

**SIBR Conference on Interdisciplinary  
Business & Economics Research  
June 30 - July 1, 2022, Osaka**



***PROCEEDINGS***

**Volume 11 (2022)**

**Issue 3 (July)**

**ISSN: 2223-5078**

Online version: <http://sibresearch.org/past-2022-osaka.html>  
(password: sibr@osaka@2022)

***SIBR***

**Society of  
Interdisciplinary  
Business Research**



Society of  
Interdisciplinary  
Business Research

SIBR Conference on Interdisciplinary  
Business & Economics Research  
June 30 - July 1, 2022, Osaka

---

**SIBR 2022 CONFERENCE  
ON INTERDISCIPLINARY  
BUSINESS & ECONOMICS RESEARCH**

**June 30 – July 1, 2022**

**Osaka, Japan**

*Market Recovery or Uncertainty?  
Theories and Methodologies Across Disciplines*

**Conference Proceedings**

**Volume 11 (2022), Issue 3**

ISSN: 2223-5078

Online version: <http://sibresearch.org/past-2022-osaka.html>  
(password: sibr@osaka@2022)

## Table of Content

Paper ID	Paper Title
s22-015 ...	The Factors Affecting Entrepreneurial Intention: Why Do Perceived Entrepreneurial Capacity, Perceived Social Norm, and Attitude towards Entrepreneurship Matter?
s22-018 ...	Social Digitalsociopreneurship: Enhancement of Kartini's (Housewife) Role using the Concept of Acceptance of Technology Innovation in Indonesia
s22-019 ...	Socio Demographic and Psychological Traits Matters: Efforts to Increase Entrepreneurial Intention of Rural Housewives in Indonesia
s22-020 ...	Cultural and Institutional Interaction Effects on Firm Bribery
s22-021 ...	A Literature Review on the Determinants of Global Copper Price
s22-022 ...	Unlocking Economic Recovery through Direct WAQF Financing Model for WAQF-based Entrepreneur
s22-023 ...	The Influence of Tourists' Novelty-Seeking Tendency, Decision-Making Style, Mood and Emotional Response on the Intention to Purchase Local-Featured Experience Goods
s22-025 ...	The Product Innovation Process with the Use of Mediators for Collaboration: The Case of Japanese Traditional Local Industry
s22-026 ...	Assessing Growth of Green Finance and Investment in Select Developed and Developing Countries
s22-027 ...	Facilitative Leadership in Controlling Pollution and Damage to the Citarum Watershed as well as Improving the Community Economy in Karawang, Indonesia
s22-029 ...	The Effects of Organizational Culture and Leadership Style on Organizational Performance in Times of COVID-19 Pandemic
s22-030 ...	The Analysis of Electric Vehicle's Adoption Barriers and Policy Stimulation Preference in Thailand
s22-032 ...	Physical Classrooms versus Collaborative Online International Learning: Effectiveness of Industry-academia Collaborative Education
s22-033 ...	Is Participation in Services a Burden on Customers? Optimizing the Customer's Role of Participation
s22-035 ...	The Impact of Financial Literacy on the Online Loan Industry in Indonesia
s22-038 ...	Factors Influencing Entrepreneurial Propensity among Urban Poor Family in Malaysia
s22-039 ...	Analysis of the Effect of Wages and Reduction of Working Hours on Poverty in Indonesia with Gross Domestic Regional Product (GDRP) as Moderator
s22-040 ...	Adoption of Digitalization by MSMEs with an Entrepreneurial Orientation Approach and Strategic Management Approach
s22-041 ...	Institutional Distance and Foreign Direct Investment in Thailand
s22-044 ...	Reexamining the Drivers and Barriers of Organic Food Consumption in Online Context: The Dual Factor Model Perspective
s22-045 ...	Consumer Responses to Influencer's CSR Video Posts in Thailand: A Comparison of Social Identity Theory and Self-Sacrifice Theory
s22-046 ...	Investigating Factors Affecting Investor Decision to Sell Indonesia Government Retail Bonds Portfolio
s22-047 ...	The Impact of Slack Fill Packaging on Consumers' Evaluation Across Different Product Categories
s22-048 ...	Do We Need a New Bibliometric Method in Marketing? Case Study of Variables Mapping

