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ENHANCING MANAGERIAL PERFORMANCE: THE ROLE OF BUDGET PARTICIPATION AND DIGITAL TECHNOLOGY WITH TRANSFORMATIONAL LEADERSHIP AS A MODERATOR

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ABSTRAK

Penelitian ini mengkaji pengaruh partisipasi anggaran dan teknologi digital terhadap kinerja manajerial, dengan kepemimpinan transformasional sebagai variabel moderasi, pada Organisasi Pengelola Zakat (OPZ) di Provinsi Riau. Menggunakan pendekatan kuantitatif dengan metode penelitian eksplanatif, data dikumpulkan dari populasi 26 OPZ melalui kuesioner, formulir cetak, dan wawancara terstruktur yang melibatkan manajer tingkat atas, menengah, dan bawah. Data dianalisis menggunakan *Partial Least Squares Structural Equation Modeling* (PLS-SEM). Temuan penelitian mengungkapkan bahwa partisipasi anggaran dan teknologi digital tidak berpengaruh signifikan terhadap kinerja manajerial, dan kepemimpinan transformasional tidak memoderasi hubungan antara partisipasi anggaran dan kinerja manajerial. Namun, kepemimpinan transformasional memoderasi hubungan antara teknologi digital dan kinerja manajerial secara signifikan dan memiliki efek langsung yang sangat signifikan terhadap kinerja manajerial. Selain itu, budaya organisasi secara signifikan mempengaruhi kinerja manajerial. Penelitian ini menekankan pentingnya kepemimpinan transformasional dalam meningkatkan penggunaan teknologi digital untuk meningkatkan efektivitas manajerial dalam pengelolaan zakat. Laporan ini menawarkan rekomendasi praktis bagi OPZ untuk mengoptimalkan partisipasi anggaran dan teknologi digital sekaligus memanfaatkan kepemimpinan transformasional untuk meningkatkan transparansi, akuntabilitas, dan kepercayaan publik, sehingga meningkatkan partisipasi zakat. Temuan ini berkontribusi pada peningkatan kinerja manajerial dan penguatan kepercayaan pada lembaga pengelola zakat.

Kata Kunci : Kinerja Manajerial, Partisipasi Anggaran, Teknologi Digital, Kepemimpinan Transformasional.

ABSTRACT

This study investigates the effect of budget participation and digital technology on managerial performance, with transformational leadership as a moderating variable, in Zakat Management Organizations (OPZ) in Riau Province. Using a quantitative approach with an explanatory research method, data were collected from a population of 26 OPZ through questionnaires, hardcopy forms, and structured interviews, involving top, middle, and lower-level managers. The data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM). The findings reveal that budget participation and digital technology do not significantly affect managerial performance, and transformational leadership does not moderate the relationship between budget participation and managerial performance. However, transformational leadership significantly moderates the relationship between digital technology and managerial performance and has a very significant direct effect on managerial performance. Additionally, organizational culture significantly influences managerial performance. The study emphasizes the importance of transformational leadership in enhancing the use of digital technology to improve managerial effectiveness in zakat management. It offers practical recommendations for OPZ to optimize budget participation and digital technology while leveraging transformational leadership to boost transparency, accountability, and public trust, thereby increasing zakat participation. These findings contribute to improving managerial performance and strengthening trust in zakat management institutions.

Keywords : Managerial Performance, Budget Participation, Digital Technology, Transformation Leadership.

INTRODUCTION

Zakat Management Organization (OPZ) is an organization or institution authorized by the government to collect, manage and distribute community zakat in accordance with Islamic sharia provisions. Zakat is the third pillar of Islam and is an obligation for Muslims who are able. In Riau, there are various ethnic groups, but the Malay ethnic group is the largest composition of around 37,74% of the population of Riau. The population in Riau Province is mostly Muslim (Oktaviani et al, 2023) as presented in the table below :

Table 1. Population by Religion in Riau Province in 2023

No	Religion Practised	Total Population	Percentage (%)
1	Islam	5.973.722	87,06
2	Kristen	673.174	9,81
3	Katolik	74.480	1,08.
4	Hindu	747	0,01
5	Budha	135.953	1,98
6	Khonghucu	2.129	0,03
7	Others	1.032	0,03
Amount		6.861.237	100

Source: Ministry of Religious Affairs of the Republic of Indonesia (2023).

Table 1 shows that 87.05% of Riau's population is Muslim. This will provide great potential in collecting zakat. Zakat, as an obligation for Muslims, can be an important instrument in improving community welfare, especially in eradicating poverty and supporting social programs. If managed properly by zakat institutions, these funds can be allocated for education, health, and economic empowerment, thus providing a positive impact on community welfare and regional development.

Table 2. Data Collection and Distribution of Riau Province BAZNAS in 2022

Description	Amount of Funds	
	Collection (Rp)	Distribution (Rp)
BAZNAS Province	583.919.722.674	481.796.534.289
BAZNAS Regency/City	3.539.980.546.674	2.586.872.888.351
Amount	4.123.900.269.348	3.068.669.422.640

Source: Processed Data from BAZNAS Riau Province (2023).

