



RESILIENCE AND MINDSET AS DRIVERS OF DIGITAL ADAPTATION OF FOOD BUSINESS MSMEs IN GORONTALO CITY

KETAHANAN DAN POLA PIKIR SEBAGAI PENDORONG ADAPTASI DIGITAL USAHA UMKM MAKANAN DI KOTA GORONTALO

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DOI: <https://doi.org/10.62567/micjo.v3i2.2422>

Abstract

This study aims to examine the role of resilience and mindset on adaptive behavior among MSME managers in facing digital transformation in the food business sector in Gorontalo City. This research uses a quantitative approach with a survey method. Data collection was conducted using a questionnaire, with a total sample of 54 respondents. The data analysis technique applied was multiple linear regression analysis. The results show that (1) resilience has a positive and significant effect on adaptive behavior, (2) mindset has a positive and significant effect on adaptive behavior, and (3) resilience and mindset simultaneously have a positive and significant effect on adaptive behavior. Descriptive findings based on business type indicate that the highest levels of resilience and adaptive behavior are found in restaurant businesses, while relatively lower levels are observed in bakery and pastry industries. Based on business duration, entrepreneurs who have operated longer tend to demonstrate better adaptive capabilities compared to newer businesses. This study recommends enhancing digital literacy training, strengthening entrepreneurial mindset, and providing business mentoring programs to improve the adaptive capacity of MSMEs in facing digital transformation.

Keywords: Resilience, Mindset, Adaptive Behavior.

Abstrak

Penelitian Ini Bertujuan Untuk Mengetahui Peran Resiliensi Dan *Mindset* Terhadap Perilaku Adaptif Dalam Pengelola UMKM Dalam Menghadapi Transformasi Digital Pada Sektor Usaha Makanan Di Kota Gorontalo. Pendekatan dalam penelitian ini yakni kuantitatif dengan metode survei. Pengumpulan data dalam penelitian ini dilakukan dengan kuesioner. Adapun jumlah sampel sebanyak 54 orang. Analisis data dalam penelitian ini yakni Analisis Regresi Linear Berganda. Hasil penelitian menunjukkan bahwa (1) Resiliensi berpengaruh positif dan signifikan terhadap perilaku adaptif (2) Mindset berpengaruh positif dan signifikan terhadap perilaku adaptif (3) Resiliensi dan mindset secara simultan berpengaruh positif dan signifikan terhadap perilaku adaptif. Hasil deskriptif berdasarkan jenis usaha menunjukkan bahwa tingkat resiliensi dan perilaku adaptif paling dominan terdapat pada usaha restoran sedangkan nilai relatif lebih rendah ditemukan pada usaha industri roti dan kue. Berdasarkan lama usaha, pelaku usaha yang telah menjalankan usaha lebih lama cenderung menunjukkan kemampuan adaptasi yang lebih baik dibandingkan usaha yang masih relatif baru. Penelitian ini merekomendasikan peningkatan pelatihan literasi digital, penguatan pola pikir kewirausahaan, serta program pendampingan usaha untuk meningkatkan kemampuan adaptasi UMKM dalam menghadapi transformasi digital.



Kata Kunci: Resiliensi, *Mindset*, Perilaku Adaptif.

1. INTRODUCTION

The development of digital transformation has changed operational patterns and business competition, including in the Micro, Small, and Medium Enterprises (MSMEs) sector. Digitalization encourages businesses to adopt technology in marketing, transactions, and business management to remain competitive. Indonesia has had a significant impact in the digital economy era, as evidenced by the large number of digital startups, making it a leading country in Southeast Asia in the development of digital companies. This will have a significant impact on the economic sector if accompanied by increased societal adaptation to the digital era (Latifah, 2020). However, amidst rapid digitalization, MSMEs face significant challenges in adapting to changing consumer behavior, which increasingly relies on technology in the purchasing and consumption processes (Taufik et al., 2024). Utilizing digital technology, resulting in low operational efficiency and business competitiveness. This condition demonstrates the urgency of understanding the factors that influence the adaptability of MSMEs in facing digital transformation. MSMEs that are able to integrate technology into their business operations, such as utilizing social media for marketing, using e-commerce platforms, and improving digital-based customer service, have a greater chance of survival and growth. However, not all MSMEs are prepared and have sufficient resources to undertake this transformation, making effective adaptation strategies crucial (Permana et al., 2025).

Micro, small, and medium enterprises (MSMEs) are part of the Indonesian economy and play a significant role in improving public welfare. These roles include expanding employment opportunities and absorbing labor, increasing domestic product (GDP), and driving productive economic activity. In today's digital era, MSMEs face various challenges to survive and compete with other businesses. MSMEs are required to adopt digital technology to accelerate economic growth. Digital technology opens up opportunities for MSMEs to grow and develop (Nurbayti, 2024).

Most food MSMEs in Gorontalo have not fully adopted digital technology in their business activities, such as online marketing, digital financial records, or utilizing e-commerce platforms. These obstacles are not only caused by technical or financial factors, but also by psychological factors, such as low resilience when facing new challenges, and a mindset that is not yet open to the importance of innovation and technology (Marsanti Halid, 2025).

Table 1. Profile of MSMEs in the Food Sub-Sector in Gorontalo City in 2025

Profile of MSMEs in the Food Business Sector	Amount
Total Labor	1085
Total Investment Value	16.022.200.000
Total MSMEs in the Food Business Sector	601 unit
Number of MSMEs with Investment Value >50,000,000	54 unit

Source: DPMPSTSP Gorontalo City (2025)

Based on the data above, the food MSME sector in Gorontalo City is one of the most active sub-sectors and has the potential to support regional economic growth. There are approximately 601 business units in this sector, consisting of 597 micro-scale businesses and 4 small-scale businesses. Of these, 583 are categorized as low-risk, and 17 as medium-low risk.

