

How to Cite:

Suwandej, N., Tanskul, P., Jiemwongsa, C., & Waimaleongraek, P. (2022). Mediating role of knowledge management among human capital, leadership and business growth: Evidence from flavoring industry of Thailand . *International Journal of Health Sciences*, 6(S5), 54–66.
<https://doi.org/10.53730/ijhs.v6nS5.5197>

Mediating Role of Knowledge Management among Human Capital, Leadership and Business Growth: Evidence from Flavoring Industry of Thailand

Niyom Suwandej

Suan Sunandha Rajabhat University, Thailand

Email: niyom.su@ssru.ac.th

Phikul Tanskul

Symrise Co., Ltd., Thailand

Email: phikul.tanskul@symrise.com

Churailuk Jiemwongsa

Mahidol University, Thailand

Email: deemak41@yahoo.com

Pamarin Waimaleongraek

NSL Foods Co., Ltd., Thailand

Email: pamarin.wai@mahidol.ac.th

Abstract--The Thai food industry has faced the crisis but government has devised strategies and policies to revitalize the industry successfully. Thailand is considered as one of the most attractive destinations in the world for international tourists and expected to remain attractive destination due to its landscape, culture and tourism opportunities. The current research effort investigated the business growth influenced by efficient human capital, suitable leadership style and effective knowledge management practices. The study found that human capital influences the knowledge management and business growth, the leadership also found to be statistically significant that it influences the knowledge management and business growth, moreover the mediation role of knowledge management has been reported as statistically significant, that effective knowledge management practices fully mediates relation among leadership, human capital and business growth. The study was conducted during pandemic restrictions, the future studies must be conducted with larger sample size and in comparison, with other related associated industries.

Keywords---business growth, flavoring industry, human capital, knowledge management, leadership.

Introduction

The food and agricultural products belong to the food industry that includes agri-processing industry or agricultural processing industry as defined by the food and agricultural organization of UN and its significantly important for human consumption. The food industry utilizes the raw material and intermediates agricultural output that processed into consumable items that contributes in business development. The Thai food industry faced crisis in 1997 and government of Thailand has given attention to food industry after the damage as the food industry is considered high income generated for investors and agricultural sector. The development of food factories spread throughout the country that also reduced the migration issues of rural-urban. The food industry was supported by the government of Thailand in 1961 under National economic and social development plan and further promoted with the name of agroindustry (Ahmed et al., 2017). The economy of developing countries depends upon the small and medium enterprises due to the contribution in creation of job opportunities, similarly Thailand's SME business sector contributes in economic growth as government has focused on increasing the contribution from SME sector by supporting the business under the economic development plan 2021 to 2025 that further increase the GDP of the country (Theparat, C., & Chantanusornsiri, 2018). The business sector in Thailand face number of difficulties including human resources, human capital and limited knowledge resources as compare to developed counties and well-established firms in Thailand and around the world, that shows that there is a dire need to focus on number of issues including knowledge management, leadership and managing customer to enhance the performance (Chaithanapat et al., 2022).

The efforts of the government bring positive change to the country in terms of development and as well as earned foreign currency for the country that increase the financial strength. The Thai government took the initiative to spread the scale of the food industry as it contributed in the GDP and helped to grab the foreign currency for the country, so therefore, the policy makers decided to enrich the industry with newly agro-industrializing country to take the advantage of foreign direct investment. The infrastructure of food industry was developed after great concern of the government to attract the FDI, the flavoring, food and beverage industry has taken the attention for its large-scale exports and performance, the National Competitiveness Committee (NCC) identified food industry as higher performing industry that contributes largely in exports that contribute in GDP and economic growth. The Thailand is considered as one of the major exporters of the food products around the world, the exports of food items include tapioca, rice, fresh food, frozen items, sugar and many more that becomes approximately US \$ 22 billion, that segregated in exports of sugar and tapioca, more than US \$ 2.3 billion associated fresh and frozen vegetables. The sea food exports recoded as 4.1 billion \$ and 2.2 billion US \$s for frozen sea food such as shrimp. Moreover, the country namely contributes in production of vegetables, coffee, fruits, nuts,

pineapple, juices, cooking oil and canned foods. The Thailand is considered as one of the best countries in exporting the rice, including organic rice, rice noodles, and rice snakes (Chaithanapat et al., 2022).

