



## CHAPTER 4

### RESULTS OF THE STUDY

This chapter reports results of the study. Firstly, the characteristics of responses are presented. Secondly, the general statistics of independent and dependent variables are presented. In particular, the means, standard deviations, and other relevant statistics of the budget-based performance evaluation, job performance, and job satisfaction are shown. Finally, results of hypotheses testing are reported and analyzed.

The hypotheses testing are concerned with job performance and job satisfaction. The impact of budget-based performance evaluation on job performance and job satisfaction is similarly tested via one-way Analysis of Variance ( ANOVA ). First, ANOVA is used to test the impact of budget participation on job performance and job satisfaction. Second, ANOVA is used to test the impact of budget use on job performance and job satisfaction. Third, ANOVA is used to simultaneously test the impact of budget participation and use on job performance and job satisfaction. Lastly, the relationship between budget participation and use is classified into four possible combinations. Multiple comparison tests are used to test for differences in job performance and job satisfaction among the four combinations as follows:

1. High budget participation and high budget use
2. Low budget participation and low budget use
3. High budget participation and low budget use
4. Low budget participation and high budget use

#### **4.1 Characteristics of Responses**

Of the 542 questionnaires distributed, 307 are returned ( 57% overall response rate ). Of the total 307 questionnaires returned, they are comprised of large and small banks at 77% and 23%, respectively; owner-managed and professional-managed banks comprise 78% and 22%, respectively.

The appendix C presents the characteristics of the respondents in details. Respondents are mostly male ( 73% ) and hold bachelor education ( 70% ). In addition, they are mostly between 40 - 49 years old ( 62% ), have held branch manager positions in their present banks for 5 years or under ( 41% ), and have worked at their present banks between 16 - 20 years ( 43% ). However, their annual income is quite spread out among 300,001 - 400,000 bahts ( 28% ), 400,001 - 500,000 bahts ( 25% ), and 500,000 bahts or over ( 31% ).

#### **4.2 Characteristics of Budget-Based Performance Evaluation, Job Performance, and Job Satisfaction**

Table 4.1 presents the means and standard deviations of budget participation factors. The highest participation is with expense budget, followed by loan and deposit budgets, respectively.

Table 4.2 presents the means and standard deviations of budget use factors. Of the seven factors, the factor concerning budget achievement ( item D ) has the highest mean ( 4.54 ). This could possibly indicate that the budget achievement is perceived as the most important performance evaluation factor. On

the other hand, the factor concerning overall efficiency of operation ( item F ) has the lowest mean ( 3.46 ). This could possibly indicate that the overall efficiency of operation is perceived as the least important performance evaluation factor.

In addition, table 4.3 also presents the relative importance of the seven performance evaluation factors when they are ranked as the most important factor and the three most important factors, respectively. The importance of budget achievement is clearly shown, as it receives the most vote at 69% and 30% as the most important factor and among the most three important factors, respectively. On the other hand, the unimportance of overall efficiency of operation is also clearly shown, as it receives the least vote at 1% and 7% as the most important factor and among the most three important factors, respectively.

Table 4.4 presents the means and standard deviations of job performance and job satisfaction variables, respectively. The mean and standard deviation of the overall job performance aggregated from the eight individual aspects of job performance is reported at 28.15 and 5.44, respectively. The means of the eight individual aspects of job performance ranging from 3.24 ( representing ) to 3.85 ( negotiating ). The mean and standard deviation of the overall job satisfaction is 35.93 and 8.08, respectively.

Table 4.5 presents the relationship between the overall job performance and the eight individual aspects of job performance. Results of ANOVA indicate that the ability of the eight individual aspects of performance are highly significant ( p-value = 0.0000 ) to explain the overall job performance. Results of regression analysis indicate that planning ( p-value = 0.0000 ), evaluating ( p-value = 0.0366 ), staffing ( p-value = 0.0229 ) and representing ( p-value = 0.0003 ) are

the four most significant aspects of performance to explain the overall job performance.

**Table 4.1**  
**Means and Standard Deviations of the Budget Participation Factors**

Factors	Loan Budget	Deposit Budget	Expense Budget	General Budget
1. The extent of involvement in budget setting	0.93 (1.07)	0.92 (1.09)	0.99 (1.02)	0.94 (1.02)
2. The extent of being explained about budget revisions by superiors	0.83 (0.97)	0.82 (0.97)	0.81 (0.96)	0.82 (0.94)
3. The extent of giving opinions on a regular basis about budget to superiors	0.82 (0.88)	0.83 (0.87)	0.84 (0.85)	0.83 (0.84)
4. The degree of influence on final budget	0.24 (1.07)	0.23 (1.05)	0.32 (1.06)	0.26 (1.02)
5. The degree of importance of input to budget	0.45 (0.97)	0.45 (0.96)	0.50 (0.98)	0.46 (0.93)
6. The extent of being asked for opinions on a regular basis about the budget	0.24 (0.97)	0.24 (0.95)	0.26 (0.96)	0.25 (0.93)
Total	3.47 (4.44)	3.41 (4.39)	3.67 (4.40)	3.52 (4.27)

Note : The figures without parentheses are the means, and those in parentheses are the standard deviations.

**Table 4.2**  
**Means and Standard Deviations of the Budget Use Factors**

<b>Factors</b>	<b>Mean</b>	<b>Standard Deviation</b>
A. The effort I put into my job	3.97	.85
B. How well I get on with group staff	3.56	.89
C. My concern with quality	4.32	.71
D. How well I meet my budget	4.54	.60
E. The relationship I have established with my staff	4.06	.78
F. How efficiently I run my unit	3.46	.88
G. My attitude toward my work	3.94	.94

**Table 4.3**  
**Percentage of the Bank-Order Importance of the Budget Use Factors**

Factors	Ranked in Top One	Ranked in Top Three
A. The effort I put into my job	10.0%	15.2%
B. How well I get on with group staff	6.9%	9.7%
C. My concern with quality	8.7%	20.9%
D. How well I meet my budget	69.2%	29.8%
E. The relationship I have established with my staff	2.8%	14.5%
F. How efficiently I run my unit	0.7%	7.6%
G. My attitude toward my work	1.7%	2.3%
Total	100%	100%

**Table 4.4**  
**Means and Standard Deviations of the Job Performance**  
**and Job Satisfaction Variables**

Variables	Mean	Standard Deviation
A. Job Performance		
1. Planning	3.29	1.04
2. Investigating	3.49	0.99
3. Coordinating	3.31	0.91
4. Evaluating	3.57	0.90
5. Supervising	3.77	0.92
6. Staffing	3.64	0.98
7. Negotiating	3.85	0.89
8. Representing	3.24	1.01
9. Overall	3.34	0.86
Total ( 1 - 8 )	28.15	5.44
B. Job Satisfaction	35.93	8.08

