



Digital Payment as Moderating Influence of Intellectual Capital on Business Performance

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ABSTRACT

MSMEs are the pillars of the economy in Indonesia. The role in employment absorption is also very large. However, this cannot be separated from the challenges that exist for the sustainability and success of an MSME. The aim of this research is to examine the influence of intellectual capital on business performance and the role of digital payments in moderating the influence of intellectual capital on business performance. The city of Kudus itself is proven to be an industrial city where many residents choose to work as businesspeople, so the object of this research is young entrepreneurs. The sample data processed in this research amounted to 110 respondents. The analysis tool used is SMART PLS. This type of research is quantitative research. The results of this research indicate that Intellectual Capital is not proven to have an effect on business performance. Digital payments have been proven to be able to influence business performance. However, digital payments are not able to moderate the influence of intellectual capital on business performance. Keywords: Intellectual Capital, Digital Payment, Business Performance

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INTRODUCTION

MSMEs are one of the important pillars of the economy in Indonesia. Data from Cooperative and SME Publishers shows their contribution to GDP is 61.07% or IDR 8,573.89 trillion (Ekon.go.id, 2021). This data also informs that MSMEs in Indonesia are also able to absorb 97% of the workforce and around 60.4% of total investment. With such a high role of MSMEs in Indonesia, of course it cannot be separated from all existing challenges and obstacles. This encourages a more in-depth analysis, especially what are the drivers and obstacles to business performance itself. In fact, one important breakthrough to improve the national economy is by strengthening MSMEs (Junaidi, 2023)

It is very important to know and dig deeper into what factors can improve company performance or vice versa. Intellectual Capital has been proven to have a significant positive effect on company performance (Antonius & Ida, 2023; Cahya & Kusumaningtias, 2021). The greater the Intellectual Capital potential that a business has will also have an impact on the lower increase in business performance (Dariati et al., 2020; Labally et al., 2023; Melsia & Dewi, 2021; Rahayu, 2022). Therefore, it is very important for a business to enrich its intellectual capital factor if it wants its business

performance to improve well. However, on the other hand, there is also research conducted by Ristiani & Wahidahwati, (2022) which states that intellectual capital has no effect on business performance. In the current era of society 5.0, energy and everything feels faster and more valuable. Practicality and convenience have become a habit and a necessity. The presence of digital payments also seems to be the answer to this need. In Indonesia itself, the technical economic potential is quite large with the 4th largest population in the world and internet use alone covers 196.7 million people (Ekon.go.id, 2021). The use of digital payments seems to be a combined force of external factors and internal factors in companies that have an impact on improving business performance. Contingency theory itself emphasizes that situations such as technological progress from external factors are supported by internal factors in the company with the use of digital payments themselves. Therefore, this research tries to test the role of digital payments as a moderating variable in influencing the influence of intellectual capital on business performance.

It cannot be denied that the young generation Y and Z are the main factors in the sustainability of this business. Generation Z itself plays a major role in the technical progress of MSMEs with the entry of this digitalization era (Farunik & Ginny, 2023). Generation Z is very adaptive in the use of technology so that they are able to adapt to existing conditions and challenges so that the performance of MSMEs continues to increase. Generation Y or the millennial generation also has a very important role in the world of physics and business (Nolan, 2015). Of course, the millennial generation who are less than 40 years old, with their youthful enthusiasm and support for technology, will have an impact on the progress of a business (Jiter et al., 2022). Therefore, research that uses generations Y and Z as respondents is very important to carry out, considering the large role of both.

LITERATURE REVIEW

Contingency Theory

Contingency Theory is a situational theory consisting of internal factors and external factors that can have an impact on the performance of a business (Budiarto et al., 2020). These internal factors are everything that becomes the company's resources and strengths to be able to survive and compete in its business activities. External factors in relation to contingency theory also contribute to influencing the performance of a business.