The prior literature stressed upon the efficiency and innovation to being competitive and to increase the exports because higher level of competitiveness can only be achieved through innovative capability. The research scholars have depicted that quality of capital and labor, the competitiveness in price and technology based on innovation contributes for the organizational success and performance. The firms strive to gain the efficiency while penetrating in the new markets through promotion of innovation that provides the solid grounds for competitive standing. The food industry adopted number of changes through innovative initiatives that has changed the food industry practices by introducing the organic products produced indoor under hydroponic system, authentic food, exotic food and food that support the digestive system, as these foods has gained the attention of large number of consumers in the world and growing steadily, that has become attractive opportunity for manufacturers. The Thai food industry and food production experts contributes in exporting the food items, Thai food exports were valued at 980,703 million Baht in year 2020, with export value of US \$ 31,284 million, however the decrease was observed by 5.1 percent, that may be due to pandemic restrictions. Meanwhile, Thailand has contribution in global market share that declined as compare to 2019, and exporting position dropped as well to 13th position from 11th in year 2019 according to the Food Institute 2021 (Chummee, 2022).

It has been observed that global agricultural and food trade has worth of 1.35 trillion US \$s including vegetables, grains, fruits and meat, the US considered as worlds' largest exporter, Brazil at number 3, while Indonesia possess 5th place including higher palm oil prices and other food exports, frozen shrimp, canned tuna, coffee, and cocoa according to food institute 2021. The innovative capabilities are required for supporting organizational management that has direct effect on corporate innovation. The research studies depicted surprisingly that organizational innovation depends upon employer, and variation of organizational innovation by 87%, the ability of organizational management has no direct effect on innovation carried out in organizations (Suraphan Sawasdiphak, Sudawan Somjai, 2019). The research literature has argued that culture of organizations plays vital role in innovativeness and competitiveness that further impact the organizational performance (Chummee, 2022). Another study highlighted the role of leadership in product innovation, process innovation, marketing innovation at higher level, that change the leadership style influence the innovativeness in business operations of the food industry, that also impact the exports of the food items. The leadership has positive effect on business performance through process innovation, product innovation and marketing innovation (Chummee, 2022).

The concept of human capital was coined by scholars like Becker, Schultz and Mincer that elaborate the expense on training, education and health as investment, human capital is considered as an important factor that contribute in firm performance and enhance the productivity (Mahmood & Mubarik, 2020). Human capital assist in improving the organizational efficiency, the educated and

skilled employees contribute in enhancing the firms' output as human capital believed to be more capable and creative. The skilled and educated employees found to be having better productive inclination capabilities that contribute in organizational success and has the tendency to cope with external changes (Cairó & Cajner, 2018). The role of human capital varies from industry to industry, sector to sector and job to job, the research scholars have stated that knowledgeable and skilled workers required for quality of decision making and adoption of higher quality-oriented firms, the highly skilled labor is required in technological firms in order to cope with external changes as compare to low technological advance firms (Chatterjee, 2017). The preset research effort is the intention for determining the performance of food industry of Thailand, the predictors incorporated in the present research are leadership and human capital with mediating role of knowledge management.

Literature Review

This section of the research presents the relationship between predictors and exogenous constructs.