**Table 4.5**  
**The Effect of the Eight Individual Aspects of**  
**Job Performance on the Overall Job Performance**

**A) ANOVA Results**

Source of Variation	df	SS	MS	F	p-value
Model	8	100.66	12.58	30.50	0.0000
Error	293	120.89	0.41		
Total	301	221.55			

**B) Regression Results**

Variables	Coefficient Estimate	Standard Error	t	p-value
1. Planning	0.22	0.05	4.25	0.0000
2. Investigating	0.09	0.05	1.61	0.1093
3. Coordinating	0.07	0.05	1.12	0.2656
4. Evaluating	0.13	0.05	2.10	0.0366
5. Supervising	0.03	0.05	0.44	0.6626
6. Staffing	0.14	0.05	2.29	0.0229
7. Negotiating	0.08	0.05	1.33	0.1843
8. Representing	0.20	0.05	3.66	0.0003

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The Coefficient of Determination ( R ) = 0.45

### **4.3 Relationship between Budget-Based Performance Evaluation and Job Performance**

The relationship between budget-based performance evaluation and job performance is similarly tested in three separate samples as follows:

1. All-bank sample
2. Large and small bank sample
3. Owner-managed and professional-managed bank sample

#### **4.3.1 Relationship between Budget-Based Performance Evaluation and Job Performance in All-Bank Sample**

The relationship between budget-based performance evaluation and job performance in all-bank sample is examined. Results in table 4.6 indicate that there are no significant differences (  $p\text{-value} = 0.2315$  ) in the mean responses of job performance between the congruence and incongruence styles. However insignificant, the congruence style is shown in table 4.7 to be associated with the high mean responses of job performance. Therefore, budget-based performance evaluation is concluded to have no impact on job performance. Further analysis is conducted to explain the impact of budget participation and use on job performance.

First, the relationship between budget participation and job performance is investigated. Results in table 4.8 indicate that there are significant differences (  $p\text{-value} = 0.0093$  ) in the mean responses of job performance between the high and low budget participation levels. The high budget participation level is shown in table 4.9 to be associated with the high mean

responses of job performance. Therefore, budget participation is concluded to have a positive impact on job performance.

Second, the relationship between budget use and job performance is investigated. Results in table 4.10 indicate that there are no significant differences (  $p\text{-value} = 0.4398$  ) in the mean responses of job performance between the high and low budget use levels. However insignificant, the low budget use level is shown in table 4.11 to be associated with the high mean responses of job performance. Therefore, budget use is concluded to have no impact on job performance.

Third, the relationship between budget participation and use, and job performance is simultaneously investigated. Results in table 4.12 indicate that the main effects of budget participation are significant (  $p\text{-value} = 0.029$  ) to explain variation in the mean responses of job performance, but those of budget use are not significant (  $p\text{-value} = 0.187$  ). The interaction effects of budget participation and use are not significant (  $p\text{-value} = 0.992$  ) to explain variation in the mean responses of job performance.

Lastly, the relationship between budget participation and use is classified into four possible combinations. Results of multiple comparison tests indicate that there are no significant differences in the mean responses of job performance among the four combinations as follows:

1. High budget participation and high budget use
2. Low budget participation and low budget use
3. High budget participation and low budget use
4. Low budget participation and high budget use

With respect to all-bank sample, the following results can be summarized:

1. Budget-based performance evaluation is not significantly related to job performance.
2. Budget participation is significantly related to job performance. High budget participation enhances job performance.
3. Budget use is not significantly related to job performance.
4. Budget participation and use are not significantly related to job performance.

**Table 4.6**  
**ANOVA on the Effect of Budget-Based Performance Evaluation**  
**on Job Performance in All-Bank Sample**

Source of variation	df	SS	MS	F	p-value
Budget-Based					
Performance Evaluation	1	41.66	41.66	1.44	0.2315
Residual	170	4911.76	28.89		
Total	171	4953.42			

**Table 4.7**  
**Mean Responses of Job Performance between**  
**Congruence and Incongruence Styles**  
**in All-Bank Sample**

Styles	Mean	Standard Deviation	Standard Error
Congruence	28.67	5.30	0.57
Incongruence	27.68	5.46	0.59

**Table 4.8**  
**ANOVA on the Effect of Budget Participation**  
**on Job Performance in All-Bank Sample**

<b>Source of variation</b>	<b>df</b>	<b>SS</b>	<b>MS</b>	<b>F</b>	<b>p-value</b>
Budget Participation	1	196.39	196.39	6.93	0.0093
Residual	173	4905.32	28.35		
Total	174	5101.71			

**Table 4.9**  
**Mean Responses of Job Performance between**  
**the High and Low Budget Participation Levels**  
**in All-Bank Sample**

<b>Levels</b>	<b>Mean</b>	<b>Standard Deviation</b>	<b>Standard Error</b>
High	29.00	5.55	0.55
Low	26.85	4.98	0.59

**Table 4.10**  
**ANOVA on the Effect of Budget Use**  
**on Job Performance in All-Bank Sample**

Source of variation	df	SS	MS	F	p-value
Budget Use	1	17.58	17.58	0.60	0.4398
Residual	297	8725.56	29.38		
Total	298	8743.14			

**Table 4.11**  
**Mean Response of Job Performance between**  
**the High and Low Budget Use Levels**  
**in All-Bank Sample**

Levels	Mean	Standard Deviation	Standard Error
High	28.10	5.30	0.34
Low	28.76	5.99	0.86

**Table 4.12**  
**ANOVA on the Effect of Budget Participation and**  
**Use on Job Performance in All-Bank Sample**

<b>Source of Variation</b>	<b>df</b>	<b>SS</b>	<b>MS</b>	<b>F</b>	<b>p-value</b>
Main Effect	2	217.82	108.91	3.86	0.023
Budget Participation	1	136.08	136.08	4.83	0.029
Budget Use	1	49.39	49.39	1.75	0.187
Interaction Effect					
Budget Participation * Budget Use	1	0.00	0.00	0.00	0.992
Explained	3	217.82	72.61	2.58	0.056
Residual	168	4735.59	28.19		
Total	171	4953.41	28.97		

#### **4.3.2 Relationship between Budget-Based Performance Evaluation and Job Performance in Large-Bank Sample**

The relationship between budget-based performance evaluation and job performance in large-bank sample is examined. Results in table 4.13 indicate that there are no significant differences (  $p\text{-value} = 0.2727$  ) in the mean responses of job performance between the congruence and incongruence styles. However insignificant, the congruence style is shown in table 4.14 to be associated with the high mean responses of job performance. Therefore, budget-based performance evaluation is concluded to have no impact on job performance. Further analysis is conducted to explain the impact of budget participation and use on job performance.

