DIGITAL TRANSFORMATION AND ITS IMPACT ON FINANCIAL PERFORMANCE: IN THE FOOD AND BEVERAGE SMALL BUSINESS SECTOR

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Abstract: This study examines and identifies the driving factors of digital transformation towards improving financial performance during the covid 19 pandemic in the context of small food and beverage businesses located in Surakarta and its surroundings, intending to know the availability of technology, competitive pressures, and digital capability as a driver of digital transformation and shows the mediating role of digital transformation on financial performance. Quantitative research with a sample of 104 small business actors in the food and beverage sector who have adopted e-commerce and fintech in Surakarta and its surroundings with data analysis using Smart PLS 3.0 modeling. The results of the study indicate that there is a considerable impact from the availability of technology, and the adaptive ability of business actors in managing their business through a digital transformation during a pandemic. Digital transformation for small food and beverage businesses is very important in business management during a pandemic, this is influenced by the availability of internet technology, ease of internet access that reaches a wide area, and is supported by the innovation capabilities of business actors where most of them are young people whose daily life they never free from dependence on internet social media so that using it for businesses can improve their financial performance. The results show that during online business transactions using internet technology, sales turnover and profits have increased during the pandemic. Small food and beverage businesses will be encouraged to take advantage of the benefits of digital transformation as an opportunity to improve their financial performance. This study looks at the perspective of micro and small businesses in the food and beverage sector about their drive to carry out the digital transformation that impacts their financial performance during the Covid19 pandemic. The significant positive effect of digital transformation on improving financial performance shows that it is important for small culinary businesses to improve their digital skills and knowledge in business development to meet customer needs and improve performance for business sustainability.

Keywords: Digital transformation, finance performance, digital capability, technology availability, competitive pressure

1. Introduction

The impact of the COVID-19 pandemic has driven technology acceleration through digital transformation in all business sectors, this has revolutionized the way companies do business, create relationships with consumers, suppliers, and other stakeholders and drive business

model innovation and customer value creation (Matarazzo *et al.*, 2021). Digital transformation is how a company uses digital technology to develop new digital business models that help create and provide more value for the company(Gomez-Trujillo and Gonzalez-Perez, 2021). These transformations affect business processes, operational routines, and organizational capabilities (Li *et al.*, 2018). More specifically, digital transformation can be defined as the deepest and most rapid transformation of business activities, processes, competencies, and models to take advantage of changes in digital technology and its impact in a strategic and priority manner (Abdulquadri *et al.*, 2021). Its main goals can be described as customer-centered processes, flexibility, and cost reduction(Junge, 2019). Studies of digital transformation from various perspectives of strategy, innovation, information technology, human resources, and marketing, based on a literature review the researchers have identified a digital transformation phase, where digitization refers to encoding analog information into digital formats in such a way that computers can store, process, and transmit the information (Hilali and Manouar, 2019). Digitization shapes the traditional interactions between consumers and businesses(Taiminen and Karjaluoto, 2015). Through digitalization, people have access to various media channels to communicate actively and easily with other companies and consumers freely without any barriers as they wish(Verhoef *et al.*, 2021). Most of the research results that have been conducted have explored the application of digital technology in large companies or, in innovative businesses, digital startups, and high-tech giants(Ghezzi and Cavallo, 2020), while specific studies focusing on micro, small and medium enterprises operating in traditional industries are few.

Along with the times, changes related to the development of small industries and technological transformations experience volatility, uncertainty, complexity, and ambiguity that drives the phenomenon of digital transformation. Various changes are related to industrial development and technological transformation, and now the market is experiencing. This concept involves a range of interpretations and applications at the community and organizational level covering organizational performance and political and humanitarian issues. (Gomez-Trujillo and Gonzalez-Perez, 2020). From the various definitions of digital transformation, digital transformation is encompassing the conception to reengineer the business as a mechanism to capture the potential of information technology, as a deep transformation of organizational activities, or using digital advances. (Gomez-Trujillo and Gonzalez-Perez, 2021). There are some general aspects that companies should consider when proceeding with a digital transformation including operational processes, customer experience, and business models that enable programmability and homogenization of data as well as decentralization and autonomy of processes(Junge, 2019). Another definition emphasizes a paradigm shift in all aspects of human life and its role as a change caused by technology that disrupts previous practices.

Literature study states that micro, small and medium enterprises are recognized as innovative companies and contribute to economic growth in various developing countries (Q and Risal, 2021). This sector was the most affected during the COVID-19 pandemic, in general, a large number of cases of the spread of this virus made Indonesia's economic condition unstable (Alam, Awawdeh, and Muhamad, 2021). Many companies have gone bankrupt or experienced worsening financial conditions due to the government's lockdown system (Rahmawati *et al.*, 2020). This makes MSMEs experience losses and limitations in running their daily business directly. This makes MSMEs experience losses and limitations in running their daily business directly. On the other hand, this business is the backbone of a family business that is expected to continue to run during a crisis, therefore this digital era can change business models through information technology, especially in widely used to assist small businesses in conducting business activities and selling products and offering various services (Setiowati *et al.*, 2015). Through digital transformation, small entrepreneurs can continue their business and survive in limited conditions by seeking new and wider market opportunities, efficiently and effectively.

