malaysia, found that structured group activities encouraged knowledge sharing among students. Their findings also emphasized that universities can promote knowledge-sharing behavior by placing greater emphasis on collaborative learning.

These findings suggest that students' knowledge-sharing activities are influenced not only by the learning environment but also by individual factors. One important individual factor is attitude. Ajzen (1985) identifies attitude as an important determinant of human behavior, while Bock et al. (2005) demonstrate that attitudes toward knowledge-sharing behavior play an important role in shaping individuals' willingness to share knowledge. Students who perceive knowledge sharing as beneficial, valuable, and enjoyable are therefore expected to demonstrate a stronger tendency to engage in knowledge-sharing behavior during academic activities.

Drawing on the *Theory of Planned Behavior*, the *Knowledge-Based View*, and previous empirical findings, this study argues that more positive student attitudes toward knowledge-sharing activities are associated with stronger knowledge-sharing behavior. Accordingly, the following hypothesis is proposed:

H1: Students' attitudes have a positive effect on students' knowledge-sharing behavior.

II. RESEARCH METHODS

Research Design

This study employed a quantitative approach with a causal research design to examine the effect of students' attitudes on knowledge-sharing behavior. In addition to examining the causal relationship between the variables, descriptive analysis was conducted to provide an overview of knowledge-sharing patterns among accounting students in Jayapura. This

approach was used to investigate students' attitudes and behaviors toward knowledge-sharing activities as well as various factors associated with such activities.

Population and Sample

The population consisted of accounting students enrolled at several higher education institutions in Jayapura, including Universitas Cenderawasih, Universitas Ottow Geissler, Universitas Yapis, and Universitas Sains dan Teknologi Jayapura. Respondents were selected using a purposive sampling technique, in which participants were chosen according to predetermined criteria consistent with the objectives of the study. The sampling criteria specified in the research design included accounting students in semesters 2, 4, 6, and 8.

The study was designed to determine the required sample size using the Cochran sampling model. Following the data collection process, 61 questionnaires containing complete and usable responses were included in the final analysis.

Data Type, Sources, and Data Collection

This study used quantitative data obtained from primary sources. Primary data were collected directly from respondents through questionnaires distributed to accounting students included in the research sample.

A questionnaire-based survey was employed to collect information concerning students' attitudes and knowledge-sharing behavior as well as various aspects associated with knowledge-sharing activities. The questionnaire items were adapted from the instrument developed by Majid and Panchapakesan (2015).

The questionnaire consisted of several sections covering respondents' demographic characteristics, attitudes toward knowledge sharing, knowledge-sharing behavior, sources used to obtain study-related information, types of materials shared with classmates, activities that facilitate knowledge sharing, communication channels used for knowledge sharing, and factors that motivate or inhibit knowledge-sharing activities among students.

Responses to the questionnaire items were measured using a five-point Likert scale representing respondents' levels of agreement with each statement.

Data Analysis

The research data were analyzed using *Partial Least Squares Structural Equation Modeling* (PLS-SEM). This analytical approach was employed to evaluate both the measurement model (*outer model*) and the structural model (*inner model*) and to examine the relationship between students' attitudes and knowledge-sharing behavior.

PLS-SEM was selected because it enables the analysis of relationships among latent constructs and can be applied to studies with relatively limited sample sizes. The analytical procedure consisted of the following stages.

1. Measurement Model Evaluation (*Outer Model*)

The measurement model was evaluated to determine the quality of the indicators used to measure each research construct. The evaluation included assessments of convergent validity, discriminant validity, and construct reliability.

a. Convergent Validity

Convergent validity was assessed to determine whether the indicators adequately represented their

respective constructs. The assessment was conducted based on the outer loading values of the measurement indicators.

b. Discriminant Validity

Discriminant validity was assessed to ensure that each construct was empirically distinct from the other constructs in the model. The evaluation involved comparing the relationship of each indicator with its corresponding construct and with the other constructs.

2. Reliability Assessment

Reliability analysis was conducted to evaluate the internal consistency of the measurement instrument. Construct reliability was assessed using *Composite Reliability* and Cronbach's Alpha. A construct was considered to have adequate reliability when its Composite Reliability value exceeded 0.70.