First, the relationship between budget participation and job performance is investigated. Results in table 4.15 indicate that there are significant differences (  $p\text{-value} = 0.0033$  ) in the mean responses of job performance between the high and low budget participation levels. The high budget participation level is shown in table 4.16 to be associated with the high mean responses of job performance. Therefore, budget participation is concluded to have a positive impact on job performance.

Second, the relationship between budget use and job performance is investigated. Results in table 4.17 indicate that there are no significant differences (  $p\text{-value} = 0.1003$  ) in the mean responses of job performance between the high and low budget use levels. However insignificant, the low budget use level is shown in table 4.18 to be associated with the high mean responses of job performance. Therefore, budget use is concluded to have no impact on job performance.

Third, the relationship between budget participation and use, and job performance is simultaneously investigated. Results in table 4.19 indicate that the main effects of budget participation are significant (  $p\text{-value} = 0.010$  ) to explain variation in the mean responses of job performance, while those of budget use are also significant (  $p\text{-value} = 0.039$  ). The interaction effects of budget participation and use are not significant (  $p\text{-value} = 0.537$  ) to explain variation in the mean responses of job performance.

It should be noted that the impact of budget use on job performance appears to be more significant as  $p\text{-value}$  decreases from 0.100 ( table 4.17 ) to 0.039 ( table 4.19 ) when the sample is reduced from 231 ( budget use sample ) to 135 ( budget participation and use sample ). This may indicate that the significance of budget use to explain job performance might have been influenced by the sample size.

Lastly, the relationship between budget participation and use is classified into four possible combinations. Results of multiple comparison tests indicate that there are significant differences (  $p\text{-value} = 0.05$  ) in the mean responses of job performance between 1) the high budget participation and low budget use, and 2) the low budget participation and high budget use.

With respect to large-bank sample, the following results can be summarized:

1. Budget-based performance evaluation is not significantly related to job performance.
2. Budget participation is significantly related to job performance.  
High budget participation enhances job performance.

3. Budget use is not significantly related to job performance.
4. Budget participation and use are not significantly related to job performance.

**Table 4.13**  
**ANOVA on the Effect of Budget-Based Performance Evaluation**  
**on Job Performance in Large-Bank Sample**

Source of variation	df	SS	MS	F	p-value
Budget-Based Performance Evaluation	1	32.83	32.83	1.21	0.2727
Residual	134	3626.11	27.06		
Total	135	3658.94			

**Table 4.14**  
**Mean Responses of Job Performance between**  
**Congruence and Incongruence Styles**  
**in Large-Bank Sample**

Styles	Mean	Standard Deviation	Standard Error
Congruence	28.88	5.06	0.60
Incongruence	27.89	5.36	0.67

**Table 4.15**  
**ANOVA on the Effect of Budget Participation**  
**on Job Performance in Large-Bank Sample**

Source of variation	df	SS	MS	F	p-value
Budget Participation	1	235.12	235.12	8.9390	0.0033
Residual	136	3577.20	26.30		
Total	137	3812.32			

**Table 4.16**  
**Mean Responses of Job Performance between**  
**the High and Low Budget Participation Levels**  
**in Large-Bank Sample**

Levels	Mean	Standard Deviation	Standard Error
High	29.44	5.34	0.60
Low	26.79	4.82	0.63

**Table 4.17**  
**ANOVA on the Effect of Budget Use**  
**on Job Performance in Large-Bank Sample**

<b>Source of variation</b>	<b>df</b>	<b>SS</b>	<b>MS</b>	<b>F</b>	<b>p-value</b>
Budget Use	1	71.74	71.74	2.7223	0.1003
Residual	230	6061.63	26.35		
Total	231	6133.38			

**Table 4.18**  
**Mean Responses of Job Performance between**  
**the High and Low Budget Use Levels**  
**in Large-Bank Sample**

<b>Levels</b>	<b>Mean</b>	<b>Standard Deviation</b>	<b>Standard Error</b>
High	28.33	4.96	0.35
Low	29.97	6.17	1.11



**Table 4.19**  
**ANOVA on the Effect of Budget Participation and**  
**Use on Job Performance in Large-Bank Sample**

Source of Variation	df	SS	MS	F	p-value
Main Effect	2	310.95	155.48	6.15	0.003
Budget Participation	1	174.79	174.79	6.91	0.010
Budget Use	1	110.49	110.49	4.37	0.039
Interaction Effect					
Budget Participation * Budget Use	1	9.70	9.70	0.38	0.537
Explained	3	320.65	106.88	4.23	0.007
Residual	132	3338.29	25.29		
Total	135	3658.94	27.10		

### **4.3.3 Relationship between Budget-Based Performance Evaluation and Job Performance in Small-Bank Sample**

The relationship between budget-based performance evaluation and job performance in small-bank sample is examined. Results in table 4.20 indicate that there are no significant differences (  $p\text{-value} = 0.7651$  ) in the mean responses of job performance between the congruence and incongruence styles. However insignificant, the congruence style is shown in table 4.21 to be associated with the high mean responses of job performance. Therefore, budget-based performance evaluation is concluded to have no impact on job performance. Further analysis is conducted to explain the impact of budget participation and use on job performance.

First, the relationship between budget participation and job performance is investigated. Results in table 4.22 indicate that there are significant differences (  $p\text{-value} = 0.8425$  ) in the mean responses of job performance between the high and low budget participation levels. However insignificant, the high budget participation level is shown in table 4.23 to be associated with the high mean responses of job performance. Therefore, budget participation is concluded to have no impact on job performance.

Second, the relationship between budget use and job performance is investigated. Results in table 4.24 indicate that there are no significant differences (  $p\text{-value} = 0.7808$  ) in the mean responses of job performance between the high and low budget use levels. However insignificant, the high budget use level is shown in table 4.25 to be associated with the high mean responses of job performance.