Intellectual Capital

Intellectual Capital is an intangible asset that is a source of advantages or differentiators for a business in relation to business competition and improving business performance (Gani, 2022). In other words, intellectual capital is an important factor in whether a business is good or bad. For intellectual capital itself, it is divided into 3 main lines in its measurement, namely human capital, structural capital and customer capital (Ulum, 2017). The greater the level of intellectual capital a company has, the higher the company's performance will be.

H1 : Intellectual Capital has a positive effect on business performance

Digital Payment

Digital payment is defined as an electronic payment mechanism, and can also be related to the marketplace (PER-7/PBB 2022, 2022). The existence of a marketplace, especially in the form of e-commerce, can support improving the performance of a business (Budiarto et al., 2020). The marketplace system itself is a platform where goods and services are provided electronically (Suryadi S, 2022). This is in line with the situation where after Covid 19, people are starting to get used to it and prefer e-commerce to shopping offline at their place. This is more due to considerations of saving energy, time and other obstacles in connection with traveling to offline shopping places. Thus, the greater use of digital payments, which in fact is closely related to e-commerce, will have an impact on increasing business performance (Nuraeni et al., 2024).

H2 : Digital Payment has a positive effect on business performance

With high ownership of intellectual capital in a business and also supported by digital payments in the business, it will also be able to have an impact on improving the performance of a business. Digital payments are able to strengthen financial performance which will also have an impact on overall business performance (Umniyah & Mulyadi, 2023). Digital payments are able to strengthen the influence of intellectual capital on business performance.



H3 : Digital Payment is able to moderate the influence of intellectual capital on business performance

. The framework for thinking in this research is depicted in Figure 1 below :

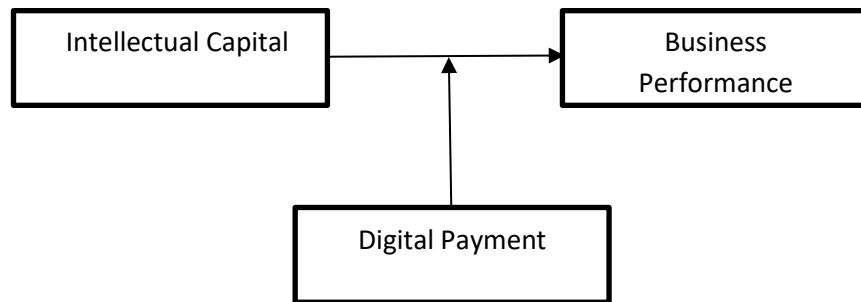


Figure 1 Thinking Framework

METHOD

This research is quantitative research, with primary data. The sample processed in this research was 110, consisting of young entrepreneurs in Kudus aged 18 to 40 years. Data collection was carried out by distributing questionnaires to young entrepreneurs of generations Y and Z. Data collection was carried out through questionnaires. The analytical tool used in this research is SMART PLS. The independent variable in this research is intellectual capital (human capital, structural capital and customer capital). The dependent variable in this research is business performance and the moderating variable in this research is digital payment

RESULT AND DISCUSSION

Descriptive Statistical Analysis

The descriptive statistical analysis in this research is shown in Table 1 below:

Table 1 Descriptive Statistical

	N	Minimum	Maximum	Mean	Std. Deviation
x	110	11	20	16.97	1.988
z	110	12	30	25.14	2.975
y	110	15	35	28.91	3.253
Valid N (listwise)	110				

From table 1 it is known that the mean variable intellectual capital (X) is 16.97. The minimum value for intellectual capital is 11, while the maximum value is 20. The standard deviation for intellectual capital is 1,988, which is smaller than the mean value, which means that the intellectual capital data is less varied. The digital payment variable has a mean value of 25.14 with a minimum value of 12 and a

maximum value of 30. The standard deviation for the digital payment variable is 2.975, smaller than 25.14, which means the digital payment data is less varied. The dependent variable in this research, business performance, has a mean value of 28.91 with a minimum value of 15 and a maximum value of 35. The standard deviation of the business performance variable is 3,253, which is smaller than the mean value so it can be interpreted that the business performance data is less varied.

