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Factors Influencing Academic Performance, With the Mediating Role of Knowledge Sharing of Students: Evidence from Public Higher Education Institutions in Vietnam

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Abstract

The purpose of this paper is to investigate Vietnamese students' perceptions in terms of the influence of factors on academic performance through knowledge sharing. A quantitative research approach was used in this study. The Structural Equation Modeling-Partial Least Squares (SEM-PLS) approach supported by Smart-PLS 3.0 computer software was used for data analysis. An online questionnaire was distributed to 289 participants, but only 250 qualified. The participants in this study were Vietnamese students who are studying at public universities in Vietnam. This pilot study indicates that all factors, including knowledge self-efficacy; university support, information technology were found to be significant predictors of sharing activities. Furthermore, knowledge sharing has a positive impact on their academic performance. Among this, knowledge self-efficacy has the strongest impact on knowledge sharing, meanwhile, information technology has the least impact on knowledge sharing.

Keywords: Factors influence knowledge sharing, higher education, knowledge, knowledge sharing, students.

1. Introduction

Organizations nowadays strive for survival in a world that appears to be becoming more and more knowledge-intensive, and sharing knowledge has become a high performance work practice. This is in contrast to the working world, where there is a constant concern about how to become better at transforming an input to an output (Christensen, 2007). To create a knowledge society, it is crucial to place a strong focus on knowledge sharing because students are both the most important component of a society and its primary engine for future growth and development.

In addition to the abundance of research on knowledge sharing in higher education, there is currently little information available about undergraduate students' knowledge sharing prowess and the impact of peer pressure on knowledge sharing. We'll be curious to hear why they share knowledge or don't share knowledge. One of the main things that depresses the atmosphere of information sharing in higher education institutions is the intense competition among students to become the best student. It is challenging to witness students in nearby higher education institutions fostering a positive culture of information sharing.

As a result, it is anticipated that this research will aid in the general understanding of university students' knowledge-sharing behaviors, the reasons behind students' desire to share knowledge with one another, and the obstacles or barriers that may prevent students from engaging in knowledge-sharing.

2. Literature review

According to the definition put forth by Davenport & Prusak (1998), knowledge is a dynamic blend of framed experience, values, contextual information, and expert insight that serves as a foundation for

assessing and integrating new experiences and information. It is originated and utilized within the cognition of individuals who possess knowledge. In organizations, information is frequently ingrained not only in written materials or storage systems, but also in established organizational procedures, methods, behaviors, and standards.

One definition of knowledge sharing is the transmission of knowledge between people in order to transform it into useful information and resources. To be more precise, knowledge sharing is the process of exchanging knowledge between one or two individuals in order to create new goods, technologies, methods, solutions, information, and so forth.

The goal of knowledge management (KM) systems is to disseminate knowledge from individuals who first generated and experienced it to others who may find use for it (Alavi & Leidner, 2001). Since many people only have a tacit understanding of this information, researchers have also made an effort to abstract it or transform it into clear forms that are more suited for formal representation.

Moreover, the exchange of knowledge between people or groups within a company or organization is considered one of the key processes in human interaction. In this setting, what kind of knowledge is shared? Within a learning environment, a significant portion of a person's knowledge is found in both tacit and explicit forms. Although knowledge cannot be categorized into personal, shared, and public; practical and theoretical; hard and soft; internal and external; foreground and background; the categorization of tacit and explicit knowledge is the most widely used and practical approach (Pathirage et al., 2007). Both types of knowledge need to interact for effective creation and sharing of knowledge. Montano (2005) suggests that tacit knowledge is deeply rooted in a person's thought process, making it challenging to extract and convert into useful information. In contrast, explicit knowledge is more accessible and can be shared among individuals once it is codified or stored in a central location, facilitating easy access for most people.

The organizational, managerial, and technological elements that support KMS have been identified by the expanding body of research on the subject (Davenport et al., 1998); the motivations behind and obstacles to KMS contributions (e.g., Tong & Mitra, 2009); and the specific processes linked to KMS knowledge acquisition (Ryu et al., 2005). Additionally, it has recognized a number of typical KMS difficulties or issues. For example, merely putting information in writing or codifying it can help with its alembication and clarify (Newell & Edelman, 2008), but it can also have unfavorable effects like undermining one's own authority and judgment.