3. Structural Model Evaluation (*Inner Model*)

The structural model was evaluated to determine the ability of the exogenous variable to explain the endogenous variable and to assess the relationships among the variables included in the research model. The structural model evaluation included the coefficient of determination (*R-square*) and path coefficients.

4. Hypothesis Testing

Hypothesis testing was conducted after evaluating the measurement and structural models. The relationship between students' attitudes and knowledge-sharing behavior was examined using path analysis at a significance level of 5%.

The research hypothesis was considered empirically supported when the *p-value* was less than 0.05. Conversely, a *p-value* greater than 0.05 indicated that the hypothesis was not empirically supported.

III. RESULTS AND DISCUSSION

Data Collection and Respondent Characteristics

A total of 100 questionnaires were distributed to students who constituted the target respondents of this study. Of these, 61 questionnaires were returned and could be used for further analysis, resulting in a usable response rate of 61%.

Table 1. Data Collection

Description	Number of Questionnaires	Percentage
Questionnaires distributed	100	100%
Questionnaires returned	61	61%
Questionnaires not returned*	39	39%
Questionnaires eligible for analysis	61	61%

Source: Processed data, 2023.

The characteristics of the respondents indicate that all 61 respondents included in the analysis were students of Universitas Cenderawasih. The sample consisted of 42 female and 19 male students. Based on semester level, the respondents were enrolled in semesters 3, 5, 7, and 9.

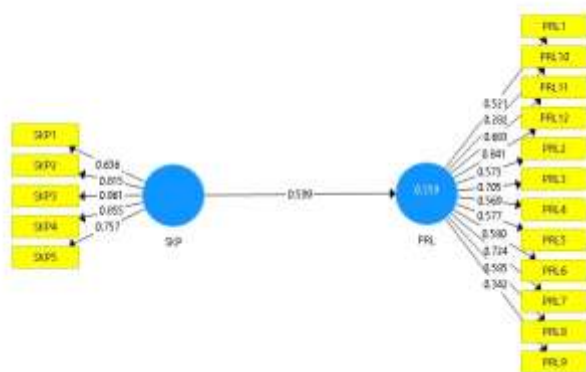
Table 2. Respondent Characteristics

Characteristic	Category	Frequency	Percentage**
Gender	Female	42	68.85%
	Male	19	31.15%
Higher Education Institution	Universitas Cenderawasih	61	100%
	Universitas Geissler	0	0%
	Universitas Yapis	0	0%
	Universitas Sains dan Teknologi Jayapura	0	0%
Semester	Semester 3	11	18.03%
	Semester 5	23	37.70%
	Semester 7	21	34.43%
	Semester 9	6	9.84%
GPA	Not reported	14	22.95%
	< 2.00	1	1.64%
	2.00–2.99	11	18.03%
	3.00–3.77	35	57.38%

Source: Processed data, 2023.

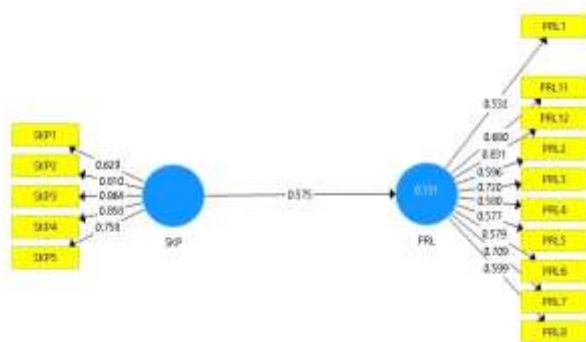
Measurement Model Evaluation

The measurement model was evaluated to assess the validity and reliability of the Students' Attitude (SKP) and Knowledge-Sharing Behavior (PRL) constructs. In the initial analysis, two indicators of knowledge-sharing behavior, PRL9 and PRL10, had outer loading values below 0.50. Therefore, these two indicators were removed, and the model was subsequently re-estimated.

**Figure 1. PLS-SEM Model Before Indicator Elimination**

Source: Processed data, 2023.