Online-based business transactions can be carried out anywhere with ease, security, and control. Application of information technology includes sales and financial services through E-commerce and Fintech (Financial Technology). Ueasangkomsate (2015), mentions that by paying attention to the digitalization aspect, it can develop its business to improve business performance.

2. Literature Review

Digital Transformation

Research on digital transformation was originally sourced from the study of information technology systems, especially from organizational strategic changes triggered by digital-based technology in the field of Information Systems. (Sambamurthy, Bharadwaj and Grover, 2003) (Bharadwaj, Omar, and Paul, 2013). Digital transformation can be defined as a process that aims to improve business performance by changing its business activities through a combination of information technology, computing, communication, and connectivity. In general, researchers have two perspectives on the digital transformation of companies. The first perspective tends to link digital technology with the main motivation for transformation, emphasizing how digital technology accelerates transformation and improves enterprise performance. In particular, digital technologies (e.g. cloud computing, artificial intelligence, and big data) can enhance an organization's internal and external communications, and large amounts of computing power can enhance enterprise innovation. (Nambisan *et al.*, 2017). Since digital transformation involves strategic and organizational changes within a company, some organizational barriers need to be overcome, such as lags in business management (Svahn, Mathiassen and Lindgren, 2017), Improper business arrangement (Hinings, Gegenhuber, and Greenwood, 2018), lack of skilled labor (Eden *et al.*, 2019), or managers who do not match their expertise (Hansen, Kraemmergaard and Mathiassen, 2011), and employee relations issues (Hess *et al.*, 2016). Implementing digital transformation for small businesses is a challenging activity that requires businesses to be able to build or optimize their capabilities (Panchal and Krishnamoorthy, 2019)(Panchal and Krishnamoorthy, 2019). Companies that use digital technology-embedded business processes achieve the benefits of better business performance. New digital transformations assist in establishing common values and setting new organizational routines. This enables a new culture of collaboration and integration.(Liu, Yang and Liu, 2021) Furthermore, digital transformation initiatives strengthen organizational ambidexterity capabilities by enabling organizations to utilize the maximum potential of resources in today's business and at the same time develop new digital products and services on offer(Singh, Sharma, and Dhir, 2021). Organizations leverage data capture and transformation through digital technologies and platforms through digitization and digitization. In the digital age, technology can enable the meaningful extraction of insights that can support data-driven decision-making. This can help companies adapt to the required environment, save costs, and build flexibility. For example, digital transformation removes the barriers of space and time, thereby enabling companies to leverage existing resources (Martínez-Caro, Cegarra-Navarro, and Alfonso-Ruiz, 2020). In addition, digital transformation can increase promotional activities with lower total costs. Therefore, we propose the following hypothesis:

H1. Digital transformation affects Financial Performance

Competitive Pressure

Competitive pressure leads to exploring innovations by the organizations to tackle the presence of stronger competitors in the industry (Kostić, 2018)(Hsu, Ray, and Li-Hsieh, 2014). Competitive pressure consistently pushes the firms to rethink their strategies and aspires to gain

more share(Singh, Sharma, and Dhir, 2021). The firms tend to experiment with new innovative ideas and transformations to incorporate differentiation into their products and services (Kumar, Singh, and Dwivedi, 2020). These firms set a new benchmark of being the leader that prevents competition in the market by raising the standards, increasing the barriers to entry in the industry. The increased competitive pressure on the firm leads to digital transformation (Kostić, 2018). The digital transformation can lower the cost of operations and increase the outreach of their products and offerings (Shashi *et al.*, 2020). The continuous innovation using digital technologies empowers the firms to leverage data-driven decision-making and enables them to face and tackle high competitive pressure. The digital transformation will act as a support system to encourage and motivate the firm to deal with the competitive pressure and to increase its market share. The organizations again feel confident and better equipped to survive in the competition and strive for offering more value to the customers and attain higher performance. By adopting digitalization, firms are better equipped to achieve their business goals and objectives as digital technologies can help mainstream players to switch to new verticals and develop the existing business. (Miroshnychenko *et al.*, 2021)Digitally transformed firms will outperform their rival(Ali, Wu, and Ali, 2021). It can lead to early detection of opportunities and enhance firm performance (Ungerer, 2005). Therefore, the following hypothesis is proposed:

H2a. Competitive Pressure has a significant impact on Digital Transformation
H2b. Competitive Pressure has a significant impact on Financial Performance
H2c. Digital transformation will mediate the relationship between Competitive Pressure and Financial Performance

