## The Influence of Management Quality and Innovation Strategy on Operational Performance Through Information Technology as an Intervening Variable at LPDB KUMKM

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Abstract— The use of technology is useful to encourage the emergence of new innovations in the implementation of corporate action strategies. Innovation is a way out for LPDB-KUMKM to adapt the organization's circumstances to dynamic external environmental issues. Information technology is increasingly being used to measure, understand and improve the quality of sustainable organizational management by increasing awareness of the concept of quality, improving services and reducing costs that arise in the process of obtaining quality management. LPDB-KUMKM continues to strive to make various innovations by designing a core micro financing system, which is a system to monitor the process of distributing revolving funds at revolving fund management institutions in Indonesia. This study uses purposive sampling with the number of samples used as many as 261 LPDB-KUMKM employees, while the analysis technique uses structural equation modeling analysis. The research results obtained are: (1) the quality of management has an effect on information technology; (2) the innovation strategy has an effect on information technology; (3) management quality has an effect on operational performance; (4) innovation strategy has an effect on operational performance.

*Keywords*— Management quality, innovation strategy, information technology, operational performance, LPDB-KUMKM.

## I. INTRODUCTION

Now we are entering the fourth industrial resolution called industry 4.0 where computers and automation are coming together in a new way. Era 4.0 has become an industrial concept that affects digitalization and virtualization in various organizational domains, where most organizations. With technological advances, integration and automation processes can be carried out very quickly, as well as the digitization process and public service processes can be carried out more effectively and efficiently, (Ganbold, 2020; Bi et al, 2013; Peng et al, 2016; Li et al, al, 2016).

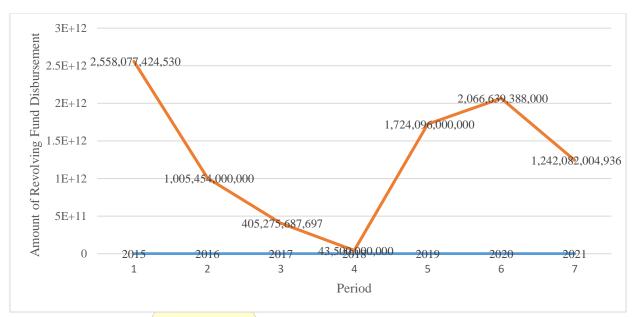
Utilization of information technology for public organizations is used to obtain, process and also to facilitate communication, coordination and collaboration between other public organizations and as a channel for the public to obtain public services, (Hsu, 2013; Fuchs et al. al, 2018; Bhakoo & Choi, 2013; Cragg & Mcnamara, 2013). With collaboration between public organizations and supported by relational view theory, organizations will apply their information technology, (Ochoa et al, 2017; Fuchs et al, 2018; Yu et al, 2018).

The phenomenon of implementing the innovation strategy that has been carried out by LPDB-KUMKM management throughout the 2021 period recorded efficiency, one of which is official travel. The average cost value before is Rp. 174,427,060 and after is Rp. 164,810,446 or a decrease of 5.51% (Directorate of Finance in 2021; LAKIP LPDB-KUMKM 2021).

This indicates that the phenomenon of implementing an effective innovation strategy is proven to increase budget efficiency by up to 6%. In relation to the management quality phenomenon, the organization has reshuffled its structural officers in 2019, namely two directors from banking who came in to replace the previous officials. This policy has a direct impact on the achievement of revolving fund distribution as shown in the data below.

Based on Graph 1 above, it can be explained that the recorded amount of revolving fund distribution of Rp. 2,558,077,424,530 was in the maturity phase then entered the decline phase until it touched its lowest point in the 2018 period of Rp. 43,500,000,000.

Furthermore, the researcher wants to prove that the refresh of the new structural officers at the beginning of 2019 can actually give color to the new management quality and have an impact on a significant increase in operational performance.



Graph 1: Distribution of Revolving Funds for the 2015-2021 Period

The implementation of the organizational policies above to increase the number of revolving fund disbursements was very significant starting in the 2019 period of Rp. 1,724,096,000,000 (entering the growth phase) then increasing again in 2020 to reach Rp. 2,066,639,388,000 or experiencing growth again. when compared to the 2017 period, which was 410% (yoy). Utilization of information technology can encourage the implementation of effective and efficient innovation strategies, so as to provide added value to the performance of public organizations holistically. The more information technology that is used, the more innovations made and can also improve the operational performance of public organizations (Rahmadari, 2019; Naidoo, 2018; Adietya, 2017; Kitsios, 2016).

