Jurnal Manajemen dan Bisnis
Vol. 11, No. 2, December 2022, pp. 321-330
Sekolah Tinggi Ilmu Ekonomi Indragiri (STIE-I) Rengat
https://journal.stieindragiri.ac.id/index.php/jmbi/issue/view/25
P-ISSN : 2302-4313
E-ISSN : 2621-4199

TESTING THE EFFECT OF CUSTOMER CAPITAL AND TECHNOLOGICAL INNOVATION ON BUSINESS PERFORMANCE

Acai Sudirman[1)*], Ita Musfirowati Hanika[2)], Fitria Halim[3)], Julyanthry[4)], Erbin Chandra[5)]

[1)3)4)5)] Management Study Program, Sekolah Tinggi Ilmu Ekonomi Sultan Agung
[2)]Communication Study Program, Universitas Pertamina

[1)*]acaivenly@stiesultanagung.ac.id, [2)]ita.mh@universitaspertamina.ac.id,
[3)]fitriahalim2839@stiesultanagung.ac.id, [4)]julyanthry@stiessultanagung.ac.id, [5)]erbinchandra@stiessultanagung.ac.id
Submitted: 2022.11.21 Reviewed: 2022.12.31 Accepted: 2023.01.05
https://doi.org/10.34006/jmbi.v11i2.488

Abstract

The digital era, which should be implemented and able to get high opportunities, can also become a threat if MSMEs keep their business the same. To face business competition that is now increasingly complex, every SME actor is required to be able to adapt to the company's external environment by continuously monitoring and managing customer capital and applying innovation in technology. This study analyzes and examines the effect of customer capital and technological innovation on business performance.This study uses a causality quantitative research design. The number of samples used in this study was 110 SME business actors. Data analysis used an instrument test, normality test, regression test, hypothesis test, and correlation test, as well as the coefficient of determination. The results of the data analysis confirm that customer capital and technology have a positive and significant impact on business performance. This research concludes that effective customer capital management and the readiness of SMEs to deal with rapidly changing technology are believed to impact business performance significantly. It can be implemented with a good idea that can be replicated more easily, requiring continuously new and better product usage methods, processes, and faster services.

***Keywords**: Customer Capital, Technological Innovation, Business Performance, MSMEs*

INTRODUCTION

Small and Medium Enterprises (SMEs) can provide employment opportunities and improve people's welfare (Widati, 2022). The increasingly fierce business competition requires entrepreneurs to be more creative in determining sales strategies and expanding their market share (Sutiksno et al., 2020). Information technology is expected to increase the capacity of small and medium enterprises in utilizing the downstream side (consumers/markets) and the upstream side (suppliers) (R. A. Purba et al., 2020). Optimizing supply chains and collaboration between information and technology supports business success (Kadeni, 2020). The utilization of information technology can provide opportunities for small and medium enterprises to market their products to the global market and make it possible to enter export markets (Djajasinga et al., 2021). Intense competition in dealing with large businesses is a challenge in developing small and medium enterprises (Ayesha et al., 2021). In general, the method used by small and medium enterprises with simple and traditional equipment in marketing and

production (Afwa et al., 2021). The internet allows a wider market, and sales are not bound by space and time because they can be done anytime. The constraints experienced by small and medium business owners are: (1) Having limited capital so that production capabilities are also limited. 2) Has a limited ability to use technology (1) Having limited capital so that the ability to produce is also limited. 2) Has a limited ability to use technology (Sedyastuti, 2018). Small and medium enterprises in Indonesia have an impact on improving people's welfare. Another example in the Netherlands, small and medium enterprises can absorb 55% of the workforce from 98.8% of existing companies. This means that there are 2.2 million workers absorbed (Haryanti & Hidayah, 2018). This is the contribution of small and medium enterprises to the economy. Likewise, Vietnam can absorb workers in the SME sector. Conventional methods of product marketing are still used by businesses that are still relatively small and medium (Akmad, 2015). This impacts increasing competition in large companies that have used modern facilities. Another problem faced by developing countries in the field of small businesses is not because of their size but rather due to limited access, which hinders market expansion (Julyanthry et al., 2021).

