

# Factors Analysis Of Digital Transformation Challenges In Alfamart Company

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## Abstract.

*Technological advancements occur continuously without our notice, requiring us to adapt to them in all aspects of life. Most firms now recognize the importance of digital transformation as a strategy for improving services and business efficiency. Alfamart, a minimarket company in Indonesia's retail industry, is facing a technological transformation. Alfamart offers a range of product categories to accommodate diverse family requirements. The acceleration of digital transformation in Indonesia necessitates the application of digital technology as a digital platform that serves as the foundation for the Industry 4.0 ecosystem by including technologies such as IoT, big data, artificial intelligence, and augmented reality. This study uses quantitative and descriptive approaches to identify the characteristics that challenge digital transformation at PT Sumber Alfaria Trijaya, Tbk (Alfamart), particularly in the International Business & Technology division. The research employs two-factor analyses: CFA (Confirmatory Factor Analysis) and EFA (Exploratory Factor Analysis). According to the research results, 4 (four) factors influencing Alfamart's digital transformation, particularly in the International Business & Technology section, shape the company's digital transformation issues. These challenges include IT, digitalization, digital business, and digital skills.*

**Keywords:** *Technological Advancements, Business Strategy and Digital Transformation Challenges.*

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## I. INTRODUCTION

Technology evolves rapidly and instinctively, requiring us to constantly adapt to advancements resulting from technical developments in all aspects of life. As a result, current changes compel individuals to undergo digital transformation. Digital transformation is the process of developing a new, more effective, and efficient method for replacing long-standing operations. Digital transformation is a company or organization's metamorphosis that involves many aspects, including human resources, processes, strategy, and structure, as well as the use of technology to improve performance [1]. This activity is carried out through the application or usage of existing technologies. Most firms now recognize the importance of digital transformation as a strategy for improving services and efficiency [2]. Digital transformation has significant effects on organizational performance. To achieve digital transformation, governance must be prioritized. However, some businesses continue to fail as a result of inadequate governance. In the contemporary industrial revolution era, corporations or business owners compete to promote their goods and services [3]. In 2021 Indonesia ranked fourth in AT Kearney's Global Retail Development Index. Indonesia placed fourth out of 200 nations in AT Kearney's 2021 Global Retail Development Index. Indonesia's retail sales in 2021 totaled 407 billion USD, above Malaysia's retail sales of 112 billion USD. This demonstrates Indonesia's stability and readiness to handle the severe competition in the expanding market [4]. One of Indonesia's largest convenience store retail companies is PT—Sumber Alfaria Trijaya, Tbk, which holds Alfamart's trademark license.

Alfamart Minimarkets are among the companies that function in Indonesia's retail industry. Alfamart offers a wide range of products to fulfill the varying demands of families. Alfamart has everything you need, from cooking spices to snacks to beauty products. Alfamart also sells its own items, which bear the distinctive "A" logo on each packaging [5]. Alfamart Minimarkets won the Top Brand Award during the second part of 2023. Customers had to select the three dimensions: Top of Mind Share, Top of Market Share, and Top of Commitment Share. Renowned brands are chosen through customer research in Indonesia [6]. The acceleration of digital transformation in Indonesia requires the implementation of digital technology as a digital platform that serves as the foundation for the Industry 4.0 ecosystem by implementing technologies such as IoT, big data, artificial intelligence, and augmented reality. The main challenges of digital

transformation are: first, companies only optimize their business operations by creating efficiency but do not consider customer experience, products, and business models. Secondly, there is insufficient data collection. Third, organizations must adapt to change.

The primary activity of digital transformation is not to establish a digital culture within the company but rather to operationalize accountability with the team to rapidly adapt to digital changes [7]. The digital transformation process involves several critical milestones for a business. Digital transformation is one of the organizational strategies developed and used to develop various principles using digital assets. The primary organizational strategy must be modified, human resource capabilities must be improved, and existing infrastructure must match the changes occurring [8]. For an effective digital transformation, digital skills and technology must be well-prepared. Regulatory changes, upheavals in the competitive landscape, transitions or modifications to digital industry forms, and changes in customer behavior constitute the main factors that result in digital transformation [9]. PT. As stated above, Sumber Alfaria Trijaya, Tbk (Alfamart), looks at challenges with digital transformation.