Based on table 2, it shows the amount of funds collected and funds distributed that are still not optimal, so it is necessary to see how the managerial performance is in managing zakat. Managerial performance has its own strengths and challenges, so it is necessary to focus on effective fundraising strategies, increasing the efficiency of fund distribution. So, management must be committed to transparency, innovation, and capacity building to ensure optimal zakat management.

The improvement in the condition of the global economic sector has become a trigger for organizations to make improvements by improving managerial performance in their management. To be able to compete and survive in the future, organizations need to demonstrate effective and efficient performance. The success or failure of an organization is highly dependent on the decisions taken by managers, so careful planning to assess management performance is a must.

Managerial performance is very important, because with reliable managerial performance, an organization can create a competitive advantage. Managerial performance has a crucial role in determining the success of an organization and reflects the overall performance of the

organization (Alhasnawi et al, 2023); (Riyadh et al, 2023). The level of effectiveness of managers in carrying out management functions is called managerial performance (Pratiwi and Rizqi, 2023). The achievement of an organization's goals depends on its managerial performance, to maximize managerial performance a control system is needed, and a tool to assist managers in implementing management control is budget participation.

Budget participation is a process that describes individuals involved in budgeting and have an influence on budget targets. The budget that is prepared plays an important role in future decision making. Involvement in budgeting will affect managerial performance through this participation, managers who feel involved will take responsibility for budget implementation, with the hope that subordinates will implement the budget better. Astuty (2014) Budget participation refers to the involvement of middle and lower level managers in decision making. Due to the needs of decision makers, the development of information technology is not only in the business world, such as health, education, and government.

The use of digital technology is an important factor that can affect managerial performance. Digital technology helps deliver information quickly and accurately according to what the organization needs. Digital technology can also be connected through software, namely computers as a tool to access information quickly and connect between the external environment and the internal environment (organizational structure) efficiently. The application of technology also requires human resources as the most important part in the utilization of digital technology. Competent human resources can make technology used optimally and on target. Currently, the world is entering a digital era where all aspects of life utilize technology. In Indonesia, digitalization of zakat management, both in collection, management, and distribution, is carried out through strategic steps. This includes the development of internal platforms, collaboration with various external parties, application-based services, and the use of database systems (Zubaidah and Afifah, 2020).

Transformation Leadership is an important aspect in ensuring that human resources involved in the use of digital technology can run optimally. Pratiwi and Rizqi (2023) said that leaders are one of the key factors in determining the success of an organization and business. Successful leaders are able to manage the organization well, influence others constructively, and demonstrate appropriate behavior as role models (to work together). In fact, good leadership greatly influences team spirit. To achieve organizational goals, the success factor in managing an organization depends on the Transformation Leadership of a manager and the attitude of his subordinates. Therefore, when leaders show strong support for employees' creative ideas, it will have a direct impact on employee performance. And when employee performance is affected, employees will be motivated to increase productivity and strive to improve organizational achievement.

The right Transformation Leadership can shape an organizational culture that supports uniformity in acting and behaving. Organizational culture is also the identity or characteristic of an organization in the eyes of the public. Understanding organizational culture is about habits that have long existed and are applied in daily work activities, which serve as a driver to improve the quality of employee work and company management (Juwita and Adzkhiyah, 2017). In time, organizational culture will naturally form within an organization and its usefulness can contribute to the overall effectiveness of an organization.

Non-profit organizations, such as BAZNAS (National Zakat Agency), play a major role in managing zakat funds to be distributed to people in need. According to Law of the Republic of Indonesia Number

23 of 2011 Article 30, namely to carry out the duties of BAZNAS is funded by the State Revenue and Expenditure Budget.

Table 3. Data Collection and Distribution of Riau Province BAZNAS in 2022

Description	Fund Disbursement (Rp)	Use of Funds (Rp)
1. APBD Grant Fund	1.000.000.000	967.048.800
2. Amil Fund	5.014.984.004	4.859.775.647
Amount	6.014.984.004	5.826.824.447

Source: Processed Data from BAZNAS Riau Province (2023).

From table 3, it can be seen that the use of funds is close to total disbursement. Budget participation in the management of BAZNAS funds has positive implications for managerial performance. Involving managers in the budget planning process not only increases transparency and accountability, provides a basis for assessing performance, but also produces efficiency in resource management. In addition, employee involvement in budget participation can increase motivation and engagement, providing additional support for overall managerial performance. Similarly, Zonatto et al, (2020) shows that budget participation has a direct and positive influence on managerial attitudes.