Knowledge Management and Business Growth

The knowledge is valuable source that contributes in various aspects to the organization, as quality, services and economical input can't be possible without effectively utilization of knowledge. The other sources such as labor, land and capital have significant importance as these are crucial assets for organization, similarly the knowledge has the significant impact on performance and growth of the firms. The firms strive and focus on providing the opportunities for continuous learning to their employees to enrich skills and knowledge that contribute professionally and assist in gaining the competitive advantage (Taskin & Van Bunnan, 2015). The organizations utilize technologies for knowledge management, as interaction between technologies, people, and techniques are being used for long-term competitive advantage and continuous business growth. The balance between technological system and social system needs to be ensured in order to gain the performance and competitive advantage. The technological advancements significantly increase the efficiency and improve the flow of information throughout the organization (Bhatt, 2001). The knowledge management processes the acquisition of knowledge, knowledge sharing and knowledge usage that positively influence the innovation. The organizations ensure the creation and acquisition of knowledge, the initiatives for knowledge sharing to maximize the mutual benefits and utilizing of required knowledge as and when required that enable the employees to enrich their skills, and assist in taking initiatives for innovation. The research studies have depicted that knowledge sharing has the impact on innovation, due to its role in presenting the emerging ideas and to gain mutual benefits. It has been observed that individuals hesitate in knowledge sharing due to fear of losing control, people avoid to share the knowledge because it has been largely perceived that knowledge sharing has the tendency to reduce the level of influenced and power (Obeidat et al., 2016). The sustainability is necessary in coping with competition and long-term success depends upon the effective management of knowledge and culture of the organizations. The organizations strive to develop the culture that support the

knowledge management and sharing, the culture needs to be developed that foster the trust among employees to share the knowledge in order to accomplish the organizational objectives and goals. The external and internal resources of the organizations must be utilized for gaining the knowledge and appropriate culture must be initiated for knowledge sharing among stakeholders and to gain mutual benefits (Singh, 2018).

The prior literature has empirically investigated the association between knowledge management and organizational outcomes, the research scholars have also investigated the predictors of the knowledge management. The prior research reported significant relationship between organizational structure, organizational culture, leadership, and trust that predict the knowledge management. Similarly, the knowledge management found to be statistically significant in predicting the organizational performance and human capital (Rezaei et al., 2021). However, the study has overlooked the number of important variables that predict the knowledge management, further the mediation of knowledge management is ignored in the study to establish the relationship between predictors and endogenous constructs. Thus, the current study plans to address the gap by assessing and empirically investigating the human capital, leadership and technological adoption to predict the organizational growth through mediating role of knowledge management. The effective and appropriate leadership style is required to be developed and leadership style is required to be adopted in order to develop the culture and build the trust among employees in order to gain the benefits.

The research scholars have investigated the relationship between education, experience, personal attributes, health, skills and training, that further influence the organizational survival. The study reported that education, experience, health, personal attributes, skills and training significantly predict the survivability of the firms. The study also reported that knowledge management mediated the relationship between education and survivability, also significantly mediated the relationship between skills, training and survivability. The results of the study also reported insignificant mediating role of knowledge management between experience, health and personal attributes to predict the organizational survivability (Alnoor, 2020). The study overlooked the various aspects that influence the knowledge management and organizational performance related outcomes. The current study intends to examine the leadership perspective to predict the organizational performance and knowledge management.

Human Capital, Knowledge Management and Business growth

The current study incorporated the important factor of human capital to predict the knowledge management that further influence the organizational performance. The human capital has been described as the individual knowledge stock of the firm that includes employees' competence, skills, knowledge, innovativeness, attitude, commitment, wisdom and experience (Attar et al., 2019). The human capital has four essential elements including competency management, performance management, changes management and knowledge management. The current emerging situation around the world has experienced large-scale competition and knowledge is required for being competitive and

survival of the organization. The effective knowledge management believed to be serving organization to cope with rapidly changing and emerging business environment. The countries with poor management control and lack of knowledge stock faces number of issues and failed to cope with newly emerging business practices. The human capital is necessary to be explored and efficient relevant human capital must be acquired for knowledge management that further influence the organizational performance (Martinez-Conesa et al., 2017).