Table 3. MSME Sales Activity Profile in Gorontalo City Based on Technology Adaptation

Name of MSME	Address	Types of Technology Adopted
Rm Geprek Anugrah	Jl, Madura Kecamatan Kota Tengah Kelurahan Liluwo	Payment By (Qris) App-based digital technology (Maxim)
Jalang Kote	JL, Durian Kecamatan	Payment By (Qris)



Manalagi	Kota Tengah Kelurahan Dulalowo	Marketplace (Shopee) App-based digital technology (Maxim)
Rumah durian Gorontalo	Jl, Durian kecamatan Dungigi kel Tomulabutao Selatan	Payment By (Qris) Market place (shopee food,grab)
Buido Coffe Shop	Jl, Ahmad Najamudin, Limba U 2 Kota Selatan	Payment By (Qris) Applications (Instagram, TikTok, WhatsApp) Application-based digital technology (Maxim)
House of Vito	Jl, Wolter Monginsidi Kota Selatan Kelurahan Biawo	Payment By (Qris) Market place (shopee food,grab)
River Side Coffe	Jl. Yosudarso Kelurahan Tenda Kecamatan Hulonthalangi	Payment By (Qris) App-based digital technology (Maxim) Marketplace (Grab)
Sales Value		> Rp. 1.000.000

Source: Gorontalo City field survey 2025

Tabel 3. Profil Aktivitas Penjualan UMKM Di Kota Gorontalo Berdasarkan Pengelolaan Manual

Nama UMKM	Alamat
Fitela Gorontalo	Jalan Taman Surya, Kota Timur Heledulaa Utara
Selangkah Café	Jl, Yosudarso Hulonthalangi Kelurahan Tenda
Rm Sudi Pe Warong	Jl, Tribata Kota Timur Kelurahan Ipilo
Rumah Makan Pink	Jl Sultan Botutihe, Nomor 36 Moodu Kecamatan Kota Timur
Rumah Makan Maharani	Jl Yosudarso Nomor 220 Tenda Kecamatan Hulonthalangi
Teras Maharani	Jl Yosudarso Nomor 220 Tenda Kecamatan Hulonthalangi
Kedai Ninang	Jl Gunung Tilongkabila Kota Selatan Biawu
Nasi Kuning Ta Lin	Jl. Prof. Dr. H. Hasan Abas Nusi
Nasi Kuning Tante Nova	Jl. Gunung Rinjani, Hulonthalangi. Siendeng
Warung Makan Agustin	Jl. Dahlia Hulonthalangi. Tenda
Nilai Penjualan	< Rp. 1.000.000

Sumber: survey lapangan Kota Gorontalo 2025

Based on observations of several food-based MSMEs in Gorontalo City, two main groups of business actors were identified: those that have adopted digital technology and those that still operate manually. This difference indicates varying levels of readiness and adaptability in facing digital transformation. MSMEs that have adopted technology generally utilize digital payments such as QRIS, marketplace platforms like Shopee Food and GrabFood, and social media like Instagram and TikTok for promotions. Some also utilize delivery services to support product distribution. This use of technology results in faster transaction processes, broader marketing, and more efficient operations.



The main problem in this study lies in the low adaptive behavior of MSME managers in responding to digital change, as evidenced by delays in technology adoption, limited innovation, and unpreparedness in adapting business models. Based on these conditions, the research questions are formulated as follows: does resilience influence the adaptive behavior of MSME managers, does mindset influence adaptive behavior, and does resilience and mindset simultaneously influence adaptive behavior in the face of digital transformation. This issue is important to examine because the success of digital transformation is determined not only by technological factors but also by the individual psychological factors of business managers.

This study aims to analyze the influence of resilience and mindset on the adaptive behavior of MSME managers in the food sector in Gorontalo City, both partially and simultaneously. The approach used focuses on how resilience and individual mindset can foster readiness and adaptability to technological change. Thus, this study is expected to provide an empirical overview of the internal factors influencing the success of digital transformation in MSMEs.

Theoretically, this research is relevant to the development of management science, particularly in the study of organizational behavior and digital-based entrepreneurship. There is a research gap in previous studies that tend to examine resilience and mindset separately, focusing more on business performance or digital readiness, rather than on adaptive behavior as a concrete response to change. This study fills this gap by integrating both psychological variables into a single analytical model to explain the adaptive behavior of MSMEs. Furthermore, a contextual contribution is provided by focusing on MSMEs in the food sector in Gorontalo City, resulting in a more specific understanding of the dynamics of digital adaptation in developing regions.

2. RESEARCH METHOD

This research uses a quantitative approach. According to Sugiyono (2019), quantitative research methods can be defined as research methods based on the philosophy of positivism, where positivism is the only valid knowledge, and historical facts are possible objects of knowledge. This method is used to research specific populations or samples. Data collection utilizes research instruments, and data analysis is quantitative/descriptive. The focus of this research is MSME managers in the food sector in Gorontalo City. Subjects were selected based on the criteria of active business actors who directly run their businesses and are involved in operational processes, whether or not they have adopted digital technology. The sample size was 54 respondents, representing the characteristics of MSMEs in this sector.

Data collection was conducted using a structured questionnaire distributed to respondents. The research instrument was designed to measure resilience, mindset, and adaptive behavior using a rating scale. Furthermore, supporting data was obtained through field observations to assess the actual implementation of digital technology in MSMEs.