- s22-049 ... A Study of ESG and Operation Performance of Financial Holding Companies in Taiwan-An Application of Multi-activity Dynamic Network DEA Model
- s22-050 ... The Optimum Mutual Fund Portfolio for Investors' Different Degree of Risk Preference – An Application of MVS Model
- s22-051 ... Day Trading Investors' Reactions to Changes of Foreign Institutions' Rating Report, During COVID-19 Pandemic
- s22-054 ... The Impact of Marine Authority Policy in the Economic Sector in West Java Indonesia
- s22-057 ... Impact of Negative Interest Rate Policy on the Swap Market in Japan: Comparative Analysis before and after Yield Curve Control
- s22-058 ... The Effect of Financial Technology on Financial Literacy of Micro, Small, and Medium Enterprises (MSMEs) in Bandung City, Indonesia
- s22-059 ... Proposing ESG Strategy to Improve the Business Sustainability of Regional Owned Enterprises Using Change Management Approach (Case Study in West Java)
- s22-060 ... Deeper Insight on Service Quality in The Context of Commitment and Loyalty: Study on Internet Providers in Indonesia
- s22-061 ... Service Quality and Justice Perspective in Forming Patient Satisfaction and Patient Loyalty: Case Study of Indonesian Hospitals
- s22-062 ... The First One-stop Medical Concierge Service in Indonesia's Healthcare Industry
- s22-063 ... The Effect of Characteristics Sharia Supervisory Boards on Disclosure of Sharia Compliance
- s22-064 ... Impact of Leadership Styles on Employees' Innovative Behavior in Select Private Commercial Banks: Mediating Role of Knowledge Sharing and Empowerment
- s22-065 ... An Empirical Examination of Intrinsic Motivation, Performance Appraisal Satisfaction, and Performance Outcomes among Employees in Select Service Sector Organizations
- s22-066 ... To Tell or Not to Tell? Examining Voluntary Disclosure of Customers' Identities under Capital Market Pressure
- s22-067 ... Managing University-Industry Partnership: A Literature Review
- s22-068 ... Competitive Advantage and Strategy Formulation Towards MSME 4.0: A Study of MSME in East Java
- s22-069 ... Multi-Channel and Omni-Channel Retailing: Classification for Future Research
- s22-070 ... Analysis of Performance and Resilience of Basel III Compliant Commercial Banks in Africa during the Covid-19 Pandemic
- s22-072 ... Political Connection and Family Ownership on the Disclosure Quality of CSR Report in Indonesia
- s22-073 ... Personality Traits, Work Experience, and Participation in Ethics Course on Ethical Perceptions on Decision-making
- s22-074 ... Analysis of Intellectual Capital and Financial Performance of Textile and Garment Industries in Indonesia
- s22-075 ... Managerial Ownership, Risk Management Committee, and Firm Value
- s22-077 ... The Asset Pricing Consequences of Religious Beliefs and Social Norms
- s22-079 ... The Effect of Good Corporate Governance Mechanisms on Profitability of Company Shares
- s22-080 ... Decision Making among Indonesian Fashionistas: The Role of Terminal Value and Instrumental Value in Forming Fashion Consciousness and Behavioral Intention Fashion Application
- s22-081 ... Minimum Adapter Perspective: The Role of Perceived Product Quality and Health Consciousness to Increase Customer Satisfaction and Customer Trust in Forming Customer Brand Loyalty

- s22-082 ... Profitability of Parking Management Project by Outsourcing Manpower and Service Provider Company in Indonesia (Case Study of PT Binajasa Abadikarya)
- s22-083 ... Financial Resilience in ASEAN-4 Banking Sector: Impact of Cyber Risk Disclosure
- s22-084 ... Bank Disclosures of Cyber Exposure and Audit Fee
- s22-085 ... The Application of Risk-Based New Venture Valuation to Calculate Value of Healthcare Start-up (Case Study: Med-Ease)
- s22-086 ... Does the Covid-19 Pandemic Affect the Capital Structure of Steel Companies in Indonesia? (Empirical Study of Steel Companies in Indonesia that listed in IDX-IC on 2018-2021)
- s22-087 ... Cost Effectiveness Pamsimas to Reducing Diarrhea Diseases in Kabupaten Bandung
- s22-088 ... Investment Analysis of Digital Banking Development (Case Study: Bank BJB)
- s22-089 ... Investment Project Analysis and Business Review of Coal Mining Area Development towards the Appraisal of Gravel Resources Availability Using Real Option Approach (Case Study of PT. YCUZ, Eastern Borneo, Indonesia)
- s22-090 ... Personality Traits' Impact in Managing Debt: A Case Study in Indonesia
- s22-091 ... Search Volume Index and its Relationship to the Returns during Covid-19 of Listed Indonesia LQ45 Index
- s22-092 ... The Impact of Working Capital Management During COVID-19 on Firm Value and Profitability of Listed Property and Real Estate Firms in Indonesia
- s22-093 ... Financial Behavior in Building Financial Well-being for the Young Generation in Indonesia
- s22-094 ... Analysis of Excessive Risk-Taking and Covid-19 Pandemic Condition on Non-Performing Loans/Financing on Conventional Bank and Islamic Bank in Indonesia
- s22-095 ... Empirical Analysis of the Effects of Microeconomics and Macroeconomics Factors on Bank-risk Taking Behavior Before and After Covid-19: Evidence from Regional Development Bank (BPD) in Indonesia
- s22-096 ... The Effect of Digitalization on Green Groceries in an Online and Offline Environment in Indonesia
- s22-097 ... Perspective of the Young Generation in the Agricultural Sector in Indonesia
- s22-098 ... System Dynamic and Simulation of Business Model for Sustainable Food Production in West Java Province Indonesia
- s22-099 ... Application of Technology Acceptance Model (TAM) on Digital Promotion Media for Tourism in Pontianak City
- s22-100 ... Government Ownership, Media Exposure and Firm Characteristics on Carbon Emission Disclosure: The Case of Indonesia Manufacturing Industry
- s22-102 ... The Determination of Audit Consideration at Public Accounting Firm's in Palembang City; Job stress as a Mediation Variable
- s22-107 ... Analysis of the Application of Income Tax Law to Income Generated Overseas by Capital Companies Located in the Kingdom of Saudi Arabia
- s22-108 ... Antecedent Factors of Knowledge Transfer from University to MSME in the Digital Transformation Era: A Proposed Framework
- s22-109 ... Does Rural Entrepreneurship Performance Support Sustainable Development Goals (SDGs)?
- s22-110 ... The Role of Islamic Intellectual Capital on Islamic Cooperative Performance in Indonesia
- s22-111 ... The Shift of Common to Personalize Paradigm: Improving Customer Loyalty of E-Commerce in Indonesia
- s22-112 ... Social Enterprise in Indonesia: Why Does It Matters?
- s22-113 ... Importance of E-Trust and E-Satisfaction in Asynchronous Online Learning Indonesian Students