Besides social and human capital, another very important factor is customer capital. Customer capital or customer capital is the organization's relationship with the people who do business with the organization (W. Y. Wang & Chang, 2005). (Hasmirati & Akuba, 2022), defines customer capital as the depth (penetration), breadth (coverage), and engagement (loyalty) of the company. (Sukarno & Nirawati, 2016)adding customer capital is the tendency of a company's customers to continue to do business with that company (Lin et al., 2022). Customer capital is often measured or calculated because it is a funding source compared to human and structural capital. For example, a brand is an example of customer capital with an easy valuation method. This method is carried out by calculating the premium that customers are willing to pay for a particular product brand compared to other product brands, then using the cost of capital and the rate of return on capital to calculate the value of the asset (brand reputation) that creates the premium (Ameli Kalkhoran et al., 2022). Customer capital appears through learning processes, access, and trust. When a company or a person decides to buy from a company, the decision is based on the quality of their relationship, price, and technical specifications (Kazemian et al., 2022). The better the relationship, the more likely the planned purchase will occur, which means the more likely the planned purchase will occur, the greater the chance for the company to learn with and from its customers and suppliers. Shared knowledge is the highest form of customer capital that will support the achievement of more optimal business performance (Khalique et al., 2011). If employees' competence in an organization improves, they will understand consumer needs and develop customer capital to maintain consumer loyalty. This strong customer capital will produce maximum customer service (W. Y. Wang & Chang, 2005). Research results (Absah et al., 2018) and (Hasmirati & Akuba, 2022) stated that companies or business actors who have qualified customer capital would have an impact on increasing business performance. Based on the results of several previous studies, this research is directed to develop hypotheses, namely:

H1: Customer capital affects business performance

Today's consumers are smarter and demand fulfillment. Expectations in meeting the needs expect more in terms of quality, renewal, and price (Hill & Rothaermel, 2003). Therefore, innovative skills are needed to satisfy consumer needs while retaining consumers as customers. (Adeosun & Lawal, 2009), suggest that the application of information technology is a management strategy for access to communication, information, and decision-making in management that refers to data and knowledge (E. Purba et al., 2022). An organization. Information Technology is a strategy and strength organizations use for wider promotion to increase profits (Hu, 2014). Information Technology allows companies to market their products to outsiders (Basoeky et al., 2021). The obstacle is small and medium enterprises low absorption of information technology. However, a small correlation was found between the success of technology users and organizational size (Halim et al., 2021). The facts also show that small and medium enterprises usually have limited resources in developing information technology in the operational activities and organizational environment of small and medium enterprises, which is different from large companies (Rahman et al., 2016).

Overcoming some of the problems of these SMEs, information technology provides development opportunities. Namen, the absorption of this information technology is still low when adjusted for large companies (Wahid & Iswari, 2007). Therefore, the urgency of understanding technological innovation is crucial for all business actors, including SMEs, to encourage and create product innovations they will market (Ukpabio et al., 2017). This is supported by the opinion (of Donbesuur et al., 2020), which says that small industries fail due to a lack of knowledge regarding technological innovation (Mustafa & Yaakub, 2018). Research results (Rahman et al., 2016) and (Martín-Rojas et al., 2011) stated that companies that pay attention to psychological empowerment would impact innovative work enthusiasm for their employees. Based on the results of several previous studies, this research is directed to develop hypotheses, namely:

H2: Psychological empowerment influences business performance

The fundamental change in entrepreneurship lies in business activities based on information technology and connection with consumers and customers who can use digital technology (Ameli Kalkhoran et al., 2022); (Benner & Tushman, 2002). Business actors are required to be able to make products that are varied and slightly different from competitors, services that are fast, easily accessible and accessible, and require much collaboration so that businesses are more innovative, effective, and efficient (Taghizadeh et al., 2020). The essence of technological innovation is to provide a variety of new resources for entrepreneurs to take advantage of the convenience of finding various information, collecting data, and creating interesting content to maintain customer loyalty and sustainably improve business performance (Hill & Rothaermel, 2003). On the other hand, the effect of environmental changes on product life cycles is getting shorter, which means that old products or services must be replaced with new ones in a short time, and this can happen because of creative thinking that gives rise to innovations in the field of technology (D. S. Wang, 2019). The importance of understanding customer capital management for business actors is a pillar for today's entrepreneurship to rise from the Covid-19 pandemic. The presence of technology is believed to provide new colors for business actors to improve their business performance. Referring to the problem described above and the results of previous studies relevant to this research, this study aims to analyze and test the effect of customer capital and technological innovation on the business performance of SMEs in Pematangsiantar City.

RESEARCH METHODOLOGY

Types of Research

This study used a library and field research design with a quantitative causality approach.