The data analysis technique used multiple linear regression analysis to examine the effect of each independent variable on the dependent variable, both partially and simultaneously. Prior to the main analysis, the data were tested through validity, reliability, and classical assumption tests to ensure the model's feasibility. The analysis results were then used to draw conclusions regarding the relationship between resilience, mindset, and adaptive behavior in the face of digital transformation.

3. RESULT AND DISCUSSION

a) Validity Test

Summary

Table 1. Results of the validity test for variable X1



Resiliensi (X1)			
Question Items	r- Count	r-table	Information
Emotion regulation			
Question 1	0.320	0.263	Valid
Question 2	0.321	0.263	Valid
Question 3	0.272	0.263	Valid
Impulse control			
Question 4	0.305	0.263	Valid
Question 5	0.263	0.263	Valid
Question 6	0.367	0.263	Valid
Optism			
Question 7	0.308	0.263	Valid
Question 8	0.289	0.263	Valid
Question 9	0.268	0.263	Valid
Personal Resilience			
Question 10	0.267	0.263	Valid
Question 11	0.361	0.263	Valid
Question 12	0.363	0.263	Valid
Caregiver/support			
Question 13	0.326	0.263	Valid
Question 14	0.289	0.263	Valid
Question 15	0.353	0.263	Valid
Negotiation skills			
Question 16	0.294	0.263	Valid
Question 17	0.265	0.263	Valid
Question 18	0.271	0.263	Valid

Source: data processed by SPSS 22 in 2022

Based on the table above, it can be seen that the results of processing the Resilience variable (X1) data using the SPSS22 program show that all calculated r values are greater than the table r values. Therefore, it can be concluded that all statements regarding the Resilience variable (X1) are valid and can be used for research data collection.

Table 2. Results of the validity test for variable X2

Mindset (X2)			
Question Items	r- Count	r-table	Information
View of one's abilities			
Question 1	0.331	0.263	Valid
Question 2	0.364	0.263	Valid
Question 3	0.293	0.263	Valid
Question 4	0.325	0.263	Valid
Response to challenges			
Question 5	0.506	0.263	Valid
Question 6	0.456	0.263	Valid
Question 7	0.312	0.263	Valid
Question 8	0.272	0.263	Valid



Attitude towards business			
Question 9	0.464	0.263	Valid
Question 10	0.317	0.263	Valid
Question 11	0.300	0.263	Valid
Question 12	0.305	0.263	Valid
Response to failure and criticism			
Question 13	0.316	0.263	Valid
Question 14	0.306	0.263	Valid
Question 15	0.270	0.263	Valid
Question 16	0.289	0.263	Valid

Source: data processed by SPSS 22 in 2022

Based on the table above, it can be seen that the results of processing the mindset variable (X2) data using the SPSS22 program show that all calculated r values are greater than the table r values. Therefore, it can be concluded that all statements regarding the mindset variable (X2) are valid and can be used for research data collection.

Table 3. Results of the validity test for variable Y

Adaptive behavior (Y)			
Question Items	r- Count	r-table	Information
(conceptual Skills)			
Question 1	0.379	0.263	Valid
Question 2	0.339	0.263	Valid
Question 3	0.360	0.263	Valid
Question 4	0.402	0.263	Valid
Question 5	0.296	0.263	Valid
Question 6	0.278	0.263	Valid
Question 7	0.363	0.263	Valid
(social Skills)			
Question 8	0.320	0.263	Valid
Question 9	0.258	0.263	Valid
Question 10	0.319	0.263	Valid
Question 11	0.267	0.263	Valid
Question 12	0.322	0.263	Valid
Question 13	0.324	0.263	Valid
Question 14	0.311	0.263	Valid
(practical Skills)			
Question 15	0.305	0.263	Valid
Question 16	0.290	0.263	Valid
Question 17	0.375	0.263	Valid
Question 18	0.387	0.263	Valid
Question 19	0.358	0.263	Valid
Question 20	0.350	0.263	Valid
Question 21	0.279	0.263	Valid

Source: data processed by SPSS 22 in 2022

Based on the table above, it can be seen that the results of data processing for the adaptive behavior variable (Y) using SPSS22 show that all calculated r-values are greater than the table r-values. Therefore, it can be concluded that all statements in the adaptive behavior variable (Y) are valid and can be used for research data collection.

b) Reliability Test



The purpose of a reliability test is to measure a questionnaire that is part of a variable indicator and to determine whether the related instrument can be used to collect data. A questionnaire is considered reliable if the Cronbach's alpha value is > 0.6 , and unreliable if the Cronbach's alpha value is < 0.6 .

Table 4. Reliability Test Results

No	Variable	Question items	Cronch's Alpha	Cut Off	Information
1	Resiliensi	18	0.868	0.6	Reliable
2	Mindset	16	0.785	0.6	Reliable
3	Adaptive behavior	21	0.923	0.6	Reliable

Source: Data processed using SPSS 22, 2022

Based on the table above, it can be seen that all variables have a relatively large alpha coefficient, exceeding 0.6. The Resilience variable (X1) has a Cronbach's Alpha value of 0.868, the Mindset variable (X2) has a Cronbach's Alpha value of 0.785, and the Adaptive Behavior variable (Y) has a Cronbach's Alpha value of 0.923. Therefore, it can be concluded that all statements in each variable are reliable and can be used for research data collection.

c) Descriptive Statistical Analysis

One of the analyses used is descriptive statistical analysis, with the aim of describing the data through all variables to be included in a research model. The data obtained were the results of respondents' answers regarding variables X1, X2, and Y, namely Resilience, Mindset, and Adaptive Behavior, shared among MSMEs in Gorontalo City registered with the NIB and the focus of this study. The results of the descriptive analysis in this study align with respondents' answers in the research questionnaire, which is divided as follows.