With the advancement of technology today, it is very easy for OPZ to carry out zakat, infaq and sedekah management. The use of digital technology supports zakat institutions in increasing efficiency, transparency, and accountability. Zakat managers can more easily report zakat distribution and other matters related to zakat fund management, and *muzzaki* can also easily monitor every activity in zakat institutions. which is efficient. As an institution that manages public funds, the existence of this technology greatly helps OPZ in increasing efficiency, transparency, and accountability (PusKaS BAZNAS, 2020). Zakat management applications (such as SiMBA and/or Accurate) are applications that are very supportive as digital technology facilities with the latest features that will realize the effectiveness of zakat management. Research by (Zubaidah & Afifah, 2020) explains that digital zakat management has significant benefits and is a strategic step taken by zakat institutions to improve their performance and meet sustainable development goals.

Now it can be easily managed and integrated with OPZ, both Government (BAZNAS) and Private (LAZ) in the Province and Regency, even with the Center. This means that zakat management increasingly shows the impression of transparency and accountability, especially in the eyes of *muzzaki* , thus increasing the interest of *muzzaki* to pay zakat to OPZ. Basically, technology applications produce information to monitor performance and maintain coordination in the organizational process, and their data processing programs are integrated to provide internal and external information. Even so, the fact is that these technology applications still have obstacles or barriers when implemented.

This research was conducted at the OPZ Province and City District throughout Riau Province, with manager respondents (top managers , middle , and low managers) through interviews and questionnaires. So that this research is expected to contribute to OPZ, in terms of improving managerial performance and providing deeper theoretical insights in the field of zakat management.

LITERATURE REVEIW

Stewardship Theory

Stewardship theory developed alongside the evolution of accounting and is based on psychological and sociological theories within management accounting. This theory explains that managers (stewards) are motivated to act in the best interests of the organization rather than their personal interests (Donaldson & Davis, 1991). If there is a conflict of interest

between stewards and owners, stewards tend to collaborate to achieve organizational goals.

The theory also emphasizes the strong relationship between organizational success and owner satisfaction, where stewards are responsible for protecting and maximizing organizational wealth through company performance (Schillemans & Busuioc, 2015). Unlike agency theory, which focuses on individualism, stewardship theory prioritizes collectivism in organizational management (Keay, 2017).

In the context of OPZ, stewardship theory is used to explain that OPZ, as a non-structural institution, can be trusted to carry out its duties in accordance with the interests of the community while ensuring transparent financial accountability.

Organizational Theory (Theory of The Firm)

The theory of the firm by Jensen & Meckling (1976) integrates agency theory, property rights theory, and finance theory to explain a firm's ownership structure. It defines agency costs, examines the separation of ownership and control, and analyzes the impact of debt and external equity on firm value, particularly in relation to conflicts of interest, capital structure, and market challenges.

This theory highlights the contractual nature of organizations, emphasizing the role of residual claims and the complexity of internal relationships. Jensen & Meckling (1976) argue that firms are legal constructs facilitating contractual relationships, where firm behavior mirrors market outcomes shaped by competing individual interests. Their analysis underscores the significance of agency costs, monitoring, and contractual agreements in understanding organizational dynamics.

Ultimately, the theory of the firm views organizations as entities that coordinate and utilize resources to produce goods and services for sale.

Managerial Performance

Managerial performance refers to the work results achieved by individuals in carrying out assigned tasks based on skills, experience, sincerity, and time. It involves a series of managerial activities, including planning, implementation, administration, accountability reporting, coaching, and supervision (Amertadewi & Dwirandra, 2013). According to Mayarani et al, (2021) managerial performance encompasses various functions such as planning, investigation, coordination, evaluation, supervision, staffing, negotiation, and representation.

Managerial performance is the result of an effective managerial activity process starting from the planning, implementation, administration, accountability reports, coaching, and supervision processes (Amirullah, 2015). Performance is influenced by three key factors: employee progress and interest, ability to understand assigned tasks, and motivation level (Bone, 2017). Yahaya & Segbenya (2023) further measure managerial performance based on task performance, contextual performance, adaptive performance, and counterproductive work behavior.

Mahoney et al, (1963) in Ilmy M et al, (2021) outline eight key dimensions of managerial performance: (1) planning goal setting and resource allocation, (2) investigation data collection and reporting, (3) coordination information exchange and program alignment, (4) evaluation performance and financial assessment, (5) supervision staff guidance and development, (6) staffing hiring and workforce management, (7) negotiation contract and supplier dealings, and (8) representation organizational representation in meetings and public engagements.

Budget Participation

Budget participation refers to the involvement of managers in the budget preparation process, influencing budget objectives and related decisions Brownell

and McInnes (1986). It involves collaboration among managers at all levels to ensure comprehensive participation Garrison et al, (2013).

Grodt et al, (2023) describe budget participation as a process where managers contribute to budget formulation, impacting their managerial performance by fostering psychological resilience and commitment to budget goals. This engagement triggers cognitive and affective responses, ultimately improving managerial performance.