The strategic and tactical processes come under the knowledge management; however, firms face difficulties in making efforts to meet the global challenges, competition and environmental changes based on knowledge. The firms must ensure the knowledge management practices for acquiring the competitive position and advantage and availability of human capital influence the competitiveness and performance related consequences (Nagle & Müller, 2017). The literature has reported that financial strength is not sufficient to compete but human resource utilization plays vital role in competitiveness and performance, the knowledge management has gained the attention due to its influence on productivity and improvement in the efficiency of the firm (Santoro et al., 2018). The research has been conducted earlier to investigate the relationship between human capital and performance, it has been stated that human capital influences the performance in the organization, further the knowledge management influence the human capital (Rezaei et al., 2021). The researcher come across very limited studies that empirically assessed the relation among human capital and business growth, the current study is one of the pioneers in assessing and empirically investigating the relationship between human capital and knowledge management.

Leadership, Knowledge Management and business growth

The leadership style found to be very influential towards the organizational outcomes and performance related consequences. The application of leadership style provides the grounds for employees to react and the job satisfaction largely based on the environment of the organization. The leadership style influences the behavior of employees and play vital role in gaining the satisfaction level of the employees, as employees perceive their value by supervisors and feel satisfaction that further increases the performance of employees (Bernarto et al., 2020, Asbari et al., 2020). The leadership style involves the motivation to the subordinates to work better and focus on the behavior of individuals and organizations to cope with changes and adoption the practices that influence the performance. The effective leaders support the employees, motivates them to get the work accomplished, the positive leadership significantly influence the job satisfaction (Kheir-Faddul & Dănăiață, 2019). The another study reported insignificant relationship between leadership and employees outcomes (Purwanto et al., 2020). The prior study incorporated the construct of leadership and found that leadership has no significant relationship with job satisfaction, the leadership has no significant relationship with employee performance, further there is insignificant moderating role of job satisfaction was depicted among leadership and employee performance (Singgih et al., 2020).

Mediation role of knowledge management

The study plans to assess the mediation role of knowledge management between exogenous and endogenous constructs of the current research framework. The previous literature has investigate the mediating role of human capital among KM and OP, the study found significant mediation between KM and OP by human capital (Rezaei et al., 2021). The mediating role of KM was also explained among SMEs of Iraq to determine the survivability and mediated the relation among education, training, survivability and education. However, no mediation was reported between experience, health, personal attributes and survivability (Rezaei et al., 2021).

Research Framework

The present attempt is intended to investigate the relationship between human capital, leadership, knowledge management and business growth, the mediation role of knowledge management is also intended between independent and dependent variables. The first hypothesis H1 investigates the relationship between knowledge management and business growth, the hypothesis H2 investigates the relationship between human capital and knowledge management, the hypothesis H3 investigates the relationship between leadership and knowledge management, the hypothesis H4 investigates the mediation role of knowledge management between human capital and business growth, the H5 determines the mediation role of knowledge management between leadership and business growth. The figure 1, presents the research model of the current study. Hypotheses of the study

- H1: The knowledge management influence the business growth in flavoring industry of Thailand
- H2: The human capital influences the knowledge management in flavoring industry of Thailand
- H3: The leadership influences the knowledge management in flavoring industry of Thailand
- H4: The human capital influences the Business growth in flavoring industry of Thailand
- H5: The leadership influences the business growth in flavoring industry of Thailand
- H6: The knowledge management mediates the relationship between human capital and the business growth in flavoring industry of Thailand
- H7: The knowledge management mediates the relationship between leadership and the business growth in flavoring industry of Thailand

