

Analysis of Digital Transformation Challenges in Mediating Accounting Digitalization and Electronic Commerce (E-Commerce) on Technology-Based Entrepreneurship in Micro, Small and Medium Enterprises in Medan City

Mahyudin¹; Khairatun Nazah²; Agus tina³

Tax Accounting Lecturer Politeknik Unggul LP3M, Medan City, North Sumatera Province, Indonesia¹

Lecturer Accounting Politeknik Unggul LP3M, Medan City, North Sumatera Province, Indonesia²

Lecturer Universitas Prima Indonesia, Medan City, North Sumatera Province, Indonesia³

Email: dosenakuntansi20@gmail.com¹, khairatunnazah@gmail.com²
agustinat1983@gmail.com³

Abstract

Micro, small and medium enterprises are community businesses located in the regional environment in particular and in Indonesia in general, MSMEs are indicators of economic improvement and unemployment reduction that are fostered by many local and central governments. In Medan city, there are 38,343 MSMEs and as many as 1,875 have been registered as MSMEs under the guidance of the Medan City Prindak SME Cooperative Office. The Medan city government encourages business actors to empower digitalization in their business productivity so that it can facilitate running a business and improve their business to a superior level in terms of services and operations. The challenge of business digitalization makes many business people have to relearn about the technology that is suitable for them to apply to their business according to market needs or needs in services or organizations. This approach is able to test a model that is most ideal in estimating endogenous variables. The population in this study were micro, small and medium enterprises located in Medan Marelán sub-district and Medan Belawan sub-district with a total of 278 businesses. sampling using the slovin formula with an error rate (margin of error) of 5% or 0.05 and a confidence level This research was conducted in the Medan City area with the research population being MSME actors located in Medan Marelán sub-district and Medan Belawan sub-district as many as 278 businesses. The sampling method for this study uses the Slovin formula where the error rate is 5% so as to get a population of 164 businesses. After analyzing the research data, a discussion can be made regarding the direct effect that the direct effect produced by the variables of accounting digitalization, electronic commerce, digital transformation challenges is significant on technology-based entrepreneurial challenges, the results of the direct effect of accounting digitalization variables, electronic commerce are significant on digital transformation challenges, the results of the indirect effect of accounting digitalization variables, electronic commerce on technology-based entrepreneurship through digital transformation challenges are significant.

Keywords: Accounting Digitalization, Electronic Commerce, Digital Transformation Challenges, Technology-based Entrepreneurship



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INTRODUCTION

The challenges of entrepreneurship today have entered into digitalization competition where every company must be able to empower the use of digital resources in all aspects to advance the company, especially to maintain business in the industrial era 4.0 towards industry 5.0. Based on data from the Ministry of Cooperatives and SMEs, the number of MSMEs currently reaches 64.2 million which has the potential to contribute to GDP by 61.07% or worth 8,573.89 trillion rupiah. The challenge faced by the Medan city government at this time is that there are still many MSMEs that have not involved digitalization in developing their business, this makes

the government have to take part in motivating MSMEs in empowering digitalization as a business development medium, of the 1,875 MSMEs that have been registered to be assisted by the Medan City SME Cooperative Office, only around 65% currently involve digitalization in developing their business, but those who are active in using digitalization and understand its benefits are only 35%, this problem is a concern for the Medan city government.

In improving MSMEs, the Medan City government is pursuing various forms of activities and collaborating with SOEs in encouraging digitalization for micro, small and medium enterprises in Medan City. Then an incubation project is carried out for the MSME digitalization program for one year until the MSME is digitally literate. In the future, the MSME digitalization incubation program will change every year, so that the number of MSMEs that are digitally literate and can run their businesses well will increase. (Source: Prokopim Pemko Medan).

Research conducted by (Rahayu et al., n.d.)(Fadhila & Mahyudin, 2024) Stating that the digital economy can create inequality for some business groups that can keep up with digital developments for entrepreneurs who cannot adjust can harm their business. Research (Ekonomi et al., n.d.) stated that MSMEs need to implement various strategies by leveraging digitalization that suit their context and needs. These strategies include keeping the business updated with technology, optimizing content through SEO practices, leveraging social media platforms, using analytics tools, implementing financial technology and digitizing human resources, and ensuring quality digital infrastructure.