Table 5. Results of Descriptive Statistical Analysis

Variable	Mean	Std. Deviation
Resiliensi	51.48	7.515
Mindset	47.65	7.310
Adaptive behavior	61.52	9.566

Source: data processed by SPSS 30 in 2025

Based on the table above, it can be seen that the Resilience, Mindset, and Adaptive Behavior variables have standard deviations smaller than the mean. This concludes that all variables have a relatively small data distribution compared to the mean, thus the data tends to be homogeneous.

Table 6. Descriptive Analysis of the Resilience Variable (X1) Based on Business Type

No	Type of business	STS	TS	RG	ST	SS	N	Skor	Mean	TCR (%)	Inf
1	House/Eat Stall	1	2	3	4	2	12	40	3,33	66,6	Good
2	Bread and Cake Industry	1	2	2	1	1	7	20	2,86	57,2	Good
3	Food Stall	1	2	2	1	1	7	20	2,86	57,2	Good
4	Restaurant	0	1	1	2	1	5	18	3,6	72	Good
5	Wholesale Food and Beverage Trade	0	2	2	2	1	7	23	3,29	65,8	Good
6	Food and Beverage	1	3	5	4	3	16	53	3,31	66,2	Good



Processing Industry										
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Source: (DPMPTSP) Gorontalo City 2025

Tabel The table shows a descriptive analysis of the Resilience variable based on the type of MSME food sector business in Gorontalo City. Overall, all business types are categorized as good. This is evident from the TCR values, which are all above 57%. The mean values show differences in resilience levels across business types. The highest resilience is found in restaurants, with a mean of 3.60 and a TCR of 72%. This figure indicates that restaurant businesses have the strongest ability to survive and adapt compared to other business types. This is likely because restaurants typically have more complex operational experience, more systematic management, and high competitive demands, which encourage greater resilience.

Resilience is also categorized as high in restaurants, with a mean of 3.33 (TCR 66.6%), and in the food and beverage processing industry, with a mean of 3.31 (TCR 66.2%). Both types of businesses demonstrate good adaptability to changes in the business environment, including changes in market demand and the use of technology. Meanwhile, the lowest Resilience scores were found in the bakery and cake industry and food stalls, each with a mean of 2.86 and a TCR of 57.2%. Although still in the good category, this score is the lowest compared to other business types. This indicates that businesses in this category are relatively more vulnerable to changes in the business environment and still need to improve their adaptability and resilience.

Overall, these results indicate that the resilience of MSMEs in the food sector is considered good, but there are still gaps between business types. This difference indicates that not all businesses have the same ability to survive and adapt to business dynamics and digital transformation.

Table 7. Descriptive Analysis of Mindset Variables (X2) by Business Type

No	Type of business	STS	TS	RG	ST	SS	N	Skor	Mean	TCR (%)	Inf
1	House/Eat Stall	0	1	3	5	3	12	46	3,83	76,6	Good
2	Bread and Cake Industry	1	1	2	2	1	7	22	3,14	62,8	Good
3	Food Stall	1	2	2	1	1	7	20	2,86	57,2	Good
4	Restaurant	0	0	2	2	1	5	19	3,8	76	Good
5	Wholesale Food and Beverage Trade	0	1	2	3	1	7	25	3,57	71,4	Good
6	Food and Beverage Processing Industry	1	2	3	6	4	16	58	3,63	72,6	Good

Source: (DPMPTSP) Gorontalo City 2025

The table above shows a descriptive analysis of variables based on the type of MSME business in the food sector in Gorontalo City. All business types are in the good category, with TCR values above 57%. These results indicate that MSMEs have a fairly positive mindset in facing business change and development. The highest score is found in restaurants/food stalls with a mean of 3.83 and a TCR of 76.6%. This result indicates that businesses in this category have the most open mindset to change, learning, and business innovation. This high score may be influenced by the business's proximity to everyday consumers, allowing them to adapt more quickly to market needs.

Restaurants ranked second with a mean of 3.80 and a TCR of 76%. This indicates that restaurant businesses have a strong business development orientation and are prepared to face dynamic business challenges. Furthermore, the food and beverage processing industry had a mean of 3.63 (TCR 72.6%),



and the food and beverage wholesale industry had a mean of 3.57 (TCR 71.4%). These two types of businesses demonstrate a positive mindset for business development, particularly in terms of product innovation and adaptation to changes in the business environment. The lowest mindset score was found in food stalls with a mean of 2.86 (TCR 57.2%).

Meanwhile, the bakery and cake industry had a mean of 3.14 (TCR 62.8%). Although still in the good category, these results indicate that the mindset of entrepreneurs in these two categories is relatively lower than that of other business types. This situation indicates the need to improve their growth mindset, particularly in the utilization of technology and readiness for digital transformation.

Overall, these results indicate that MSMEs are performing well, but there is still variation between business types, indicating differences in readiness to face changes in the business environment.

Table 8. Descriptive Analysis of Adaptive Behavior Variables (Y) by Business Type

No	Type of business	STS	TS	RG	ST	SS	N	Skor	Mean	TCR (%)	Inf
1	House/Eat Stall	0	2	2	5	3	12	45	3,75	75	Good
2	Bread and Cake Industry	1	1	2	2	1	7	22	3,14	62,8	Good
3	Food Stall	1	2	2	1	1	7	20	2,86	57,2	Good
4	Restaurant	0	0	1	3	1	5	20	4	80	Very Good
5	Wholesale Food and Beverage Trade	0	1	2	3	1	7	25	3,57	71,4	Good
6	Food and Beverage Processing Industry	1	1	4	6	4	16	59	3,69	73,8	Good

Source: (DPMPTSP) Gorontalo City 2025

The table presents a descriptive analysis of adaptive behavior variables based on the type of MSME businesses in the food sector in Gorontalo City. In general, all types of businesses fall into the “good” category, with one type reaching the “very good” category. These results indicate that MSME actors have been able to adapt to changes in the business environment.