The implementation of targeted innovation strategies can improve organizational operational performance and innovation strategies are needed to avoid saturation within the organization (Ulfa, 2021; Fufung, 2020; Utami, 2020; and Alsadi, 2017). Furthermore, Mukti (2016) found that leadership orientation was quite significant in influencing the innovation strategy carried out related to process innovation, internal and external sources of innovation as well as the level of investment made by public organizations.

Innovation is a way out for organizations to adjust organizational circumstances to dynamic external environmental issues, (Cottam, 2011). Kowo (2018), finds the dimensions of process innovation that can best explain its effect on operational performance, including the company's ability to modify public services. On the other hand, Kyuga Na (2019) actually found that process innovation did show significance but the direction of its influence was actually negative on improving the operational performance of public organizations.

## **II. LITERATURE REVIEW**

Terziovski & Samson (2010), defines operational performance as the organization's ability to transform products that are able to satisfy customers. Operational performance as an improvement in the organization's response to dynamic external environmental issues, (Flynn et al, 2010). Ketokivi & Schroeder (2019), said that operational performance has several dimensions including product quality, process quality, productivity and efficiency. Arda et al (2018), mentions several indicators that can be used to measure operational performance, namely increasing organizational competitiveness, increasing general performance, decreasing the labor turnover ratio, improve the competence of new product development by utilizing investment in research and development as well as new products.

Jaafreh & Al-abedallat (2013), defines quality management as a style that organizations can adopt in an effort to improve competitiveness and overall performance. Quality management is relevant to organizations that are oriented towards increasing customer satisfaction and productivity (Zu, 2009), finance and innovation performance (Anil & Satish, 2019). The dimensions of management quality consist of leadership, strategic planning processes, quality assurance of outputs, utilization of human resources, (Yan et al, 2019; Udofia, 2021). Management quality can be measured using indicators of top management commitment, focus on customers, involvement of organizational personnel, continuous improvement and management relationships, (Jayalath, 2017; ISO, 2003). 2015; Abbas, 2020; Negron, 2020).

West & Far (2012), defines innovation strategy as the application and introduction of new ideas, products, procedures and processes to units that implement them and are designed to provide benefits to the organization. Innovation strategy can be measured using several indicators such as implementation of research and development results, introduction of new and innovative products, level of flexibility and advanced technology, level of organization and human resource management, use of information technology, allocation of financing resources for innovation, innovation transfer process, partnerships and cooperation, awareness of innovation and application of innovation techniques and tools, (Sabadka, 2012).

Galbold (2020) said that information technology consists of cross-functional application capacity (internal organization) cross-stakeholder capacity (interorganizational) and data consistency as the purpose of application control. Several indicators such as hardware, software, infrastructure, information specialists and information users can be used to measure information technology (Sutanta, 2013).

## A. Formulation of The Problem

- 1. Regarding operational performance, the service focus is not optimal because LPDB-KUMKM serves all types of needs of prospective partners with quite varied types of business with a level of risk that is adjusted to the complexity of risk mitigation of financing loans.
- 2. Regarding the quality of management, there is no specific team that carries out change of management with clear strategic parameter measurements and the lack of management commitment in improving the quality of management on an ongoing basis.
- 3. Regarding the innovation strategy, the lack of structured entrepreneurial motivation in developing services is one thing that needs to be instilled in all management lines.
- 4. Regarding information technology, the CMFS system has not yet been integrated as an integral internal application of the organization in reviewing the feasibility analysis to distributing revolving funds to organizational partners.

## **B.** Research Purposes

1. The influence of management quality on information technology.

- 2. The effect of innovation strategy on information technology.
- 3. The influence of management quality on operational performance.
- 4. The effect of the invasion strategy on operational performance.
- 5. The effect of information technology on operational performance.

## III. METHOD

The method used in this research is quantitative. The scope of the variables in this study consisted of operational performance as an endogenous variable; management quality and innovation strategy as exogenous variables; and information technology as an intervening variable. The sampling technique used purposive sampling with judgment non-probability sampling method and used a sample of 261 LPDB-KUMKM employees. Meanwhile, the technique uses structural equation modeling analysis with the help of statistical software for windows AMOS version 24. The research design built in this study is as follows.