Research (Putra et al., n.d.) Explaining from the research results policymakers can create an enabling environment for digital adoption, agribusinesses can capitalize on the benefits of direct-to-consumer marketing, and researchers can investigate emerging areas such as blockchain and sustainability. Research (Aryanto et al., 2023) stated that local governments must play a role in increasing support for the application of digital accounting in MSMEs by providing training programs, and the participation of other parties such as academics, vendors, or consultants is also needed to contribute to providing assistance to MSMEs. Research (Rahmayana et al., n.d.)(Maulidah, 2023) Implementing digital accounting systems in MSMEs can improve efficiency, accuracy, decision-making, customer service, and access to finance. However, the adoption of digital accounting systems in MSMEs is challenged by cost, lack of technological capacity, resistance to change, and security and privacy concerns.

Research (Rianty & Fitri Rahayu, 2021)(Fadila et al., 2024) explained that the use of e-commerce during the pandemic was proven to be able to increase the income of MSMEs during the Covid pandemic. By promoting and selling products using the internet, everyone can see the products they have, making it easier to introduce products to potential customers. Research (Dauda et al., 2023) Using technology to help MSMEs reach a wider market thanks to the websites, social media, and media platforms they currently have, the utilization of e-commerce in running a business will greatly affect the income or increase in business income.

According to (Firdaus, 2023)(Amalina et al., 2023) Companies will achieve success if in their operations they utilize information technology, such as e-commerce platforms, to expand market reach and increase product accessibility, data analysis has become an important tool in making more precise and accurate business decisions, helping companies recognize market trends and adapt strategies better. Research (Handayani et al., 2021)(Rozahi Istambul, 2015) explaining the impact of IT implementation on marketing cost efficiency in MSMEs shows that MSMEs that adopt and implement IT in their marketing activities tend to achieve higher levels of cost efficiency. This highlights the importance of utilizing IT tools and systems to streamline marketing processes, target the right audience, and make informed decisions.

RESEARCH METHODS

This research approach is qualitative with the Structural Equation Modeling (SEM) model. This approach is able to test a model that is most ideal in estimating endogenous variables. The population in this study were micro, small and medium enterprises located in medan marelan sub-district and medan belawan sub-district with a total of 278 businesses. sampling using the slovin formula with an error rate (margin of error) of 5% or 0.05 and a confidence level of 95% or 0.95, the number of samples in this study was obtained by the formula:

$$n = \frac{N}{1 + (N \times e^2)}$$

Where:

n = Sample

N = Population

d= 5% Error Value

The total population desired by the author in this study is 278 people. Using the formula above is as follows:

$$n = \frac{278}{1 + (278 \times 0,05^2)}$$

$$n = \frac{278}{1,69}$$

n= 164,01 rounded up to 164 research samples.

The analysis model used to test the hypothesis in this study is multiple regression analysis using the Smart PLS application. Multiple regression analysis is a statistical method used to determine the magnitude of the influence between the independent variables, namely Accounting Digitalization and Electronic Commerce (E-Commerce) on Technology-Based Entrepreneurship. The multiple regression model used is as follows:

$$Y = a + b_1X_1 + b_2X_2 + e$$

Where:

Y= Technology-Based Entrepreneureship

a= Constant

b1-b2= Variable Coefficient

X1= Accounting Digitalization

X2= Electronic Commerce (E-Commerce)

E= Error

Intervening variables are independent variables that provide a theoretical explanation of the relationship between the independent variable and the dependent variable. There are three ways to test regression with moderating variables, namely (1) interaction test, (2) absolute difference test, and (3) residual test. The test that will be carried out to test the moderating variable in this study is to use the residual test. The residual test regression equation is as follows:

$$DF = a + b_1X_1 + b_2X_2 + e \dots\dots\dots(1)$$

$$IeI = a + b_2Y \dots\dots\dots(2)$$

Where:

DF= Fiscal Decentralization (Moderating Variable)

a= Constant

b1-b2= Varieble Coefficient

X1= Accounting Digitalization
X2= Electronic Commerce (E-Commerce)
Y= Technology-based Entrepreneurship.