Digital capability

Technological skills and competencies are important resources needed for the innovation process. Although the use of technology plays an important role in an organization, it still needs to be managed effectively and efficiently in the use (Lu, 2017). Moorman and Sloteraaf (1999) define technology capability as the company's technological ability to formulate and develop new products and related processes. In the context of digital products, digital capabilities can be defined as the company's skills, talents, and expertise to manage digital technology for new product development(Khin and Ho, 2019). Successful digital transformation requires organizations to develop several capabilities in many different areas and these capabilities may differ depending on the particular sector and the specific needs of the organization. (Carcary, Doherty, and Conway, 2016). Levallet and Chan (2018) identify two key digital capabilities: well-developed information management capabilities and flexible IT infrastructure but do not attribute them to innovation. The firm's dynamic capabilities view identifies dynamic capabilities as a key source of sustainable competitive advantage in a changing competitive landscape(Teece, 2016). Dynamic capabilities are also defined as a subset of competencies/capabilities, which enable companies to create new products and processes and respond to changing market conditions (Teece, 2016). Although many significant research results support the technology-innovation capability relationship from resource-based and dynamic capabilities theory, only a few studies support the impact of digital capabilities on business performance. A result of research conducted by Westerman et al. (2012) reveals that digital capabilities are the fundamental building blocks by which companies can transform customer experiences, operational processes, and business models. Although the literature on digital capabilities related to technological transformation is scant, the positive impact of technological capabilities on transformation has been widely supported (Zawislak *et al.*, 2013). As a technological capability in a digital context, digital capability is an important requirement to achieve digital transformation because the success of digital transformation development is

highly dependent on how well a company can master and manage digital technology. Every step involved in digital transformation from acquiring digital technology, and developing new digital solutions requires an optimal level of ability by competent business actors. Therefore, the following hypothesis is proposed:

H3a. Digital Capability has a significant impact on Digital Transformation
H3b. Digital Capability has a significant impact on Financial Performance
H3c. Digital transformation will mediate the relationship between Digital Capability and Financial Performance

Technology availability

Technology availability is defined as the strength of the IT portfolio to facilitate digital innovation and transformation. IT readiness is the presence of structures and elements within an organization that enables the firms to fully exploit the information and communication technologies(Singh, Sharma, and Dhir, 2021). From 2000 to 2015, the ascent of new digital products and technologies enabled with internet-like gadgets has prompted a radical shift in the strategies and customer expectations regarding the response time and the accessibility of multiple channels (Ungerer, 2005). If the firms are well equipped with technological solutions and have high technical competence, then there is a high probability that introducing more technologies will bring fewer challenges within the organization. The infrastructure is expected to be compatible enough to accommodate upgraded technologies and the workforce is also assumed to be hands-on in using the technologies. Haug & Huitema (2015) explained that IT readiness includes the existence of processes and SOPs that are relevant and required for selecting the right IT project for the organization and facilitating the complete implementation and adoption within the organization. (Khin and Ho, 2019)The organizations equipped with IT resources can implement specific digital technologies like big data analytics, social media. The organizations having contemporary and updated versions of the IT infrastructure are advantaged as they can redesign the business models and revamp the existing products and offerings into digitally enabled solutions. With increased competition in the industry, the IT infrastructure plays a significant role to create a niche market and bring product differentiation(Carcary, Doherty, and Conway, 2016). Bharadway(2012) also mentioned that organizations with higher IT capability can outperform rivals. Superior IT infrastructure also assists in exploring and developing new business linkages by forming virtual organizations of business partners(Nambisan *et al.*, 2017). IT also improves coordination, provides larger control over dispersed operations, and improves tracking of finance, MIS, and status; therefore it enhances the effectiveness of monitoring and control processes of firms Thus, the organizations with considerable IT readiness are better placed to deploy and effectively utilize digital technologies and related resources to achieve higher performance objectives. Thus, we hypothesize:

H4a. Technology availability has a significant impact on Digital Transformation
H4b. Technology availability has a significant impact on Financial Performance
H4c. Digital transformation will mediate the relationship between Technology availability and Financial Performance

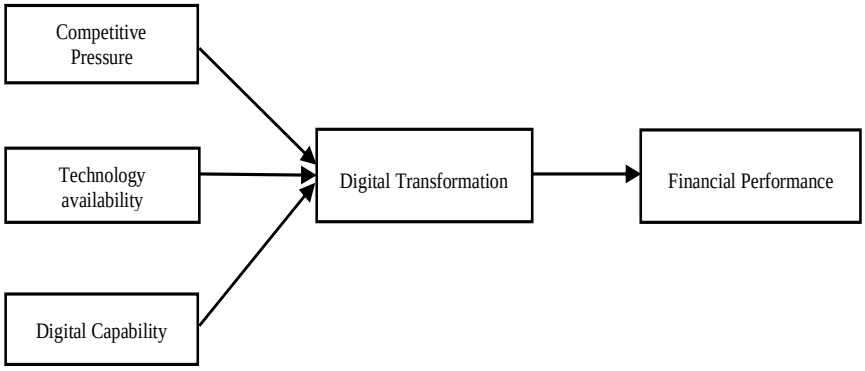


Figure1. The Conceptual Model

3. Method

Data collection and analysis techniques

The sampling technique used in this study was a purposive sampling approach, namely, the researcher chose subjectively purposive samples (Ferdinand, 2006). This technique is commonly known as the subjective/selective sampling technique (now). Respondents were selected based on there at least 1 year of e-commerce and fintech adoption experience. The number of samples is 104 small food and beverage business actors spread across the Solo and surrounding areas. The determination of the number of samples that must be met in this modeling is based on the minimum number method of 100-200 samples with a maximum Likelihood Examination (Ferdinand, 2014). The data analysis technique for assessing and validating the model is using the PLS-SEM modeling, with an approach based on variance or component-based structural equation modeling, through the PLS algorithm which is then exposed to structural equation modeling. SMART-PLS software was used to measure all Bootstrap indices applied to analyze statistical significance and path coefficients. All indicators are analyzed and tested for the specified threshold level.