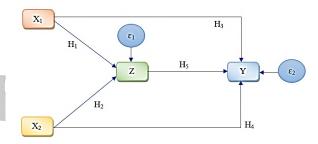


Figure 1: Research Design

Information:

- X1 : Quality management
- X2 : Innovation strategy
- Z : Information technology
- Y : Operational performance

## **IV. RESULT AND DISCUSSION**

## A. Confirmatory Factor Analysis Validity

It is said that the construct variables can reflect the latent variable if the critical ratio value is 1.96 with a significance probability of 0.05.

As for the results obtained, it is known that the overall construct variables in each latent variable can reflect the variables of management quality, innovation strategy, information technology and operational performance very well. So, it can be interpreted that the distribution of the data in this study has a very good level of validity.

			Estimate	S.E.	C.R.	P
B25	<	Management Quality	1,000			
B22	<	Management Quality	1,497	,158	9,478	***
B21	<	Management Quality	1,137	,130	8,741	***
B20	<	Management Quality	1,588	,166	9,546	***
B19	<	Management Quality	1,577	,167	9,445	***
B16	<	Management Quality	1,430	,153	9,359	***
B46	<	Information Tech	1,000			
B48	<	Information Tech	1,145	,070	16,269	***
B49	<	Information Tech	1,127	,073	15,360	***
B52	<	Information Tech	1,071	,070	15,279	***
B53	<	Information Tech	1,026	,069	14,905	***
B28	<	Management Quality	1,240	,133	9,296	***
B29	<	Management Quality	1,340	,143	9,393	***
B40	<	Innovation Strategy	1,000			
B39	<	Innovation Strategy	,830	,066	12,486	***
B38	<	Innovation Strategy	,877	,064	13,805	***
B37	<	Innovation Strategy	,947	,062	15,207	***
B36	<	Innovation Strategy	,992	,063	15,692	***
B35	<	Innovation Strategy	1,002	,066	15,276	***
B34	<	Innovation Strategy	1,000	,064	15,634	***
B33	<	Innovation Strategy	,988	,064	15,361	***
B41	<	Innovation Strategy	,948	,071	13,307	***
B42	<	Innovation Strategy	,858	,063	13,553	***
B44	<	Innovation Strategy	1,070	,071	15,002	***
B1	<	Operational Perform	1,000			
B2	<	Operational Perform	,903	,086	10,505	***
<b>B6</b>	<	Operational Perform	,795	,089	8,911	***
B7	<	Operational Perform	,805	,088	9,164	***
<b>B8</b>	<	Operational Perform	,775	,081	9,551	***
<b>B9</b>	<	Operational Perform	1,202	,108	11,121	***
B10	<	Operational Perform	1,259	,114	11,046	***
B11	<	Operational Perform	1,033	,103	10,077	***
B12	<	Operational Perform	1,277	,133	9,573	***
B13	<	Operational Perform	1,113	,116	9,555	***
B14	<	Operational Perform	,973	,095	10,247	***
B15	<	Operational Perform	,965	,091	10,630	***

Table	1:	Regression	Weights
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## **B.** Convergent Validity

It is said that convergent validity has a high proportional variance value if the value of the loading factor or standardized loading estimated is 0.5.

It can be interpreted that each of the construct variables in this study can reflect the latent variables of management quality, innovation strategy, information technology and operational performance very well.

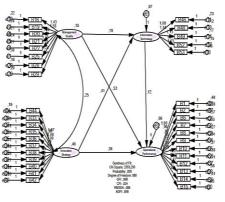


Figure 1: Confirmatory Factor Analysis

## C. Average Variance Extracted (AVE)

It is said that the research data is valid if the average value of AVE is 0.5. Based on the test results, the AVE value is greater than the value 0.5.

Table 2: Validity of Average Variance Extracted (AVE)

Latent Variable	AVE
Management Quality	0.6
Innovation Strategy	0.7
Information Technology	0.7
<b>Operational Performance</b>	0.5

## D. Construct Reliability

Based on the test results, the construct reliability value is greater than 0.7. It can be interpreted that the mean value of each construct variable can reflect latent variable very well.