- 
- s22-114 ... An Examination of the Relationships Between Confucianism and the Factors that Influence Workforce Resistance to Digital Transformation
- s22-115 ... Benchmarking Analysis: A Comparative Study of ESG Implementation Using MSCI Rating Standard on State and Regional Owned Enterprises in Indonesia
- s22-116 ... Exploring the Role of Micro Finance Institutions (MFI) and Credit Risk Management (CRM) on MSME's Resilience
- s22-117 ... Islamic Social Reporting Index, Company Performance, and Market Performance
- s22-119 ... Optimal Capital Structure Proportion for Indonesian Infrastructure Sector: Comparative Study of Modigliani-Miller Theory, Modern Portfolio Theory, and Agency Theory
- s22-120 ... Trends in Chinese Tourism since the COVID Pandemic
- s22-121 ... Active Leverage Adjustment of Indonesian Construction Enterprises
- s22-123 ... Remuneration, Organizational Commitment, and Performance in Indonesia State Universities: A Mixed Method Study
- s22-124 ... The Management Strategic of BUMDesa Using Tetrapreneur and Social Capital Approach (Study at BUMDesa "Pelangi Nusantara" Indonesia)
- s22-125 ... Designing Performance Measurement for Developing Sustainability of Social Enterprise
- s22-126 ... Social Enterprise and Post Covid-19: Challenges and Opportunities in Indonesia
- s22-127 ... Perceived Organizational Support and Training of Loan Officer's Commitment to Support MSME's Sustainability: A Study of Indonesia Rural Bank
- s22-128 ... Does Corporate Social Activity Indicate the Reconciliation of Management and Shareholder? A Study in Indonesia
- s22-129 ... The Comparison Fraud Risk Assessment between General and Forensic Auditor: A Quasi-Experimental Method
- s22-130 ... The Rural Bank's Human Capital Quality and Credit Risk: Moderating Role of Liquidity
- s22-131 ... Exploring the Capabilities of SME Managers for Managing Relationships in Business Ecosystems: An Open Innovation Perspective
- s22-132 ... Evaluating Celebrity Influencers' Effectiveness: How McDonald's is Redefining Fast Food Through the BTS Meal
- s22-133 ... Why Do Some Young Investors in Indonesia Integrate Sustainable Investment in their Portfolio?
- s22-134 ... Peer-to-Peer Lending Default Prediction Model: A Credit Scoring Application with Social Media Data
- s22-135 ... The Effect of COVID-19 On Cultural Tourism: A Cross Generational Study of China
-



# **Antecedent Factors of Knowledge Transfer from University to MSME in the Digital Transformation Era: A Proposed Framework**

Lina Anatan\*

Faculty of Business, Maranatha Christian University  
lina.anatan@eco.maranatha.edu

Nur

Faculty of Business, Maranatha Christian University  
nur@eco.maranatha.edu

*Presented at: SIBR 2022 (Osaka) Conference on Interdisciplinary Business and Economics Research, 30<sup>th</sup> June – 1<sup>st</sup> July 2022, Osaka, Japan.*

## **ABSTRACT**

Limited resources, such as the knowledge and skills of employees, are one of the main problems faced by micro, small and medium enterprises (MSME). Based on the knowledge-based view (KBV), to overcome these problems, MSME can access external resources, such as knowledge transfer activities from universities through university-MSME partnership. Facing the digital transformation, the partnership development required to be redesigned to adapt to changes by considering internal aspects such as leadership, information, and communication technology (ICT), work environment, employee positive intention, and absorptive capacity. This paper discusses the proposed conceptual framework for knowledge transfer from university to MSME in the digital transformation era. The discussion includes a knowledge-based view as the theoretical basis to explain the motivation of university-MSME partnerships, how to design the partnerships in the digital transformation era, previous studies on knowledge transfer from university to MSME, and the development of propositions to explain internal aspects that affect the success of knowledge transfer activities. This paper is expected to contribute to the development of strategic management literature, especially related to the strategic alliance's issue and provide insight and consideration for decision-makers in developing partnerships.

**Keywords:** knowledge-based view, knowledge transfer, university-industry partnership, digital transformation, proposed conceptual framework

## **INTRODUCTION**

Limited human resources (HR) become one of the basic problems faced by MSME in Indonesia that must receive important attention to overcome considering that HR is the main determinant factor in determining the success of a company. Optimization of HR potential can be conducted through access to resources from outside of the company, such as universities, through knowledge transfer activities by developing partnerships with universities as knowledge-producing institutions. Based on a knowledge-based view (KBV), knowledge is the most important and primary resource for an organization or a company (McEvily & Chakravarthy, 2002), specifically tacit knowledge (Polanyi, 1967). An organization or company decides to involve in partnerships with other organizations or companies to be able to access external resources in certain functional areas since the knowledge required cannot be developed by the company independently.