An organization's competitive advantage is largely dependent on its organizational capabilities, which enable efficient knowledge production and transmission. Knowledge gathering and sharing are intricate social processes, and the majority of significant knowledge has social roots. specifically, cooperative endeavors and connections (Nahapiet & Ghoshal, 1998). Knowledge exchange channels and quantity are hence context-specific. However, it's crucial to determine how knowledge sharing activities relate to performance in order to promote financial and time expenditures in them. The relationship between performance and knowledge sharing has been investigated in a number of settings. Using a business unit as the analytical unit, Tsai and Ghoshal (1998) demonstrated how resource combination and exchange are related to value creation.

3. Research method

3.1. Research design

Details regarding the chosen research methodology for the study are given in this section. The nature of this research is quantitative. The quantitative approach was used in the design of the survey inquiry. Additionally, a survey strategy using a single procedure was used in this study. Using structured surveys with multiple choice answers and open-ended questions is the main technique of data collection.

Convenience sampling was chosen as the sample technique for this investigation. The convenience sampling approach was chosen due to the data collection process's apparent uniformity, relative unpredictability, and large sample size. Social media and emails were used to electronically distribute the questionnaires to internet and broadband users. The researchers distributed questionnaires to 289 people, and 250 of them returned completed forms, representing an 86.5 percent response rate in terms of sample size. Furthermore, AMOS has been used for data analysis with structural equation modeling (SEM) in order to evaluate the hypotheses. The scales employed in this inquiry were created by adjusting those from earlier

research on the topic. A 5-point Likert scale was used to survey the participants. A 5-point Likert scale was used to survey respondents.

The scales' original English forms were converted to Vietnamese in two steps. First, all of the scales were independently translated into Vietnamese by two academics and two translation specialists who were fluent in English. The best translations were chosen for acceptance after being assessed by a researcher and a translation specialist. Before the scale phrases were eventually approved, they were double-checked by two academicians with backgrounds in related fields.

3.2. Conceptual model and hypotheses

Knowledge self-efficacy and Knowledge sharing

Self-efficacy (SE) is defined as an individual's belief in their own ability to accomplish a goal that will benefit others. It is focused on individuals who are motivated to immerse themselves in a task they feel they can complete and who have a personal belief in their ability to accomplish the desired goal while using their own actions (Maddux, 2016). Additionally, SE has been regarded as one of the key components of knowledge sharing because a wealth of research has shown that it influences KS (Kaewchur and Phhusavat, 2016; Othman and Skaik, 2014), and scholars are interested in learning more about how SE predicts KS (Lai and Hsieh, 2013). Sharing of knowledge is favorably and profoundly influenced by SE.

Therefore, we hypothesize that:

H1: Knowledge self-efficacy (KSE) is positively related to Knowledge sharing (KS).

University support and Knowledge sharing

One of the most important types of management support that has historically been covered in the literature on knowledge sharing is organizational support (Wang & Noe, 2010). We highlight employees' perceptions of organizational support because this paper focuses on understanding the psychological mechanism of knowledge sharing. Perceived organizational support is the belief held by employees that their organization values their contributions and is concerned about their overall well-being (Eisenberger, Huntington, Hutchison, & Sowa, 1986; Rhoades & Eisenberger, 2002). It is important to remember that perceived organizational support is a construct that exists at the individual level and represents how each employee feels about their employer in terms of their subjective sense of care and value (Swift & Virick, 2013).

Therefore, we hypothesize that:

H2: University support (US) is positively related to Knowledge sharing (KS).

Information technology (IT) and Knowledge sharing

Because interactive IT technologies like instant messaging (IMs) are unobtrusive and frequently facilitate multitasking, they are frequently chosen over in-person interactions for both co-located and distant workers (Nardi et al., 2000). A knowledge worker may operate across place and time by integrating various information sources, solve problems by combining tacit and explicit knowledge, and archive knowledge for future harvesting and reapplication, whether interacting with coworkers, clients, or anyone else in a TM network.

H3: Information technology (IT) is positively related to Knowledge sharing (KS).