Third, the relationship between budget participation and use, and job performance is not possible to be simultaneously investigated. Results in table 4.26 indicate that the main effects of budget participation are not significant (  $p$ -value = 0.777 ) to explain variation in the mean responses of job performance, and those of budget use are not either significant (  $p$ -value = 0.842 ). The interaction effects of budget participation and use cannot be computed.

Lastly, the relationship between budget participation and use is classified into four possible combinations. Results of multiple comparison tests indicate that there are no significant differences in the mean responses of job performance among the four combinations as follows:

1. High budget participation and high budget use
2. Low budget participation and low budget use
3. High budget participation and low budget use
4. Low budget participation and high budget use

With respect to small-bank sample, the following results can be summarized:

1. Budget-based performance evaluation is not significantly related to job performance.
2. Budget participation is not significantly related to job performance
3. Budget use is not significantly related to job performance.
4. Budget participation and use cannot be concluded to be significantly related to job performance.

**Table 4.20**  
**ANOVA on the Effect of Budget-Based Performance Evaluation**  
**on Job Performance in Small-Bank Sample**

Source of variation	df	SS	MS	F	p-value
Budget-Based					
Performance Evaluation	1	3.35	3.35	0.09	0.7651
Residual	34	1256.29	36.95		
Total	35	1259.64			

**Table 4.21**  
**Mean Responses of Job Performance between**  
**Congruence and Incongruence Styles**  
**in Small-Bank Sample**

Styles	Mean	Standard Deviation	Standard Error
Congruence	27.67	6.42	1.66
Incongruence	27.05	5.83	1.27

**Table 4.22**  
**ANOVA on the Effect of Budget Participation**  
**on Job Performance in Small-Bank Sample**

Source of variation	df	SS	MS	F	p-value
Budget Participation	1	1.44	1.44	0.04	0.8425
Residual	35	1258.67	35.96		
Total	36	1260.11			

**Table 4.23**  
**Mean Responses of Job Performance between**  
**the High and Low Budget Participation Levels**  
**in Small-Bank Sample**

Levels	Mean	Standard Deviation	Standard Error
High	27.48	6.13	1.28
Low	27.07	5.77	1.54

**Table 4.24**  
**ANOVA on the Effect of Budget Use**  
**on Job Performance in Small-Bank Sample**

<b>Source of variation</b>	<b>df</b>	<b>SS</b>	<b>MS</b>	<b>F</b>	<b>p-value</b>
Budget Use	1	2.99	2.99	0.08	0.7808
Residual	65	2484.00	38.22		
Total	66	2486.99			

**Table 4.25**  
**Mean Responses of Job Performance between**  
**the High and Low Budget Use Levels**  
**in Small-Bank Sample**

<b>Levels</b>	<b>Mean</b>	<b>Standard Deviation</b>	<b>Standard Error</b>
High	27.14	6.50	0.93
Low	26.67	5.18	1.22

**Table 4.26**  
**ANOVA on the Effect of Budget Participation and**  
**Use on Job Performance in Small-Bank Sample**

Source of Variation	df	SS	MS	F	p-value
Main Effect	2	3.43	1.71	0.04	0.956
Budget Participation	1	3.09	3.09	0.08	0.777
Budget Use	1	1.53	1.53	0.04	0.842
Explained	2	3.43	1.71	0.04	0.956
Residual	33	1256.21	38.07		
Total	35	1259.64	35.99		

Note : Due to empty cells or a singular matrix, interaction effect has been suppressed.

#### **4.3.4 Relationship between Budget-Based Performance Evaluation and Job Performance in Owner-Managed Bank Sample**

The relationship between budget-based performance evaluation and job performance in owner-managed bank sample is examined. Results in table 4.27 indicate that there are no significant differences (  $p\text{-value} = 0.1471$  ) in the mean responses of job performance between the congruence and incongruence styles. However insignificant, the congruence style is shown in table 4.28 to be associated with the high mean responses of job performance. Therefore, budget-based performance evaluation is concluded to have no impact on job performance. Further analysis is conducted to explain the impact of budget participation and use on job performance.

First, the relationship between budget participation and job performance is investigated. Results in table 4.29 indicate that there are significant differences (  $p\text{-value} = 0.0076$  ) in the mean responses of job performance between the high and low budget participation levels. The high budget participation level is shown in table 4.30 to be associated with the high mean responses of job performance. Therefore, budget participation is concluded to have a positive impact on job performance.

Second, the relationship between budget use and job performance is investigated. Results in table 4.31 indicate that there are no significant differences (  $p\text{-value} = 0.5081$  ) in the mean responses of job performance between the high and low budget use levels. However insignificant, the low budget use level is shown in table 4.32 to be associated with the high mean responses of job performance. Therefore, budget use is concluded to have no impact on job performance.

Third, the relationship between budget participation and use, and job performance is simultaneously investigated. Results in table 4.33 indicate that the main effects of budget participation are significant (  $p$ -value = 0.024 ) to explain variation in the mean responses of job performance, but those of budget use are not significant (  $p$ -value = 0.212 ). The interaction effects of budget participation and use are not significant (  $p$ -value = 0.809 ) to explain variation in the mean responses of job performance.

Lastly, the relationship between budget participation and use is classified into four possible combinations. Results of multiple comparison tests indicate that there are no significant differences in the mean responses of job performance among the four combinations as follows:

1. High budget participation and high budget use
2. Low budget participation and low budget use
3. High budget participation and low budget use
4. Low budget participation and high budget use

With respect to owner-managed bank sample, the following results can be summarized:

1. Budget-based performance evaluation is not significantly related to job performance.
2. Budget participation is significantly related to job performance. High budget participation enhances job performance.
3. Budget use is not significantly related to job performance.
4. Budget participation and use are not significantly related to job performance.