Population and Sample

The population in this study is the absolute number of SMEs in Pematangsiantar City. The sampling method used in this study is the convenience sampling method, which was chosen because it is the fastest method due to time constraints, and anyone who accidentally meets the researcher can be used as a sample if that person is considered suitable as a data source. According to (Ghozali, 2014), if the population size is unknown, the sample size can be determined from 5-10 times the number of indicators used in a single construct. This research uses 11 indicators from 3 dimensions of existing variables, so the number of research samples obtained is 11 x 10 = 110.

Data Analysis

Data analysis used an instrument test, normality test, regression test, hypothesis test, and correlation test, as well as the coefficient of determination.

Results and Discussion

Instrument Test

The validity test is carried out to determine the extent to which the accuracy or accuracy of a measurement instrument in carrying out its measurement function is so that the data obtained is

relevant to the purpose of the measurement. The results of the validity test can be seen in table 1 below:

Table 1. Validity Test Results

Variable	code	Corrected items - Total correlation	Results
Customer Capital	CC1	0.444	Valid
	CC2	0.416	Valid
	CC3	0.452	Valid
	CC4	0.480	Valid
	CC5	0.465	Valid
Technological Innovation	TI1	0.587	Valid
	TI2	0.522	Valid
	TI3	0.523	Valid
	TI4	0.540	Valid
Business Performance	BP1	0.641	Valid
	BP2	0.686	Valid

Source: Data Processing (2022)

Based on the results of the validity test above, it can be concluded that all indicators of the variables in this study are valid. Furthermore, the reliability test is used to measure the stability of the indicator of a variable. A questionnaire is reliable if one's answers to questions are consistent and stable over time. The results of the reliability test can be seen in table 2 below:

Table 2. Reliability Test Results

Variables	Cronbach's Alpha	Instrument Items	Results
Customer Capital	0.752	15	Reliable
Technological Innovation	0.783	12	Reliable
Business Performance	0.810	8	Reliable

Source: Data Processing Source (2022)

Based on the results of the reliability test in table 2 above show that all indicators have Cronbach's alpha values if items are removed > 0.70, so it can be concluded that all variable indicators in the study are reliable

Normality test

The normality test determines the formula used in hypothesis testing and whether the data is normally distributed. The normality test uses the Kolmogorov-Smirnov test. The results of the normality test can be seen in table 3 below:

Table 3. Normality Test Results

Variables	N	KS Test	asymp. Sig. (2-Tailed)
Customer Capital	110	0.621	0.376
Technological Innovation	110	0.510	0.226
Business Performance	110	0.604	0.343

Source: Data Processing (2022)

Based on the normality test results table above, the Asymp Sig. (2-Tailed) each variable d is above 0.05, so it can be concluded that each variable is normally distributed.

Hypothesis testing

Hypothesis testing is carried out to analyze the effect of customer capital and technological innovation on business performance, assuming that the results obtained are based on a significant relationship. The results of hypothesis testing can be seen in table 4 below:

Table 4. Hypothesis test

Model	t-count	Sig.
Constant	3,492	.000
Customer Capital	0.082	003
Technological Innovation	0.184	.000
a. Dependent Variable: Business Performance		

Source: Data Processing (2022)

Based on the results of the data analysis presented in table 4, it can be seen that the significant level of the customer capital variable is 0.003 <α 0.05, meaning that customer capital has a positive and significant effect on business performance. Then the significant level on the technological innovation variable is 0.000 < α 0.05, meaning that technological innovation has a positive and insignificant effect on business performance.

Correlation Test and Coefficient of Determination

The correlation coefficient calculates the strength of the relationship between customer capital, technological innovation, and business performance. The results of the calculation of the correlation coefficient and the coefficient of determination can be seen in table 5 below:

Table 5. Analysis of Correlation and Coefficient of Determination

Model	R	R Square	Adjusted R Square	std. Error of the Estimate
	.576a	.331	.319	0.571
a. Predictors: (Constant): Customer Capital, Technological Innovation				
b. Dependent Variable: Business Performance				

Source: Data Processing (2022)

Based on the correlation coefficient analysis results, a correlation coefficient (r) of 0.574 is obtained, which means a fairly strong and positive relationship exists between customer capital, technological innovation, and business performance. Furthermore, a coefficient of determination (R) of 0.331 is obtained, which means that the high and low business performance of 33.1% can be explained by customer capital and technological innovation, while the remaining 66.9% can be explained by other variables not discussed in this study such as human capital, social capital, market orientation, competitive advantage and other factors that affect business performance.