Mardiasmo (2018) identifies several budget functions, including serving as a planning, control, and fiscal policy tool, as well as a means of motivation, coordination, communication, and performance measurement. Sujarweni (2015) highlights key budget characteristics, such as being expressed in financial and non-financial terms, covering a specific period (typically one year), requiring managerial commitment to targets, ensuring immediate implementation upon approval, functioning as a performance measurement tool, and being determined by top management.

Digital Technology

Digital technology is a key innovation in modern management that enhances organizational processes and managerial performance. It includes information systems, software, and data-based technologies that support decision-making and operational efficiency Bharadwaj et al (2013). By accelerating communication, automating tasks, and providing real-time data access, digital technology serves not only as a tool but also as a catalyst for competitive advantage.

It also improves coordination within organizations, making participatory budgeting more effective. Wider access to information allows managers to actively engage in budget planning, increasing transparency and participation, which positively impacts managerial performance.

Additionally, digital technology empowers transformational leadership by enabling leaders to integrate technology into management strategies, foster innovation, and enhance team collaboration. Advanced technology helps monitor performance and provide real-time feedback, motivating employees to improve efficiency Westerman et al, (2014).

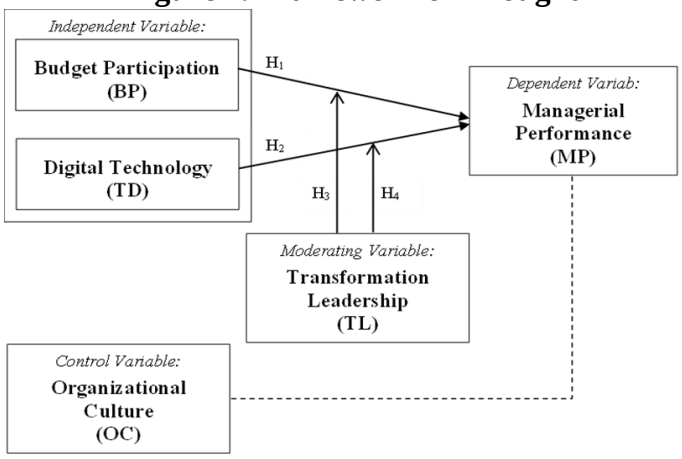
Thus, digital technology plays a crucial role in optimizing participatory budgets and transformational leadership, improving communication, collaboration, and decision-making in organizations (Tallon et al, 2019). Key elements of digital technology include artificial intelligence (AI), big data analytics (BDA), Internet of Things/cyber-physical systems (CPS), and 3D printing (3DP), all of which have a significant impact on company performance (Oduro et al, 2023); (Imran et al, 2018); (Mubarik et al, 2021).

Transformation Leadership

Leadership is a key factor in determining an organization's success or failure. Effective leaders manage organizations well, influence others constructively, and foster team spirit (Pratiwi and Rizqi, 2023). Transformational leadership, along with managerial attitudes and employee motivation, plays a crucial role in achieving organizational goals. Leaders who inspire creativity in employees can enhance their performance, ultimately driving the organization toward success (Riyadh et al, 2023).

According to Thoha (2013), leadership styles are categorized into two extremes: (1) Autocratic leadership, which relies on positional authority and command, and (2) Democratic leadership, which emphasizes personal influence, collaboration, and participatory decision-making.

Figure 1. Framework of Thought



Source: Processed Data (2024).

RESEARCH METHODS

According to Sugiyono (2019), research design is a scientific method for producing data with specific purposes. This study employs a quantitative approach, which involves collecting, analyzing, and interpreting numerical data to examine the effect of budget participation, digital technology, and transformational leadership on managerial performance.

This study follows an explanatory research design, which aims to analyze relationships between two or more variables and test hypotheses (Sugiyono, 2019).

This study uses primary data, which is directly collected through questionnaires and structured interviews (Sugiyono, 2019). Questionnaires were distributed via Google Forms and hardcopies, with researchers personally visiting OPZ offices to distribute and collect responses. Interviews were conducted face-to-face, with respondents selecting answers based on a six-point ordinal scale, ranging from "strongly disagree (STS)" to "strongly agree (SS)".

The study population consists of Zakat Management Organizations (OPZ) in Riau Province, including 13 National Zakat Agencies (BAZNAS) and 13 Zakat Collection Institutions (LAZ). The sample size was determined based on (Hair et al, 2022), which recommends 5 to 10 times the number of questionnaire items, resulting in 162 respondents, consisting of top, middle, and low-level managers. Data collection began in April 2024.

RESULT AND FINDING

Data analysis was conducted using Partial Least Squares Structural Equation Modeling (PLS-SEM) to systematically test hypotheses and derive conclusions (Sugiyono, 2019); (Hair et al, 2022).

The management of the Riau Province Zakat Collection Agency (BAZ) refers to Law Number 38 of 1999 and Regional Regulation Number 2 of 2009, "concerning Zakat Management" which regulates the planning, organization, implementation, and supervision of zakat. BAZ Riau, as an institution established by the Regional Government together with the community, is tasked with collecting, distributing, and utilizing zakat, infak, alms, and other funds in accordance with Islamic provisions.