**Table 4.27**  
**ANOVA on the Effect of Budget-Based Performance Evaluation**  
**on Job Performance in Owner-Managed Bank Sample**

Source of variation	df	SS	MS	F	p-value
Budget-Based					
Performance Evaluation	1	65.21	65.21	2.13	0.1471
Residual	134	4107.90	30.66		
Total	135	4173.11			

**Table 4.28**  
**Mean Responses of Job Performance between**  
**Congruence and Incongruence Styles**  
**in Owner-Managed Bank Sample**

Styles	Mean	Standard Deviation	Standard Error
Congruence	29.10	5.42	0.65
Incongruence	27.72	5.65	0.69

**Table 4.29**  
**ANOVA on the Effect of Budget Participation**  
**on Job Performance in Owner-Managed Bank Sample**

Source of variation	df	SS	MS	F	p-value
Budget Participation	1	219.82	219.82	7.33	0.0076
Residual	137	4106.96	29.98		
Total	138	4326.78			

**Table 4.30**  
**Mean Responses of Job Performance between**  
**the High and Low Budget Participation Levels**  
**in Owner-Managed Bank Sample**

Levels	Mean	Standard Deviation	Standard Error
High	29.40	5.68	0.63
Low	26.85	5.17	0.68

**Table 4.31**  
**ANOVA on the Effect of Budget Use**  
**on Job Performance in Owner-Managed Bank Sample**

Source of variation	df	SS	MS	F	p-value
Budget Use	1	13.45	13.45	0.44	0.5081
Residual	230	7042.03	30.62		
Total	231	7055.48			

**Table 4.32**  
**Mean Responses of Job Performance between**  
**the High and Low Budget Use Levels**  
**in Owner-Managed Bank Sample**

Levels	Mean	Standard Deviation	Standard Error
High	28.44	5.40	0.39
Low	29.08	6.12	0.97

**Table 4.33**  
**ANOVA on the Effect of Budget Participation and**  
**Use on Job Performance in Owner-Managed Bank Sample**

<b>Source of Variation</b>	<b>df</b>	<b>SS</b>	<b>MS</b>	<b>F</b>	<b>p-value</b>
Main Effect	2	233.77	116.88	3.92	0.022
Budget Participation	1	155.84	155.84	5.22	0.024
Budget Use	1	46.84	46.84	1.57	0.212
Interaction Effect					
Budget Participation * Budget Use	1	1.76	1.76	0.06	0.809
Explained	3	235.53	78.51	2.63	0.053
Residual	132	3937.58	29.83		
Total	135	4173.11	30.91		

#### **4.3.5 Relationship between Budget-Based Performance Evaluation and Job Performance in Professional-Managed Bank Sample**

The relationship between budget-based performance evaluation and job performance in professional-managed bank sample is examined. Results in table 4.34 indicate that there are no significant differences (  $p\text{-value} = 0.7232$  ) in the mean responses of job performance between the congruence and incongruence styles. However insignificant, the incongruence style is shown in table 4.35 to be associated with the high mean responses of job performance. Therefore, budget-based performance evaluation is concluded to have no impact on job performance. Further analysis is conducted to explain the impact of budget participation and use on job performance.

First, the relationship between budget participation and job performance is investigated. Results in table 4.36 indicate that there are no significant differences (  $p\text{-value} = 0.6686$  ) in the mean responses of job performance between the high and low budget participation levels. However insignificant, the high budget participation level is show in table 4.37 to be associated with the high mean responses of job performance. Therefore, budget participation is concluded to have no impact on job performance.

Second, the relationship between budget use and job performance is investigated. Results in table 4.38 indicate that there are no significant differences (  $p\text{-value} = 0.8427$  ) in the mean responses of job performance between the high and low budget use levels. However insignificant, the low budget use level is shown in table 4.39 to be associated with the high mean responses of job performance. Therefore, budget use is concluded to have no impact on job performance.

Third, the relationship between budget participation and use, and job performance is simultaneously investigated. Results in table 4.40 indicate that the main effects of budget participation are not significant (  $p$ -value = 0.759 ) to explain variation in the mean responses of job performance, and those of budget use are not significant either (  $p$ -value = 0.606 ). The interaction effects of budget participation and use are not significant (  $p$ -value = 0.484 ) to explain variation in the mean responses of job performance.

Lastly, the relationship between budget participation and use is classified into four possible combinations. Results of multiple comparison tests indicate that there are no significant differences in the mean responses of job performance among the four combinations as follows:

1. High budget participation and high budget use
2. Low budget participation and low budget use
3. High budget participation and low budget use
4. Low budget participation and high budget use

With respect to professional-bank sample, the following results can be summarized:

1. Budget-based performance evaluation is not significantly related to job performance.
2. Budget participation is not significantly related to job performance.
3. Budget use is not significantly related to job performance.
4. Budget participation and use are not significantly related to job performance.

**Table 4.34**  
**ANOVA on the Effect of Budget-Based Performance Evaluation**  
**on Job Performance in Professional-Managed Bank Sample**

Source of variation	df	SS	MS	F	p-value
Budget-Based					
Performance Evaluation	1	2.78	2.78	0.13	0.7232
Residual	34	740.44	21.78		
Total	35	743.22			

**Table 4.35**  
**Mean Responses of Job Performance between**  
**Congruence and Incongruence Styles**  
**in Professional-Managed Bank Sample**

Styles	Mean	Standard Deviation	Standard Error
Congruence	27.00	4.54	1.07
Incongruence	27.56	4.79	1.13

**Table 4.36**  
**ANOVA on the Effect of Budget Participation**  
**on Job Performance in Professional-Managed Bank Sample**

Source of variation	df	SS	MS	F	p-value
Budget Participation	1	4.05	4.05	0.19	0.6686
Residual	34	739.17	21.74		
Total	35	743.22			

**Table 4.37**  
**Mean Responses of Job Performance between**  
**the High and Low Budget Participation Levels**  
**in Professional-Managed Bank Sample**

Levels	Mean	Standard Deviation	Standard Error
High	27.55	4.90	1.04
Low	26.86	4.26	1.14

**Table 4.38**  
**ANOVA on the Effect of Budget Use**  
**on Job Performance in Professional-Managed Bank Sample**

Source of variation	df	SS	MS	F	p-value
Budget Use	1	0.96	0.96	0.04	0.8427
Residual	65	1566.98	24.11		
Total	66	1567.94			

**Table 4.39**  
**Mean Responses of Job Performance between**  
**the High and Low Budget Use Levels**  
**in Professional-Managed Bank Sample**

Levels	Mean	Standard Deviation	Standard Error
High	26.98	4.83	0.63
Low	27.33	5.43	1.81

**Table 4.40**  
**ANOVA on the Effect of Budget Participation and**  
**Use on Job Performance in Professional-Managed Bank Sample**

<b>Source of Variation</b>	<b>df</b>	<b>SS</b>	<b>MS</b>	<b>F</b>	<b>p-value</b>
Main Effect	2	10.17	5.09	0.23	0.799
Budget Participation	1	2.15	2.15	0.09	0.759
Budget Use	1	6.12	6.12	0.27	0.606
Interaction Effect					
Budget Participation * Budget Use	1	11.28	11.28	0.50	0.484
Explained	3	21.46	7.15	0.32	0.813
Residual	32	721.76	22.55		
Total	35	743.22	21.23		

#### **4.4 Relationship between Budget-Based Performance Evaluation and Job Satisfaction**

The relationship between budget-based performance evaluation and job satisfaction is similarly tested in three separate samples as follows:

1. All-bank sample
2. Large and small bank sample
3. Owner-managed and professional-managed bank sample

##### **4.4.1 Relationship between Budget-Based Performance Evaluation and Job Satisfaction in All-Bank Sample**

The relationship between budget-based performance evaluation and job satisfaction in all-bank sample is examined. Results in table 4.41 indicate that there are no significant differences (  $p\text{-value} = 0.1677$  ) in the mean responses of job satisfaction between the congruence and incongruence styles. However insignificant, the congruence style is shown in table 4.42 to be associated with the high mean responses of job satisfaction. Therefore, budget-based performance evaluation is concluded to have no impact on job satisfaction. Further analysis is conducted to explain the impact of budget participation and use on job satisfaction.