## II. METHODS

The study used quantitative and descriptive methodologies to determine the challenging variables in digital transformation at PT. Sumber Alfaria Trijaya, Tbk (Alfamart), the unit of International Business & Technology. This study's paradigm is based on positivism. This is a cross-sectional study, which means that the data collection process takes place throughout time, with data being processed, evaluated, and conclusions formed. This time, the study's population consists entirely of employees from PT. Source Alfaria Trijaya, Tbk (Alfamart) International Business & Technology unit. Purposive sampling is a non-probability sampling technique in which researchers determine the sample criteria of the existing population, namely population data, and samples are collected from all employees of the PT. Source Alfaria Trijaya, Tbk (Alfamart) International Business & Technology unit, with 300 respondents.

The study used two-factor analysis techniques: Confirmatory Factor Analysis (CFA) to confirm the shape of the latent variable model based on empirical data and Exploratory Factor Analysis (EFA) to explain (explore) the factors that comprise the latent variable [10]. The exploratory factor analysis method is utilized to uncover the issues that impede Alfamart's digital transformation. The primary purpose of factor analysis is to identify factors that explain the original variables' relationships. In other words, factor analysis seeks to understand the meaning of variables in a dataset. In factor analysis, each variable is represented as a linear combination of underlying components [11]. The amount of variance presented by one variable in relation to other variables included in the study is known as communality. The decomposed covariance of the variables is stated in a few common components, as well as a unique factor for each. These factors are not widely observed.

## III. RESULT AND DISCUSSION

The research observed 300 employees from PT. Sumber Alfaria Trijaya, Tbk (Alfamart)'s International Business & Technology Unit. The respondents are 66% male and 34% female, with the largest age group being 30-40 years old (52%). Most respondents have a bachelor's degree, accounting for 47.3% of the total, while the most prevalent post is expert staff, held by 187 respondents (62.3%). Respondents with more than ten years of experience lead the research, accounting for 54.7%.

**Table 1.** Detailed reliability of the instrument.

Variable Item	Item Code	Cronbach's Alpha
Information Technology	TD	0,674
Digitalitation	D	0,734
Business Digital	BD	0,709
Digital skill	DS	0,787
Digital Technology as a Business Model	TDS	0,850
Digital culture	BY	0,733
Digital destructive	DD	0,656
Agile	A	0,725

Reliability testing is conducted with the indicator that if Cronbach's Alpha Based Items value > 0.6, it is considered reliable or consistent. If the Cronbach's Alpha Based Items result < 0.6, it is considered unreliable or inconsistent [12]. Based on the reliability test results, it was found that the reliability coefficient, or Cronbach's Alpha, acquired from each variable > 0.6, indicating that the statements in the questionnaire measurement instrument are reliable and can be used multiple times for future testing.

**Tabel 2.** KMO and Bartlett's Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.959
Bartlett's Test of Sphericity	Approx. Chi-Square	7789.603
	df	741
	Sig.	.000

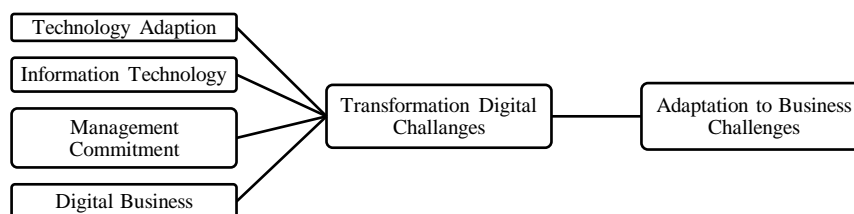
This research used confirmatory factor analysis (CFA) to determine or identify the interrelationships between the variables [13]. The study begins with statistical data processing to determine the viability of the factor analysis test. The KMO and Bartlett's Test are used in the factor analysis test and the Measure of Sampling Adequacy (MSA) approach. The KMO correlation value between variables is considered significant if Bartlett's test result is less than 0.05, allowing data processing to proceed to the next phase. Furthermore, if the Kaiser Meyer Olkin (KMO MSA) index value is above 0.5, the factor analysis procedure is considered valid and can proceed to the subsequent phases.

**Tabel 3.** Confirmatory Factor

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	Total % of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	18,037	46,248	46,248	18,037	46,248	46,248
2	1,988	5,098	51,346	1,988	5,098	51,346
3	1,473	3,776	55,122	1,473	3,776	55,122
4	1,280	3,282	58,404	1,280	3,282	58,404

Factors with an Eigenvalue > 1 are questionnaire items that have not been confirmed as acceptable. The confirmatory data analyzed using SPSS version 26 show that four factors have an Eigenvalue greater than one, resulting in a cumulative total variance of 58.404%, indicating that these four factors can already describe all indications. These factors have a 58.404% influence on the challenges of digital transformation