Convergent Validity Test

To assess the reliability of each indicator is to look at the outer loading (measuring the contribution of each indicator to the construct being measured). A higher value indicates that the indicator is more relevant in measuring the construct. Usually, the desired outer loading value is above 0.7 to indicate good relevance, but a value below 0.7 is also acceptable in some cases if it still makes an important contribution.

Table 5. Outer Loadings

	OC	TL	MP	BP	DT
OC1	0.911				
OC10	0.805				
OC11	0.729				
OC12	0.891				
OC2	0.872				
OC3	0.890				
OC5	0.842				
OC6	0.908				
OC7	0.805				
OC8	0.834				
OC9	0.814				
TL1		0.931			
TL3		0.932			
TL4		0.953			
MP2			0.879		
MP3			0.892		
MP4			0.914		
BP1				0.853	
BP2				0.881	
BP3				0.818	
BP4				0.847	
BP5				0.847	
BP6				0.883	
BP7				0.871	
BP8				0.890	
BP9				0.864	
DT1					0.824
DT10					0.899
DT2					0.845
DT3					0.891
DT5					0.754
DT8					0.896
DT9					0.868

Source: PLS-SEM Output Data (2024).

Based on table 5, it shows the outer loading so that the construction indicator, which is greater than the minimum acceptable value (0,7). Most indicators have high and positive loading, indicating that they measure the construct well. Most of the indicators above with high outer loading values show good relevance to the construct being measured, indicating good validity.

Measurement Model Assessment, which is fundamental, provides useful details between the responsibility and validity of the scales used to measure the latent structure and their observed indicators. Hair et al, (2022) state that different criteria can be used to assess the reliability or internal consistency of psychometric instruments: (1) Cronbach's Alpha, which is based on the correlation between the observed indicators (if >0,7 the reliability is acceptable; if >0,8 is considered very good), (2) Composite Reliability, from the recommended p-value based on Hair et al (2022), which is >0,7.

Table 6. Average Variance Extracted (AVE) Results

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
OC	0.960	0.965	0.965	0.718
TL	0.933	0.939	0.957	0.882
TL*BP	1,000	1,000	1,000	1,000
TL*DT	1,000	1,000	1,000	1,000
MP	0.876	0.878	0.924	0.802
BP	0.957	0.958	0.963	0.742
DT	0.938	0.947	0.950	0.731

Source: PLS-SEM Output Data (2024).

Based on table 6, it can be seen that the AVE value of each variable is above 0.5, so it can be declared valid.

Discriminant Validity Test

There are two criteria commonly used to assess discriminant validity, namely the Fornell–Larcker criterion by Fornell and Larcker (1981) and the heterotrait–monotrait (HTMT) by (Henseler et al, 2015). The Fornell–Larcker criterion states that the square root of the AVE of each construct must be greater than the highest correlation of that construct with other constructs in the model, while HTMT is an estimate of the factor correlation. To distinguish between two factors, the HTMT value must be significantly less than 1. Henseler et al, (2015) suggested that the value should be below 0.9 or better yet below 0.85.

Table 7. Fornell–Larcker Validity Test

	OC	TL	TL*BP	TL*DT	MP	BP	DT
OC	0.847						
TL	0.818	0.939					
TL*BP	-0.551	-0.346	1,000				
TL*DT	0.594	-0.401	-0.819	1,000			
MP	0.890	0.840	-0.494	-0.591	0.895		
BP	0.865	0.784	-0.345	-0.456	0.818	0.862	
DT	0.852	0.774	-0.412	-0.483	0.809	0.780	0.855

Source: PLS-SEM Output Data (2024).

Based on table 7, it can be seen that the highest correlation of other constructs is Transformation Leadership (0.939) which is lower than -0.456 in Budget Participation. This shows that all variables meet the Fornell–Larcker criteria.

Table 8. HTMT Validity Test

	OC	TL	TL*BP	TL*DT	MP	BP	DT
OC							
TL	0.852						
TL*BP	0.565	0.355					
TL*DT	0.609	0.411	0.819				
MP	0.964	0.924	0.527	0.631			
BP	0.894	0.826	0.350	0.462	0.890		
DT	0.881	0.813	0.425	0.489	0.877	0.805	

Source: PLS-SEM Output Data (2024).

The required Heterotrait-Monotrait Ratio (HTMT) value must be less than 1 in order to be said to meet the discriminant validation assessment (Hair et al, 2022). Based on table 8, the HTMT ratio value of each variable is < 1, so it can be said that the research model formed from the variables above is Valid.