RESEARCH RESULTS AND DISCUSSION

Discriminant Validity

Data processing carried out for discriminant validity in this study was carried out with the Fornell-Larckel approach. Testing discriminant validity, the square root value of the AVE of a latent variable, compared to the correlation value between the latent variable and other latent variables. The results of discriminant validity testing in this study are as follows:

Table 4.12 Discriminant Validity Testing

Variables	X1	Y	X2	Z
Accounting Digitalization	0,878			
Electronic Commerce	0,973	0,873		
Digital Transpormation Challenges	0,976	0,996	0,873	
Technology-based Entrepreneurship	0,690	0,683	0,685	0,960

Source: Processed by Researcher (2024)

Based on Table 4.12 testing discriminant validity, the AVE square root value of a latent variable is compared with the correlation value between the latent variable and other latent variables. It is known that the AVE square root value for each latent variable is greater than the correlation value between these latent variables and other latent variables. So it is concluded that it has met the requirements of discriminant validity.

Structural Model Analysis (Inner Model)

Inner model measurements are explained by the results of the path coefficient test, goodness of fit test and hypothesis testing.

1. R Square

Based on data processing that has been carried out using the smart PLS 3.0 program, the R-Square value is obtained as follows:

Table 5.13 Coefficient of Determination (R-Square)

	R Square	R Square Adjusted
Digital Transpormation Challenges	0,992	0,992
Technology-based Entrepreneurship	0,879	0,869

Source: Processed by Researchers (2024)

The criteria for R-Square are: Based on the data from the table above, it is known that the R Square Adjusted value for the Digital Transformation Challenge variable is 0.992 or 99.2% while the remaining 0.8% is influenced by other variables that are not variables of this study. Then the Technology-Based Entrepreneurship variable R Square Adjusted value of 0.869 or 86.9% while the remaining 13.1% is influenced by other variables that are not variables of this study.

2. Predictive Relevance (Q2)

The Q2 value has the same meaning as the coefficient of determination (R-Square). A large Q-Square (Q2) value of 0 indicates the model has Predictive relevance, conversely if a (Q2) value is less than 0, it indicates the model has less Predictive relevance; or in other words, where all Q2 values are higher, the model can be considered to fit the data better. Consideration of the Q2 value can be done as follows

$$Q_2 = 1 - (1 - R_1^2) (1 - R_2^2) \dots (1 - R_n^2)$$

$$Q_2 = 1 - (1 - 0,992) (1 - 0.869)$$

$$Q_2 = 1 - (0.008) (0.131)$$

$$Q_2 = 1 - 0,001$$

$$Q_2 = 0.999$$

Based on these results, the Q2 value is 0.999. So it can be concluded that all variables in the research Digital Transformation Challenge, Accounting Digitalization, Electronic Commerce (E-Commerce), Technology-Based Entrepreneurship contribute authentic data in the existing structural model by 99.9%. Then the remaining 0.1% needs to be developed apart from the research variables.

Uji t-statistic (Bootstrapping)

1. Pengaruh Langsung

To find out the results of hypothesis testing, it is done by looking at the probability value (probability) or by looking at the significance of the relationship between each research variable. The criteria is if $p < 0.05$ then the relationship between variables is significant and can be analyzed further, and vice versa. Therefore, by looking at the probability number (p) in the output of the entire path shows a significant value at the 5% level or the standardized value must be greater than 2.41 (> 1.654). If using the comparison value of the calculated t value with the t table, it means that the calculated t value is above 1.654 or > 1.654 or the calculated t is greater than the t table. The hypothesis test results are presented in the table below:

Table 4.14 Direct Effect

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values	Keterangan
Accounting Digitalization-> Digital Transpormation Challenges	0,197	0,195	0,094	2,097	0,036	Significant
Accounting Digitalization-> Technology-based Entrepreneurship	0,473	0,471	0,087	4,731	0,016	Significant
Electronic Commerce-> Digital Transpormation Challenges	1,044	1,046	0,078	13,369	0,000	Significant
Electronic Commerce-> Technology-based Entrepreneurship	0,760	0,755	0,080	5,898	0,004	Significant
Digital Transpormation Challenges -> Technology-based Entrepreneurship	0,843	0,845	0,125	6,768	0,000	Significant

Source: Data processed by Smart Pls 2024

The first hypothesis of this study shows the relationship of Accounting Digitalization to Digital Transformation Challenges. It was found from the results of data processing as much as 164 sample data processed using the Smart Pls application, where the table above shows that directly the relationship between Accounting Digitalization has a significant effect on Digital

Transformation Challenges. This result is shown and can be explained by the significant value of 0.036 smaller than 0.05 and the tcount value is greater than the ttable ($2.097 > 1.654$). Furthermore, the original sample value of 0.197 indicates that the direction of the relationship between accounting digitalization and digital transformation challenges is positive, so it can be concluded that the first hypothesis is accepted.