**Fig 1.** Transformation Digital Challenges Path Factors



**Tabel 3.** Factor loadings by EFA (Pattern Matrix of the factors and item).

Rotated Component Matrix									Patern Component Matrix								
Item Code	Component								Item Code	Component							
	1	2	3	4	5	6	7	8		1	2	3	4	5	6	7	8
TD1									TD8	0,447							
TD2									DS1	0,495							
TD3									DS3	0,372							
TD4									TDS4	0,675							
TD5									TDS5	0,598							
TD6									TDS6	0,645							
TD7									TDS7	0,756							
TD8	0,447								BY1	0,739							
TD9					0,519				DD2	0,514							

TD10	0,509		TD1	0,675
D1		0,515	TD2	0,658
D2		0,715	TD3	0,781
D3		0,440	TD4	0,680
D4		0,485	TD5	0,728
BD1		0,538	TD6	0,657
BD2		0,773	TD7	0,430
BD3		0,557	TD10	0,509
BD4		0,553	DD1	0,523
DS1	0,495		A1	0,682
DS2		0,743	A2	0,645
DS3	0,372		A3	0,709
DS4		0,604	A4	0,712
TDS1		0,437	A5	0,648
TDS2		0,464	D1	0,515
TDS3		0,533	D3	0,440
TDS4	0,675		D4	0,485
TDS5	0,598		BD1	0,538
TDS6	0,645		BD3	0,557
TDS7	0,756		BD4	0,553
BY1	0,739		DS4	0,604
BY2		0,460	TDS1	0,437
BY3		0,589	TD9	0,519
DD1		0,523	D2	0,715
DD2	0,514		BD2	0,773
A1		0,682	DS2	0,743
A2		0,645	BY2	0,460
A3		0,709	BY3	0,589
A4		0,712	TDS2	0,464
A5		0,648	TDS3	0,533

Based on the SPSS data processing results, eight factors have been identified as Alfamart's challenges. These factors are technological adaptation, information technology, management commitment, digital business, digitalization, digital skills, digital culture, and digital technology as a business model. When these eight elements are evaluated in real-time settings in the field, they substantially impact the company's progress. For instance, technological adaptation focuses on implementing technology that is critical to the firm and helps people develop digital skills. Employees can improve their performance through technology adaptation by collecting more information and increasing communication speed, making it easier to achieve targets. This is in line with a direct interview with Mr. Viendra Primadia, the General Manager of Alfamart, in March 2024, who claimed that Alfamart constantly strives to adapt technology across its numerous business lines. Alfamart, for example, has launched digital initiatives to provide a seamless Omnichannel experience by merging offline business with integrated online commerce via the Alfagift app and other digital platforms. The second factor is information technology. One of the challenges of digital transformation is the importance of information technology. Digital technology refers to digital competence, digital usage, and digital transformation. A company cannot flourish without reliable information. According to Mr. Viendra Primadia, Alfamart's General Manager, the company might have a sub-unit dedicated to digital business development by March 2024.

The organization has been consistently focused on developing digital technology and collecting reliable information about technological needs. Integrating correct information with applicable technology is critical for optimizing the company's digital transition. This is in line with Rahmat Sulaiman's (2017) research, which emphasizes that information technology plays a vital role in improving information quality and serves as a strong tool and strategy for quickly and accurately integrating and processing data, as well as

creating new service products that provide a competitive advantage in the face of competition [14]. The third component identifies management commitment as one of Alfamart's challenges. The item in this factor emphasizes that the disruption produced by the impact of digital transformation needs a transition from the old to the new system, and the influence of management commitment on the agile process can aid in the digital transformation process. Alfamart faces a unique difficulty in managing its business processes since continual management commitment is required to advance the company's digital transformation. Spencer et al. (2013) [15] discovered a link between management commitment and organizational performance. Albelda-Pérez et al. (2007) [16] found that management commitment defines the characteristics of an environmental management system that acts as a catalyst for change. Based on these two studies, it is clear that managerial commitment is crucial and significantly affects a company's performance.

Next, the fourth identified factor is digital business. One comment about this issue is that digital transformation, particularly in digital business, has resulted in the birth of various innovative and flexible business models. According to an interview with Mr. Viendra Primadia, General Manager at Alfamart, in April 2024, in order to be competitive in the digital world, the company must continually create new digital business prospects while also being sensitive to social requirements. Alfamart has created various digital business projects, such as Aksesmu, Alfagift, Alfamind, and others. Aksesmu is an app that simplifies and streamlines the operations of small stores and stalls near Alfamart locations. Alfamart's development of the Aksesmu application enables it to explore new target areas and deliver solutions for small enterprises, the HORECA sector, and wholesale organizations. Based on the SPSS data processing results, eight factors have been identified as Alfamart's challenges. These factors are technological adaptation, information technology, management commitment, digital business, digitalization, digital skills, digital culture, and digital technology as a business model. When these eight elements are evaluated in real-time settings in the field, they have a substantial impact on the company's progress. For instance, technological adaptation focuses on the implementation of technology that is critical to the firm and helps people develop digital skills.