Tachyan and Rosmadi (2018) suggest that knowledge transfer activities from universities can increase company productivity and performance through increasing production efficiency and effectiveness, company revenues and profits, and innovation capabilities. Even though knowledge transfer activities between organizations are not easy to conduct due to the high level of complexity and the limitations of the character and organizational culture, encouragement for the development of partnerships between universities and MSME is still being carried out (Smith et al., 2005). Rossi (2010) suggests that the process of transferring knowledge and technology from universities to MSME carried out may include activities such as the development of start-up companies, research collaborations, research contracts and academic consulting, development and commercialization of intellectual property rights, and other activities such as cooperation in education, training of company staff, and exchange of researchers.

Knowledge transfer activities in university-MSME can be implemented in two directions, both from university to MSME and from MSME to university. However, in this paper, the knowledge transfer process focuses on one direction, namely from university to MSME. This is due to the reason that universities as knowledge producers have an important role in the production process, diffusion, dissemination of knowledge, and technology development to meet the needs of MSME (Goransson & Brundenius, 2011). It can be concluded that in the context of universities-MSME partnership, the university is the producer of knowledge and technology that will transfer knowledge to MSME (transferor), while the industry plays a role as users of new knowledge and technology developed from the research results of researchers and experts working in the field of the education sector and research institutions (transferee). The university has a responsibility in developing the industrial sector through the provision of quality human resources, new ideas, and modeling to solve problems in the industry. Hermans and Castiaux (2007) suggest that universities are also responsible for transferring, developing, and disseminating knowledge that will be useful for solving industrial problems. On the other hand, the industry must also be able to conduct research and development for product innovation by the consumers' needs and desires.

To ensure the success of knowledge transfer activities from university to MSME, both parties must work together to overcome the main obstacle that often arises, namely the mismatch between university and MSME. Alignment of actions to achieve the objectives is needed so that perception discrepancies due to the different roles of both parties can be minimized (LaRocque, 2015). Other challenges arise due to the demands of digital transformation which have an impact on the disruption of innovation. Christensen and Raynor (2003) suggest that the disruption of innovation occurs not only related to technological change but also in practical processes where the role of the internet in everyday life is important, especially in terms of access to information.

Facing the challenges of change due to digital transformation, the Government of Indonesia has developed a roadmap for implementing a competitive strategy to support the industrial sector, known as Making Indonesia 4.0. The full utilization of information and communication technology (ICT) in the production process to the entire industrial value chain using a digital basis is the Government's main priority so that industrial productivity and efficiency can be increased. Utilization of ICT focuses on five main technologies including the internet of things (IoT), artificial intelligence, human-machine interfaces, robotics, and of sensor technology, and 3D paintings (Kemenperin.go.id). The link and match program of the industrial sector with the Education and Government sectors is also a priority for the Government, for example, the development of synergies between the Ministry of Industry and State-Owned Enterprises (BUMN), and Cooperation between the Ministry of Manpower, Ministry of Education and Culture, Ministry of Research and Technology and Higher Education.



The success of knowledge transfer activities from universities to MSME requires the Government and external parties' support such as universities, however, internal factors such as leadership, leadership, information, and communication technology (ICT), work environment, employee positive intention, and absorptive capacity. This paper discusses a proposed conceptual framework for knowledge transfer from university to MSME in the digital transformation era. The literature review will begin with a discussion of the knowledge-based view as the theoretical basis used to explain the motivation of the partnership, how to design the partnerships in the digital transformation era and previous studies on knowledge transfer from university to MSME. The discussion ends with the development of propositions that describes the proposed framework for the transfer of knowledge from universities to MSME.

## **LITERATURE REVIEW**

### **Knowledge-Based View**

Knowledge is one of the most important predictors of company success, both large companies and MSME. Knowledge can be in the form of managerial competence and skills, educated and trained employees, mastery of technical knowledge, operational methods, and management. With regard to aspects of human resources (HRM), professional experience, education and skill development, HR capital has an important role for companies because mastering knowledge will make the company more innovative and able to produce creative ideas that can be used as a source of company competitive advantage. Company knowledge that is unique, specific, innovative, and difficult to obtain will be difficult to imitate by other companies and can be the most valuable knowledge and difficult to transfer (Staniewski, 2008).

The unique characteristics of MSME such as of limited financial and human resources, simple management that focuses on the owner as the main person in charge, focus on daily operational activities and the determination of short-term strategies can be the main obstacles in the knowledge management process and the application of knowledge management practices (Torrés & Julien, 2005). However, the flat and flexible characteristic of the MSME structure and informal leadership style can make it easier for MSME to adapt and innovate according to changes that occur in the digital transformation era. A flat and flexible organization may overcome complex problems that often arise and become the inhibiting factors for large companies to be innovative and adaptive in responding to change.