DISCUSSION

The research results developed through the first hypothesis show that customer capital positively and significantly affects business performance. This implies that the SME business unit's customer capital contributes to the company's performance. This phenomenon implies changes in increasing

customer capital followed by changes in increasing business performance. Good customer capital is reflected in the strong customer profile, customer duration, customer role, customer support, and customer satisfaction owned by the business units of each business actor whose impact has a transformative effect on improving their business performance. Every company with customers must have customer capital as a company value. The company's ongoing relationships with the people or organizations they sell their products. Of the three categories of intellectual assets: human capital, structure capital, and customer capital, customer capital is the most valuable asset (Muniarty et al., 2021). Their footprints in financial statements are easier to trace than those left by people, systems, or abilities. Although many company financial reporting systems are not designed to do this, it is easy to look up indicators of customer capital, such as market share, customer retention and loss rates, and profit per customer (Hasan et al., 2021). Obtaining a return on customer capital requires more than just recognizing that customer relationships are assets, not just events, it also requires understanding the dynamics of asset management. In this information age, customer capital cannot be captured simply by the flow of goods and services from sellers to buyers but by capturing the waves of information and knowledge flows between them (Gourio & Rudanko, 2014). With knowledge as the most important component of economic transaction value, namely knowledge about what we trade, knowledge becomes the main element of customer capital.

The research results developed through the second hypothesis show that technological innovation positively and significantly affects business performance. These results prove that innovation's role in technology makes a big difference in improving SME business performance. One of the main goals of innovation is to do or create something different from competitors in the same field. If you want to innovate in products, every SME business actor must be able to develop their products so that they have advantages or special specifications that are not on the market (Lofsten, 2014). That way, a business can have its differentiator or characteristic regarding product and identity. The dynamics of consumer preferences that adapt to technological developments require business people to think outside the box to continue to exist in a highly competitive market. Innovation is more dominant in accommodating the company's business cycle continuity. Companies must be able to offer superior products with a faster cycle turnaround because of the need for process improvement every time. Various fields use information technology, one of which is the business sector. Business processes in companies already use a lot of information technology. The existence of information technology in business can open access to information dissemination more easily and quickly. Information technology can be utilized for promotional activities to convey advertisements, news, and other information (Xu et al., 2019). Technological advantage must be demonstrated in business impact or operational excellence. Talking about business impact, it is inseparable from the role of technology to provide excellence in cost savings or operational efficiency. Likewise, technological advantages can be translated into reduced potential risks, increased transactions, or increased revenue. Must be kept from the role of technology to provide excellence in cost savings or operational efficiency. Likewise, technological advantages can be translated into reduced potential risks, increased transactions, or increased revenue (Baden-Fuller & Haefliger, 2013). Must be kept from the role of technology to provide excellence in cost savings or operational efficiency. Likewise, technological advantages can be translated into reduced potential risks, increased transactions, or increased revenue.

CONCLUSIONS AND SUGGESTIONS

Conclusion

This research concludes that of the two hypotheses developed to test the direct effect, it is proven that all hypotheses are accepted. The effect of customer capital on business performance has proven to be significant. This is because businesses and their brands can be heard and seen through complex metrics, strategies, and methods with economic objectives, external management influence, and consumer focus as part of marketing communications and the effective implementation of customer capital. The importance of managing customer capital can also be seen as a form of interaction strategy in which business actors communicate, persuade, and remember brand images to maintain business

success with the right target audience. Companies or individuals need to develop a mix of marketing messages in the age of mass media and mobile with advanced technology today. Public relations, direct marketing, personal selling, sales support or promotion, public relations, and digital media are just a few elements that make up the marketing communications mix. Brands have a great opportunity to explore new possibilities and test innovative content and distribution techniques. Mobile marketing has emerged as a powerful new force with tools that simplify all business processes, and the impact will strengthen business performance in the long run. Furthermore, research results also confirm that technological innovation has a major impact on changes in business performance for the better. This is because business actors who have carried out the digital transformation on several sides of their business processes can continue to improve the systems or tools they already use according to their needs to support the operational management of their business. On the other hand, applying innovation in the technology field aims to increase productivity because by implementing innovation, we can do many things or produce output quickly. For example, a Customer Relationship Management (CRM) application that functions as a liaison between salespeople working in the field and the center can be a solution so that each project can run more effectively. The existence of information technology in business can open access to information dissemination more easily and quickly.