**Table 3:** Construct Reliability (CR)

Latent Variable	CR
Management Quality	0.8
Innovation Strategy	0.8
In <mark>for</mark> mat <mark>ion Tech</mark> nology	0.8
Operational Performance	0.7

## E. Discriminant Validity

Based on the test results, it is known that the square root value of AVE the correlation value of exogenous

variables. This indicates that the variables of management quality and innovation strategy have a very strong correlation value. The reason is that whether or not the quality of management is good is influenced by the management response in understanding, adapting and taking advantage of the dynamic development of the external environment, resulting in the performance of new work innovations.

<b>Table 4.</b> Discriminant valially Matrix					
	Management Innovation				
	Quality	Strategy			
Management	0.582	0.942			
Quality					
Innovation	0.942	0.666			
Strategy					

Table 4. Discriminant Validity Matrix

## F. Assessment of Normality

This test is carried out using the critical ratio skewness criterion of CR  $\pm 2.58$  at a significance level of 1%. It is said that the data has a normal distribution if the value is below the absolute value of 2.58% (Hair et al in Ghozali, 2013). Based on the test results, it is known that the critical value of the skewness ratio for each indicator is in the range of  $\pm 2,58$ . Likewise, the value of multivariate normality is 138,50 critical of ratio 2,58. This indicates that the data has a univariate or multivariate normal distribution.

Table	4: Ass	essment of Normality
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Variable	min	max	skew	c.r.	kurtosis	c.r.
B15	2,000	5,000	-,412	-2,694	-,222	-,728
B14	1,000	5,000	-,692	-4,532	,854	2,793
B13	1,000	5,000	-,505	-3,302	-,129	-,423
B12	1,000	5,000	-,962	-6,298	,261	,855
B11	1,000	5,000	-,793	-5,191	,369	1,208
B10	1,000	5,000	-,917	-6,002	,782	2,561
B9	1,000	5,000	-,869	-5,684	,552	1,806
B8	1,000	5,000	-1,112	-7,278	2,078	6,801
B7	1,000	5,000	-1,193	-7,807	1,677	5,487
B6	1,000	5,000	-1,263	-8,266	2,315	7,575
B2	1,000	5,000	-1,168	-7,643	1,513	4,952
B1	1,000	5,000	-1,404	-9,186	2,185	7,149
B44	1,000	5,000	-1,134	-7,423	1,916	6,270
B42	1,000	5,000	-,965	-6,318	1,685	5,514
B41	1,000	5,000	-,999	-6,540	1,601	5,240
B33	1,000	5,000	-,998	-6,530	1,614	5,281
B34	1,000	5,000	-,689	-4,508	,703	2,302
B35	1,000	5,000	-,841	-5,502	1,022	3,344
B36	1,000	5,000	-,897	-5,873	1,408	4,606
B37	1,000	5,000	-,973	-6,370	1,681	5,500
B38	1,000	5,000	-1,090	-7,135	1,878	6,147

B39	1,000	5,000	-1,142	-7,474	1,646	5,386
B40	1,000	5,000	-,934	-6,113	1,029	3,367
B29	1,000	5,000	-,866	-5,665	1,201	3,929
B28	1,000	5,000	-,832	-5,444	1,493	4,885
B53	1,000	5,000	-,858	-5,616	1,085	3,551
B52	1,000	5,000	-1,018	-6,664	1,243	4,066
B49	1,000	5,000	-,870	-5,696	1,081	3,537
B48	1,000	5,000	-,807	-5,280	,521	1,705
B46	1,000	5,000	-1,110	-7,262	1,860	6,085
B16	1,000	5,000	-1,203	-7,872	1,987	6,501
B19	1,000	5,000	-,950	-6,216	1,274	4,169
B20	1,000	5,000	-,900	-5,889	1,022	3,345
B21	1,000	5,000	-1,334	-8,730	3,362	11,003
B22	1,000	5,000	-1,119	-7,322	1,750	5,725
B25	1,000	5,000	-,898	-5,878	1,064	3,481
Multivariate					903,785	138,498

## G. Goodness of Fit Index Model

Although the results of the model values in this study still have not reached the cut-off value, the value is close to the recommended value.