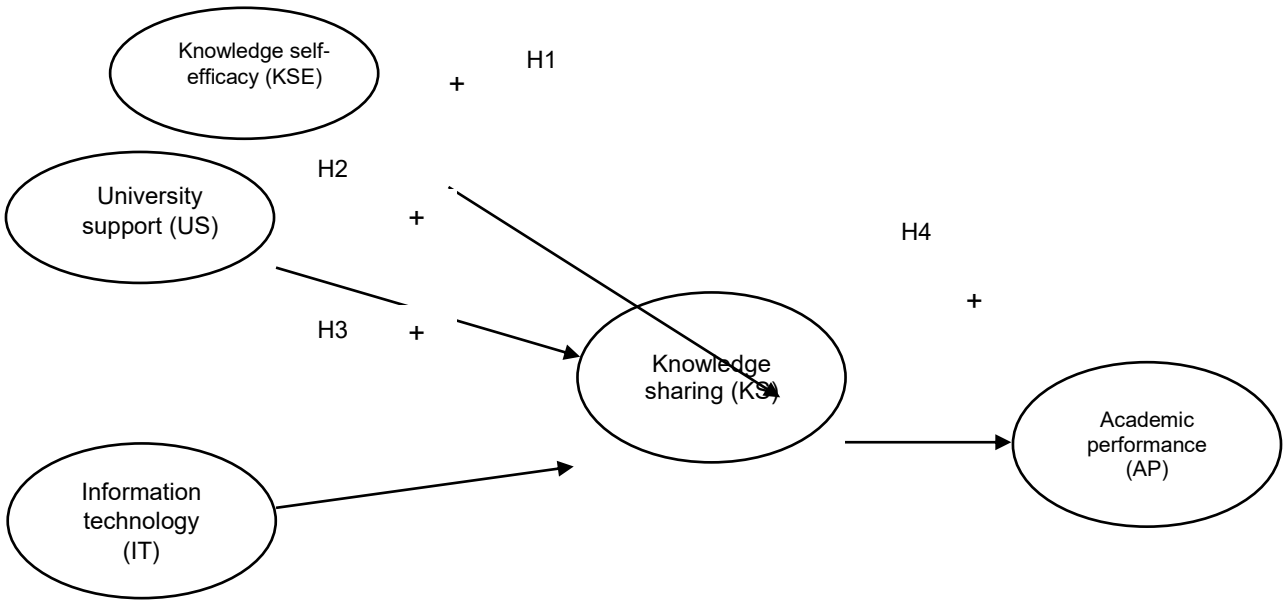
Knowledge sharing and Academic performance

Rhodes et al. (2008) discovered a strong correlation between the organization's financial performance and information sharing. Hansen (2002) discovered that early project completion is associated with knowledge exchange efficiency that arises from shorter network paths as opposed to divisions with longer network paths. According to Yli-Renko et al. (2001), acquiring knowledge has a negative correlation with sales expenses and a positive correlation with new product creation and technological originality. The impact of information sharing in an academic setting is investigated in the current study. On the other hand, it is plausible—given the data above—that information sharing would also have a comparable effect in an academic atmosphere.

From this, the following hypothesis is derived:

H4: Knowledge sharing (KS) is positively related to Academic performance (AP).

Figure 1. Conceptual model



4. Data analysis and findings

We looked at the information using a computer program called SPSS and another one called AMOS for understanding relationships between things. We looked at the numbers in our dataset and calculated things like how often they appeared, the average, and how spread out they were. Also, this step found mistakes in the data that was entered. Table 1 has information about the topic. AMOS was also used to analyze the SEM data. Measurement and structural model can be simplified to size and shape or pattern of something.

4.1. Frequency & descriptive analysis of demographic factors

Table 1. Frequency & descriptive analysis of demographic factors

Criteria		**Frequency**	**Percent**
Gender	Male	98	39.2%
	Female	152	60.8%
Study year	The first year	65	26%
	The second year	80	32%
	The third year	85	34%
	The fourth year	20	8%

(Source: research of the authors)

The characteristics of the respondents from which the information were accumulated are appeared in Table 4.1, counting sexual orientation and consider year. Concurring to the statistic measurements of the investigate test, females make up the tremendous larger part, particularly, male understudies made up 39.2% of understudies; the rest was female. Third-year understudies account for the biggest extent, at 34.0%, taken after by the second-year understudies. In the mean time, last year understudies account for the least extent, 8.0%.