Research Instruments

This research instrument is structured based on three antecedent variables that drive digital transformation, namely competitive pressure, digital capability, Technology availability, and one independent variable, namely digital transformation, and one dependent variable, namely financial performance. With each indicator consisting of three questions.

4. Result and Discussion

Respondent characteristic

The results of this study consisted of responses to questionnaires totaling 104 respondents from small business actors in the food and beverage sector scattered in the Surakarta area and its surroundings. This study includes small businesses in the culinary field in the Surakarta area as much as 62%, and 38% outside the Surakarta area. Of the respondents studied, 57% of these businesses are managed by men, and 43% by women. The business age ranges from 2-5 years, by 45%, and 55% over 5 years. The number of employees of this small business is 87% less than five people, and only 13% has employees of more than five people. Full results can be seen in table 1.

Table 1. Characteristics of sample (n = 104)

No.	Classification	Sub Classification	Frequency	Presentage
1.	Owner	Male	59	57%
		Female	45	43%
2.	Business Location	Surakarta	64	62%
		Other Surakarta	39	38%
3.	Firm Age	2-5 years	51	45%
		>5 years	53	51%
4.	Number of employees	< 5	91	87%
		>5	13	13%
5.	Usage digital	<2 years	81	78%
		>2 years	23	4%
6.	E commerce	IG/WA/FB	23	19%
		Gojek/Grab/shopee	57	46%
7	Fintech	Go pay	98	40%
		Shopeepay	87	27%
		Ovo	76	21%
		others (Dana, Link, QRIS)	12	12%
8.	Sales increase	<30%	8	8%
		30% <	96	92%

Source: Primary data processed (2021)

Results of Data Analysis

The results showed that the R Square Adjusted above 0.5 then the results were good. In the results of the Digital Transformation analysis, which is above the average value of 0.669, then the R square is good, as well as the Financial Performance value of 0.811 which means above 0.5. This shows that digital transformation has a strong influence on improving financial performance. The results of construct validity values show that all values are greater than 0.7 therefore, validating that all items are strongly correlated with the proposed theoretical construction and validating the reliability of the indicator.

Table 2. Structural Model Representation

Construct	R Square	R Square Adjusted
Digital Transformation	0,679	0,669
Financial Performance	0,811	0,803

Source: Primary data processed (2021)

The results of composite reliability exceed the threshold value of 0.7 so that there is internal consistency reliability. The AVE value is more than the required threshold value of 0.5 as presented in Table 3; Therefore, it shows a positive correlation of alternative measures of competitive pressure construct, digital capability, digital transformation, financial performance, and technology availability

Table 3. A Measurement Model and Construct Validity

Construct	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Competitive Pressure	0,896	0,923	0,706
Digital Capability	0,949	0,961	0,830
Digital Transformation	0,906	0,931	0,730
Financial Performance	0,873	0,913	0,725
Technology availability	0,890	0,919	0,696

Source: Primary data processed (2021)

Discriminant validity was tested using the Fornell-Larcker criteria as shown in table 4. The off-diagonal value is smaller than the diagonal value as recommended by Garson, therefore discriminant validity was determined with good results. The results of the Collinearity Statistics (VIF) to see the multicollinearity test with the results of the inner of each VIP variable < 5 so it does not violate the multicollinearity test.

Table 4. Discriminant Validity Representation using Fornell–Larcker Process

Construct	Competitive Pressure	Digital Capability	Digital Transformation	Financial Performance	Technology availability
Competitive Pressure	0,840				
Digital Capability	0,527	0,911			
Digital Transformation	0,655	0,741	0,855		
Financial Performance	0,642	0,821	0,848	0,852	
Technology availability	0,687	0,737	0,760	0,757	0,834

Source: Primary data processed (2021)