The second hypothesis of this study shows the relationship of Electronic Commerce to Digital Transformation Challenges. It was found from the results of data processing as much as 164 sample data processed using the smart PLS application, where the table above shows that directly the Electronic Commerce relationship has a significant effect on the Digital Transformation Challenge. This result is shown and can be explained by the significant value of 0.000 less than 0.05 and the tcount value is greater than the ttable ($13.369 > 1.654$). Furthermore, the original sample value of 1.044 indicates that the direction of the relationship between electronic commerce and digital transformation challenges is positive, so it can be concluded that the second hypothesis is accepted.

The third hypothesis of this study shows the relationship of Accounting Digitalization to Technology-Based Entrepreneurship. Found from the results of data processing as much as 164 sample data processed using the smart PLS application, where the table above shows that directly the relationship between Accounting Digitalization has a significant effect on Technology-Based Entrepreneurship. This result is shown and can be explained by the significant value of 0.016 smaller than 0.05 and the tcount value is greater than the ttable ($4.731 > 1.654$). Furthermore, the original sample value of 0.473 shows that the direction of the relationship between accounting digitalization on technology-based entrepreneurship is positive, so it can be concluded that the third hypothesis is accepted.

The fourth hypothesis of this study shows the relationship of Electronic Commerce to Technology-Based Entrepreneurship. It was found from the results of data processing as much as 164 sample data processed using the smart PLS application, where the table above shows that directly the relationship between electronic commerce has a significant effect on Technology-Based Entrepreneurship. This result is shown and can be explained by the significant value of 0.016 smaller than 0.05 and the tcount value is greater than the ttable ($4.731 > 1.654$). Furthermore, the original sample value of 0.473 indicates that the direction of the relationship between electronic commerce and technology-based entrepreneurship is positive, so it can be concluded that the fourth hypothesis is accepted.

The fifth hypothesis of this study shows the relationship of Digital Transformation Challenges to Technology-Based Entrepreneurship. It was found from the results of data processing as much as 164 sample data processed using the smart PLS application, where the table above shows that directly the relationship between digital transformation challenges has a significant effect on Technology-Based Entrepreneurship. This result is shown and can be explained by the significant value of 0.000 less than 0.05 and the tcount value is greater than the ttable ($6.768 > 1.654$). Furthermore, the original sample value of 0.843 indicates that the direction of the relationship between the Digital Transformation Challenge and Technology-Based Entrepreneurship is positive, so it can be concluded that the fifth hypothesis is accepted.

2. Testing the Effect of Moderation

Testing the moderating effect is used to see if the Digital Transformation Challenge mediates the relationship between accounting digitalization and electronic commerce on technology-based entrepreneurship. The relationship between the independent variable and the dependent variable through the moderating variable in this study can be seen in the table below.

Table 4.15 Indirect Effect

Variabel	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	TStatistics (O/STDEV)	P Values	Keterangan
Accounting Digitalization-> Digital Transpormation Challenges -> Technology-based Entrepreneurship	0,166	0,163	0,079	2,089	0,037	Significant
Electronic Commerce-> Digital Transpormation Challenges -> Technology-based Entrepreneurship	0,880	0,882	0,140	6,295	0,000	Significant

The sixth hypothesis of this study shows the relationship of Accounting Digitalization to Technology-Based Entrepreneurship through Digital Transformation Challenges. It was found from the results of data analysis conducted on 164 data samples processed using the smart Pls application where the table above shows that accounting digitalization has a significant effect on Technology-Based Entrepreneurship through Digital Transformation Challenges. This result is shown and can be explained by the significant value of 0.037 smaller than 0.05 and the tcount value is greater than the ttable ($2.089 > 1.654$). Furthermore, the original sample value of 0.166 indicates that the direction of the relationship between accounting digitalization on technology-based entrepreneurship through digital transformation challenges is positive, so it can be concluded that the sixth hypothesis is accepted.