	Table 5: Goodness of Fit Index								
No	Goodness of Fit	Cut-Off Value	Result	Evaluation					
	Index		Analysis	Model					
1	Chi-Square	Value of the chi square distribution, df 588, sig $5\% = \le 659,051$	2.058,25	Marginal					
2	Significance	≥ 0,05	0,00	Marginal					
	probability								
3	GFI	≥0,90	0,70	Marginal					
4	AGFI	≥ 0,90	0,66	Marginal					
5	IFI	≥ 0,90	0,83	Marginal					
6	TLI	≥0,90	0,81	Marginal					
7	CFI	≥ 0,90	0,84	Marginal					
8	NFI	≥ 0,90	0,77	Marginal					
9	RMSEA	$\leq 0,08$	0,09	Marginal					
10	CMIN/ DF	≤ 2,00	3,50	Marginal					

## H. Outlier Mahalanobis Distance

Outlier testing in this study uses the chi square value at the degree of freedom level of 36, namely the number of indicators at the 0.010 significance level so that the tchisquare table value, df 36, sig 0.01 is 58,619. Based on the test results, the Mahanobis distance value at 100 observation numbers all has a value below 58,619. It can be interpreted that there are no outlier symptoms and the data pattern spreads along the X and Y axes.

Tuble 0. Outlief Manufactoris Distance					
Mahalanobis d-squared	p1	p2			
58,181	,011	,000			
57,798	,012	,000			
57,533	,013	,000			
57,300	,013	,000			
57,002	,014	,000			
54,329	,026	,000			
54,227	,026	,000			
54,111	,027	,000			
	Mahalanobis d-squared   58,181   57,798   57,533   57,300   57,002   54,329   54,227	Mahalanobis d-squared p1   58,181 ,011   57,798 ,012   57,533 ,013   57,300 ,013   57,002 ,014   54,329 ,026   54,227 ,026			

Table 6: Outlier Mahalanobis Distance

225	53,238	,032	,000
58	52,742	,032	,000
233	52,742	,039	,000
192	52,155	,039	,000
104	51,322	,010	,000
100	50,838	,017	,000
57	50,393	,052	,000
141	50,279	,050	,000
45	50,135	,059	,000
86	49,867	,062	,000
68	49,541	,066	,000
226	48,795	,076	,000
136	48,226	,084	,000
125	48,224	,084	,000
132	47,879	,089	,000
148	47,559	,094	,000
88	47,070	,102	,000
122	46,878	,106	,000
175	46,864	,106	,000
241	46,479	,113	,000
51	46,381	,115	,000
133	46,269	,117	,000
236	46,245	,118	,000
81	46,235	,118	,000
200	46,012	,123	,000
72	45,625	,131	,000,
111	45,349	,137	,000
98	45,309	,137	,000
189	44,868	,148	,000
147	44,362	,160	,000
36	44,186	,164	,000
87	43,472	,183	,000
33	43,219	,190	,000
190	42,897	,199	,000
214	42,866	,200	,000
69	42,738	,204	,000
44	42,010	,227	,000
13	40,646	,273	,000
78	40,422	,281	,001
209	40,075	,294	,003
113	39,840	,303	,004
213	39,767	,306	,004
30	39,696	,309	,004

## I. Hypothesis Test

The hypothesis can be accepted (Ha = accepted) if the critical ratio criteria 1.96 at a significance level of 0.05.

The results of hypothesis testing in the study can be presented below.

Regression Weights			Estimate	S.E.	C.R.	P
Management Quality	>	Information Technology	,699	,224	3,128	,002
Innovation Strategy	>	Information Technology	,408	,142	2,881	,004

Information Technology>		Operational Perform	,120	,095	2,261	,007
Management Quality	>	Operational Perform	,535	,223	2,401	,016
Innovation Strategy	>	Operational Perform	,364	,137	2,650	,008

The statistical equation is as follows:

#### 1. OP = 0,535 MQ + 0,364 IS + 0,120 IT

- a. Management quality has a critical ratio value of 2.401 1.96 with a probability significance value of 0.016 significance of 0.05. The decision was to reject Ho and accept Ha. It can be interpreted that the management quality variable has a significant influence on operational performance. The results of this study are in accordance with the results of research conducted by Udofia et al (2021), Liu & Lin (2020), Sharma (2019), Jayalath et al (2019) and Nugroho (2016) which said that management quality had a significant influence on operational performance.
- b. The innovation strategy has a critical ratio value of 2,650 1.96 with a significance probability value of 0.008 a significance of 0.05. The decision was to reject Ho and accept Ha. It can be interpreted that the innovation strategy variable has a significant influence on operational performance. The results of this study are in accordance with the results of research conducted by Bolatan et al (2021), Nasutra (2021), Ulfa et al (2021), Fufung (2020), Utami (2020), Naidoo (2018), Adietya (2017) and Alsadi (2017) which says that the innovation strategy has a significant influence on operational performance.
- c. Information technology has a critical ratio value of 2.261 1.96 with a significance probability value of 0.007 significance of 0.05. The decision is to reject Ho and accept Ha. It can be interpreted that the information technology variable has a significant influence on operational performance. The results of this study are in accordance with the results of research conducted by Ganbold (2020), Ilangakoon (2021), Rahmasari (2019), Adietya (2017), which says that the information technology has a significant influence on operational performance.