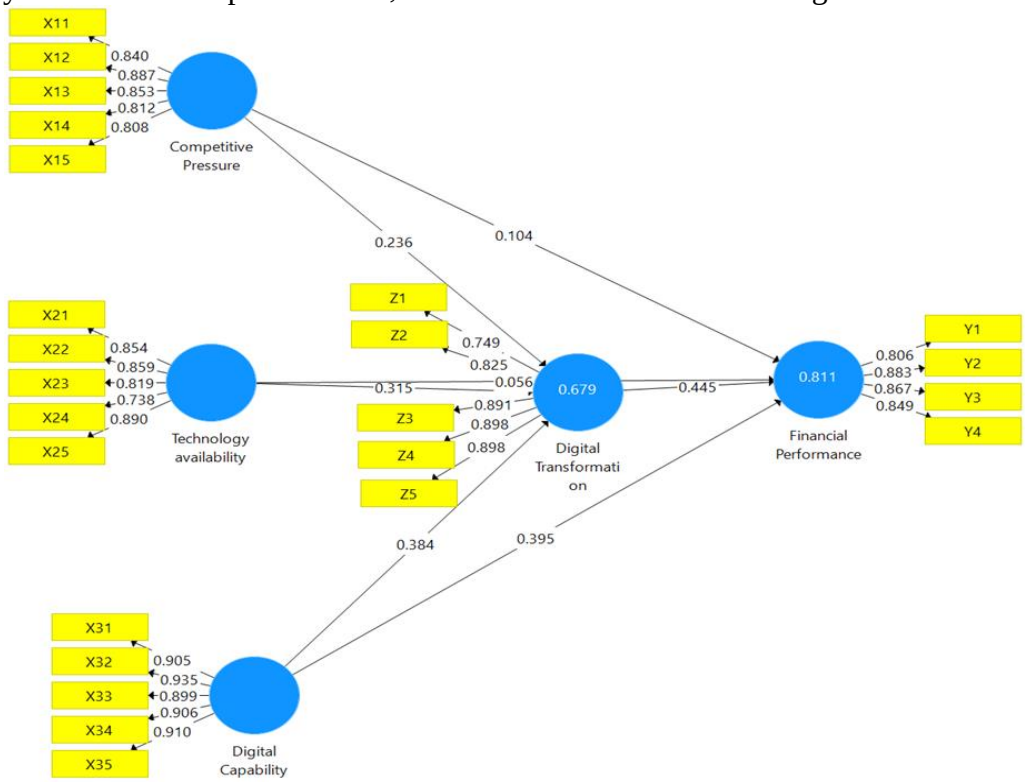
Table 5. Hypotheses Acceptance Summary

Hypotheses	Relationship	T value	P Values	Decision
H1	Digital Transformation -> Financial Performance	4,863	0,000	Supported
H2a	Competitive Pressure -> Digital Transformation	1,844	0,066	Not Supported
H2b	Competitive Pressure -> Financial Performance	1,812	0,071	Not Supported
H3a	Digital Capability -> Digital Transformation	4,246	0,000	Supported
H3b	Digital Capability -> Financial Performance	3,995	0,000	Supported
H4a	Technology availability -> Digital Transformation	2,262	0,024	Supported
H4b	Technology availability -> Financial Performance	0,689	0,491	Not Supported
H2c	Competitive Pressure -> Digital Transformation -> Financial Performance	1,601	0,110	Not Supported
H3c	Digital Capability -> Digital Transformation -> Financial Performance	2,908	0,004	Supported
H4c	Technology availability -> Digital Transformation -> Financial Performance	2,162	0,031	Supported

Source: Primary data processed (2021)

From table 5, it can be seen that there are direct and indirect relationships between constructs. Based on these results, it can be concluded that Digital Transformation on Financial Performance with p-value < 0.05 means significant which means that digital transformation has a direct effect on financial performance. So that Hypothesis H1 is accepted, this supports the research conducted by (Khin and Ho, 2019)(Singh, Sharma and Dhir, 2021) from these results it can be concluded that digital transformation has a positive impact on improving financial performance. Testing the relationship between Competitive Pressure and Digital Transformation is smaller than the statistical value of the t-table (1.967) which is 1.844 and also the p-value is greater than 0.05 which means it is not significant, so this result does not support the research results. (Singh, Sharma, and Dhir, 2021) where the research states that competitive pressure is a factor that drives digital transformation. The results of testing the H2b hypothesis about the relationship between Competitive Pressure and Financial Performance are smaller than the statistical value of the t-table (1.967) which is 1.812 which

means it is not significant, so the H2b hypothesis is rejected. This means that competitive pressure does not directly affect financial performance. In hypothesis H3a: Digital Capability to Digital Transformation is greater than the statistical value of t-table (1.967) which is 4.246 and p-value <0.05 which means significant, this supports the research results. (Khin and Ho, 2019) (Singh, Sharma, and Dhir, 2021), states that digital capability drives digital transformation. Furthermore, hypothesis H3b: Digital Capability on Financial Performance is greater than the statistical value of t-table (1,967) which is 3.995, and p-value <0.05 which means significant, this supports the research results. (Singh, Sharma, and Dhir, 2021)(Liu, Yang and Liu, 2021) (Khin and Ho, 2019). Testing the hypothesis H4a: Technology Availability to Digital Transformation is greater than the statistical value of t-table (1.967) which is 2.262 and p-value <0.05 which means significant, supporting research (Singh, Sharma and Dhir, 2021) (Liu, Yang, and Liu, 2021)(Dutta et al., 2020). H4b: Technology Availability on Financial Performance is smaller than the statistical value of t-table (1.967) which is 0.689 and p-value is greater than 0.05, which is 0.491 which means it is not significant, does not support research (Singh, Sharma and Dhir, 2021) (Ali, Wu, and Ali, 2021), on the H2c hypothesis test: The effect of Competitive Pressure on Financial Performance through Digital Transformation is smaller than t table (1.967) which is 1.601 and P values are greater than 0.05 so it is not significant, which means that competitive pressure does not affect increasing financial performance mediated by digital transformation. and H3c: The effect of Digital Capability on Financial Performance through Digital Transformation is greater than t table (1,967) which is 2,908 with P Values < 0.05, which means that Digital capability has an effect on financial performance mediated by digital transformation. And then for the hypothesis H3c: The effect of Technology availability on Financial Performance, through Digital Transformation, is greater than the t table (1,967) which is 2.162 and P Values <0.05 of 0.031 which means that it significantly affects financial performance. From these results it can be seen that Competitive Pressure does not directly or indirectly affect financial performance improvement, Technology Availability does not directly affect financial performance, while the other constructs are significant.