First, the relationship between budget participation and job satisfaction is investigated. Results in table 4.43 indicate that there are significant differences (  $p\text{-value} = 0.0087$  ) in the mean responses of job satisfaction between the high and low budget participation levels. The high budget participation level is shown in table 4.44 to be associated with the high mean responses of job

satisfaction. Therefore, budget participation is concluded to have a positive impact on job satisfaction.

Second, the relationship between budget use and job satisfaction is investigated. Results in table 4.45 indicate that there are no significant differences (  $p\text{-value} = 0.3655$  ) in the mean responses of job satisfaction between the high and low budget use levels. However insignificant, the low budget use level is shown in table 4.46 to be associated with the high mean responses of job satisfaction. Therefore, budget use is concluded to have no impact on job satisfaction.

Third, the relationship between budget participation and use, and job satisfaction is simultaneously investigated. Results in table 4.47 indicate that the main effects of budget participation are significant (  $p\text{-value} = 0.013$  ) to explain variation in the mean responses of job satisfaction, but those of budget use are not significant (  $p\text{-value} = 0.542$  ). The interaction effects of budget participation and use are not significant (  $p\text{-value} = 0.406$  ) to explain variation in the mean responses of job satisfaction.

Lastly, the relationship between budget participation and use is classified into four possible combinations. Results of multiple comparison tests indicate that there are no significant differences in the mean responses of job satisfaction among the four combinations as follows:

1. High budget participation and high budget use
2. Low budget participation and low budget use
3. High budget participation and low budget use
4. Low budget participation and high budget use

With respect to all-bank sample, the following results can be summarized:

1. Budget-based performance evaluation is not significantly related to job satisfaction.
2. Budget participation is significantly related to job satisfaction. High budget participation enhances job satisfaction.
3. Budget use is not significantly related to job satisfaction.
4. Budget participation and use are not significantly related to job satisfaction.

**Table 4.41**  
**ANOVA on the Effect of Budget-Based Performance Evaluation**  
**on Job Satisfaction in All-Bank Sample**

Source of variation	df	SS	MS	F	p-value
Budget-Based					
Performance Evaluation	1	137.70	137.70	1.92	0.1677
Residual	161	11540.41	71.68		
Total	162	11678.11			

**Table 4.42**  
**Mean Responses of Job Satisfaction between**  
**Congruence and Incongruence Styles**  
**in All-Bank Sample**

Styles	Mean	Standard Deviation	Standard Error
Congruence	36.21	7.64	0.83
Incongruence	34.37	9.29	1.05

**Table 4.43**  
**ANOVA on the Effect of Budget Participation**  
**on Job Satisfaction in All-Bank Sample**

Source of variation	df	SS	MS	F	p-value
Budget Participation	1	491.28	491.28	7.05	0.0087
Residual	164	11429.30	69.69		
Total	165	11920.58			

**Table 4.44**  
**Mean Responses of Job Satisfaction between**  
**the High and Low Budget Participation Styles**  
**in All-Bank Sample**

Styles	Mean	Standard Deviation	Standard Error
Congruence	36.60	7.08	0.71
Incongruence	33.09	9.94	1.21

**Table 4.45**  
**ANOVA on the Effect of Budget Use**  
**on Job Satisfaction in All-Bank Sample**

Source of variation	df	SS	MS	F	p-value
Budget Use	1	53.54	53.54	0.82	0.3655
Residual	285	18570.87	65.16		
Total	286	18624.41			

**Table 4.46**  
**Mean Responses of Job Satisfaction between**  
**the High and Low Budget Use Levels**  
**in All-Bank Sample**

Levels	Mean	Standard Deviation	Standard Error
High	35.85	8.15	0.53
Low	37.02	7.61	1.11

**Table 4.47**  
**ANOVA on the Effect of Budget Participation and**  
**Use on Job Satisfaction in All-Bank Sample**

<b>Source of Variation</b>	<b>df</b>	<b>SS</b>	<b>MS</b>	<b>F</b>	<b>p-value</b>
Main Effect	2	448.98	224.49	3.19	0.044
Budget Participation	1	443.98	443.98	6.31	0.013
Budget Use	1	26.23	26.23	0.37	0.542
Interaction Effect					
Budget Participation * Budget Use	1	48.80	48.80	0.69	0.406
Explained	3	497.78	165.93	2.36	0.074
Residual	159	11180.33	70.31		
Total	162	11678.110	72.087		

#### **4.4.2 Relationship between Budget-Based Performance Evaluation and Job Satisfaction in Large-Bank Sample**

The relationship between budget-based performance evaluation and job satisfaction in large-bank sample is examined. Results in table 4.48 indicate that there are no significant differences (  $p\text{-value} = 0.4749$  ) in the mean responses of job satisfaction between the congruence and incongruence styles. However insignificant, the congruence style is shown in table 4.49 to be associated with the high mean responses of job satisfaction. Therefore, budget-based performance evaluation is concluded to have no impact on job satisfaction. Further analysis is conducted to explain the impact of budget participation and use on job satisfaction.

First, the relationship between budget participation and job satisfaction is investigated. Results in table 4.50 indicate that there are no significant differences (  $p\text{-value} = 0.1136$  ) in the mean responses of job satisfaction between the high and low budget participation levels. However insignificant, the high budget participation level is shown in table 4.51 to be associated with the high mean responses of job satisfaction. Therefore, budget participation is concluded to have no impact on job satisfaction.

Second, the relationship between budget use and job satisfaction is investigated. Results in table 4.52 indicate that there are no significant differences (  $p\text{-value} = 0.6633$  ) in the mean responses of job satisfaction between the high and low budget use levels. However insignificant, the high budget use level is shown in table 4.53 to be associated with the high mean responses of job satisfaction. Therefore, budget use is concluded to have no impact on job satisfaction.