Knowledge becomes the company's most significant strategic resource (Grant, 1996). Based on the perspective of the knowledge-based view (KBV), the survival and growth of a company depend on the integration of several aspects, namely productive knowledge resources, decision-making abilities, and competitive advantages that come from the coordination and combination of different knowledge resources at the enterprise level rather than the individual level through business activities as summarized in Table 1. Knowledge, especially tacit knowledge, is the most important and valuable organizational resource since it is inherent in individuals and has characteristics that are difficult to articulate and transfer to other individuals or groups. Polanyi (1967) defined tacit knowledge as "know more than we can say. While explicit knowledge refers to knowledge that can be articulated through actions rather than specific explanations of what one knows. Barney (1991) suggests that the success of knowledge management and utilization is strongly influenced by the absorption capacity of the organization and the characteristics of the transferred knowledge. The more complex, heterogeneous, and difficult to imitate, the more difficult it will be for companies to be able to benefit from knowledge transfer activities.

KBV provides an explanation of company motivation to engage in inter-organizational knowledge transfer activities to be able to access resources owned by other organizations or

companies. Through access to resources from other organizations, a company gains benefits to increase knowledge in certain functional areas that are not owned and may be difficult to develop independently by the company. Ireland et al. (2002) identified knowledge that can be accessed from other organizations through partnerships including the skills, capabilities, and processes that are essential to improve organizational performance and competitiveness and share the risk of investment assets.

**Table 1. Knowledge-Based View**

Focus	According to KBV, knowledge is the most important organizational resource in improving performance and achieving a company's competitive advantage (McEvily & Chakravarthy, 2002), (Polanyi, 1967)
Partnership Motivation	The decision to involve in a partnership with other organizations or companies is based on efforts to acquire and possess scarce resources in certain functional areas that cannot be produced independently by the company internally, partnership with external parties is required to gain access to external knowledge so that internal competencies and capabilities can be improved.
Antecedent Factors	Absorption Capacity (Gupta & Govindarajan, 2000; Lane et al., 2001); Knowledge ambiguity (Simonin, 1999), Network attributes (Polanyi, 1967; Yli-Renko, 2001); Heterogeneity of knowledge (Rodan & Galunic, 2004)

Source: Author's Elaboration

### **Designing University-MSME Partnership in the Digital Transformation Era**

The university-MSME partnership is important since, with limited resources, MSME may not have the ability and capacity to develop in-house R&D (Research and Development) independently due to the large investments required. On the other hand, in-house R&D is an important investment that must be undertaken by a company to carry out innovations such as product and process development, developing the ability to absorb knowledge and understanding and mastering new technologies. Partnerships with universities will provide benefits for MSME to support research and development activities as well as the production of new MSME knowledge which will also benefit universities in terms of obtaining patents and commercializing the research findings achieved.

Several channels of knowledge transfer from university to MSME can be through codified knowledge (e.g. publications, patents, and formal collaboration) or informal contact and consultation with researchers and experts from universities (Cohen et al., 2002). The form of cooperation and the channel of knowledge transfer chosen will be influenced by the type of industry in which MSME operates. For MSME engaged in services, a partnership that will focus on HRM training and development activities will be preferred over partnerships in terms of research or other collaborations. However, for MSME engaged in manufacturing or producing products, investment in research and development will be preferred by focusing on research collaborations to produce patents and intellectual property rights (Schartinger et al., 2002).

To develop university-MSME partnerships, especially in the digital transformation era, several factors need to be considered. The fundamental and most important factor is the effort to develop a digital platform to support the transfer of knowledge. Both parties have the same roles and responsibilities in identifying motivations, interests, business problems, and possible solutions that can be developed. A strong commitment to establishing regular communication to minimize the possibility of conflict due to miscommunication and differences in perception is also needed. Both parties also need to actively create opportunities by taking a transdisciplinary approach to students, alumni, academics, and

business partners to ensure that they have an aligned vision and mission regarding the partnerships developed. By achieving synergies between the two parties, it is expected to minimize violations and opportunistic behavior that may arise in the partnership. To create synergy, support for HRM readiness and willingness is needed.

### **Previous Research on University to MSME Knowledge Transfer**

Research on university partnerships and MSME has focused more on the consequences aspects, namely the impact of partnerships on growth and profitability (Omerzel, 2010), innovation performance (Deschamps et al., 2013; Apa et al., 2020), competitive advantage (Deschamps et al., 2013; Apa et al., 2020), competitive advantage (Ratnawati, 2019). Omerzel (2010) conducted a study that aims to examine the effect of knowledge management determinants which include knowledge use, knowledge acquisition at the individual level, knowledge storage, motivation, measurement of the efficiency of knowledge management implementation, and knowledge transfer, on company performance as measured by growth and profitability. Through exploratory studies and confirmatory analysis, it is concluded that all dimensions of knowledge management are interrelated and significantly affect the performance of MSMEs.

The study by Deschamps et al. (2013) aims to find out how MSMEs are involved in collaboration with universities, how is the role of intermediaries in university and MSME partnerships, and the types of management practices used. The results of the study conclude that MSME are not too concerned with understanding Intellectual Property (IP) and efforts to improve capabilities. Intermediaries who are responsible to guide MSME in partnerships, still have problems with IP transfer and sharing tools which are still low. Overall, it can be concluded that IP transfer and management practices in partnership management are still not sufficient to provide support for increasing MSME innovation activities.