Source: Primary data processed (2021)

Discussion

Based on the test results above, shows that digital transformation in small food and beverage businesses affects financial performance through the antecedent factors of Technology Availability and Digital Capability. In this case, Technology Availability is based on the ease with which business actors can obtain digital devices such as smartphones, which are now very easy to buy at affordable prices. Ease of accessing the internet through the use of the internet network and the signal network of telecommunication service providers that can reach all regions. The existence of internet network infrastructure supports business actors in conducting online sales transactions, conducting promotional activities through social media, and serving online payment transactions. The ease of using smartphones and the use of internet networks encourages business actors to change their business activities that were previously oriented to buyer visits to switch to using the marketplace and social media as business media during the pandemic. And it is proven that through changes in digital-based business activities they get increased business results compared to before. The increase in their business performance was realized through increased profits, increased sales, and increased total income, which on average increased by more than 10% compared to before utilizing business digitization. For small businesses such as food and beverages, daily capital turnover is very important, even though the percentage of profit is not large but as long as the amount of income and daily cash flow is smooth, it is their key to survive during the current economic crisis. In addition, for small businesses, internal capital is the main source of finance for their survival. (Tavares, 2016). Besides that, the Digital Capability factor of business actors as measured by their ability to use digital technology during business activities is also very important, business actors need to have the ability to create digital content to promote their business, need skills to design product menu features, design attractive business products to be displayed in the marketplace to attract buyers. Through the ability to adapt, business actors can optimize their resources to gain profits. (Liu, Yang, and Liu, 2021)(Eshima and Anderson, 2017). Digital Capability needs to be owned by every small business actor to seize opportunities from environmental changes and technology that develops all the time. The business environment tends to change dynamically along with the development of technology and information. Every business is required to be able to innovate and adapt to changes in the business climate (Nambisan *et al.*, 2017).

The significant positive effect of digital transformation on improving financial performance shows that it is important for small culinary businesses to improve their digital skills and knowledge in the development of new digital products to meet the needs of new customers. This finding is in line with the findings of Zhou et al. (2005), which states that technology orientation is beneficial for technology-based innovation. Given the importance of digital capabilities, small businesses should devote their resources to maximizing their capabilities by engaging in training, network expansion, having alliances, or entering into similar business associations by sharing knowledge from various sources. Digital capabilities can be built with skills, talents, knowledge, and experience related to managing digital technology. Therefore, culinary small businesses need to get attention and cooperation from various parties. They should also develop internal programs and digital skills development units to fill skills gaps. To retain and attract digitally capable consumers, Lewis et al. (2004) suggest that business actors must have the ability to provide new rewards that are following the digital culture of today's society. For policymakers, these findings indicate that government agencies should establish initiatives to improve the skills and skills of current small business actors through digital entrepreneurship training programs for prospective new entrepreneurs by providing an overview to them through digital education in primary schools or as early as possible. In addition, the government could consider more funding for the improvement of the digital skills of SMEs.

5. Conclusions

The findings of this research can provide benefits for culinary business actors in developing their business to improve business performance and survive during crisis conditions due to the COVID-19 pandemic by paying attention to aspects of digitalization. In addition, the results of this research can be a reference for parties related to the development of small businesses to maintain long-term business viability considering its contribution to the economy in terms of employment and reducing unemployment, so that it becomes a pillar of national economic recovery. It should be noted that to achieve digital transformation for small businesses, support from all parties is needed, both from the internal and external environment. The theoretical implication of the research is that these findings provide additional scientific perspectives in the field of small business management by integrating aspects of technology as a strategy to improve financial performance. This research has limitations, namely limitations in the culinary small business sector in the Surakarta area and its surroundings, so it is necessary to research the scope of business from other sectors with a wider area coverage. The minimum number of samples has not been able to describe the universal representation of the culinary business population. Therefore, it is recommended for future research, which is expected to be able to collect cross-sectoral data. It is necessary to deepen in reviewing information from business actors regarding constraints and challenges in aspects of production, marketing, and human resources to carry out digital transformation so that a more comprehensive discussion can be obtained.