The seventh hypothesis of this study shows the relationship of Electronic Commerce to Technology-Based Entrepreneurship through the Challenges of Digital Transformation. It was found from the results of data analysis conducted on 164 data samples processed using the smart Pls application where the table above shows that Electronic Commerce has a significant effect on Technology-Based Entrepreneurship through Digital Transformation Challenges. This result is shown and can be explained by the significant value of 0.037 less than 0.05 and the tcount value is greater than the ttable ($2.089 > 1.654$). Furthermore, the original sample value of 0.166 indicates that the direction of the relationship between Electronic Commerce on technology-based entrepreneurship through digital transformation challenges is positive, so it can be concluded that the seventh hypothesis is accepted.

Discussion

The Effect of Accounting Digitalization on Digital Transformation Challenges

After analyzing the research data, a discussion can be made regarding the direct effect that the direct effect produced by the accounting digitalization variable is stated to be significant on the challenges of digital transformation in micro, small and medium enterprises in Medan City. The results of this study explain that accounting digitalization has a role to play in increasing the ease of making digital financial reports because the shift from manual bookkeeping will certainly make it easier for business people to detect the desired transactions and can easily get reports on the results of activities whenever needed, accounting digitalization is the implementation of digitalization in bookkeeping or making company financial reports so that the results of this study can be taken into consideration for the answers of small and medium micro businesses towards digitalized businesses.

Research results (Saputri & Fauziyyah, 2021) Digitalization does not only impact accounting, in this case managing and reporting on the internal conditions of a company or organization, but has a broader scope than that. Digital transformation in accounting is needed if a company or organization wants to progress. This can be achieved influenced by several factors including accountant resources, business models and organizational structures, and

relevant external support. In practice, digital for accountants has an impact on the application of accounting that is more environmentally friendly (paperless).

This research (Fauziyyah, 2022) Digitalization affects management accounting in terms of managing and reporting on the internal conditions of a company or organization, but it has a wider scope than that. Digital transformation in management accounting is needed if the company or organization wants to progress. This can be achieved through several factors, including the role of executive leaders, accountant resources, business models and organizational structures, and relevant external support.

Research (Devira Larasati et al., 2023) Digital accounting systems can improve the performance of MSMEs in the Nginden Jungkungan Surabaya Village environment. The implementation of a digital accounting system will help MSME owners who implement this system to produce sales reports that are more accurate and easy to understand. That way, MSME owners can decide on more effective marketing plans to increase the sales of their MSMEs. The implemented digital bookkeeping has produced positive results, namely that MSMEs are growing.

Research (Maulidah, 2023) The implementation of digital-based accounting through Android-based applications helps MSMEs to make accounting records for transactions that require accounting knowledge that they understand, and digital use makes it easier and more efficient anytime and anywhere. The implementation of the AKPHB Cash Book Application for MSMEs still has obstacles in the system, namely not yet entered or registered in the playstore so that the download of this application is not smooth for every smartphone security system.

The Influence of Electronic Commerce on Digital Transformation Challenges

After analyzing the research data, a discussion can be made regarding the direct effect that the direct effect generated by the accounting digitalization variable is declared significant on technology-based entrepreneurship in micro, small and medium enterprises in Medan City. The results of this study indicate that technology-based companies will use accounting digitalization in their companies because financial reporting in companies is very important so that if the company is already technology-based it will be greatly helped both in terms of preparing financial reports which are considered difficult by most people, financial reports in the company are a picture of the company operating for one year, because every transaction in the company is never separated from the financial statement records, so that the implementation of accounting digitalization in the company greatly helps the company towards a digitized business. The results of this study are in line with the results of research (Amaluddin Tanjung et al., 2023) Technology is a key driver in business transformation. Entrepreneurs who combine technological innovation with the right business strategy have a greater chance of success in the era of online business. Rapid technological change requires adaptive and innovative entrepreneurship. This means that the key to success in online business is the ability to continuously adapt to changes in technology and the market.