Table 9. Cross Loading Validity Test

	Cross Loading						
	OC	**TL**	**TL*BP**	**TL*DT**	**MP**	**BP**	**DT**
OC1	0.911	0.845	-0.461	-0.545	0.903	0.801	0.849
OC10	0.805	0.604	-0.490	-0.521	0.674	0.624	0.605
OC11	0.729	0.478	-0.426	-0.500	0.589	0.532	0.546
OC12	0.891	0.707	-0.507	-0.548	0.821	0.719	0.711
OC2	0.872	0.752	-0.445	-0.491	0.770	0.840	0.833
OC3	0.890	0.765	-0.462	-0.498	0.801	0.833	0.812
OC5	0.842	0.745	-0.474	-0.441	0.754	0.730	0.723
OC6	0.908	0.765	-0.482	-0.514	0.819	0.824	0.805
OC7	0.805	0.647	-0.418	-0.420	0.714	0.767	0.688
OC8	0.834	0.632	-0.451	-0.452	0.690	0.679	0.675
OC9	0.814	0.598	-0.532	-0.620	0.694	0.649	0.629
TL1	0.724	0.931	-0.275	-0.323	0.722	0.722	0.669
TL3	0.835	0.932	-0.374	-0.441	0.855	0.799	0.803
TL4	0.734	0.953	-0.315	-0.356	0.778	0.680	0.697
MP2	0.793	0.689	-0.417	-0.511	0.879	0.715	0.741
MP3	0.765	0.772	-0.428	-0.543	0.892	0.727	0.652
MP4	0.831	0.793	-0.481	-0.533	0.914	0.754	0.778
BP * TL	-0.551	-0.346	1,000	0.819	-0.494	-0.345	-0.412
BP1	0.793	0.662	-0.326	-0.436	0.702	0.853	0.667
BP2	0.762	0.641	-0.316	-0.457	0.728	0.881	0.683
BP3	0.595	0.606	-0.195	-0.234	0.582	0.818	0.509
BP4	0.708	0.643	-0.272	-0.359	0.688	0.847	0.592
BP5	0.781	0.720	-0.415	-0.404	0.709	0.847	0.671
BP6	0.788	0.691	-0.320	-0.363	0.725	0.883	0.704
BP7	0.767	0.689	-0.281	-0.387	0.733	0.871	0.742
BP8	0.770	0.754	-0.313	-0.481	0.755	0.890	0.753
BP9	0.716	0.662	-0.218	-0.381	0.700	0.864	0.691
DT * TL	-0.594	-0.401	0.819	1,000	-0.591	-0.456	-0.483
DT1	0.652	0.598	-0.317	-0.313	0.593	0.572	0.824
DT10	0.807	0.742	-0.325	-0.485	0.751	0.758	0.899
DT2	0.773	0.683	-0.395	-0.493	0.790	0.721	0.845
DT3	0.767	0.692	-0.372	-0.403	0.730	0.654	0.891
DT5	0.529	0.502	-0.328	-0.289	0.493	0.463	0.754
DT8	0.717	0.627	-0.383	-0.381	0.659	0.626	0.896
DT9	0.792	0.737	-0.341	-0.470	0.750	0.796	0.868

Source: PLS-SEM Output Data (2024).

The cross loading value of each construct is evaluated to ensure that the correlation of the construct with the measurement item is greater than that of other constructs (Ghozali and Latan, 2015). Based on the discriminant validity test-Cross Loading in table 9, the loading value of each indicator on the relevant variable is the highest loading value compared to other variables, this can indicate that each indicator used for each variable is declared Valid.

Reliability Test

Table 10. Cross Loading Validity Test

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
OC	0.960	0.965	0.965	0.718
TL	0.933	0.939	0.957	0.882
TL*BP	1,000	1,000	1,000	1,000
TL*DT	1,000	1,000	1,000	1,000
MP	0.876	0.878	0.924	0.802
BP	0.957	0.958	0.963	0.742
DT	0.938	0.947	0.950	0.731

Source: PLS-SEM Output Data (2024).

To assess Composite reliability and Cronbach's alpha, a Composite reliability value of 0.6 - 0.7 is considered to have good reliability Sarstedt et al (2017) and the expected Cronbach's alpha value is above 0.7 (Ghozali and Latan, 2015). Based on the results of the reliability test above, it shows that the Composite reliability value for each variable is above 0.7. In addition, it can also be seen that the Cronbach's Alpha value for each variable is above 0.7. From this statement, it can be stated that each indicator of each variable is stated to be reliable, accurate, consistent, and appropriate for measuring the variable.

Research Hypothesis Test Results

The structural model can be evaluated by looking at the stability of the estimates assessed using the t -statistic test seen through the bootstrapping procedure (Ghozali and Latan, 2015). The structural model in PLS is evaluated using R-squares (R^2) for dependent constructs, Stone-Geisser Q-square test for predictive relevance and t-test and significance of the structural path parameter coefficients, R-squares explains the diversity of endogenous constructs that can be explained by exogenous constructs simultaneously (Ghozali and Latan, 2015). The R-squares value of 0.75 0.50 and 0.25 can be stated that the model is strong, moderate and weak (Ghozali and Latan, 2015). In addition to looking at the magnitude of the R-squares value, PLS model evaluation can also be done with Q2 predictive relevance or often called predictive sample reuse, Q-square value >0 indicates the model has predictive relevance, conversely if the Q-square value ≤0 indicates the model has less predictive relevance (Ghozali and Latan, 2015).