Apa et al. (2020) conducted a study to analyze the impact of the university-MSME partnership on innovation performance. The research was conducted in Veneto, Italy by considering the variation of partnerships form aspects, namely formal and informal, as well as aspects of the possible influence of absorption capacity on performance. The results of the study show that university and MSME partnerships will effectively improve innovation performance. Ratnawati (2019) conducted a study to examine the impact of a partnership strategy on the performance of the creative industry through competitive advantage for MSME in Malang City by involving 100 MSME. The results of the study show that the partnership strategy has a significant effect on the performance of MSME.

Knowledge transfer within university-MSME partnerships has an important role in the consequences of the partnership. Studies on the antecedents of knowledge transfer include absorptive capacity and combinative capabilities (Zonooz et al., 2011); organizational culture, organizational structure, trust, motivation, and employee attitude (Ilmaniarti & Putro, 2018). Zonos et al. (2011) stated that absorptive capacity and combinative capabilities are important determinants that affect knowledge transfer in university and MSME partnerships. Absorptive capacity refers to complementary knowledge and related experiences in the past. Meanwhile, combinative capabilities are the capacity to combine and recombine existing knowledge.

Ilmaniarti and Putro (2018) conducted a study that aims to simplify the antecedent dimensions of knowledge transfer which consists of five dimensions including trust, organizational culture, organizational structure, employee attitudes, and motivation by considering the intercorrelation between dimensions, and the analysis is carried out using the principal component analysis. The results of the study show that the five antecedent dimensions of knowledge transfer can be grouped into three dimensions, namely, work atmosphere, employee positive intentions, and employee mindset.

## **Factors Affecting University to MSME Knowledge Transfer Leadership Style**

Leaders are the determinants of the company's success or failure since they are responsible for the company's strategic decision-making. These decisions include planning, developing company capabilities, establishing adaptive strategies to respond to changes, and improving company performance. In addition, leaders are also responsible for motivating employees, developing employee loyalty to the company and conducting supervision. A good leadership style will enable the team or individual employees to work together effectively, implement the strategies that have been formulated by the company, and develop processes, skills, and mindsets that are in line with the company's vision and mission. Organizational success in the process of learning, change, creating innovation, managing human resource talent, and creating organizational culture is also strongly influenced by the leadership style within the company. Leadership style is defined as a pattern of behavior that a person has to influence others and they can accept; (Hersey & Blanchard, 1969 cited in Nellyanti et al., 2020).

Leadership style has an important role in knowledge transfer activities. Knowledge, in knowledge transfer activities, is seen as an entity that can be shared automatically from the knowledge owner or originator to the interpreter, the party who receives the knowledge. Nonaka et al. (2000) classified knowledge into two categories, namely tacit and explicit knowledge. Tacit knowledge is understood as the knowledge that is unexpressed and obtained through experience and skills possessed by a person. While explicit knowledge is the knowledge that can be obtained through the learning process by reading books and journals, attending seminars, and other learning processes. This knowledge is transferred and communicated in communal situations. The approach to knowledge transfer reflects the individual's readiness to receive and implement knowledge. In this process, a leadership role is needed to plan and realize activities, such as knowledge transfer, by the company's vision and mission, so that the following proposition is developed:

*Proposition 1: Transfer of knowledge is influenced by the leadership style*

## **Information and Communication Technology**

Information and communication technology (ICT) significantly influence a company's business activities, especially in the digital transformation era. Sher and Lee (2004) suggest that ICT is one of the important organizational factors in facilitating knowledge transfer activities both within and between organizations. Previous empirical studies have proven that ICT has a significant positive effect on knowledge transfer (Davenport & Prusak, 1998). The adoption of ICT in companies not only improves company performance but also becomes an accelerator of the knowledge transfer process through the process of accessing, searching, and utilizing information. ICT also supports the process of collaboration and communication between members of the organization. However, support for the implementation of ICT will be difficult without the desire of individuals involved in the organization to be involved and support knowledge transfer activities.

Sajjad and Zhang (2011) stated that ICT is important in coordinating and facilitating communication during the knowledge transfer process so that obstacles such as physical and social distancing can be overcome properly. For example, the problem of temporal distance can be overcome through the approach of knowledge repositories that can be accessed anytime and anywhere. Likewise, social distance problems such as cultural and language differences can be overcome through translation facilities and access to knowledge through ICT to study the other organizations or countries' cultures. ICT will indeed make explicit

knowledge easier to access and transfer, however, on the other hand tacit knowledge which is difficult to extract, codify and transfer like explicit knowledge requires face-to-face communication to solve these problems. Based on the explanation of the role of ICT in knowledge transfer activities, the following proposition is developed:

*Proposition 2: Transfer of knowledge is influenced by information and communication technology (ICT)*

### **Work Environment**

The work environment is related to organizational factors such as organizational structure and organizational culture. Ghani et al. (2002) define organizational structure as a formal allocation of job roles and administrative mechanisms in a company that is used to supervise, control, and integrate activities carried out by employees within the company. Lichtarski (2009) defines organizational structure as a clear pattern of relationships that connect units of the organization through supervision, communication, and authority patterns between these units. In general, the organizational structure consists of three elements, one of which is formalization. Formalization has standardized work characteristics and worker behavior is regulated by explicit rules and procedures so that it will eliminate the spontaneity and flexibility of employees needed in the company's innovation process.