The initial model indicated that PRL9 and PRL10 did not meet the outer loading threshold applied in this study. Consequently, both indicators were eliminated to improve the quality of the measurement model.

**Figure 2. PLS-SEM Model After Indicator Elimination**

Source: Processed data, 2023.

Following the elimination of PRL9 and PRL10, all retained indicators demonstrated outer loading values greater than 0.50. The Students' Attitude construct had outer loading values ranging from 0.629 to 0.864, while the Knowledge-Sharing Behavior construct had values ranging from 0.532 to 0.831. These results indicate that all retained indicators satisfied the convergent validity criterion applied in this study.

Table 3. Convergent Validity Results

Indicator	SKP	PRL
SKP1	0.629	–
SKP2	0.810	–
SKP3	0.864	–
SKP4	0.858	–
SKP5	0.758	–
PRL1	–	0.532
PRL2	–	0.680
PRL3	–	0.720
PRL4	–	0.580
PRL5	–	0.577
PRL6	–	0.579
PRL7	–	0.709
PRL8	–	0.599
PRL11	–	0.680
PRL12	–	0.831

Source: Processed data, 2023.

Discriminant Validity

Discriminant validity was assessed to ensure that each construct was empirically distinct from the other construct. The cross-loading results show that the SKP indicators had their highest loadings on the Students' Attitude construct, whereas the PRL indicators had their highest loadings on the Knowledge-Sharing Behavior construct. This indicates that the indicators represented their respective constructs more strongly than the alternative construct.

Table 4. Discriminant Validity Results

Indicator	SKP	PRL
SKP1	0.629	0.345
SKP2	0.810	0.241
SKP3	0.864	0.114
SKP4	0.858	0.217
SKP5	0.758	0.221
PRL1	-0.060	0.532
PRL2	0.214	0.680
PRL3	0.206	0.720
PRL4	0.286	0.580
PRL5	0.342	0.577
PRL6	0.389	0.579
PRL7	0.190	0.709
PRL8	0.382	0.599
PRL11	0.224	0.680
PRL12	0.266	0.831

Source: Processed data, 2023.

Average Variance Extracted and Construct Reliability

The AVE value for Students' Attitude was 0.518, while Knowledge-Sharing Behavior obtained an AVE value of

0.622. Since both values exceeded 0.50, the constructs satisfied the convergent validity criterion.

Table 5. Average Variance Extracted (AVE)

Construct	AVE	Interpretation
Students' Attitude (SKP)	0.518	Valid
Knowledge-Sharing Behavior (PRL)	0.622	Valid

Source: Processed data, 2023.

Construct reliability also demonstrated satisfactory results. The Composite Reliability values were 0.890 for Students' Attitude and 0.876 for Knowledge-Sharing Behavior, while the corresponding Cronbach's Alpha values were 0.848 and 0.850. All values exceeded the recommended threshold of 0.70.

Table 6. Reliability Test Results

Construct	Composite Reliability	Cronbach's Alpha	Interpretation
Students' Attitude (SKP)	0.890	0.848	Reliable
Knowledge-Sharing Behavior (PRL)	0.876	0.850	Reliable

Source: Processed data, 2023.

These results indicate that the constructs not only demonstrated adequate validity but also satisfactory internal consistency, providing sufficient justification for proceeding to the structural model analysis.

Structural Model Evaluation

The analysis produced an R-square value of 0.331 for Knowledge-Sharing Behavior and an Adjusted R-square value of 0.319.

Table 7. R-Square Results

Endogenous Variable	R-Square	Adjusted R-Square
Knowledge-Sharing Behavior (PRL)	0.331	0.319

Source: Processed data, 2023.

The R-square value indicates that Students' Attitude explains 33.1% of the variance in Knowledge-Sharing Behavior, while the remaining 66.9% is explained by other factors not included in the model. This finding also suggests that attitude is an important, but not exclusive, determinant of knowledge-sharing behavior. Other potentially relevant factors may include the learning environment, social relationships, instructional design, technology, and individual motivation.