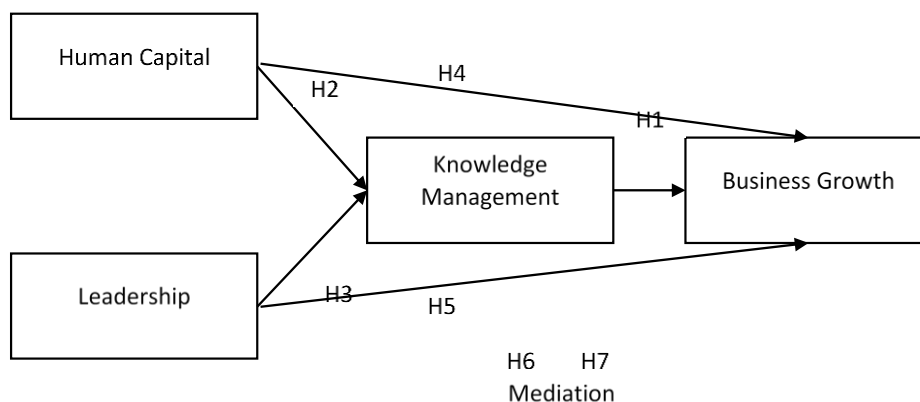


Fig 1: Framework

Research Methodology

This research paper utilized questionnaires for data collection and quantitative in nature, as the data was collection from the food and beverage industry of Thailand that relates to the flavoring business in food. The target population of food and beverage SMEs has total number of 58,707 according to the statistics as cited in (Chumme, 2022). The research employed Yamane with 5% expectancy and 397 samples were drawn based on the guidelines of Hair (2010). The total of 350 samples found to be sufficient and was obtained to collected the data, as it was difficult to collect data during the pandemic restrictions.

Measurement Scale

The measurement scales of the resents study were adopted from the previous literature, the study incorporated the four variables including business performance, knowledge management, human capital and leadership. There is total five hypotheses intended to be investigated, whereas three hypotheses are direct and two hypotheses are indirect investigating the mediation of KM. The 05 items measurement scale of Business growth was taken from the work of (Jermittiparsert et al., 2019). The Human Capital measurement scale having 05 itmes was taken from (Rezaei et al., 2021). The 05 items scale of leadership and knowledge management was adopted from the prior literature (Rezaei et al., 2021).

Data Analysis

The Data-analysis is conducted in this section, Smart-PLs was utilized for data analysis that entails the assessment of measurement model and SEM. The first is to assess the reliability and validity of the constructs in measurement model

assessment, the second portion consists of structural equation model that investigate the relationship between constructs.

Measurement Model Assessment

This section was conducted on Smart-PLS, measurement model assessment was executed through PLS algorithm to test the reliability and validity of the construct. The table 1 presents the construct reliability and validity by assessing the values of Cronbach alpha, composite reliability and Average variance extracted.

Table 1

	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
BG	0.777	0.852	0.592
HC	0.749	0.841	0.571
KM	0.863	0.908	0.664
LS	0.74	0.852	0.657

The above table demonstrates the Cronbach alpha, CR and AVE, as per suggested criteria the values for Cronbach alpha must be greater than 0.60 for statistically suitable (Hair et al., 2012). The Cronbach alpha for all constructs found to be higher than 0.70 that shows good reliability and acceptable statistically. The CR reliability must remain higher than 0.60, the table presents that all CR values found to be higher than threshold level. Similarly, the value for AVE must remain higher than 0.50, and the table presents those values of AVE are higher than cutoff point, so therefore the constructs satisfied the reliability check and acceptable for further data analysis.

Discriminant validity

The discriminant validity is demonstrated in the table 2, that shows that constructs fulfill the criteria of discriminant validity, the intersection value of each construct must remain higher the values occurred in the same column that presents the correlation value as per suggested criteria that AVE square root must be larger than correlation value in order to satisfy the discriminant validity (Fornell & Larcker, 1981).

Table 2

	BG	HC	KM	LS
BG	0.769			
HC	0.755	0.780		
KM	0.751	0.609	0.812	
LS	0.589	0.621	0.616	0.717

Note: Human Capital (HC), Leadership (LS), Knowledge Management (KM), Business growth (BG)

The above table presents the discriminant validity, that fulfills the criteria and satisfies the validity. So therefore, the next stage of SEM can be conducted to test the hypothesized relationship.