R-square (R^2)

Table 11. Coefficient of Determination Test

	R Square	R Square Adjusted
MP	0.849	0.843

Source: PLS-SEM Output Data (2024).

Based on table 11, the R^2 value is 0.843, indicating that 84.3% of the variation in Managerial Performance can be explained by the independent variables in this model. And around 15.7% of the variation in Managerial Performance is not explained by this model, indicating that there are still other factors that influence Managerial Performance that have not been included in this research model.

Predictive Relevance (Q^2)

Table 12. Predictive Relevance Q-square test

	SSO	SSE	Q^2 (=1-SSE/SSO)
OC	1529,000	1529,000	
TL	417,000	417,000	
TL*BP	139,000	139,000	
TL*DT	139,000	139,000	
MP	417,000	143,256	0.656
BP	1251,000	1251,000	
DT	973,000	973,000	

Source: PLS-SEM Output Data (2024).

Based on table 12, the Q-square value >0 indicates that the model has predictive relevance, conversely if the Q-square value ≤0 indicates that the model has less predictive relevance (Ghozali and Latan, 2015). The Q-square value in this study is 0.656 or >0, so this shows that the variables and data can predict the model well.

Goodness of Fit (GoF)

Table 13. Fit Summary

	Saturated Model	Estimated Model
SRMR	0.073	0.073
d_ULS	2.985	2.991
d_G	3.432	3.433
Chi-Square	1998.763	2002.278
NFI	0.695	0.694

Source: PLS-SEM Output Data (2024).

Based on table 13, it shows that the NFI value is 0.694 which is close to 1. The NFI value in this study shows that the model has a moderate fit with the data obtained. This value indicates that the hypothesized model is able to describe the data well. This provides confidence that the results of the analysis and findings of the model are reliable, although there is still room for further improvement in improving the model's fit.

Hypothesis Testing

Table 14. Bootstrapping Results

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
OC -> MP	0.387	0.415	0.171	2,268	0.024
DT -> MP	0.081	0.082	0.104	0.776	0.438
BP -> MP	0.092	0.060	0.102	0.901	0.368
TL -> MP	0.331	0.333	0.089	3.715	0.000
TL*DT -> MP	-0.195	-0.205	0.085	2.290	0.022
TL*BP -> MP	0.052	0.068	0.073	0.714	0.476

Source: PLS-SEM Output Data (2024).

Based on table 14, which shows that the direct and indirect effects are significant in the path model indicated by the mean value, standard deviation, and p-values. Both causal relationships imply that the exogenous construct directly affects the endogenous construct without any systematic influence from other variables. The results of this study are explained as follows:

1. The effect of Budget Participation (BP) on Managerial Performance (MP) has a pValue of 0.368>0.05, which means that there is no significant effect between Budget Participation and

Managerial Performance. Thus, Hypothesis 1 is rejected.

2. The relationship between Digital Technology (DT) and Managerial Performance (MP) has a pValue of 0.438>0.05, which means that there is no significant influence between Digital Technology and Managerial Performance. Thus, Hypothesis 2 is rejected.
3. The relationship between Transformation Leadership (TL) and Managerial Performance (MP) has a pValue of 0.000. This shows that the influence of Transformation Leadership on Managerial Performance is very significant (pValues <0.05).
4. Transformation Leadership variable is not significant or is not able to moderate the relationship between Budget Participation and Managerial Performance with pValues. 0.476 >0.05. Thus Hypothesis 3 is rejected.
5. The Transformation Leadership variable is significantly able to moderate the relationship between Digital Technology and Managerial Performance with pValues. 0.022 <0.05. Thus Hypothesis 4 is Accepted.
6. The relationship between organizational culture and managerial performance has pValues. 0.024 <0.05, which means that there is a significant influence between Organizational Culture and Managerial Performance.

Budget Participation Does Not Have a Positive Effect on Managerial Performance.

Budget participation is a process in which various parties in the organization, including managers and employees at various levels, are involved in the preparation of the budget. This process allows individuals who will implement the budget to provide their input and views, so that the resulting budget is more realistic, comprehensive, and has a high level of acceptance throughout the organization. Budget participation can also increase employee motivation and commitment, because they feel they have a stake in planning and achieving organizational goals. In this study, Budget participation was found to have no significant positive effect on managerial performance.

This finding indicates that although managers are involved in the budgeting process, it does not directly improve managerial performance. Based on research by Pratiwi and Rizqi (2023) good managerial performance is greatly influenced by the effectiveness of the implementation of management functions, which may not only depend on participation in the budget. Previous research by Soleman (2012) also found that the effect of budget participation on managerial performance can vary depending on the organizational context and managerial structure.

Digital Technology Does Not Have a Positive Impact on Managerial Performance.