Suggestions

To maintain excellence in customer capital, business actors should renew their work culture from passive to more proactive. This is because several business process changes must be made by industry players, especially regarding the communication and collaboration that occurs during the implementation of the work-from-home system. In addition, business actors need to pay close attention to supporting information systems from the management side regarding tracking and reporting. Business units must be able to provide a platform that can monitor to ensure that a project or work is running according to pre-planned timeframes so that potential customers can be retained. Then, To increase information innovation in the field of technology for SMEs, it is necessary to conduct outreach, training, and assistance to small and medium business actors in the field of information technology to provide an understanding of the ignorance of small business actors regarding the functions and benefits of information technology. Through this activity, it is hoped that there will be an increase in understanding and unification of perceptions that the behavior of using information technology should be oriented towards policies on the application of information and communication technology, which are systematic, integrative, and comprehensive. To build a strong economy, the competitiveness and adaptability of society in the field of technology must always be encouraged. In Society 5.0, integrating cyberspace and physical space systems requires big data and AI mastery. Therefore, SME business actors who are still classified as millennials must receive intense training in these fields for the future of their business. This study also confirms weaknesses in the aspect of the number of samples used, which are still not able to generalize the characteristics of business actors as a whole, therefore for further research, it is necessary to add a larger number of samples and place several research variables that are not discussed in this study. In addition, on the other hand, for more complex models, data analysis methods with the CB-SEM approach using the Amos application can be used.

THANK-YOU NOTE

On this occasion, the writing team would like to express their deepest gratitude to DRTPM for the funding budget provided for the DRTPM scheme for the 2022 implementation year and article writing and to the entire academic community of the Sultan Agung College of Economics and the team of editors and reviewers for management and business journals managed by the Indragiri Rengat College of Economics who always provide constructive input for the improvement of this article.

REFERENCES

Absah, Y., Chairunisa Muchtar, Y., & Qamariah, I. (2018). The Effect of Intellectual Capital on Business Performance in Micro-, Small-, and Medium Enterprise (MSME) in Medan City. *KnE Social Sciences*, *3*(10), 177–186. https://doi.org/10.18502/kss.v3i10.3371.

Adeosun, JT, & Lawal, A. (2009). Numerical and experimental studies of mixing characteristics in a T-junction microchannel using residence-time distribution. Chemical Engineering Science, 64(10), 2422-2432.

Afwa, A., Djajasinga, N. D., Sudirman, A., Sari, A. L., & Adnan, N. M. (2021). Raising the Tourism Industry as an Economic Driver. *Proceedings of the 2nd Annual Conference on Blended Learning, Educational Technology and Innovation (ACBLETI 2020) Raising*, *560*(Acbleti 2020), 118–123.

Akmad, K. A. (2015). Pemanfaatan Media Sosial Bagi Pengembangan Pemasaran UMKM (Studi Deskriptif Kualitatif Pada Distro di Kota Pematangsiantar). *Duta.Com*, *9*(1), 43–53.

Ameli Kalkhoran, S. M., Rabiei, K., Seyed Alizadeh, S. M., Heravi, H. M., & Rouzpeykar, Y. (2022). Analyzing Impact of Intellectual Capital on Business Performance Using Structural Models Based on Customer Knowledge Management. *Discrete Dynamics in Nature and Society*, *1*(1), 1–10. https://doi.org/10.1155/2022/7453565

Ayesha, I., Redjeki, F., Sudirman, A., Leonardo, A., & Aslam, D. F. (2021). Behavior of Female Entrepreneurs in Tempe Small Micro Enterprises in Tasikmalaya Regency , West Java as Proof of Gender Equality Against AEC. *Proceedings of the 2nd Annual Conference on Blended Learning, Educational Technology and Innovation (ACBLETI 2020)*, *560*(Acbleti 2020), 124–130.

Baden-Fuller, C., & Haefliger, S. (2013). Business Models and Technological Innovation. *Long Range Planning*, *46*(6), 419–426. https://doi.org/10.1016/j.lrp.2013.08.023

Basoeky, U., Panggabean, S., Manu, G. A., Wardhana, A., Hoeronis, I., Adnan, Y., Maisarah, & Sudirman, A. (2021). *Pemanfaatan Teknologi Digital: Dalam Berbagai Aspek Kehidupan Masyarakat*. Media Sains Indonesia.