4.2. Reliability Testing

Cronbach's alpha measures how reliable something is. If the alpha value is really high at 0. 7 or more, then the reliability is good. If it's between 0. 5 and 07, then the reliability is okay. A questionnaire is not reliable if the alpha value is less than 0. 5 If the number is less than 0. 5, then it is not a good measurement of

reliability. In this research, we used a method called Cronbach's alpha and a computer program called SPSS version 26 to check if the questionnaires are reliable.

Table 2. Reliable testing

Variable	Indicator	Factor Loading	Valid
Knowledge self-efficacy (KSE) Cronbach Alpha = 0.798	KSE1	0.771	Valid
	KSE2	0.665	Valid
	KSE3	0.785	Valid
	KSE4	0.434	Valid
	KSE5	0.597	Valid
	KSE6	0.646	Valid
	KSE7	0.442	Valid
University support (US) Cronbach Alpha = 0.685	US1	0.449	Valid
	US2	0.351	Valid
	US3	0.428	Valid
	US4	0.445	Valid
	US5	0.408	Valid
Information technology (IT) Cronbach Alpha = 0.875	IT1	0.515	Valid
	IT2	0.456	Valid
	IT3	0.513	Valid
	IT4	0.489	Valid
	IT5	0.401	Valid
	IT6	0.352	Valid
	IT7	0.419	Valid
Knowledge sharing (KS) Cronbach Alpha = 0.786	KS1	0.434	Valid
	KS2	0.513	Valid
	KS3	0.505	Valid
	KS4	0.694	Valid
	KS5	0.581	Valid
	KS6	0.684	Valid
Academic performance (AP) Cronbach Alpha = 0.812	AP1	0.546	Valid
	AP2	0.441	Valid
	AP3	0.691	Valid
	AP4	0.546	Valid

(Source: research of the authors)

All the scales has Cronbach Alpha >0.6. This result reflects the fittingness and adequacy of the questionnaire's constancy. The table underneath shows this esteem. The inquire about show was inspected utilizing basic condition modeling.

The factor loading value shows how well the research variables measure the same thing. If a indicator has a loading value higher than 0. 7, it needs to be tested for accuracy. Here are the results of the test to see if each indicator relates to the research variable. It is believed that all signs are good because of the facts mentioned earlier. Therefore, the upcoming study can use all the signs. The cross-loading factor is used to compare how much a certain idea is related to other ideas. If the cross-loading factor is high, it means the idea is different enough from the other ideas.

As a result, all scales have a Cronbach Alpha coefficient that ranges from 0.685 to 0.875. Hence, the scales' unwavering quality is regularly great.

4.3. Exploratory factor analysis

Table 3. Exploratory factor analysis

Indicator	KSE	US	IT	KS	AP
KSE1	0.545				
KSE2	0.616				
KSE3	0.756				
KSE4	0.611				
KSE5	0.646				
KSE6	0.414				
KSE7	0.463				
US1		0.542			
US2		0.651			
US3		0.432			
US4		0.414			
US5		0.366			
IT1			0.550		
IT2			0.406		
IT3			0.510		
IT4			0.391		
IT5			0.410		
IT6			0.447		
IT7			0.551		
KS1				0.389	
KS2				0.502	
KS3				0.545	
KS4				0.658	
KS5				0.494	
KS6				0.613	
AP1					0.373
AP2					0.54
AP3					0.645
AP4					0.661

(Source: research of the authors)

Based on the data in the preceding table, every indicator is legitimate. Consequently, all signs can be used in the subsequent study. All research variables have good reliability, as may be inferred from the above table under the criteria mentioned above. As a result, contingent upon the results of the tests conducted. The findings demonstrate that, after being analyzed, all observable variables are split up into six groups. All of the observed variables have factor loading coefficients more than 0.4 (Hair et al., 2010).

4.4. Hypothesis analysis

The goodness of fit indices that were examined in the study (Incremental Fit Index) included the Chi-square fit test and degree of freedom, CFI (Comparative Fit Index), RMSEA (Root Mean Square Error of Approximation), TLI (Tucker-Lewis Index), RNI (Relative Noncentrality Index), NNFI (Non-Formed Fit Index), and IFI.