The profile of the respondents in this study can be seen in table 2 below:

Table 2 Respondent Profile

	Item	Total	%
Age	<20 years	22	20%
	20-30 years	79	72%
	31-40 years	7	6%
	>40 years	2	2%
Gender	Man	47	43%
	Woman	63	57%
Education Level	Elementary School	2	2%
	Junior High School	1	1%
	Senior High School	51	46%
	Diploma	21	19%
	Bachelor Degree	35	32%
Type of Business	Tour & Travel	2	2%
	Automotive	6	5%
	Culinary	37	34%
	Fashion	26	24%
	Education	5	5%
	Agribusiness	1	1%
	Other	33	30%
Length of Business	>5 years	79	71%
	>3-5 years	15	14%
	≤3 years	16	15%
Annual Sales	< 2 Billion	101	92%
	2 - 15 Billion	7	6%
	15 - 50 Billion	2	2%

The profile of respondents in this study shows that the dominant age is between 20 and 30 years, 72%. Meanwhile, at least 2% are aged over 40 years. This is in accordance with the target in this research, namely young entrepreneurs, especially generations Y and Z. For men it is 43% and women it is 57%. For the dominant level of education, senior high school graduates are 46%, and the second dominant is a bachelor's degree at 32%. The lowest level of education among respondents in this study was Junior High School at 1%. for the type of business in this research, it is tour and travel at 2%, automotive at 5%, culinary at 34%, fashion at 24% and outside those previously mentioned it is at 30%. Length of business more than 5 years is 71%, and for those between 3 to 5 years it is 14%, and for those less than 3 years it is 15%. For annual sales of less than 2 billion it is 92%, between 2 to 15 billion it is 6% and between 15 to 50 billion it is 2%.



The model in this research can be shown in the figure below :

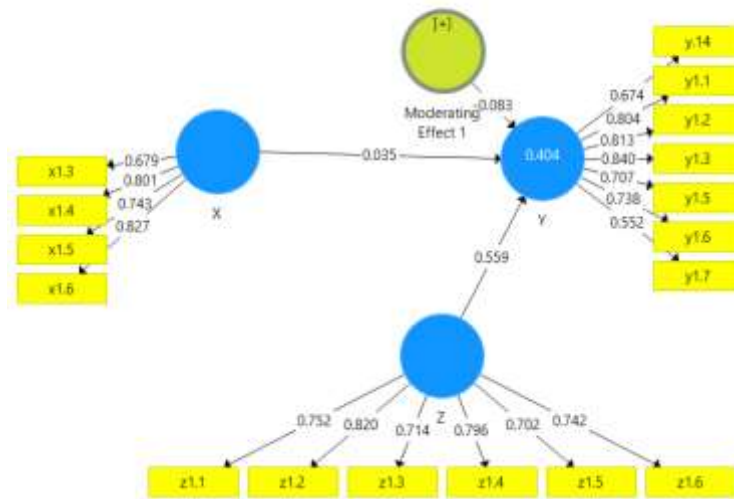


Figure 2 Research Model

In this research, digital payment is a moderating variable between the influence of Intellectual Capital on MSME performance.

Validity and Reliability Test

The validity and reliability test in this research can be seen in Table 3 below:

Table 3 Validity and Reliability Test

Variable	Indicators	Outer Loadings	Cronbach's Alpha	CR	AVE
Intellectual Capital	x1.3	0.679	0.782	0.849	0.585
	x1.4	0.801			
	x1.5	0.743			
	x1.6	0.827			
Digital Payments	z1.1	0.752	0.850	0.888	0.571
	z1.2	0.820			
	z1.3	0.714			
	z1.4	0.796			
	z1.5	0.702			
	z1.6	0.742			
Business Performance	y1.4	0.674	0.859	0.892	0.545
	y1.1	0.804			
	y1.2	0.813			
	y1.3	0.840			
	y1.5	0.707			

y1.6	0.738
y1.7	0.552

From table 3 it can be seen that all indicators in this research questionnaire are valid because the outer loading value is more than 0.5. From table 3 it is known that this research meets the reliability test. This is evident from the Cronbach's alpha value of more than 0.7 and the AVE value of more than 0.5.