In companies with low formalization such as MSMEs, employee work behavior is relatively unstructured and employees have greater freedom so that they support the company's innovation process (Chen & Huang, 2007). Zubair et al. (2014) suggest that to support knowledge transfer activities in companies, three organizational structure items must be considered, namely decision-making method with participatory and empowers employee involvement, the ease of information flow that connects employees to different parts of the company, and the existence of cross-functional team within the company.

The aspect of organizational culture is also an important determinant in ensuring the success of knowledge transfer so that norms are formed which will ultimately influence employees to be committed and involved in the knowledge transfer process (Chang et al., 2017). Organizational culture is understood as the values, beliefs, and behavior patterns of organizational members that form organizational identity and organizational member behavior to achieve organizational success by the developed organizational vision and mission. Based on this explanation, the following proposition is developed:

*Proposition 3: Transfer of knowledge is influenced by the work environment*

### **Employee Positive Intention**

A study conducted by Hislop (2003) cited in Ilmaniati and Putro (2018) concluded that employee attitudes, such as motivation to learn independently, are very important in encouraging knowledge transfer activities. On the other hand, attitudes such as reluctance to learn something new and adapt to changes, as well as a fear of sharing knowledge since they feel they will lose their advantage, are factors that can hinder the knowledge transfer process (Gazor et al., 2012). Some of the employee positive attitudes that can support the success of knowledge transfer activities include the desire to help others, trustworthiness, and personality.

Employees who have intrinsic motivation to help others have a significant contribution to the knowledge transfer process since they support problem-solving within the company. Likewise with trust, the higher the level of trust, the higher the level of desire to transfer knowledge. Studies show that the higher the level of trust, the higher the desire of a person to share or transfer the knowledge they have to others whom they value as honest and

trustworthy. Personality factors are considered to be the strongest predictor of knowledge transfer compared to trust and desire to help others. This inner personality is related to motivation, trust, concern for others, and self-efficacy. Based on this explanation, in this study the following propositions were developed:

*Proposition 4: Transfer of knowledge is influenced by employee positive intention*

### **Absorptive Capacity**

Cohen and Levinthal (1990) define absorptive capacity as the company's ability to recognize, assess, and apply knowledge obtained from external sources for company benefit. Absorptive capacity is a determining factor for the success of knowledge transfer activities from external to the company since it supports the process of seeking new knowledge and increases the company's ability to seek new connections so that the company's innovation capabilities can be increased. Previous empirical studies considered absorptive capacity as the main determinant and facilitator of knowledge transfer (Van Wijk et al., 2008). The conceptual literature on absorptive capacity concludes that there is a theoretical link between absorptive capacity and knowledge transfer in the context of partnerships and acquisitions. Manbieva et al (2003) suggest that employees in receiver organizations must be able to understand the knowledge possessed by the sender and understand how the knowledge received can be implemented to support knowledge transfer activities so that the following proposition is developed:

*Proposition 4: Transfer of knowledge is influenced by absorptive capacity*

### **Conclusion**

This paper is a synthesis of previous studies that aim to develop a conceptual framework of antecedents of knowledge transfer from universities to MSME which includes leadership style, information and communication technology, work environment, employee positive intention, and absorptive capacity. It is important to conduct a study on the transfer of knowledge from universities to MSME considering that MSME are the pillars of the Indonesian economy that contribute significantly to Indonesian economic growth and Gross Domestic Product. On the other hand, MSMEs are still facing various internal problems due to limited resources and the challenges of a digital-based business model. This paper is expected to contribute to the development of strategic management literature and insight for decision makers in creating effective knowledge transfer from universities to MSMEs.

### **ACKNOWLEDGMENTS**

We gratefully appreciate The National Research and Innovation Agency, Republic of Indonesia for the research grant provided through Penelitian Dasar Unggulan Perguruan Tinggi (PDUPT) Scheme. We also would like to thank Yayasan Perguruan Tinggi Kristen Maranatha (YPTKM) and Lembaga Penelitian dan Pengabdian Masyarakat (LPPM) Maranatha Christian University for the support.

### **References**

- Apa, R., De Marchi, V., Grandinetti, R., Sedita, R.S., 2021. University-SME collaboration and innovation performance: the role of informal relationships and absorptive capacity, *Journal of Technology Transfer*, 46, 961-988.
- Barney, J.B., 1991. Firm resources and sustained competitive advantage. *Journal of Management*, 17 (1): 99-120.