Third, the relationship between budget participation and use, and job satisfaction is simultaneously investigated. Results in table 4.54 indicate that the main effects of budget participation are significant (  $p\text{-value} = 0.005$  ) to explain variation in the mean responses of job satisfaction, but those of budget use are not significant (  $p\text{-value} = 0.060$  ). The interaction effects of budget participation and use are not significant (  $p\text{-value} = 0.096$  ) to explain variation in the mean responses of job satisfaction.

It should be noted that the impact of budget participation on job satisfaction appears to be more significant as  $p\text{-value}$  decreases from 0.114 ( table 4.50 ) to 0.005 ( table 4.54 ) when the number of variables in the statistical model increases from budget participation to budget participation and use. This may indicate that the significance of budget participation to explain job satisfaction might have been influenced by the number of variables included in the statistical model.

It should be further noted that the impact of budget use on job satisfaction appears to be more significant as  $p\text{-value}$  decreases from 0.663 ( table 4.52 ) to 0.060 ( table 4.54 ) when the sample is reduced from 223 ( budget use sample ) to 135 ( budget participation and use sample ). This may indicate that the significance of budget use to explain job satisfaction might have been influenced by the sample size.

Lastly, the relationship between budget participation and use is classified into four possible combinations. Results of multiple comparison tests indicate that there are no significant differences in the mean responses of job satisfaction among the four combinations as follows:

1. High budget participation and high budget use
2. Low budget participation and low budget use
3. High budget participation and low budget use
4. Low budget participation and high budget use

With respect to large-bank sample, the following results can be summarized:

1. Budget-based performance evaluation is not significantly related to job satisfaction.
2. Budget participation is not significantly related to job satisfaction.
3. Budget use is not significantly related to job satisfaction.
4. Budget participation and use are not significantly related to job satisfaction.

**Table 4.48**  
**ANOVA on the Effect of Budget-Based Performance Evaluation**  
**on Job Satisfaction in Large-Bank Sample**

Source of variation	df	SS	MS	F	p-value
Budget-Based					
Performance Evaluation	1	33.13	33.13	0.51	0.4749
Residual	127	8191.71	64.50		
Total	128	8224.84			

**Table 4.49**  
**Mean Responses of Job Satisfaction between**  
**Congruence and Incongruence Styles**  
**in Large-Bank Sample**

Styles	Mean	Standard Deviation	Standard Error
Congruence	36.06	7.47	0.88
Incongruence	35.04	8.69	1.15

**Table 4.50**  
**ANOVA on the Effect of Budget Participation**  
**on Job Satisfaction in Large-Bank Sample**

Source of variation	df	SS	MS	F	p-value
Budget Participation	1	161.08	161.08	2.54	0.1136
Residual	129	8187.66	63.47		
Total	130	8348.75			

**Table 4.51**  
**Mean Responses of Job Satisfaction between**  
**the High and Low Budget Participation Levels**  
**in Large-Bank Sample**

Levels	Mean	Standard Deviation	Standard Error
High	36.41	6.89	0.78
Low	34.15	9.33	1.28

**Table 4.52**  
**ANOVA on the Effect of Budget Use**  
**on Job Satisfaction in Large-Bank Sample**

Source of variation	df	SS	MS	F	p-value
Budget Use	1	11.24	11.24	0.19	0.6633
Residual	222	13134.60	59.16		
Total	223	13145.84			

**Table 4.53**  
**Mean Responses of Job Satisfaction between**  
**the High and Low Budget Use Levels**  
**in Large-Bank Sample**

Levels	Mean	Standard Deviation	Standard Error
High	36.18	7.72	0.55
Low	35.52	7.51	1.39

**Table 4.54**  
**ANOVA on the Effect of Budget Participation and**  
**Use on Job Satisfaction in Large-Bank Sample**

<b>Source of Variation</b>	<b>df</b>	<b>SS</b>	<b>MS</b>	<b>F</b>	<b>p-value</b>
Main Effect	2	8.75	4.37	6.33	0.002
Budget Participation	1	5.58	5.58	8.08	0.005
Budget Use	1	2.48	2.48	3.59	0.060
Interaction Effect					
Budget Participation * Budget Use	1	1.94	1.94	2.81	0.096
Explained	3	10.68	3.56	5.16	0.002
Residual	132	91.13	0.69		
Total	135	101.82	0.75		

#### **4.4.3 Relationship between Budget-Based Performance Evaluation and Job Satisfaction in Small-Bank Sample**

The relationship between budget-based performance evaluation and job satisfaction in small-bank sample is examined. Results in table 4.55 indicate that there are no significant differences (  $p\text{-value} = 0.2140$  ) in the mean responses of job satisfaction between the congruence and incongruence styles. However insignificant, the congruence style is shown in table 4.56 to be associated with the high mean responses of job satisfaction. Therefore, budget-based performance evaluation is concluded to have no impact on job satisfaction. Further analysis is conducted to explain the impact of budget participation and use on job satisfaction.

First, the relationship between budget participation and job satisfaction is investigated. Results in table 4.57 indicate that there are significant differences (  $p\text{-value} = 0.0167$  ) in the mean responses of job satisfaction between the high and low budget participation levels. The high budget participation level is shown in table 4.58 to be associated with the high mean responses of job satisfaction. Therefore, budget participation is concluded to have a positive impact on job satisfaction.

Second, the relationship between budget use and job satisfaction is investigated. Results in table 4.59 indicate that there are no significant differences (  $p\text{-value} = 0.0546$  ) in the mean responses of job satisfaction between the high and low budget use levels. However insignificant, the low budget use level is shown in table 4.60 to be associated with the high mean responses of job satisfaction. Therefore, budget use is concluded to have no impact on job satisfaction.

Third, the relationship between budget participation and use, and job satisfaction is not possible to be simultaneously investigated. Results in table 4.61 indicate that the main effects of budget participation are not significant (  $p$ -value = 0.054 ) to explain variation in the mean responses of job satisfaction, and those of budget use are not significant either (  $p$ -value = 0.091 ). The interaction effects of budget participation and use cannot be computed.

It should be noted that the impact of budget participation on job satisfaction appears to be less significant as  $p$ -value increases from 0.017 ( table 4.57 ) to 0.054 ( table 4.61 ) when the number of variables in the statistical model increases from budget participation to budget participation and use. This may indicate that the significance of budget participation to explain job satisfaction might have been influenced by the number of variables included in the statistical model.