Hypothesis test

We can see the results of hypothesis testing in this research in the following table:

Table 4 Hypothesis Test

	Original Sample	Sample Mean	Standard Deviation	T Statistics	P Values
Moderating	-0.083	-0.046	0.084	0.987	0.324
X -> Y	0.035	0.043	0.108	0.328	0.743
Z -> Y	0.559	0.562	0.068	8.237	0.000

From Table 4 the hypothesis testing above, it can be seen that the influence of intellectual capital on business performance has no effect, with a p value of more than 5% or 0.743. These results are in line with research conducted by Ristiani & Wahidahwati, (2022)

However, Digital Payment has been proven to have a positive effect on business performance. This is proven by the p value of 0.000 which is smaller than 5% and the original sample value which is positive 0.559. Thus, the higher the use of digital payments, the more impact it will have on improving the performance of a business (Subekti & Pahlevi, 2022). But on the other hand, the results of this research are different from other studies which prove that digital payments have no effect on business performance (Bukama et al., 2017; Zidni Husnia Fachrunnisa et al., 2024).

The role of digital payments as a moderating variable was not proven to have a significant effect. This is because the p value is 0.324 which is greater than 5%. These results are in accordance with research conducted by Andayani et al., (2021); Pratiwi et al., (2022); dan Widyayanti, (2023). Digital payments have not been proven to be able to strengthen or weaken the influence of intellectual capital on business performance. In this research, intellectual capital was proven to have no effect on business performance, while digital payments were proven to have a positive effect on business performance. This is supported by the respondents in this research who work as young entrepreneurs so they are more receptive to technological developments so that digital payments have a big influence on the performance of a business. With the existence of a digital payment system, distance is no longer a problem for carrying out economic transactions. Using digital payments also saves time and energy, which is very suitable with the current business phenomenon where current needs tend to be fast-paced, practical.

This may also be the reason why the respondents in this study did not prioritize their relationship with intellectual capital. Intellectual capital itself includes structural capital, human capital and customer capital. However, unfortunately in this research intellectual capital was proven to have no effect on business performance. Digital payments themselves are also not proven to be able to moderate the influence of intellectual capital on business performance.

CONCLUSION

Based on research and test results, it is proven that digital payments have a positive effect on business performance. However, intellectual capital has not been proven to influence business performance. Digital payments also cannot be proven to strengthen the influence of intellectual capital on business performance. Digital payments themselves have proven to be influential in this research, which can also be supported by the picture of respondents who are predominantly aged 20 to 30 years, where generations Z and Y are already adaptive to the use of technology. In this study, intellectual capital was



also not proven to have an effect on business performance, considering that the respondents in this study, based on the length of business, were dominated by less than 3 years, and the highest average level of education was high school.