#### 2. IT = 0,699 MQ + 0,408 SI

a. Quality management has a critical ratio value of 3.128 1.96 with a significance probability value of 0.002 a significance of 0.05. The decision was to reject Ho and accept Ha. It can be interpreted that the quality of management variable has a significant influence on information technology. The results of this study are in accordance with the results of research conducted by Santos et al (2021) and Wai

et al (2021), which say that management quality has a significant influence on information technology.

b. The innovation strategy has a critical ratio value of 2.881 1.96 with a significance probability value of 0,004 a significance of 0.05. The decision was to reject Ho and accept Ha. It can be interpreted that the innovation strategy variable has a significant influence on information technology. The results of this study are in accordance with the results of research conducted by Teixeira et al (2020), Rahmasari (2019) and Kitsios et al (2016), which say that innovation strategies have a significant influence on information technology.

The following are the results of testing the direct influence, indirect effect and total effect as presented below.

<b>Tuble 6.</b> Direct, maineer and Total Effect						
Variable	Direct	Indirect	Total			
	Effect	Effect	Effect			
Management Quality	0.535	0.084	0.619			
Innovation Strategy	0.364	0.049	0.413			
Information Technology	0.120	0.000	0.120			

Table 8: Direct, Indirect and Total Effect

It can be explained that the management quality variable on operational performance has a direct influence value of 0.535, an indirect effect of 0.084 and a total effect of 0.619. The innovation strategy variable on operational performance has a direct influence value of 0.364, an indirect effect of 0.049 and a total effect of 0.413. Meanwhile, the information technology variable on operational performance has a direct influence value of 0.120, an indirect effect of 0.000 and a total effect of 0.120.

Thus, it can be interpreted that the use of information technology variables as intervening variables can indirectly increase the direction of the causal influence of management quality and innovation strategy on operational performance variables. This means that the information technology variable is a good intervening variable in increasing the direction of the causal effect of exogenous variables on endogenous variables in this research model.

The following is a summary of the results of hypothesis testing and a comparison of the research results that the researchers got with the relevant research results and the researchers used in this study.

No	Hypothesis			Conclusion
1	Management	quality	on	Accepted
	information tec			
2	Innovation	strategy	on	Accepted
	information tec			

3	Management	quality	on	Accepted
	operational pe	rformance		
4	Innovation	strategy	on	Accepted
	operational pe			
5	Information	technology	on	Accepted
	operational pe			

Researcher	MQ-IT	IS-IT	MQ-OP	IS-OP	IT-OP
Yones (2022)	cr.3,128	Cr.2,881	cr.2,401	cr.2,650	cr.2,261
	sig. 0,002	sig.0,004	sig.0,016	sig.0,008	sig.0,007
Bolatan (2021)	-	-	-	sig.0,000	-
Santos (2021)	Sig.0,001	-	-	-	-
Nasutra (2021)	-	-	-	sig.0,001	-
Udofia (2021)	-	-	sig.0,000	-	-
Ulfa (2021)	-	-	-	sig.0,000	-
Ilangakoon (2021)	-	-	-	-	sig.0,019
Wai (2021)	Sig.0,004	-	-	-	-
Fufung (2020)		cr.8,550	-	cr.2,890	-
Utami (2020)		-	-	sig.0,000	-
Ganbold (2020)		-	-	-	cr.1,656
Taghizadeh (2020)	- /	cr.6,570	-	cr.3,674	-
Sharma (2019)	-	-	cr.4,070	-	-
Rahmasari (2019)	-	-	-	-	Sig.0,001
Alkahdi (2019)	-	-	sig.0,000	-	-
Naidoo (2018)	-	Sig. 0,001	-	Sig.0,001	-
Adietya (2017)	+	-	-	cr. 2,235	cr. 2,045
Alsadi (2017)	-	- ( )	-	sig. 0,021	-
Jayalath (2017)	-	-	sig. 0,000	-	-
Salaam (2017)	-	-	-	-	cr. 2,229
Mukti (2016)	-	-	-	sig. 0,031	-