Benner, M. J., & Tushman, M. (2002). Process Management And Technological Innovation: A Longitudinal Study of The Photography And Paint Industries. *Administrative Science Quarterly*, *47*(4), 676–706. https://doi.org/10.2307/3094913

Djajasinga, N. D., Sulastri, L., Sudirman, A., Sari, A. L., & Rihardi, L. (2021). Practices in Human Resources and Employee Turnover in the Hospitality Industry. *Proceedings of the 2nd Annual Conference on Blended Learning, Educational Technology and Innovation (ACBLETI 2020) Practices*, *560*(Acbleti 2020), 113–117.

Ghozali, I. (2014). *Structural Equation Modeling, Metode Alternatif dengan Partial Least Square (PLS)*. Badan Penerbit Universitas Diponegoro.

Gourio, F., & Rudanko, L. (2014). Customer capital. *Review of Economic Studies*, *81*(3), 1102–1136. https://doi.org/10.1093/restud/rdu007

Halim, F., Grace, E., Lie, D., & Sudirman, A. (2021). Analysis of Innovation Strategies to Increase the Competitive Advantages of Ulos Products in Pematangsiantar City. *Jurnal Manajemen Dan Bisnis*, *10*(2), 80–90.

Haryanti, D. M., & Hidayah, I. (2018). *Potret UMKM Indonesia: Si Kecil yang Berperan Besar*. https://www.ukmindonesia.id/baca-artikel/62

Hasan, M., Roslan, A. H., Hendrayani, E., Sudirman, A., Jamil, M., Sitaniapessy, R. H., Basoeky, U., Fauziah, Yasa, N. N. K., & Wardhana, A. (2021). *Kewirausahaan*. Media Sains Indonesia.

Hasmirati, H., & Akuba, A. (2022). Dampak Human Capital, Structural Capital, Dan Costumer Capital Terhadap Kinerja Bisnis UMKM Di Tilamuta. *JAMIN: Jurnal Aplikasi Manajemen Dan*

Inovasi Bisnis, *4*(2), 201. https://doi.org/10.47201/jamin.v4i2.95

Hill, C. W. L., & Rothaermel, F. T. (2003). The Performance of Incumbent Firms in the Face of Radical Technological Innovation. *Academy of Management Review*, *28*(2), 257–274. https://doi.org/10.5465/AMR.2003.9416161

Hu, B. (2014). Linking Business Models With Technological Innovation Performance Through Organizational Learning. *European Management Journal*, *32*(4), 587–595. https://doi.org/10.1016/j.emj.2013.10.009

Julyanthry, J., Putri, D. E., Lie, D., & Sudirman, A. (2021). MSME Competitive Advantages Reviewed From Entrepreneurship Insight And Market Orientation Aspects With Innovation As A Medium. *Jurnal Manajemen Dan Bisnis*, *10*(2), 30–40.

Kazemian, S., Djajadikerta, H. G., Trireksani, T., Mohd-Sanusi, Z., & Alam, M. M. (2022). Corporate Governance and Business Performance of Hotels in Western Australia: Analysis Of Market Orientation As A Mediator. *Business Process Management Journal*, *28*(3), 585–605. https://doi.org/10.1108/BPMJ-05-2021-0335

Khalique, M., Abdul Nassir Shaari, J., Md. Isa, A. H., & Ageel, A. (2011). Role of Intellectual Capital on The Organizational Performance of Electrical And Electronic SMEs in Pakistan. *International Journal of Business and Management*, *6*(9), 253–257. https://doi.org/10.5539/ijbm.v6n9p253

Lin, L. W., Gan, S. M., & Wei, S. Y. (2022). Intelligent Capital, Organizational Learning, and Corporate Performance Influence Relationship. *Mathematical Problems in Engineering*, *1*(1), 1–11. https://doi.org/10.1155/2022/4666772

Lofsten, H. (2014). Product Innovation Processes and The Trade-Off Between Product Innovation Performance and Business Performance. *European Journal of Innovation Management*, *17*(1), 61–84. https://doi.org/10.1108/EJIM-04-2013-0034

Martín-Rojas, R., García-Morales, V. J., & Mihi-Ramírez, A. (2011). How can we increase Spanish technology firms' performance? *Journal of Knowledge Management*, *15*(5), 759–778. https://doi.org/10.1108/13673271111174311

Muniarty, P., Bairizki, A., Sudirman, A., Wulandari, Anista, J. S. A., Satriawan, D. G., Putro, Suryati, E., Suyatno, A., Setyorini, R., Putra, S., Nugroho, L., Nurfadilah, D., & Samidi, S. (2021). *Kewirausahaan*. Widina Bhakti Persada.