References

- Andayani, T. D., Djauhar, D., & Akhirana, D. (2021). Pengaruh Non Performing Loan Dan Dana Pihak Ketiga Terhadap Kinerja Keuangan Dengan E-Payment Sebagai Variabel Moderasi. *Neraca*, 17(1), 76–88. <https://doi.org/10.48144/neraca.v17i1.595>
- Antonius, F., & Ida, I. (2023). PENGARUH ESG DAN INTELLECTUAL CAPITAL TERHADAP KINERJA PERUSAHAAN. *Ekobis: Ekonomi Bisnis Dan Manajemen*, 13(2).
- Budiarto, D. S., Vivianti, E., & Diansari, R. E. (2020). Maintaining the Performance and Sustainability of MSMEs Using E-Commerce during the Covid-19 Pandemic. *Journal of Economics, Business, & Accountancy Ventur*, 23(3).
- Bukama, S., Hanggara, B. T., & Syawli, A. (2017). Pengaruh Adopsi E-commerce dan E-payment terhadap Kinerja UMKM di Kelurahan Penanggungan. 1(1), 1–8.
- Cahya, P. A., & Kusumaningtias, R. (2021). Pengaruh Islamic Corporate Governance Dan Intellectual Capital Terhadap Kinerja Bank Umum Syariah. *Jurnal Akuntansi*, 15(2), 66–79. <https://doi.org/10.37058/jak.v15i2.1926>
- Dariati, A. M., Nur, E., & Silfi, A. (2020). Pengaruh Intellectual Capital Dan Corporate Social Responsibility Terhadap Kinerja Perusahaan Dengan Corporate Governance Sebagai Variabel Intervening Pada Perusahaan Perbankan Yang Terdaftar Di Bursa Efek Indonesia. *Jurnal Akuntansi*, 8(2), 159–171.
- Ekon.go.id. (2021). *HM.4.6/103/SET.M.EKON.3/05/2021*. UMKM Menjadi Pilar Penting Dalam Perekonomian Indonesia. <https://ekon.go.id/publikasi/detail/2969/umkm-menjadi-pilar-penting-dalam-perekonomian-indonesia>
- Farunik, C. G., & Ginny, P. L. (2023). Tantangan dan Peluang Bisnis dalam Beradaptasi dengan Pasar Generasi Z. *Prosiding: Ekonomi Dan Bisnis*.
- Gani, P. (2022). Pengaruh Intellectual Capital Terhadap Kinerja Keuangan dan Nilai Perusahaan (Studi Pada Perusahaan Makanan dan Minuman Yang Terdaftar di BEI). *Owner*, 6(1), 518–529. <https://doi.org/10.33395/owner.v6i1.613>
- Hana, L., Pratiwi, J., Dirgantara, I. M. B., & Hasya, A. (2022). Analisis Peral dan Consumer Experience Terhadap Minat Pembelian Produk Virtual dalam Aplikasi Freemium Line Webtoon dengan Metode Pembayaran Elektronik (E-Wallet) Sebagai Variabel Moderasi. In *Diponegoro Journal of Management* (Vol. 11, Issue 6, pp. 1–16). <https://ejournal3.undip.ac.id/index.php/djom/article/view/36623>
- Jiter, A., Fasa, M. I., & Suharto, S. (2022). PANDEMI COVID-19: PERAN GENERASI MILENIAL DALAM MENGHADAPI DAMPAK TANTANGAN BISNIS DI INDONESIA. *Jurnal Bina Bangsa Ekonomika*, 15(1).
- Junaidi, M. (2023). *UMKM Hebat, Perekonomian Nasional Meningkat*. Kementerian Keuangan RI Direktorat Jenderal Perbendaharaan.