Acknowledgements
The authors thank all respondents from selected small culinary businesses for their availability in sharing information and experiences, as well as conveying their obstacles and expectations so that the authors can input them into useful research suggestions for all parties related to the development of small businesses towards a digital business model.

References

Abdulquadri, A. 2021. Digital Transformation In Financial Services Provision: A Nigerian Perspective To The Adoption Of Chatbot. *Journal of Enterprising Communities*, 15(2), pp. 258–281. DOI: 10.1108/JEC-06-2020-0126.

Alam, M. M., Awawdeh, A. E. and Muhamad, A. I. Bin. 2021. Using E-Wallet For Business Process Development: Challenges And Prospects In Malaysia. *Business Process Management Journal*, 27(4), pp. 1142–1162. DOI: 10.1108/BPMJ-11-2020-0528.

Ali, S., W. Wu, and A. Sadaqat. 2021. Adaptive Marketing Capability And Product Innovations: The Role Of Market Ambidexterity And Transformational Leadership (Evidence From Pakistani Manufacturing Industry). *European Journal of Innovation Management*. DOI: 10.1108/EJIM-12-2020-0520.

Bharadwaj, A., Omar, and Paul. 2013. Digital Business Strategy: Toward A Next Generation Of Insights. *TMIS Quarterly* 37(2): 471–482. DOI: 10.1615/TelecomRadEng.v76.i10.20.

Carcary, M., E. Doherty, and G. Conway. 2016. A Dynamic Capability Approach To Digital Transformation: A Focus On Key Foundational Themes. *Proceedings of the European Conference on IS Management and Evaluation, ECIME*, pp. 20–28.

Eden, R. 2019. Digital Transformation Requires Workforce Transformation. *MIS Quarterly Executive*, 18(1), pp. 1–17. DOI: 10.17705/2msqe.00005.

Eshima, Y. and B. S. Anderson. 2017. Firm Growth, Adaptive Capability, And Entrepreneurial Orientation. *Strategic Management Journal*, 38(3), pp. 770–779. DOI:

10.1002/smj.2532.

Ghezzi, A. and Cavallo, A. 2020. Agile Business Model Innovation in Digital Entrepreneurship: Lean Startup Approaches. *Journal of Business Research*, 110(February 2017), pp. 519–537. DOI: 10.1016/j.jbusres.2018.06.013.

Gomez-Trujillo, A. M. and Gonzalez-Perez, M. A. 2020. What do we know about organizational sustainability and international business?. *Management of Environmental Quality: An International Journal*, 31(2), pp. 292–305. DOI: 10.1108/MEQ-08-2019-0173.

Gomez-Trujillo, A. M. and Gonzalez-Perez, M. A. 2021. Digital transformation as a strategy to reach sustainability. *Smart and Sustainable Built Environment*. DOI: 10.1108/SASBE-01-2021-0011.

Hansen, A. M., Kraemmergaard, P. and Mathiassen, L. 2011. Rapid adaptation in digital transformation: A participatory process for engaging is and business leaders. *MIS Quarterly Executive*, 10(4), pp. 175–185.

Hess, T. 2016. Options for Formulating a Digital Transformation Strategy. *MIS Q. Executive*, 15.

Hilali, W. El and Manouar, A. El. 2019. Towards a sustainable world through a SMART digital Customer experience Operational process Business model. *Conference on Networking, Information systems and Security, Rabat, Morocco, March 2019 (NISS 2019), 8*.

Hinings, B., Gegenhuber, T. and Greenwood, R. 2018. Digital innovation and transformation: An institutional perspective. *Information and Organization*, 28(1), pp. 52–61. DOI: 10.1016/j.infoandorg.2018.02.004.

Hsu, P. F., Ray, S. and Li-Hsieh, Y. Y. 2014. Examining cloud computing adoption intention, pricing mechanism, and deployment model. *International Journal of Information Management*, 34(4), pp. 474–488. DOI: 10.1016/j.ijinfomgt.2014.04.006.

Junge, A. L. 2019. Digital transformation technologies as an enabler for sustainable logistics and supply chain processes – an exploratory framework. *Brazilian Journal of Operations & Production Management*, 16(3), pp. 462–472. DOI: 10.14488/bjopm.2019.v16.n3.a9.

Khin, S. and Ho, T. C. F. 2019. Digital technology, digital capability and organizational performance: A mediating role of digital innovation. *International Journal of Innovation Science*, 11(2), pp. 177–195. DOI: 10.1108/IJIS-08-2018-0083.

Kostić, Z. 2018. Innovations and digital transformation as a competition catalyst. *Ekonomika*, 64(1), pp. 13–23. doi: 10.5937/ekonomika1801013k.

Kumar, R., Singh, R. K. and Dwivedi, Y. K. 2020. Application of industry 4.0 technologies in SMEs for ethical and sustainable operations: Analysis of challenges. *Journal of Cleaner Production*, 275, p. 124063. DOI: 10.1016/j.jclepro.2020.124063.