The highest adaptive behavior is found in restaurant businesses, with a mean of 4.00 and a TCR of 80%, placing it in the “very good” category. This result indicates that restaurant entrepreneurs have the strongest ability to adjust strategies, business processes, and working methods in response to market changes and technological developments. This high value aligns with the more dynamic competition in the restaurant industry, which encourages business actors to adapt more quickly.

The next highest values are found in food stalls/small eateries, with a mean of 3.75 (TCR 75%), and processed food and beverage industries, with a mean of 3.69 (TCR 73.8%). Both types of businesses demonstrate good adaptive capabilities in adjusting products, services, and marketing methods. Furthermore, wholesale food and beverage trade has a mean of 3.57 (TCR 71.4%), also indicating good adaptive behavior. The lowest adaptive behavior is found in food kiosks, with a mean of 2.86 (TCR 57.2%), followed by the bakery and cake industry, with a mean of 3.14 (TCR 62.8%).

Although still within the “good” category, these results indicate that the adaptive capacity of these two types of businesses is relatively lower compared to others. This condition highlights the need to improve their ability to respond to market changes and utilize digital technology. Overall, these findings confirm that most MSME actors have demonstrated good adaptive behavior. However, there are still gaps among different types of businesses, indicating that efforts to enhance adaptive capacity remain necessary.



Based on the descriptive analysis by type of business, a consistent pattern can be observed among resilience, mindset, and adaptive behavior of MSME actors in the food sector in Gorontalo City. In general, business types with higher resilience and mindset tend to exhibit higher adaptive behavior. This pattern is clearly seen in restaurant businesses, which show the highest values across all three variables. Resilience has a mean of 3.60, mindset 3.80, and adaptive behavior 4.00, all categorized as “very good.” These findings indicate that restaurant entrepreneurs possess stronger resilience, a growth mindset, and better adaptability in adjusting business strategies compared to other business types. This condition reflects a strong alignment among the research variables—when business actors have resilience and a growth mindset, their adaptive capacity also increases.

Food stalls or small eateries show a similar pattern, with mindset having the highest value at 3.83, resilience at 3.33, and adaptive behavior at 3.75. These results indicate that an open mindset toward change plays an important role in enhancing business adaptability. Business actors with a growth mindset tend to respond more quickly to market and technological changes. The processed food and beverage industry also shows relatively high and stable values across all three variables, with resilience at 3.31, mindset at 3.63, and adaptive behavior at 3.69. This pattern suggests that resilience and mental readiness support the ability of businesses to adjust products and marketing strategies. Wholesale food and beverage trade also demonstrates consistent results, with all three variables in the “good” category, indicating readiness to face changes in the business environment.

In contrast, food kiosks and the bakery and cake industry show the lowest values across all three variables. These types of businesses have lower resilience and mindset, which is followed by lower adaptive behavior. These findings indicate that lower resilience and a less developed mindset negatively affect the ability of businesses to adapt to change.

Overall, these results strengthen the research findings that resilience and mindset are important factors in shaping the adaptive behavior of MSME actors. The higher the resilience and mindset of business actors, the greater their ability to adapt to changes and digital transformation.

Table 9. Descriptive Statistics of the Resilience Variable (X1) Based on Business Duration

No	Length of business	STS	TS	RG	ST	SS	N	Skor	Mean	TCR (%)	Inf
1	5 years	1	2	3	3	1	10	31	3,1	62	Good
2	7 years	1	2	3	4	1	11	35	3,18	63,6	Good
3	8 years	1	3	4	4	2	14	45	3,21	64,2	Good
4	10 years	0	3	4	6	3	16	57	3,56	71,2	Good
5	11 years	0	0	1	1	1	3	9	3	60	Good

Source: (DPMPTSP) Gorontalo City 2025

The table shows a descriptive analysis of the Resilience variable based on the length of operation of MSMEs in the food sector in Gorontalo City. All business age groups are in the good category, with a TCR value above 60%. The highest resilience was found in businesses with a 10-year history, with a mean of 3.56 and a TCR of 71.2%. These results indicate that long business experience plays a role in developing resilience, preparedness for risks, and the ability to navigate changes in the business environment. Businesses that have navigated various business dynamics tend to have more mature experience in managing their businesses. Businesses with an 8-year history had a mean of 3.21 (TCR 64.2%), followed by businesses with a 7-year history with a mean of 3.18 (TCR 63.6%), and businesses with a 5-year history with a mean of 3.10 (TCR 62%). This pattern suggests that as business experience increases, resilience begins to develop and develop gradually.

The lowest resilience score was found in businesses with an 11-year history, with a mean of 3.00 (TCR 60%). These findings should be viewed with caution because the number of respondents in this group is smaller than the other groups. Differences in the number of respondents can affect the stability of the average score. Therefore, these results do not indicate that longer business experience leads to lower resilience, but rather indicate variation in responses across smaller respondent groups.



Overall, these results confirm that business experience plays a role in shaping the resilience of MSMEs. Longer experience tends to be accompanied by greater resilience, although this is still influenced by the entrepreneur's ability to innovate and adapt to change.