The Effect of Accounting Digitalization on Technology-Based Entrepreneurship

After analyzing the research data, a discussion can be made regarding the direct effect that the direct effect generated by the accounting digitalization variable is declared significant on technology-based entrepreneurship in micro, small and medium enterprises in Medan City. The results of this study indicate that technology-based companies will use accounting digitalization in their companies because financial reporting in companies is very important so that if the company is already technology-based it will be greatly helped both in terms of preparing financial reports which are considered difficult by most people, financial reports in the company are a picture of the company operating for one year, because every transaction in the company is never separated from the financial statement records, so that the

implementation of accounting digitalization in the company greatly helps the company towards a digitized business.

Research results (Yanto Rukmana et al., 2021) Technology-based entrepreneurship, proper utilization of technology is the main foundation in developing the interest and spirit of technopreneurship. To give birth to successful young entrepreneurs, universities need seriousness and seriousness in carrying out the mission of campus entrepreneurship in welcoming the intelligent ecosystem society (Society 5.0). Various universities, especially in Indonesia, must make the entrepreneurship program a role model to start focusing on producing successful young entrepreneurs who combine entrepreneurial concepts and technological concepts so that they can increase their business development potential.

Research (Sinaga et al., 2022) MSMEs are ready to adopt AIS for the accounting information management process and have no effect on the variables of relative benefits, complexity, adaptability. Top management support, employee IT capability, competitive pressure, government support and internal control. Because MSMEs and stakeholders are not adequate in implementing AIS because the IT used is not ready, the network is still in LAN format, appropriate investment and human resources are needed, it is still oriented towards production, not market demand.

Many financial and accounting processes had been digitized in Indonesia before the pandemic. However, during the pandemic, most companies allowed their employees to access the same resources they previously used in the office, however, employees used personal computer devices to communicate using publicly available Internet platforms and instant messaging, as well as traditional communication methods (telephone). Financial and accounting data is more securely secured through and using VPNs, even though half of the documents sent are in paper form (Perwanto & Purba, 2022)(Perwanto, et al., 2022)

The Effect of Electronic Commerce on Technology-Based Entrepreneurship

After analyzing the research data, a discussion can be made regarding the direct effect that the direct effect generated by the electronic commerce variable is declared significant on technology-based entrepreneurship in micro, small and medium enterprises in Medan City. Digital marketing is one of the drivers of technology-based business improvement where digital marketing in this day and age is very developed for companies that are unable to adjust to digital marketing developments, the company will be left behind by companies that are now familiar with digital marketing.

Research result (Suyanto & Purwanti, 2020) From the results of the study, it was revealed that the main factors affecting the competitiveness of MSMEs are still acceptable. Finally, there are six key variables that determine the competitiveness of MSMEs, namely the availability and conditions of the business environment, business capabilities, policies and infrastructure, research and technology, financial support and partnerships and performance variables. The variables of resource availability and market conditions have a positive and significant impact on improving MSME performance. In addition, among the process variables, entrepreneurial capability variables have the highest positive and significant impact, while technology and production capability variables, managerial capabilities and administrative and service capabilities are still lacking in influencing MSME performance.

According to (Suyanto & Purwanti, 2020) The creation and training of an e-commerce website at the H. Mamed Tasikamalaya Wholesale Center has provided convenience and comfort to boutique entrepreneurs to sell their products so that buyers can easily get information about the products being sold. The e-commerce website makes it easy for buyers and entrepreneurs to make transactions.

Research results (Kondo et al., 2023) The existence of an e-commerce platform for MSMEs in North Sulawesi will have a positive impact on MSME players and contribute to local economic growth. The use of e-commerce platforms in MSME activities in North Sulawesi empowers the components of the digital entrepreneurship ecosystem that is developing in North Sulawesi. These entities are digital technologies, users, agents, and organizations that make up the digital entrepreneurship ecosystem.

The Influence of Digital Transformation Challenges on Technology-Based Entrepreneurship

After analyzing the research data, a discussion can be made regarding the direct effect that the direct effect generated by the digital transformation challenge variable is stated to be significant on technology-based entrepreneurship in micro, small and medium enterprises in Medan City. The results of this study indicate that the more challenged the company is to the use of information technology, both online integrated digital and programs that do not use the internet, the more able the company will be to accelerate business progress, the challenge of switching to the use of technology in running a business will make the company more ready to compete and the faster it will also make the company at a different level from companies that still use manual systems in their operations. Research results (Amaluddin Tanjung, 2024) Technology is a key driver in business transformation. Entrepreneurs who combine technological innovation with the right business strategy have a greater chance of success in the era of online business. Rapid technological change requires adaptive and innovative entrepreneurship. This means that the key to success in online business is the ability to continuously adapt to technological and market changes.