Structural Equation Model

This section of the study presents the hypotheses testing, the bootstrapping method was utilized for hypotheses testing. The five direct and two indirect hypotheses were tested. The following table 3 presents the direct hypotheses results.

Table 3

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
HC -> BG	0.245	0.245	0.081	3.012	0.003
HC -> KM	0.384	0.387	0.072	5.35	0
KM -> BG	0.255	0.252	0.043	5.998	0
LS -> BG	0.475	0.477	0.088	5.383	0
LS -> KM	0.373	0.375	0.092	4.041	0

Note: Human Capital (HC), Leadership (LS), Knowledge Management (KM), Business growth (BG)

The above table presents the direct relationships that were assessed on the base of t-statistics and p-values. The minimum acceptable threshold point is 1.96 and p value must remain lower than 0.05 for acceptability of relationship statistically. The hypothesis H1 shows (t-value = 5.998, p-value = 0.000), hence the H1 is accepted statistically. The H2 demonstrates (t-value = 5.35, p-value = 0.000), that means hypothesis H2 is accepted statistically. The H3 investigated the relationship between leadership and knowledge management (t-value = 4.041, p-value = 0.000), that is statistically accepted. The hypothesis H4 human capital influence the business growth (t-value = 3.012, p-value = 0.003), so therefore H4 is accepted statistically. The hypothesis H5 investigated the relationship between leadership and business growth (t-value = 5.383, p-value = 0.000) that is accepted statistically. In short, all direct hypotheses found to be statistically significant.

Mediating hypotheses results

This section presents the indirect effect, the mediation was assessed in the framework, as two mediating hypotheses are formed and investigated, the table 4 presents the indirect effect, like mediation role of knowledge management between human capital, leadership and business growth.

Table 4

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
--	---------------------	-----------------	----------------------------	--------------------------	----------

LS→KM→BG	0.095	0.094	0.026	3.651	0.000
HC -> KM→BG	0.098	0.098	0.026	3.771	0.000

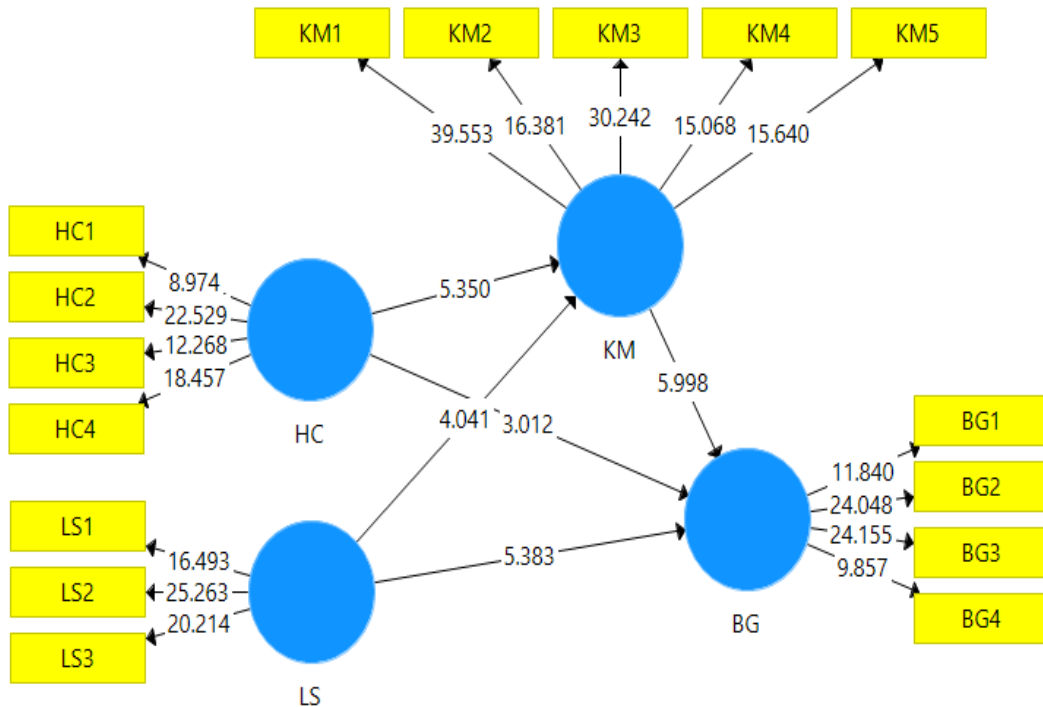


Figure 2. Structural equation model:

Note: Human Capital (HC), Leadership (LS), Knowledge Management (KM), Business growth (BG)

The mediating role of knowledge management was assessed between the relationship of human capital and business growth. The results show that (t-value = 3.771, p-value = 0.000), hence the relationship is statistically significance. The indirect effect of KM was investigated in the hypothesis H7, that depicted the results as (t-value = 3.651, p-value = 0.000), hence, the hypothesis H7 is accepted statistically.

Conclusion

The prime objective of the study was to explain the business growth in food, beverage and flavoring industry of Thailand. The study examined and explained the phenomenon of business growth influenced by human capital, leadership and knowledge management. The study also investigated the mediation role of knowledge management, between human capital and business growth and mediation role of knowledge management between leadership and business growth. The results of the study reported that human capital influence the business growth and knowledge management, moreover the knowledge

management mediated the relationship that shows that human capital is necessary for business growth and presence of knowledge management strengthen the relationship. Similarly, the leadership plays vital and important role in explaining the phenomenon of business growth, the effective leadership has the tendency to influence the practices of knowledge management that further enhance the business growth. The future studies can be conducted on assessing the business growth in turbulence market situation in comparison with other related and associated industries.

References

- Ahmed, U., Isa, N. M., Majid, A. H. A., Zin, M. L. M., & Amin, B. M. (2017). Towards understanding work engagement: can HR really buffer HR? Test of a moderated model. *International Journal of Economic Research*, 14(20), 1–18.
- Alnoor, A. (2020). Human capital dimensions and firm performance, mediating role of knowledge management. *International Journal of Business Excellence*, 20(2), 149–168.
- Asbari, M., Purwanto, A., & Santoso, P. B. (2020). Pengaruh Iklim Organisasi dan Kepemimpinan Transformasional Terhadap Produktivitas Kerja Inovatif Pada Industri Manufaktur di Pati Jawa Tengah. *Jurnal Produktivitas: Jurnal Fakultas Ekonomi Universitas Muhammadiyah Pontianak*, 7(1).
- Attar, M., Kang, K., & Sohaib, O. (2019). Knowledge sharing practices, intellectual capital and organizational performance. *Proceedings of the 52nd Hawaii International Conference on System Sciences*.
- Bernarto, I., Bachtiar, D., Sudibjo, N., Suryawan, I. N., Purwanto, A., & Asbari, M. (2020). *Effect of transformational leadership, perceived organizational support, job satisfaction toward life satisfaction: Evidences from Indonesian teachers*.
- Bhatt, G. D. (2001). Knowledge management in organizations: examining the interaction between technologies, techniques, and people. *Journal of Knowledge Management*.
- Cairó, I., & Cajner, T. (2018). Human capital and unemployment dynamics: Why more educated workers enjoy greater employment stability. *The Economic Journal*, 128(609), 652–682.
- Chaithanapat, P., Punnakitikashem, P., Oo, N. C. K. K., & Rakthin, S. (2022). Relationships among knowledge-oriented leadership, customer knowledge management, innovation quality and firm performance in SMEs. *Journal of Innovation & Knowledge*, 7(1), 100162.
- Chatterjee, J. (2017). Strategy, human capital investments, business-domain capabilities, and performance: a study in the global software services industry. *Strategic Management Journal*, 38(3), 588–608.
- Chumme, P. (2022). The Structural Relationship Analysis between Innovation and Export Performance of Food Industries, Thailand. *Turkish Journal of Computer and Mathematics Education (TURCOMAT)*, 13(1), 108–112.
- Fornell, C., & Larcker, D. F. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. In *Journal of Marketing Research* (Vol. 18, Issue 1, p. 39). Sage Publications Sage CA: Los Angeles, CA. <https://doi.org/10.2307/3151312>
- Hair, J. F., Sarstedt, M., Ringle, C. M., & Mena, J. A. (2012). An assessment of the use of partial least squares structural equation modeling in marketing