Table 10. Descriptive Mindset Variable (X2) Based on Business Length

No	Length of business	STS	TS	RG	ST	SS	N	Skor	Mean	TCR (%)	Inf
1	5 years	1	1	3	4	1	10	33	3,3	66	Good
2	7 years	1	1	3	4	2	11	38	3,45	69	Good
3	8 years	0	2	4	5	3	14	51	3,64	72,8	Good
4	10 years	0	2	3	7	4	16	61	3,81	76,2	Good
5	11 years	0	0	1	1	1	3	9	3	60	Good

Source: (DPMPTSP) Gorontalo City 2025

Tabel The table shows a descriptive analysis of mindset variables based on the length of time in the food sector of MSMEs in Gorontalo City. All business tenure groups were in the good category, with TCR values ranging from 60% to 76.2%. The highest mindset was found in businesses with a 10-year history, with a mean of 3.81 and a TCR of 76.2%. These results indicate that long business experience plays a role in developing a mindset that is more open to change, more ready to learn, and more ready to innovate.

The 8-year business group had a mean of 3.64 (TCR 72.8%), followed by 7-year businesses with a mean of 3.45 (TCR 69%), and 5-year businesses with a mean of 3.30 (TCR 66%). This pattern suggests that as business experience increases, entrepreneurs' mindsets evolve and they become more prepared to face changes in the business environment. The lowest mindset scores were found in businesses with a 11-year history, with a mean of 3.00 (TCR 60%).

These findings should be viewed with caution, as the number of respondents in this group is smaller than the other groups. Differences in the number of respondents can affect the stability of the average score. Therefore, these results do not indicate that longer business experience leads to a decline in mindset, but rather indicate variation in responses across smaller groups of respondents. Overall, these results confirm that business experience plays a role in shaping the mindset of MSMEs. The longer business experience, the stronger the tendency for a developing mindset, but it is still influenced by the entrepreneur's readiness to accept change and innovation.

Table 11. Descriptive Variables of Adaptive Behavior (Y) Based on Business Length

No	Length of Business	STS	TS	RG	ST	SS	N	Skor	Mean	TCR (%)	Inf
1	5 years	1	2	3	3	1	10	31	3,1	62	Good
2	7 years	1	1	3	4	2	11	38	3,45	69	Good
3	8 years	0	2	3	6	3	14	52	3,71	74,2	Good
4	10 years	0	1	4	7	4	16	62	3,87	77,4	Good
5	11 years	0	0	1	1	1	3	9	3	60	Good

Source: (DPMPTSP) Gorontalo City 2025

The descriptive results indicate that the adaptive behavior of MSME actors in the food sector, based on business duration, falls within the "good" category, with TCR values ranging from 60% to 77.4%. The highest adaptive behavior is found in businesses operating for 10 years, with a mean of 3.87 and a TCR of 77.4%. This result suggests that longer business experience plays an important role in shaping the ability to adapt to market changes, technological developments, and business competition.

The group with 8 years of business experience has a mean of 3.71 (TCR 74.2%), followed by 7 years with a mean of 3.45 (TCR 69%), and 5 years with a mean of 3.10 (TCR 62%). This pattern indicates that adaptive capacity develops alongside increasing business experience.

The lowest adaptive behavior is found in businesses operating for 11 years, with a mean of 3.00 (TCR 60%). However, this finding should be interpreted with caution, as the number of respondents in the 11-year group is the smallest compared to other groups. Differences in sample size can affect the



stability of the mean values, meaning the result cannot be interpreted as a decline in capability due to longer business duration. Instead, it reflects variation in responses within a smaller respondent group.

Overall, these findings confirm that business experience plays an important role in shaping the adaptive behavior of MSME actors. The more mature the business experience, the greater the tendency for improved adaptive capacity, although it is still influenced by the readiness of business actors to embrace change and innovation.

Based on the descriptive analysis by business duration, a consistent relationship pattern is observed among resilience, mindset, and adaptive behavior of MSME actors in the food sector in Gorontalo City. The group with 10 years of business experience shows the highest values across all three variables. Resilience has a mean of 3.56, mindset 3.81, and adaptive behavior 3.87. This finding indicates that longer business experience contributes to stronger resilience, a growth mindset, and better adaptive capabilities. Experience in dealing with market changes, competition, and technological developments enables business actors to make better decisions and implement innovations.

The 8-year group also shows relatively high and consistent values, with resilience at 3.21, mindset at 3.64, and adaptive behavior at 3.71. This suggests that business actors who have passed the initial phase of their business begin to develop stronger resilience and mental readiness in facing business dynamics. The 7-year group shows stable values across all variables, with resilience at 3.18, mindset at 3.45, and adaptive behavior at 3.45, indicating that business experience has started to shape both mindset and adaptability.

The 5-year group has lower values compared to the previous groups, with resilience at 3.10, mindset at 3.30, and adaptive behavior at 3.10. This finding indicates that business actors at this stage are still in the phase of strengthening experience and developing adaptive capabilities. Meanwhile, the 11-year group shows the lowest values across all variables, each with a mean of 3.00. However, this result must be interpreted based on the distribution of respondents. The 10-year group has the largest number of respondents, while the 11-year group has fewer respondents, making the average values more sensitive to individual response variation and appearing lower. Therefore, this result cannot be interpreted as a decline in capability due to longer business duration.