- <https://djpb.kemenkeu.go.id/portal/id/berita/lainnya/opini/4133-umkm-hebat,-perekonomian-nasional-meningkat.html>
- Labally, B. W., Hoo, M., & Daromes, F. E. (2023). Pengaruh Intellectual Capital Terhadap Kinerja Perusahaan. *Journal of UKMC National Seminar on Accounting Proceeding*, 2(1), 89–100.
- Melsia, M., & Dewi, N. S. (2021). Pengaruh Intellectual Capital Terhadap Kinerja Perusahaan dan Nilai Perusahaan. *Media Bisnis*, 13(2), 109–130. <https://doi.org/10.34208/mb.v13i2.515>
- Nolan, L. S. (2015). The Roar of Millennials: Retaining Top Talent in the Workplace. *Journal of Leadership, Accountability & Ethics*, 12(5).
- Nuraeni, F., Yanti, Y., & Rachpriliani, A. (2024). Pengaruh Layanan E - Payment dan E - Commerce terhadap Kinerja Supply Chain : Dalam Digitalisasi Usaha Mikro, Kecil, dan Usaha Menengah (UMKM) di Kabupaten Karawang. *Jurnal Kajian Ekonomi & Bisnis Islam*, 5(3).
- PER-7/PBB 2022, Pub. L. No. PER-7/PBB 2022 (2022). <https://djpb.kemenkeu.go.id/kppn/kotabumi/id/download/peraturan-lain/3343-perdirjen-perbendaharaan-no-per-7-pb-2022-tentang-penggunaan-uang-persediaan-melalui-digipay-pada-satuan-kerja-kementerian-negara-lembaga.html>
- Pratiwi, L. H. J., Dirgantara, I. M. B., & Hasya, A. (2022). ANALISIS PERVAL DAN CONSUMER EXPERIENCE TERHADAP MINAT PEMBELIAN PRODUK VIRTUAL DALAM APLIKASI FREEMIUM LINE WEBTOON DENGAN METODE PEMBAYARAN ELEKTRONIK (E-WALLET) SEBAGAI VARIABEL MODERASI. *DIPONEGORO JOURNAL OF MANAGEMENT*, 11(6).
- Rahayu, N. E. (2022). Pengaruh Intellectual Capital Terhadap Kinerja Usaha Mikro, Kecil, dan Menengah di Kota Madiun. *Prosiding National Seminar on Accounting, Finance, and Economics (NSAFE)*, 2(2), 91–99.
- Ristiani, F., & Wahidahwati. (2022). Pengaruh Intellectual Capital Terhadap Kinerja Keuangan Dengan Competitive Advantage Sebagai Variabel Moderating. *Jurnal Ilmu Dan Riset Akuntansi*, 1(1), 168. <https://doi.org/10.30587/jcaa.v1i1.4244>
- Subekti, R. A., & Pahlevi, R. W. (2022). Pengaruh Implementasi E-Payment dan Kualitas Produk terhadap Kinerja Umkm (Studi Kasus pada Usaha Produk Hobi Alat Pancing). *Jurnal Ekonomi, Manajemen, Bisnis Dan Akuntansi*, 1(6), 985–996.
- Suryadi S, D. (2022). *PEMBAYARAN MELALUI DIGITAL PAYMENT SUATU KEHARUSAN*. <https://djpb.kemenkeu.go.id/kppn/makassar1/id/data-publikasi/artikel/2889-opini-pembayaran-melalui-digital-payment.html>
- Ulum, I. (2017). *INTELLECTUAL CAPITAL: Model Pengukuran, Framework Pengungkapan, dan Kinerja Organisasi*. Universitas Muhammadiyah Malang (UMM).
- Umniyah, U., & Mulyadi, D. (2023). Pengaruh Digital Payment Gateway (OVO) Terhadap Kinerja Keuangan UMKM. *ETNIK: Jurnal Ekonomi - Teknik*, 2(7).
- Widyayanti, E. R. (2023). Pengaruh Social Media Dan Marketplace Marketing Terhadap Perilaku Impulse Buying Dengan Digital Payment Sebagai Moderating. In *Jurnal Riset Akuntansi dan Bisnis Indonesia* (Vol. 3, Issue 4). <https://doi.org/10.32477/jrabi.v3i4.858>
- Zidni Husnia Fachrunnisa, Nugraeni Putrie Windarti, & Ratna Purnama Sari. (2024). Pengaruh Literasi Keuangan, Digital Payment Dan Kemampuan Menyusun Laporan Keuangan Terhadap Kinerja Umkm. *Jurnal Fairness*, 14(1), 1–13. <https://doi.org/10.33369/fairness.v14i1.33329>