Table 4. Values of Fit and Goodness

Fit Index	Value	Good Fit Values	Acceptable fit values	Result
Chi square/df	1.947	<3	<5	Acceptable
CFI	0.921	>0.95	>0.90	Acceptable
RMSEA	0.061	<0.050	<0.080	Acceptable
TLI	0.943	>0.95	>0.90	Acceptable
RNI	0.900	>0.95	>0.90	Acceptable
NNFI	0.902	>0.95	>0.90	Acceptable
IFI	0.911	>0.95	>0.90	Acceptable

(Source: research of the authors)

Table 4 shows the goodness of fit values for the research. A review of the findings shows that every goodness of fit number shows a good fit. This situation shows that the proposed model and the collected data are compatible (Hair et al, 2010).

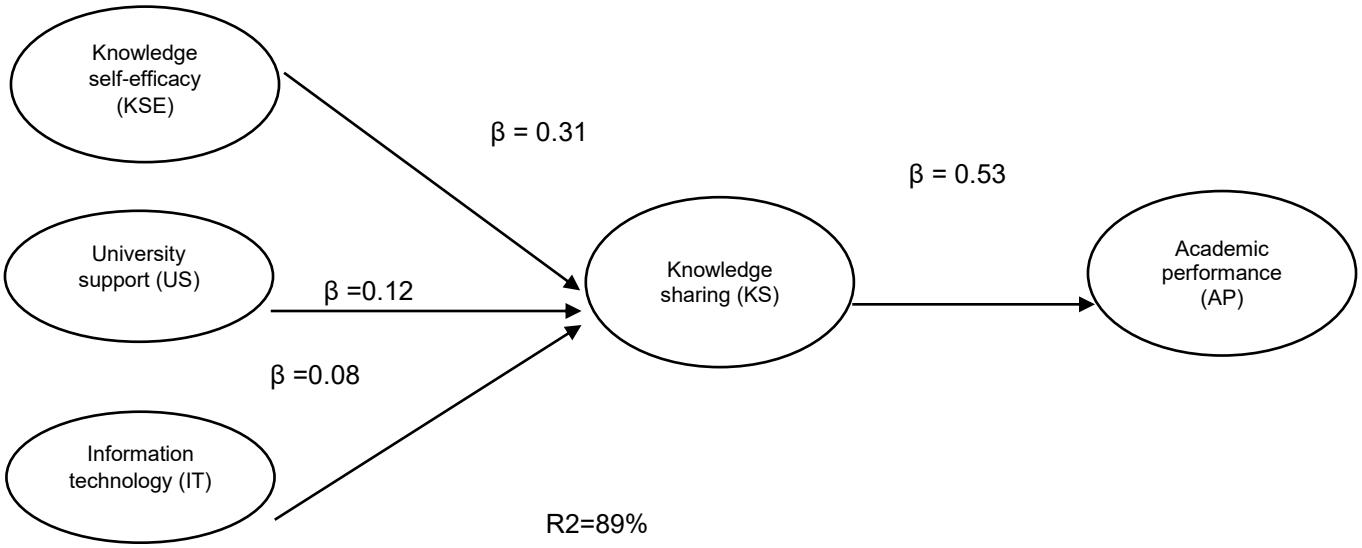
Table 5. Structural Equation Model Analysis

Hypothesis	Standardized β	p	Support/ Rejection
H1: Knowledge self-efficacy (KSE) is positively related to Knowledge sharing (KS).	0.31	0.000	Supported
H2: University support (US) is positively related to Knowledge sharing (KS).	0.12	0.005	Supported
H3: Information technology (IT) is positively related to Knowledge sharing (KS).	0.08	0.001	Supported
H5: Knowledge sharing (KS) is positively related to Academic performance (AP).	0.53	0.000	Supported

(Source: research of the authors)

If the p-value is less than 0.05 and the coefficient value in Table 5's structural model is positive, the hypothesis may be accepted. The results suggest that because the p-value was less than 0.05 and the coefficient value was positive, the hypotheses H1, H2, H3, and H4 were accepted.

Figure 2. Structural Equation Model



(Source: research of the authors)

Figure 2 displays the correlations between the variables and the R2 value (**p <0.05, ***p<0.001). As a result, Knowledge self-efficacy (KSE), University support (US), Information technology (IT), account for 89% of knowledge sharing (R2 = 0.89). While knowledge sharing was 89% explained by these factors (R2=0.89), 11% of it was explained by other factors.