The overall data actually show a consistent increasing pattern from the 5-year to the 10-year group. This strengthens the conclusion that business experience plays a significant role in shaping resilience, mindset, and adaptive behavior among MSME actors. The values in the 11-year group are better understood as variations due to a smaller sample size. These findings also highlight that business experience must be accompanied by continuous learning and innovation to ensure that adaptive capacity continues to develop.

a) Normality Test

The normality test aims to determine whether the data used in the analysis are normally distributed or not. This study uses the Probability Plot (P-Plot) testing model, with the criterion that if the data points are distributed around the diagonal line, the data are considered normally distributed. The results of the normality test using SPSS are as follows:

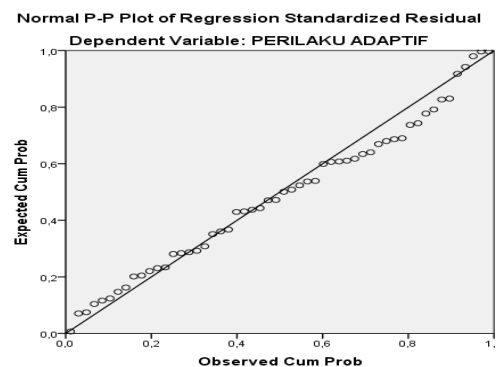


Figure 1. Normality Test Results



Based on Figure 4.1, it can be seen that the influence of the Resilience and Adaptive Behavior variables shows a normal distribution, with the data spread around the diagonal line. This indicates that the data is normally distributed and can be tested further.

b) Multicollinearity Test

The purpose of the multicollinearity test is to determine whether there is a correlation between the independent variables in the regression model. To determine the presence or absence of multicollinearity in the regression model, the Tolerance and VIF values can be examined. If the Tolerance value is >0.1 or the VIF value is <10, it can be concluded that there is no multicollinearity.

Table 12. Results of multicollinearity test

Model	Variable	Tolerance	VIF	Results
X1 > Y	Resiliensi	0.977	1.023	There is no multicollinearity
X2 > Y	Mindset	0.977	1.023	There is no multicollinearity

Source: Data processed using SPSS 22, 2022

According to the table above, the Tolerance value for both variables is above 0.1, and the VIF value is less than 10. Therefore, it can be concluded that the two independent variables do not experience multicollinearity.

c) Heteroscedasticity Test

The heteroscedasticity test aims to determine whether the regression model exhibits unequal variances from one observation to another. Heteroscedasticity can be seen through a scatterplot graph, where the residual points are randomly distributed, either above or below 0 on the Y-axis (Regression Studentized Residual), and do not form a specific pattern. Therefore, it can be concluded that heteroscedasticity does not occur in this regression model.

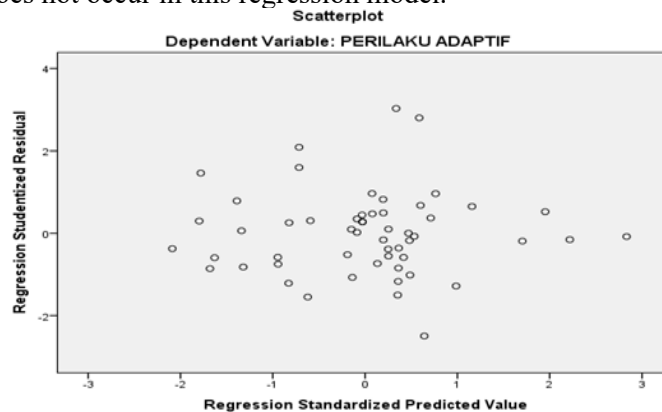


Figure 2. Heteroscedasticity Test Results

As shown in the figure above, the scatterplot points are randomly distributed above and below the 0 mark on the Y-axis, and do not form a clear pattern (e.g., narrowing or widening).

d) t-Test

The t-test is a test of individual partial regression coefficients used to determine whether the independent variables (X1, X2) individually influence the dependent variable (Y). Hypothesis testing for the t-test is conducted to determine the partial influence of the independent variables (resilience and mindset) on the dependent variable (adaptive behavior). The t-test is calculated using a 95% confidence level, or α equal to 5% (0.05). This aligns with the 5% margin of error for sampling.

Table 13. Partial Test (t-Test)

Model	Variable	T-value	Table t values	Sig value.	Alpha value
X1 > Y	Resiliensi	7,323	2,00758	0,000	0,05
X2 > Y	Mindset	3,475	2,00758	0,001	0,05



Source: Data processed using SPSS 22, 2022

According to the table above, the Resilience variable (X1) has a calculated t-value of 7.323, while the t-table value is 2.00758, with a significance level of 0.000 and an alpha value of 0.05. This indicates that the calculated t-value (7.323) is greater than the t-table value (2.00758), and the significance value (0.000) is less than the alpha value (0.05). Therefore, it can be concluded that Resilience has a positive and significant effect on Adaptive Behavior, thus accepting H1. Furthermore, the Mindset variable (X2) has a calculated t-value of 3.475, while the t-table value is 2.00758, with a significance level of 0.001 and an alpha value of 0.05.

This indicates that the calculated t-value (3.475) is greater than the t-table (2.00758), and the significance value (0.001) is less than the alpha value (0.05). Therefore, it can be concluded that Mindset has a positive and significant effect on Adaptive Behavior, thus accepting H2. To determine the t-table value, the researcher used a significance level of $\alpha = 5\%$ with degrees of freedom (df) corresponding to the number of research samples. This was obtained through calculations using SPSS, resulting in a t-table value of 2.00758.

e) Simultaneous Test (F-Test)

The Simultaneous Test (F-Test) is a statistical method used to test the combined or simultaneous effect of all independent variables on the dependent variable in a regression model. According to Ghozali (2016), the F-test aims to determine whether the independent variables simultaneously have a significant effect on the dependent variable.