- Chen, C.J., & Huang, J.W., How organizational climate and structure affect knowledge management-The social interaction perspective, *International Journal of Information Management*, 27 (2), 104- 118.
- Christensen, Clayton M., & Raynor, Michael (2003). *The Innovator's Solution*. Boston: *Harvard Business School*.
- Cohen, W., & Levinthal, D., 1990. Absorptive capacity: a new perspective on learning and innovation. *Administrative Science Quarterly*, 35, 128–52.
- Cohen, W.M., Nelson, R.R., & Walsh, J.P., 2002. Link and impacts: the influence of public research on industrial R&D. *Management Science*. 48 (1): 1-23.
- Davenport, T.H. and Prusak, L. (1998), *Working Knowledge: How Organizations Manage What They Know*, Harvard Business School Press, Boston, MA.
- Deschamps, I., Macedo, M.G., & Levesque, C.E., 2013. University-SME collaboration and open innovation: Intellectual-property management tools and the roles of intermediaries. *Journal Innovation Management Review*, March 2013, 33-41.
- Gazor, H., Koohkan, F., Kiarazm, A. dan Ameleh, K.N. 2012. Influential factors on knowledge sharing in banking industry. *Management Science Letter*, 2, 2215-2224.
- Gorranson, B., & Brundenius, C., 2011. *Universities in Transition: Changing the role and challenges for academic institutions*. International Development Research Center, Ottawa, Canada.
- Grant, R. M. 1996. Toward a knowledge-based theory of the firm. *Strategic Management Journal*. 17: 109-122.
- Hermans, J., & Castiaux, A., 2007. Knowledge creation through university-industry collaborative research projects. *The Electronic Journal of Knowledge Management*, 5 (1): 43-54.
- Ilmaniati, A., & Putri, B.E., 2018. Analisis komponen utama factor-faktor pendahulu (antecedents) berbagi pengetahuan pada usaha mikro, kecil, dan menengah (UMKM) di Indonesia. *Jurnal Teknologi*, 11 (1), 67-78
- Ireland, R.D., & Hitt, A.H., 2002. Alliance management as a source of competitive advantage. *Journal of Management*, 28 (3), 413-446.
- LaRocque, N.I.A., 2015. Summary of Indonesia's Education Sector Assessment. *ADB Papers on Indonesia*, October 2015, 1-7.
- J.M. Lichtarski, Organizational Structure and Knowledge Management. *Argumenta Oeconomica* 1(22)/2009, pp. 83-101.
- Minbaeva, D., Pedersen, T., Björkman, I., Fey, C. F., & Park, H. J., 2003. MNC knowledge transfer, subsidiary absorptive capacity, and HRM. *Journal of International Business Studies*, 34, 586–99.
- McEvily, S., & Chakravarthy, B.S., 2002: The persistence of knowledge-based advantage: an empirical test for product performance and technological knowledge, *Strategic Journal*, 23 (4), 285-305
- Nellyanti, Azis, M., Asrijal, A., Yusriadi, Kurniawan, R., Ivana., 2021. The influence of leadership style on knowledge transfer and organizational culture for improving employee performance. *Proceedings of the 11th Annual International Conference on Industrial Engineering and Operations Management Singapore*, March 7-11, 2021, 7270- 7276
- Nonaka, I., Toyama, R., & Nagata, A. (2000). A firm as a knowledge-creating entity: A new perspective on the theory of the firm. *Industrial and Corporate Change*, 9 (1), 1–20.
- Omerzel, D.G., 2010. The impact of knowledge management on SME growth and profitability: A structural equation modelling study. *Africa Journal of Business Management*, 4 (6), 3417-3432.
- Polanyi, Michael. 1967. The growth of science in society. *Minerva* 5(4): 533-545



- Ratnawati, 2019. Partnership strategy and competitive advantage to the performance of MSMEs in the creative industry. *JAM: Jurnal Aplikasi Manajemen*, 17 (4), 668-675.
- Rossi, F. 2010. The governance of university-industry knowledge transfer. *European Journal of Innovation Management*, 13 (2): 155-171
- Schartinger, D., Rammer, C., Fischer, M.M., Frohlich, J., 2002. Universities and industry in Austria: Sectoral patterns and determinants. *Research Policy*, 31 (3), 303-328.
- Sher, P. J., & Lee, V. C., 2004. Information technology as a facilitator for enhancing dynamic capabilities through knowledge management. *Information & Management*, 41, 933-945
- Smith, K.G., Collins, C.J., & Clark, K.D. 2005. Existing knowledge, knowledge creation capability, and the rate of new product Introduction in high-technology firms. *Academy of Management Journal*, 48 (2): 346-357.
- Staniewski, M., 2008. The elements of Human Resources Management supporting knowledge management. *Amfiteatru Economic*, X, (Special Iss. 2), 283-291.
- Tachyan, Z., & Rosmadi, M.L.N., 2018. Peran transfer pengetahuan dalam mengembangkan industry kreatif. *Ikraith Humaniora*, 2 (2), 61-68.
- Torres, O., & Julien, P.-A., 2005. Specificity and Denaturing of Small Business. *International Small Business Journal*, 23 (4), 355-375
- Van Wijk, R., Jansen, J. P., & Lyles, M. A., 2008. 'Inter- and intra-organizational knowledge transfer: a meta-analytic review and assessment of its antecedents and consequences. *Journal of Management Studies*, 45, 815-38.
- Zonooz, B.H., Farzam, V., Satarifar, M., & Bakhshi, L., 2011. The relationship between knowledge transfer and competitiveness in SMEs with emphasis on absorptive capacity and combinative capabilities. *International Business and Management*, 2 (1), 2011, 59-85.
- Zubair, M., Ahmad, N., & Ahmed, R.R. (2014). Key Factors to Promote Knowledge Sharing in Karachi Pharmaceutical Industry. *Information and Knowledge Management*, 4(4), 125- 138