- research. *Journal of the Academy of Marketing Science*, 40(3), 414–433.
- Jermisittiparsert, K., Wattanapongphasuk, S., & Phonwattana, S. (2019). The impact of supply chain capabilities on the performance of food industry in Thailand. *International Journal of Supply Chain Management*, 8(3), 131–142.
- Kheir-Faddul, N., & Dănăiață, D. (2019). The influence of leadership style on teachers' job motivation and satisfaction in the Druze sector of Israel. *Timisoara Journal of Economics and Business*, 12(1), 17–42.
- Mahmood, T., & Mubarik, M. S. (2020). Balancing innovation and exploitation in the fourth industrial revolution: Role of intellectual capital and technology absorptive capacity. *Technological Forecasting and Social Change*, 160, 120248.
- Martinez-Conesa, I., Soto-Acosta, P., & Carayannis, E. G. (2017). On the path towards open innovation: Assessing the role of knowledge management capability and environmental dynamism in SMEs. *Journal of Knowledge Management*.
- Nagle, T. T., & Müller, G. (2017). *The strategy and tactics of pricing: A guide to growing more profitably*. Routledge.
- Obeidat, B. Y., Al-Suradi, M. M., & Tarhini, A. (2016). The impact of knowledge management on innovation: An empirical study on Jordanian consultancy firms. *Management Research Review*.
- Purwanto, A., Asbari, M., & Hadi, A. H. (2020). Pengaruh Gaya Kepemimpinan Transformasional, Authentic, Authoritarian, Transactional Terhadap Kinerja Guru Pesantren di Tangerang. *Dirasah: Jurnal Studi Ilmu Dan Manajemen Pendidikan Islam*, 3(1), 85–110.
- Rezaei, F., Khalilzadeh, M., & Soleimani, P. (2021). Factors affecting knowledge management and its effect on organizational performance: mediating the role of human capital. *Advances in Human-Computer Interaction*, 2021.
- Santoro, G., Vrontis, D., Thrassou, A., & Dezi, L. (2018). The Internet of Things: Building a knowledge management system for open innovation and knowledge management capacity. *Technological Forecasting and Social Change*, 136, 347–354.
- Singgih, E., Iskandar, J., Goestjahjanti, F. S., Fahlevi, M., Nadeak, M., Fahmi, K., Anwar, R., Asbari, M., & Purwanto, A. (2020). The role of job satisfaction in the relationship between transformational leadership, knowledge management, work environment and performance. *Solid State Technology*, 63(2s).
- Singh, P. K. (2018). Knowledge strategy, sharing behavior and performance: Reviewing a knowledge-oriented approach. *Management Research Review*.
- Suraphan Sawasdiphak, Sudawan Somjai, N. G. (2019). ORGANIZATIONAL CAPABILITY ORGANIZATIONAL MANAGEMENT EMPLOYER SUPPORT AND ORGANIZATIONAL INNOVATION AFFECTING ON OPTIMIZATION OF THE OUTSOURCING SYSTEM. *Journal of MCU Nakhondha*, 6(10).
- Taskin, L., & Van Bunnem, G. (2015). Knowledge management through the development of knowledge repositories: towards work degradation. *New Technology, Work and Employment*, 30(2), 158–172.
- Theparat, C., & Chantanusornsiri, W. (2018). *Goal for SMEs to kick in half of GDP*. <https://www.bangkokpost.com/business/1468342/goal-for-smes-to-kick-in-half-of-gdp>