Mustafa, H. K., & Yaakub, S. (2018). Innovation and Technology Adoption Challanges: Impact on SMEs' Company Performance. *International Journal of Accounting, Finance and Business*, *3*(15), 57–65. www.ijafb.com.

Pavic, S., Koh, S., Simpson, M., & Padmore, J. (2007). Could e-business create a competitive advantage in UK SMEs?. Benchmarking: An International Journal.

Purba, E., Ariesa, Y., Saragih, L., Damanik, D., & Sudirman, A. (2022). Reviewing Sustainable Competitive Advantage: The Role of Entrepreneurial Orientation, Knowledge Management and Marketing Innovation In The Development of MSME. *AdBispreneur : Jurnal Pemikiran Dan Penelitian Administrasi Bisnis Dan Kewirausahaan*, *7*(1), 17–27.

Purba, R. A., Sudarso, A., Silitonga, H. P., Sisca, S., Supitriyani, S., Yusmanizar, Nainggolan, L. E., & Sudirman, A. (2020). Aplikasi Teknologi Informasi: Teori dan Implementasi. In *Angewandte Chemie International Edition, 6(11), 951–952.* (Vol. 2, Issue 1). Yayasan Kita Menulis.

Rahman, N. A., Yaacob, Z., & Radzi, R. M. (2016). An Overview of Technological Innovation on SME Survival: A Conceptual Paper. *Procedia - Social and Behavioral Sciences*, *224*(August 2015), 508–515. https://doi.org/10.1016/j.sbspro.2016.05.427.

Sedyastuti, K. (2018). Analysis of MSME empowerment and increased competitiveness in the global market arena. INOBIS: Indonesian Journal of Business and Management Innovation, 2(1), 117-127.

Sukarno, G., & Nirawati, L. (2016). Kontribusi Human Capital Dan Customer Capital Dalam Menggapai Kinerja Café Dan Resto Di Surabaya. *Jurnal Ilmu Sosial*, *15*(2), 137. https://doi.org/10.14710/jis.15.2.2016.137-149

Sutiksno, D. U., Revida, E., Munsarif, M., Simarmata, H. M., Saputra, H. D., Purnomo, A., Sudirman, A., Sisca, Napitupulu, D., & Purba, S. (2020). *Tourism Marketing*. Yayasan Kita Menulis.

Taghizadeh, S. K., Nikbin, D., Alam, M. M. D., Rahman, S. A., & Nadarajah, G. (2020). Technological Capabilities, Open Innovation and Perceived Operational Performance in Smes: The Moderating Role of Environmental Dynamism. *Journal of Knowledge Management*, *25*(6), 1486–1507. https://doi.org/10.1108/JKM-05-2020-0352

Ukpabio, M., Siyanbola, W. O., & Oyebisi, T. O. (2017). Technological Innovation and Performance of Manufacturing Firms in Nigeria. *International Journal of Innovative Research and Advanced Studies*, *4*(11), 10–19.

Wahid, F., & Iswari, L. (2007). Adoption of information technology by small and medium enterprises in Indonesia. In the National Seminar on Information Technology Applications (SNATI).

Wang, D. S. (2019). Association Between Technological Innovation and Firm Performance In Small and Medium-Sized Enterprises: The Moderating Effect of Environmental Factors. *International Journal of Innovation Science*, *11*(2), 227–240. https://doi.org/10.1108/IJIS-04-2018-0049

Wang, W. Y., & Chang, C. (2005). Intellectual Capital and Performance in Causal Models (Evidence From The Information Technology Industry in Taiwan). *Journal of Intellectual Capital*, *6*(2), 222–236. https://doi.org/10.1108/14691930510592816

Widati, E. (2022). Peran Marketing Dalam Sustainability. In A. Sudirman (Ed.), *Business Sustainability: Concept, Strategies and Implementation* (p. 206). Media Sains Indonesia.

Xu, J., Shang, Y., Yu, W., & Liu, F. (2019). Intellectual Capital, Technological Innovation and Firm Performance : Evidence from China's Manufacturing Sector. *Sustainability Article*, *11*(1), 1–16.