5. Conclusion

According to the study's conclusions, knowledge self-efficacy (KSE), university support (US), and information technology (IT) were the factors that, in the instance of Vietnamese public university students, mediated innovative behavior and affected academic achievement. The findings of the research indicate that information sharing is positively impacted by all aspects. Whereas university support has the second-biggest impact on knowledge sharing and knowledge self-efficacy has the largest impact. Information technology, however, has very little effect on the exchange of knowledge. Additionally, sharing knowledge improves academic success.

Reference

1. Alavi, M. & Leidner, D.E. (2001) Knowledge management and knowledge management systems: conceptual foundations and research issues. MIS Quarterly, 25, 107– 136.
2. Christensen, P. H. (2007). Knowledge sharing: Moving away from the obsession with best practices. Journal of Knowledge Management, 11, 1-12.
3. Davenport, T.H., and Prusak, L. (1998). What do we talk about when we talk about knowledge? Boston: Harvard Business School Press.
4. Hansen, M. T. (1999). The search-transfer problem: The role of weak ties in sharing knowledge across organization subunits. Administrative Science Quarterly, 44(1), 82-111.
5. Kaewchur, O. and Phusavat, K. (2016), "Key factors influencing knowledge sharing", International Journal of Humanities and Management Sciences (IJHMS), Vol. 4 No. 3, pp. 236-237.
6. Lai, H. and Hsieh, P. (2013), "The decision to continue sharing knowledge in virtual communities: the moderating role of knowledge-sharing experience and knowledge self-efficacy", PACIS, pp. 1-16.
7. Maddux, J.E. (2016), "Self-efficacy", in Interpersonal and Intrapersonal Expectancies, Routledge, London, pp. 41-46.
8. Montano, B. (2005). Innovations of knowledge management. Hershey, PA: IRM Press.

9. Nahapiet, J., & Ghoshal, S. (1998). Social capital, intellectual capital, and the organizational advantage. Academy of Management Review, 23(2), 242-266.
10. Nardi, B.A., Whittaker, S. & Bradner, E. (2000) Interaction and outeraction: instant messaging in action. Proceedings of CSCW'00, 79–88.
11. Newell, S. & Edelman, L.F. (2008) Developing a dynamic project learning and cross-project learning capability: synthesising two perspectives. Information Systems Journal, 18, 567–591.
12. Othman, R. and Skaik, H. (2014), "Determinants of academics' knowledge sharing behavior in United Arab Emirates universities", Journal of Education and Vocational Research, Vol. 5 No. 1, pp. 1-12.
13. Pathirage, C. P., Amaratunga, D. G., and Haigh, R. P. (2007). Tacit knowledge and organisational performance: Construction industry perspective. Journal of Knowledge Management, 11, 1-13.
14. Rhodes, J., Lok, P., Hung, R. Y. Y., & Fang, S. C. (2008). An integrative model of organizational learning and social capital on effective knowledge transfer and perceived organizational performance. Journal of Workplace Learning, 20(4), 245-258.
15. Rhoades, L., Eisenberger, R., & Armeli, S. (2001). Affective commitment to the organization: The contribution of perceived organizational support. Journal of Applied Psychology, 86, 825–836.
16. Ryu, C.S., Kim, Y.J., Chaudhury, A. & Rao, H.R. (2005) knowledge acquisition via three learning processes in enterprise information portals: learning-by-investment, learning-by-doing and learning-from-others. MIS Quarterly, 29, 245–278.
17. Swift, M., Balkin, D. B., & Matusik, S. F. (2010). Goal orientations and the motivation to share knowledge. Journal of Knowledge Management, 14, 378–393.
18. Tong, J. & Mitra, A. (2009) Chinese cultural influences on knowledge management practice. Journal of Knowledge Management, 13, 49–62.
19. Tsai, W., & Ghoshal, S. (1998). Social capital and value creation: The role of intrafirm networks. Academy of Management Journal, 41(4), 464-476.
20. Wang, S., & Noe, R. A. (2010). Knowledge sharing: A review and directions for future research. Human Resource Management Review, 20, 115–131.
21. Yli-Renko, H., Autio, E., & Sapienza, H. J. (2001). Social capital, knowledge acquisition, and knowledge exploitation in young technology-based firms. Strategic Management Journal, 22(6-7), 587-613.