Research Results (Sudianto et al., 2021) The development of technology-based entrepreneurship is a challenge for micro, small and medium enterprises to adapt to the use of information technology as an operational support that has been still valid manually. The presence of technology will make businesses increasingly have a level of ease and speed in producing information both in quantity and in quality because technology is designed to answer various problems that have made companies long to develop.

Research results (Mahpuz, 2021) The development of MSMEs in applying information technology in improving human resources for MSME actors can also make businesses based on information technology and be able to have the ability to increase business productivity through the use of information technology.

The Effect of Accounting Digitalization on Technology-Based Entrepreneurship through the Challenge of Digital Transformation

After analyzing the research data, the results can be explained that accounting digitalization affects technology-based entrepreneurship through digital transformation challenges in micro, small and medium enterprises in Medan City. The results of this study indicate that the challenge of digital transformation is able to have a positive impact on the effect of accounting digitalization on technology-based entrepreneurship, the more the challenge of digital transformation increases, the more it will strengthen the influence produced by accounting digitalization on technology-based entrepreneurship.

In the economic field, with the development of digital technology utilized by millennials, success in the business field is very broad. Millennials, armed with perseverance, creativity and innovation and utilizing digital technology facilities, can build MSMEs and creative businesses that have a great opportunity to achieve success (Sundari, 2019). Digital mindset transformation in MSME entrepreneurship enhances business growth, operational efficiency, adaptability to market changes and strategic decision-making. Community service offerings include awareness, guidance and assistance to MSMEs, building collaborative networks,

enhancing skills, promoting innovation and improving MSME competitiveness (Annisa et al., 2023).

There are many opportunities and focuses for MSMEs, where there is a special need for MSMEs to carry out digital transformation to improve business competitiveness and expand market share. With digital transformation, the downstream process of products and operations from producers to consumers is improved, service speed, good trust, secure data exchange platforms but also provide opportunities for digital transformation. With digital transformation, a new entrepreneurial ecosystem is formed in the digital direction that is able to compete with international competitors (Solechan et al., 2023).

The Influence of Electronic Commerce on Technology-Based Entrepreneurship through the Challenge of Digital Transformation

After analyzing the research data, the results can be explained that electronic commerce affects technology-based entrepreneurship through digital transformation challenges in micro, small and medium enterprises in Medan City. From the results of this study indicate that the challenge of digital transformation is able to have a positive impact on the influence of electronic commerce on technology-based entrepreneurship, the more the challenge of digital transformation increases, the more it will strengthen the influence produced by electronic commerce on technology-based entrepreneurship.

Due to rapid changes in the business landscape driven by digital technology, entrepreneurial challenges in the digital age also include issues related to data privacy and security. Consumers are increasingly concerned about how their data is used and protected as more and more data is stored and collected digitally. Companies must implement robust cybersecurity measures and adhere to strict data privacy regulations (Muhammad Zaenal, 2024). The digital marketing skills dimension has a positive relationship with the sustainable business dimension. This shows that the better the digital marketing aspects of MSMEs, the better the sustainable business aspects of these MSMEs (Mekaniwati et al., 2021).

The network structure dimension of the network structure is not hierarchical, but flat and this dimension still needs to be improved. The dimension of commitment to a common goal It is felt that the commitment of government agencies to tourism development efforts is still lacking but in its action plan the government has the implementation, development, development of tourism that still needs to be improved (Kedasi Silayar, Ika Sartika, Deti Mulyati, 2021).

CONCLUSION

After analyzing the research data, a discussion can be made regarding the direct effect that the direct effect produced by the variables of accounting digitalization, electronic commerce, digital transformation challenges is significant on technology-based entrepreneurial challenges, the results of the direct effect of accounting digitalization variables, electronic commerce are significant on digital transformation challenges, the results of the indirect effect of accounting digitalization variables, electronic commerce on technology-based entrepreneurship through digital transformation challenges are significant in micro, small and medium enterprises in Medan City.

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