Hypothesis Testing

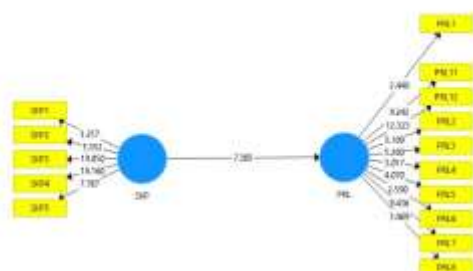


Figure 3. PLS-SEM Bootstrapping Results

Table 8. Hypothesis Testing Results

Relationship	Original Sample	Sample Mean	STDEV	T-Statistic	P-Value	Decision
SKP → PRL	0.575	0.620	0.079	7.305	0.000	H1 Supported

Source: Processed data, 2023.

The results show that Students' Attitude had a positive effect on Knowledge-Sharing Behavior, with a path coefficient of 0.575. The t-statistic of 7.305 exceeded the critical value of 1.96, while the p-value of 0.000 was below the 0.05 significance level. Therefore, H1, which proposed that students' attitudes positively affect their knowledge-sharing behavior, was empirically supported.

The Effect of Students' Attitudes on Knowledge-Sharing Behavior

The main finding of this study demonstrates that students' attitudes have a positive and significant effect on knowledge-sharing behavior. The path coefficient of 0.575 indicates that the more positively students evaluate knowledge-sharing activities, the stronger their tendency to translate these evaluations into actual knowledge-sharing behavior. Therefore, knowledge sharing is influenced not merely by the availability of information or communication media, but also by how students perceive the benefits, value, and experience associated with sharing knowledge.

This finding supports the perspective of the *Theory of Planned Behavior*, particularly the role of attitude as an important determinant of behavior. Positive attitudes develop when individuals perceive an action as producing beneficial or valuable consequences. In this study, most students considered knowledge sharing to be beneficial (91.80%), valuable (83.61%), helpful (81.97%), and enjoyable (80.33%). This pattern provides an empirical explanation for why the attitude construct was able to predict knowledge-sharing behavior.

The result is also consistent with Sadiq Sohail and Daud (2009) and Bello and Oyekunle (2014), who emphasized the relationship between individuals' favorable evaluations of knowledge sharing and their tendency to engage in such behavior. This finding reinforces the argument that universities should not rely solely on providing platforms and facilities to encourage knowledge sharing. They should also cultivate students' perceptions that knowledge sharing is valuable, safe, and beneficial for their learning process.

From the perspective of the *Knowledge-Based View*, the findings also have important implications. Individual knowledge is essentially a resource embedded within students. Such knowledge generates broader value for the academic environment only when it is communicated, exchanged, and collectively utilized. Therefore, student knowledge-sharing behavior can serve as a mechanism through which individual knowledge is transformed into a shared learning resource, ultimately contributing to the development of human capital and the intellectual capital of higher education institutions.

Patterns of Student Knowledge-Sharing Behavior

The descriptive findings indicate that students were relatively active in forms of knowledge sharing directly associated with assistance. A total of 77.05% of respondents reported that they immediately offered help when their classmates needed assistance or encountered problems, while 72.13% stated that they frequently shared knowledge with

their peers. In addition, 57.38% reported that they promptly attempted to answer their classmates' questions, and 52.46% immediately communicated newly acquired knowledge or information.

This pattern suggests that student knowledge sharing tends to take the form of responsive knowledge sharing, in which students share knowledge in response to particular academic needs. In contrast, routine knowledge-sharing behavior was relatively less common. Only 27.87% of students stated that they regularly informed others about what they were doing, while only 14.75% indicated that they generally knew what their classmates were doing.

This distinction is important because it suggests that positive attitudes have not yet fully developed into a proactive and continuous knowledge-sharing culture. Students appear more willing to share when there is a clear need, such as a question, an academic problem, or a request for help. Therefore, universities may need to develop activities that facilitate regular and structured knowledge exchange rather than relying solely on spontaneous assistance.

Knowledge-Sharing Materials, Sources, and Ecosystem

Students tended to share learning materials that were relatively general and easily accessible. Photocopied lecture materials or articles and useful website links each obtained 68.85%, followed by class notes or handouts and books or photocopied book chapters, each at 65.57%. In contrast, previous examination questions or materials obtained only 39.34%.