Digital technology is a set of electronic devices, systems, devices, and resources that produce, store, or process data. Examples of digital technology include computers, mobile devices, the internet, software, social media, applications, and other technologies that use digital signals to operate.

Results indicate that digital technology in OPZ has not directly improved managerial performance. Zubaidah and Afifah (2020), although digital technology has great potential to improve efficiency and transparency, its implementation requires in-depth understanding and proper adaptation in the organization. Research by Usai et al, (2021) shows that digital technology must be effectively integrated with managerial

processes to provide a significant positive impact.

Transformation Leadership does not significantly moderate the relationship between Budget Participation and Managerial Performance.

Siagan in 1986 argues that leadership is a skill and a person's ability to influence the behavior of other people, both his position is higher or more inferior to him in thinking and act to return to the original behavior may be individualistic and egocentric transformed into organizational behavior.

This finding indicates that transformation leadership is not yet effective enough in increasing the impact of budget participation on managerial performance in OPZ. According to Bass in 990, transformation leadership involves inspiration and motivation for change, but a more focused approach to budget management may be needed to improve managerial performance. Research by Grodt et al, (2023) shows that other factors such as managerial involvement and commitment also play an important role in moderating the influence of budget participation.

This means that transformation leadership does not have a significant effect in strengthening or weakening the relationship between participation in budgeting and managerial performance. In other words, whether transformation leadership is present or not, budget participation has the same impact on managerial performance. This shows that the transformation leadership variable does not affect or change the nature of the relationship between budget participation and managerial performance.

Transformation Leadership significantly moderates the positive relationship between Digital Technology and Managerial Performance.

Nainggolan et al, (2023) stated that transformation leadership has a significant effect on managerial performance. This shows that managers are able to carry out their role as superiors in influencing or moving subordinates with full responsibility for achieving organizational goals well.

These results indicate that transformational leadership can strengthen the positive impact of digital technology on managerial performance. Inspirational leaders who support technological innovation can help managers to use digital technology more effectively in zakat management. Research to Oduro et al, (2023) transformation leadership plays a key role in ensuring that digital technology is implemented well and can improve company performance. Prawati and Augustine (2022) research also shows that transformation leadership can increase motivation and productivity through the use of technology.

This means that transformation leadership strengthens or enhances the positive influence that digital technology has on managerial performance. In other words, when transformation leadership is present in an organization, the implementation of digital technology has a greater and more positive impact on managerial performance than when transformation leadership is absent. Transformation leadership helps maximize the benefits of digital technology in improving managerial performance.

Furthermore, for the relationship between transformational leadership and managerial performance, which shows a very significant influence. Transformational leadership is a leadership style that focuses on inspiring and motivating employees to reach their full potential and produce positive change in the organization. Transformational leaders encourage innovation and creativity, provide a clear and compelling vision of the future, and build strong relationships with employees through effective communication,

emotional support, and appreciation for individual contributions.

This finding is consistent with the transformational theory proposed by Bass in 1985, which states that transformational leadership is able to inspire and motivate employees to achieve higher performance. Transformational leaders not only provide direction and support, but also encourage employees to think creatively and innovatively, and increase their commitment to organizational goals. Previous research by Oduro et al, (2023) also found that transformational leadership has a significant positive effect on managerial performance, especially in the context of digital technology adoption.

This means that transformation leadership has a big and important impact on improving managerial performance. In other words, when leaders apply the principles of transformation leadership, such as inspiring, motivating, and empowering employees, this directly contributes to increasing managerial effectiveness, efficiency, and productivity, thus achieving optimal performance.

Next, the relationship between Organizational Culture and Managerial Performance also has a significant influence. Organizational culture is a set of values, beliefs, norms, and practices shared by members of an organization that shape the way they interact and work together to achieve common goals. This culture includes ways of thinking, acting, and communicating that are considered appropriate and effective in the context of the organization.

These results indicate that a strong and positive organizational culture can improve coordination, integration, and collaboration among employees, which in turn improves managerial performance. Schein (2010) organizational culture theory explains that shared values and norms in an organization shape employee behavior and influence work efficiency and effectiveness. Mousavi et al, (2015) research supports these findings, where a good organizational culture has been shown to improve managerial performance in various companies. An adaptive and innovation-supportive organizational culture can encourage managers to be more effective in carrying out their managerial functions, such as planning, organizing, directing, and controlling.

This means that the culture within an organization has a significant and meaningful impact on the performance of its managers. Organizational culture encompasses the values, norms, customs, and attitudes shared by members of an organization, which influence the way they work, interact, and collaborate to achieve common goals.

CONCLUSION

The research findings indicate that budget participation and digital technology do not significantly influence managerial performance in Zakat Management Organizations (OPZ) in Riau Province. Additionally, transformational leadership does not moderate the relationship between budget participation and managerial performance. However, transformational leadership is found to moderate the relationship between digital technology and managerial performance, suggesting its role in enhancing the impact of digital adoption within OPZ.

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