Li, L. 2018. Digital transformation by SME entrepreneurs: A capability perspective. *Information Systems Journal*, 28(6), pp. 1129–1157. DOI: 10.1111/isj.12153.

Liu, J., Yang, W. and Liu, W. 2021. Adaptive capacity configurations for the digital transformation: a fuzzy-set analysis of Chinese manufacturing firms. *Journal of Organizational Change Management*, 34(6), pp. 1222–1241. DOI: 10.1108/JOCM-02-2020-0043.

Lu, Y. 2017. Understanding the Link Between Information Technology Capability and Organizational Agility: An Empirical Exam. 35(4), pp. 931–954.

Martínez-Caro, E., Cegarra-Navarro, J. G. and Alfonso-Ruiz, F. J. 2020. Digital technologies and firm performance: The role of digital organizational culture. *Technological Forecasting and Social Change*, 154(June 2019), p. 119962. DOI: 10.1016/j.techfore.2020.119962.

Matarazzo, M. 2021. Digital transformation and customer value creation in Made in Italy SMEs: A dynamic capabilities perspective', *Journal of Business Research*, 123(October

2020), pp. 642–656. DOI: 10.1016/j.jbusres.2020.10.033.

Miroshnychenko, I. 2021. Absorptive capacity, strategic flexibility, and business model innovation: Empirical evidence from Italian SMEs. *Journal of Business Research*, 130(February 2019), pp. 670–682. DOI: 10.1016/j.jbusres.2020.02.015.

Nambisan, S. 2017. Digital innovation management: Reinventing innovation management research in a digital world. *MIS Quarterly: Management Information Systems*, 41(1), pp. 223–238. DOI: 10.25300/MISQ/2017/411.03.

Panchal, D. and Krishnamoorthy, B. 2019. Developing an Instrument for Business Model Dimensions: Exploring Linkages with Firm Competitiveness. *International Journal of Global Business and Competitiveness*, 14(1), pp. 24–41. DOI: 10.1007/s42943-019-00004-1.

Q, M. Y., and Risal, M. 2021. Jurnal Mantik Impact of MSME Effectiveness and Governance on MSME Performance (Case Study : Palopo Msme Post Covid 19). 5(6), pp. 867–873.

Rahmawati, L. 2020. Fintech Syariah: Manfaat Dan Problematika Penerapan Pada UMKM. *Jurnal Masharif al-Syariah: Jurnal Ekonomi dan Perbankan Syariah*, 5(1), pp. 83–84.

Sambamurthy, V., Bharadwaj, A. and Grover, V. 2003. Shaping Agility Through Digital Options: Information Technology In Contemporary Firms. *MIS Quarterly*, 27(2), pp. 237–263.

Setiowati, R. 2015. The effects of ICT adoption on marketing capabilities and business performance of Indonesian SMEs in the fashion industry. *Journal of Business and Retail Management Research*, 10(1), pp. 100–115.

Shashi. 2020. Agile supply chain management: where did it come from and where will it go in the era of digital transformation? *Industrial Marketing Management*, 90(November 2019), pp. 324–345. DOI: 10.1016/j.indmarman.2020.07.011.

Singh, S., Sharma, M. and Dhir, S. 2021. Modeling the effects of digital transformation in Indian manufacturing industry. *Technology in Society*, 67(September), p. 101763. DOI: 10.1016/j.techsoc.2021.101763.

Svahn, F., Mathiassen, L. and Lindgren, R. 2017. Embracing Digital Innovation in Incumbent Firms: How Volvo Cars Managed Competing Concerns. *MIS Q.*, 41, pp. 239–253.

Taiminen, H. M. and Karjaluoto, H. 2015. The usage of digital marketing channels in SMEs. *Journal of Small Business and Enterprise Development*, 22(4), pp. 633–651. DOI: 10.1108/JSBED-05-2013-0073.

Tavares, F. 2016. Capital structure determinants of hospitality sector SMEs. DOI: 10.5367/te.2015.0501.

Teece, D. J. 2016. Dynamic Capabilities. *The Palgrave Encyclopedia of Strategic Management*, 18(April 1991), pp. 1–9. DOI: 10.1057/978-1-349-94848-2_689-1.

Ueasangkomsate, P. 2015. Adoption E-Commerce for Export Market of Small and Medium Enterprises in Thailand. *Procedia - Social and Behavioral Sciences*, 207, pp. 111–120. DOI: 10.1016/j.sbspro.2015.10.158.

Ungerer, H. 2005. Competition in the media sector - How long can the future be delayed?. *Info*, 7(5), pp. 52–60. DOI: 10.1108/14636690510618284.

Verhoef, P. C. 2021. Digital transformation: A multidisciplinary reflection and research agenda. *Journal of Business Research*, 122(July 2018), pp. 889–901. DOI: 10.1016/j.jbusres.2019.09.022.

Zawislak, P. A. 2013. Influences of the Internal Capabilities of Firms on Their Innovation Performance: A Case Study Investigation in Brazil. *International Journal of Management*, 30(1), p. 329.