These results suggest a degree of selectivity in knowledge-sharing behavior. Students appeared relatively comfortable distributing general learning resources but were more cautious when sharing materials closely associated with academic assessment. This finding is consistent with Yuen and Majid (2007), who found that students could hold favorable attitudes toward knowledge sharing while being more reluctant to share information related to assessed academic activities.

Regarding sources of knowledge, lecturers' explanations remained the dominant source at 93.44%, followed by the Internet or search engines at 88.52% and classmates at 73.77%. These findings reveal the development of a hybrid knowledge ecosystem, in which students combine formal knowledge from lecturers, digital knowledge from Internet-based sources, and horizontal knowledge obtained through peer interaction.

This finding is particularly important for higher education institutions because it demonstrates that the role of lecturers has not been displaced by technological developments. Instead, technology expands students' access to information, while lecturers continue to function as authoritative sources for interpreting, validating, and clarifying academic knowledge.

The Role of Learning Design

Classroom discussions, assignments, and student presentations each received 88.52% as activities that encouraged knowledge sharing. This finding indicates that instructional design can act as an institutional mechanism for promoting knowledge-sharing practices.

Collaborative activities create conditions of interdependence. Students are required to exchange information, explain concepts, integrate different perspectives, and jointly solve academic problems. Under these conditions, individual knowledge is transformed from a private resource into a collective group resource.

This finding is consistent with Chin Wei et al. (2012), who reported that structured group activities promote knowledge sharing among students, as well as Chen et al. (2007), who emphasized the role of team-based activities and supportive learning environments. Universities can therefore foster knowledge sharing not merely by explicitly instructing students to share knowledge, but by designing learning activities that naturally require collaboration.

Communication Channels and Knowledge-Sharing Spaces

Face-to-face interaction emerged as the most preferred communication channel for knowledge sharing (93.44%) and was also considered the most effective channel (95.08%). Online discussion platforms such as Zoom, Google Meet, and Microsoft Teams also received relatively high levels of acceptance. These results suggest that students value communication media that allow two-way interaction, clarification, and relatively immediate feedback.

The findings further indicate that digital technology is most effective when it complements rather than completely replaces face-to-face interaction. Learning systems that combine direct classroom discussion with digital platforms may offer greater flexibility while maintaining the depth of interaction needed for effective knowledge exchange.

The classroom was the most frequently preferred place for knowledge sharing (91.80%), followed by discussion rooms (81.97%) and computer laboratories (72.13%). This finding highlights the importance of providing academic spaces that enable students to interact comfortably and collaboratively.

Factors Motivating Knowledge Sharing

The strongest motivation for students to share knowledge was improving their understanding of course materials, reported by 90.16% of respondents. Other important motivations included developing relationships with peers, helping other students, and the presence of assignments or academic activities requiring knowledge sharing, each at 83.61%.

A knowledge-sharing culture on campus obtained 75.41%, while personal satisfaction derived from sharing knowledge obtained 72.13%. These results demonstrate that students' knowledge-sharing behavior is primarily driven by academic and social motivations, rather than solely by extrinsic rewards.

The motivation to obtain appreciation, grades, or rewards was reported by 60.66%, while the motivation to gain respect from classmates by being perceived as knowledgeable was only 26.23%.

This finding has important implications for higher education institutions. Strategies for promoting knowledge sharing do not necessarily need to rely heavily on material rewards or formal incentives. Learning environments that allow students to learn together, establish social relationships, and directly experience the benefits of knowledge exchange may provide more relevant forms of motivation.

Barriers to Knowledge Sharing

The strongest barrier to knowledge sharing was fear of providing incorrect information, reported by 65.57% of respondents. This was followed by being busy or having limited time at 62.30% and insufficiently close personal relationships with classmates at 54.10%. A lack of initiative to share knowledge was also relatively substantial at 52.46%.