Table 14. Simultaneous Test (F-Test)

Model	Sum of squares	DF	Mean square	F	Sig
Regression	2887.973	2	1443.986	37.554	0.00
Residual	1961.509	51	38.461		
Total	4849.481	53			

Source: Data processed using SPSS 22, 2022

According to the table above, the results of the simultaneous test (F test) show that the calculated F value is 37.554 with a significance level of 0.000. Meanwhile, the F table value at a significance level of $\alpha = 0.05$ with degrees of freedom ($df_1 = 2$ and $df_2 = 51$) is 3.18. These results indicate that the calculated F value (37.554) is greater than the F table value (3.18), and the significance value (0.000) is less than the alpha value (0.05). Therefore, it can be concluded that the Resilience and Mindset variables simultaneously have a positive and significant effect on Adaptive Behavior, thus accepting H3 and rejecting H0. To determine the F table value, the researcher used a significance level of $\alpha = 5\%$ (0.05) with degrees of freedom adjusted for the number of research samples. This was calculated using SPSS, resulting in an F table value of 3.18.

f) Coefficient of Determination Test

The coefficient of determination test aims to measure the model's ability to explain variation in the dependent variable. The coefficient of determination value is between zero and one. The coefficient of determination is a measure of the fit or accuracy between the estimated value or regression line and the sample data. The coefficient of determination can also be interpreted as the ability of the X (independent) variable to influence the Y (dependent) variable.

Table 15. Coefficient of Determination Test

Model	R	R Square	Adjusted R Square	Std. Error of the estimate
1	0.772	0.596	0.580	6.202

Source: Data processed using SPSS 22, 2022



The table above shows that the research results show an R value of 0.772. The R-squared value of 0.596 indicates that the effective contribution of the Resilience (X1) and Mindset (X2) variables to Adaptive Behavior (Y) is 59.6%. The remaining 40.4% is influenced by factors outside this research model that were not examined by the author.

g) Multiple linear regression analysis

Multiple linear regression analysis is used to determine the partial (t-test) and simultaneous (F-test) effects of independent variables on the dependent variable.

Table 16. Multiple Linear Regression Test

Model	Regression Coefficient Value
Konstanta	-1,227
Resiliensi	0.840
Mindset	0.410

Source: Data processed using SPSS 22, 2022

According to the table above, the calculation results are displayed as a multiple linear regression equation as follows:

$$\hat{Y} = a + b_1X_1 + b_2X_2 + e$$

$$\hat{Y} = -1.227 + 0.840 + 0.410 + e$$

According to the equation model above, the following conclusions can be drawn:

- The constant value (a) is -1.227, indicating that if the Resilience (X1) and Mindset (X2) variables are considered constant or zero, then Adaptive Behavior (Y) will have a value of -1.227.
- The regression coefficient for the Resilience (X1) variable is -0.840, indicating that the Resilience variable has a negative regression coefficient on Adaptive Behavior. This means that every 1-unit increase in Resilience (X1), assuming other variables remain constant, will decrease Adaptive Behavior (Y) by 0.840 units.
- The regression coefficient for the Mindset variable (X2) is 0.840, indicating that the Mindset variable has a positive influence on Adaptive Behavior. This means that every 1-unit increase in Mindset, assuming other variables remain constant, will increase Adaptive Behavior (Y) by 0.840 units.

Discussion

This research shows that resilience and mindset play a crucial role in shaping the adaptive behavior of MSME managers in facing digital transformation. These findings confirm that successful adaptation is determined not only by the availability of technology but also by the individual's psychological readiness to respond to change. In other words, digital transformation in MSMEs is both a technological and behavioral process.

In addition to resilience, mindset has also been shown to significantly influence adaptive behavior. MSME managers with a growth mindset are more open to change, more willing to try new technologies, and more prepared to face the risk of failure. They view limitations not as permanent obstacles but as opportunities for learning and growth. Conversely, those with a fixed mindset tend to persist in old ways of working that are less relevant to the demands of digitalization.

These findings align with mindset theory, which states that mindset influences how individuals respond to challenges and change. In the context of MSMEs, mindset is a cognitive factor that determines whether entrepreneurs will adopt or reject innovation. Empirically, these results reinforce previous research linking mindset to business performance, but this study makes a new contribution by positioning mindset as a determinant of adaptive behavior, not just economic output.

Furthermore, the study shows that resilience and mindset simultaneously exert a stronger influence on adaptive behavior than either variable alone. This indicates a complementary relationship between the two variables. Resilience provides the strength to survive and recover, while mindset provides direction in interpreting change and determining actions. The combination of the two creates optimal adaptive capacity.

From a theoretical perspective, these findings reinforce Dynamic Capability Theory, which emphasizes the importance of integrating internal resources in the face of external change. Resilience



and mindset can be viewed as psychological capabilities that enable MSMEs to continuously learn, innovate, and adapt their business models. Academically, this research fills a gap by examining both variables simultaneously in the context of adaptive behavior, a previously rare approach.

4. CONCLUSION

Based on the research results and discussion regarding the influence of resilience and mindset on the adaptive behavior of MSME managers in facing digital transformation in the food business sector in Gorontalo City, the following conclusions can be drawn:

- a) Partially, resilience has a positive and significant effect on the adaptive behavior of MSME managers in the food business sector in Gorontalo City.
- b) Partially, resilience has a positive and significant effect on the adaptive behavior of MSME managers in the food business sector in Gorontalo City.
- c) Simultaneously, resilience and mindset have a positive and significant effect on the adaptive behavior of MSME managers in the food business sector in Gorontalo City.

Overall, the results of this study indicate that the adaptive behavior of MSME managers in the food business sector in Gorontalo City is significantly influenced by internal factors, namely resilience and mindset. Resilience plays a crucial role in helping MSME managers survive and recover from business pressures, particularly through aspects of optimism, personal resilience, and environmental support. Although strengthening of emotional regulation, impulse control, and negotiation skills is still needed.

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