## J. Discussion of Research Results

# 1. The Effect of Management Quality on Information Technology

Information technology makes it easy for the public to be able to access information anywhere and anytime, besides that other benefits are also obtained when the LPDB-KUMKM organization can monitor any changes or strategies to respond to the challenges of external environmental issues, (Cakmak & Tas, 2012; Aslizadeh, 2014; Caesar, 2015).

Such as the development of database integration in support of the SIKP (Program Credit Information System), the development of the CMFS system to accelerate the process of distributing revolving funds (DB) and the implementation of OTS (On the Spot) in the internal process of DB distribution.

## 2. The Influence of Innovation Strategy on Information Technology

Communication, informed decisions about the technology to use and the definition of the innovation concept for the organization are needed to develop an innovation strategy. Three types of service innovation strategies emerged focused on service creation, service distribution and customer engagement. Because basically, the use of information technology for LPDB-KUMKM organizations is used to obtain, other public organizations and as a channel for the community to obtain public services, (Hsu, 2013; Fuchs et al, 2018, Bhakoo & Choi, 2013; Cragg & McNamara, 2013).

# 3. The Effect of Management Quality on Operational Performance

One of the management improvement efforts that have been carried out, such as service improvement, is increasing service quality standards, increasing service time standards and service cost efficiency. In addition, building a work culture that refers to the core values of EPICS (excellence, professionalism, integrity, customer focus and synergy) in all LPDB MSME organizational activities. Quality management as a set of management practices and styles in improving competitiveness and organizational operational performance, (Jaafreh & Al-Abedallat, 2013). further Liu (2020), said the intellectual capital owned by the organization can indirectly contribute to improvements in reducing operational costs.

## 4. The Influence of Innovation Strategy on Operational Performance

The implementation of targeted innovation strategies can improve organizational operational performance, innovation strategies are needed so that there is no saturation in the organization (Ulfa, 2021, Fufung, 2020; Utami, 2020). Innovation is a solution for organizations to adjust organizational circumstances to dynamic external environmental issues, (Cottam, 2011). The innovation strategy is said to be successful if the product received by the customer can generate profits for the organization. This is because the innovation strategy is used to increase productivity in every operational activity, production process, product quality and value, (Adietya, 2017; Tiedd et al, 2015) using the six sigma, kaizen, 5S approach or method which is proven to improve process performance, process time and operational productivity holistically, (Nugroho & Mukhsin, 2019).

## 5. The Effect of Information Technology on Operational Performance

This indicates that the use of technology for LPDB-KUMKM organizations is optimally applied in an effort to obtain, process and send information quickly and accurately to support the decision-making process, (Hsu, 2013; Fuchs et al, 2018; Choi, 2013). Thus, the optimal use of information technology within the LPDB-KUMKM organization, has an impact on increasing the organization's operational performance significantly. Whereas the core of the function of information technology is the creation of efficiency to reduce operational waste (Moghavveni, 2012; Gareau, 2014).

## V. CONCLUSION

The results of statistical tests show that several determinant factors such as management quality variables, innovation strategies and information technology can explain the variation in their effects on operational performance variables. In path I, the

management quality variable becomes the most dominant variable in explaining its influence on the operational performance variable. While in path II, the innovation strategy variable is the most dominant in explaining the variation of its influence on the information technology variable. The information technology variable has effect on the operational performance variable. It can be interpreted that the information technology variable is a good intervening variable in explaining the direction of the causal influence of the quality management variable and innovation strategy on operational performance partially.

LPDB-KUMKM in improving the quality of management needs to strengthen and build a work culture by referring to the core values of EPICS (excellence, professionalism, integrity, customer focus and synergy). Development in the implementation of techno-preneuers development strategies and entrepreneurial incubator activities by creating cooperative start-ups and MSMEs also needs to be carried out in a sustainable manner. In addition, efforts to modernize the management of BLU and BIOS as well as the implementation of OTS in the internal process of DB distribution are expected to be able to integrate one system with other systems. This is done in order to improve the operational performance of the organization holistically.

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