These results are particularly notable because inadequate information technology infrastructure was perceived as a comparatively weak barrier. In other words, the major challenges to student knowledge sharing were not primarily technological but were more closely associated with psychological safety, interpersonal relationships, self-confidence, time constraints, and individual initiative.

Fear of providing incorrect information may discourage students from contributing to academic discussions even when they possess potentially useful knowledge. Lecturers should therefore establish a learning environment in which mistakes are recognized as part of the learning process and students feel comfortable expressing ideas without excessive fear of negative evaluation.

Implications for the Intellectual Capital of Higher Education Institutions

Overall, the findings demonstrate that positive attitudes toward knowledge sharing not only affect students' individual behavior but also have broader implications for higher education institutions. When students actively exchange information, engage in discussions, assist one another, and distribute knowledge, individually held knowledge can gradually develop into collective knowledge.

From the KBV perspective, this process is important because competitive advantage in knowledge-based organizations depends not only on how much knowledge individuals possess, but also on the organization's ability to integrate, transfer, and utilize that knowledge. Therefore, students' knowledge-sharing culture can be viewed as a micro-level mechanism that contributes to the development of human capital and the broader intellectual capital of higher education institutions.

The open-ended responses further reinforce this conclusion. A total of 95.1% of respondents indicated that the current accounting learning process motivated them to share knowledge with classmates. Students associated this motivation with group assignments, presentations, classroom discussions, and the complexity of accounting courses, which often require collaboration to understand concepts and solve cases.

Accordingly, the contribution of this study extends beyond demonstrating that "attitude affects behavior." The findings also illustrate how the academic environment can transform positive attitudes into actual knowledge-sharing practices. Higher education institutions can strengthen this process through collaborative learning, structured discussions, supportive academic spaces, appropriate integration of digital platforms, and the development of a psychologically safe learning climate in which students feel comfortable asking questions, expressing opinions, correcting misunderstandings, and sharing knowledge.

IV. CONCLUSION

Based on the findings of this study, it can be concluded that students' attitudes have a positive effect on their knowledge-sharing behavior. This finding indicates that the more positively students evaluate knowledge-sharing activities, the more likely they are to share information, knowledge, and academic assistance with their peers.

The findings further indicate that student knowledge-sharing behavior is reflected not only in the exchange of information but also in students' willingness to assist their peers, respond to questions, communicate newly acquired knowledge, and participate in collaborative academic activities. Therefore, positive attitudes toward knowledge sharing represent an important factor in supporting a collaborative learning environment and may contribute to the development of human capital and the intellectual capital of higher education institutions.

This study has several limitations that should be considered when interpreting the findings. First, although the research population was initially designed to include accounting students from several higher education institutions in Jayapura, the final sample available for analysis consisted exclusively of students from Universitas Cenderawasih. This occurred because respondents from the other targeted universities either did not return the questionnaires or provided incomplete responses.

Second, the relatively limited sample size restricts the generalizability of the findings to the broader student population in higher education institutions across Jayapura. In addition, the study involved only accounting students; therefore, knowledge-sharing behavior among students from other academic disciplines could not be examined.

Third, the research model focused primarily on students' attitudes as a predictor of knowledge-sharing behavior. Other factors that may influence knowledge-sharing behavior, including subjective norms, perceived behavioral control, motivation, trust, learning environments, academic culture, and technological support, were not directly examined in the present study.

Future studies are encouraged to involve larger samples and include students from multiple higher education institutions to improve the generalizability of the findings. Researchers may also extend the sample to students from academic disciplines other than accounting to obtain a more comprehensive understanding of knowledge-sharing behavior across different educational contexts.

Future research may further develop the proposed model by incorporating additional variables that potentially influence knowledge-sharing behavior, such as subjective norms, perceived behavioral control, intrinsic and extrinsic motivation, interpersonal trust, knowledge-sharing culture, lecturer support, and the use of learning technologies.

For higher education institutions, the findings provide a basis for strengthening knowledge-sharing cultures through collaborative learning, classroom discussions, group assignments, student presentations, dedicated discussion spaces, and the effective use of digital platforms. A supportive and open academic environment may encourage students to

ask questions, express their views, share knowledge, and assist their peers more actively.

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