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#### IV. CONCLUSION

Based on the findings of the research, that involved collecting data using questionnaires, processing the data using SPSS 26, and conducting analysis of the data, the author can draw conclusions that answer the research questions provided in this study. According to the findings, 4 (four) of the eight elements influencing Alfamart's digital transformation, particularly in the International Business & Technology segment, are significant barriers to Alfamart's transformation. Using SPSS data processing, the Variance Explained value shows that Information Technology is the most significant factor determining the challenges of Alfamart's digital transformation, with a value of 46.248%. Digitalization is the next factor, with a value of 5.098%, followed by Digital Business with a value of 3.776% and Digital Skill with a percentage of 3.282%.

#### V. ACKNOWLEDGMENTS

The author suggests that Alfamart should improve various aspects in order to more effectively solve the digital challenges that arise all of time. The author's recommendations include dealing with the emergence of digital transformation, which alters the company's business process flow, causing uncertainty and a lack of data and information, and making employees who lack digital skills feel burdened. The corporation must solve these issues immediately. Furthermore, digital disruption affecting organizational culture changes should be initiated by organizational leaders who introduce new innovations for the organization's or company's development. Lastly, the focus should be on the company's agile methods for protecting the organization in its business sector through digital transformation, which improves business effectiveness as a corporate strategy.

#### REFERENCES

- [1] Royyana, A. (2018). Strategi transformasi digital pada pt. Kimia farma (persero) tbk. *Journal of Information Systems for Public Health*, 5(2), 15–32.
- [2] Gong, Y., Yang, J., & Shi, X. (2020). Towards a comprehensive understanding of digital transformation in government: Analysis of flexibility and enterprise architecture. *Government Information Quarterly*, 37(3), 101487. <https://doi.org/10.1016/j.giq.2020.101487>
- [3] Mulyana, R., Rusu, L., & Perjons, E. (2023). How Hybrid IT Governance Mechanisms Influence Digital Transformation and Organizational Performance in the Banking and Insurance Industry of Indonesia. *Information Systems Development (ISD) Conference, Lisbon, 2023*. Association for Information Systems (AIS)
- [4] Alexander, H. B. (2020). Masuk 5 Besar, Ritel Indonesia Diprediksi Stabil. Tersedia : <https://properti.kompas.com/read/2020/02/13/205237021/masuk-5-besar-ritel-indonesia-diprediksi-stabil?>
- [5] Alfamart (2022). Laporan Tahunan Annual Report 2022. Tersedia di: <https://alfamart.co.id/investor-area/laporantahunan>
- [6] Top Brand Award. (2023). Top Brand Award Kategori Minimarket. Tersedia di: [https://www.topbrandaward.com/topbrand-index/?tbi\\_find=alfamart](https://www.topbrandaward.com/topbrand-index/?tbi_find=alfamart)
- [7] Vexler, M. (2019). Driving Digital Transformation with Cultural Change. <https://doi.org/10.13140/RG.2.2.18499.55843>
- [8] Brennen, J. S., & Kreiss, D. (2016). Digitalization. *The International Encyclopedia of Communication Theory and Philosophy*.
- [9] Harvard Business Review Analytic Services (2014) *The Digital Transformation of Business*. Harvard Business Publishing, Boston, MA.

- [10] Sekaran, U., & Bougie, R. (2016). *Research Methods For Business: A Skill Building Approach* (7 ed.). John Wiley & Sons..
- [11] Sugiono, (2018). *Metode Penelitian Kuantitatif, Kualitatif Kombinasi dan R&D*. Bandung : Alfabeta Bandung.
- [12] Sugiono, (2017). *Metode Penelitian Kuantitatif, Kualitatif Kombinasi dan R&D*. Bandung : Alfabeta Bandung.
- [13] Ghozali, I. (2021). *Aplikasi Analisis Multivariate Dengan Program IBM SPSS 26 Edisi 10*. Badan Penerbit Universitas Diponegoro.
- [14] Naibaho, Rahmat S. (2017). Peranan dan Perencanaan Teknologi Informasi Dalam Perusahaan, *Jurnal Warta Dhamawangsa*. <https://doi.org/10.46576/wdw.v0i52>.