It should be further noted that the impact of budget use on job satisfaction appears to be less significant as  $p$ -value increases from 0.055 ( table 4.59 ) to 0.901 ( table 4.61 ) when the sample is reduced from 62 ( budget use sample ) to 33 ( budget participation and use sample ). This may indicate that the significance of budget use to explain job satisfaction might have been influenced by the sample size.

Lastly, the relationship between budget participation and use is classified into four possible combinations. Results of multiple comparison tests indicate that there are no significant differences in the mean responses of job satisfaction among the four combinations as follows:

1. High budget participation and high budget use
2. Low budget participation and low budget use
3. High budget participation and low budget use
4. Low budget participation and high budget use

With respect to small-bank sample, the following results can be summarized:

1. Budget-based performance evaluation is not significantly related to job satisfaction.
2. Budget participation is significantly related to job satisfaction. Budget participation enhances job satisfaction.
3. Budget use is not significantly related to job satisfaction.
4. Budget participation and use cannot be concluded to be significantly related to job satisfaction.

**Table 4.55**  
**ANOVA on the Effect of Budget-Based Performance Evaluation**  
**on Job Satisfaction in Small-Bank Sample**

Source of variation	df	SS	MS	F	p-value
Budget-Based					
Performance Evaluation	1	162.99	162.99	1.61	0.2140
Residual	32	3244.07	101.38		
Total	33	3407.06			

**Table 4.56**  
**Mean Responses of Job Satisfaction between**  
**Congruence and Incongruence Styles**  
**in Small-Bank Sample**

Styles	Mean	Standard Deviation	Standard Error
Congruence	37.08	8.80	2.44
Incongruence	32.57	10.76	2.35

**Table 4.57**  
**ANOVA on the Effect of Budget Participation**  
**on Job Satisfaction in Small-Bank Sample**

Source of variation	df	SS	MS	F	p-value
Budget Participation	1	566.79	566.79	6.35	0.0167
Residual	33	2943.21	89.19		
Total	34	3510.00			

**Table 4.58**  
**Mean Responses of Job Satisfaction Between**  
**the High and Low Budget Participation Levels**  
**in Small-Bank Sample**

Levels	Mean	Standard Deviation	Standard Error
High	37.29	7.88	1.72
Low	29.07	11.44	3.06



**Table 4.59**  
**ANOVA on the Effect of Budget Use**  
**on Job Satisfaction in Small-Bank Sample**

Source of variation	df	SS	MS	F	p-value
Budget Use	1	324.29	324.29	3.84	0.0546
Residual	61	5151.42	84.45		
Total	62	5475.71			

**Table 4.60**  
**Mean Responses of Job Satisfaction between**  
**the High and Low Budget Use Levels**  
**in Small-Bank Sample**

Levels	Mean	Standard Deviation	Standard Error
High	34.42	9.81	1.46
Low	39.44	7.34	1.73

**Table 4.61**  
**ANOVA on the Effect of Budget Participation and**  
**Use on Job Satisfaction in Small-Bank Sample**

<b>Source of Variation</b>	<b>df</b>	<b>SS</b>	<b>MS</b>	<b>F</b>	<b>p-value</b>
Main Effect	2	493.03	246.51	2.62	0.089
Budget Participation	1	376.96	376.96	4.01	0.054
Budget Use	1	1.49	1.49	0.02	0.901
Explained	2	493.03	246.51	2.62	0.089
Residual	31	2914.03	94.00		
Total	33	3407.06	103.24		

Note : Due to empty cells or a singular matrix, interactions effect has been suppressed

#### **4.4.4 Relationship between Budget-Based Performance Evaluation and Job Satisfaction in Owner-Managed Bank Sample**

The relationship between budget-based performance evaluation and job satisfaction in owner-managed bank sample is examined. Results in table 4.62 indicate that there are no significant differences (  $p\text{-value} = 0.2506$  ) in the mean responses of job satisfaction between the congruence and incongruence styles. However insignificant, the congruence style is shown in table 4.63 to be associated with the high mean responses of job satisfaction. Therefore, budget-based performance evaluation is concluded to have no impact on job satisfaction. Further analysis is conducted to explain the impact of budget participation and use on job satisfaction.

First, the relationship between budget participation and job satisfaction is investigated. Results in table 4.64 indicate that there are significant differences (  $p\text{-value} = 0.0303$  ) in the mean responses of job satisfaction between the high and low budget participation levels. The high budget participation level is shown in table 4.65 to be associated with the high mean responses of job satisfaction. Therefore, budget participation is concluded to have a positive impact on job satisfaction.

Second, the relationship between budget use and job satisfaction is investigated. Results in table 4.66 indicate that there are no significant differences (  $p\text{-value} = 0.2549$  ) in the mean responses of job satisfaction between the high and low budget use levels. However insignificant, the low budget use level is shown in table 4.67 to be associated with the high mean responses of job satisfaction. Therefore, budget use is concluded to have no impact on job satisfaction.

Third, the relationship between budget participation and use, and job satisfaction is simultaneously investigated. Results in table 4.68 indicate that the main effects of budget participation are not significant (  $p$ -value = 0.054 ) to explain variation in the mean responses of job satisfaction, while those of budget use are not significant either (  $p$ -value = 0.952 ). The interaction effects of budget participation and use are not significant (  $p$ -value = 0.711 ) to explain variation in the mean responses of job satisfaction.

It should be noted that the impact of budget participation on job satisfaction appears to be less significant as  $p$ -value increases from 0.030 ( table 4.64 ) to 0.054 ( table 4.68 ) when the number of variables in the statistical model increases from budget participation to budget participation and use. This may indicate that the significance of budget participation to explain job satisfaction might have been influenced by the number of variables included in the statistical model.

Lastly, the relationship between budget participation and use is classified into four possible combinations. Results of multiple comparison tests indicate that there are no significant differences in the mean responses of job satisfaction among the four combinations as follows:

1. High budget participation and high budget use
2. Low budget participation and low budget use
3. High budget participation and low budget use
4. Low budget participation and high budget use

With respect to owner-managed bank sample, the following results can be summarized:

1. Budget-based performance evaluation is not significantly related to job satisfaction.
2. Budget participation is significantly related to job satisfaction.  
Budget participation enhances job satisfaction.
3. Budget use is not significantly related to job satisfaction.
4. Budget participation and use are not significantly related to job satisfaction.

**Table 4.62**  
**ANOVA on the Effect of Budget-Based Performance Evaluation**  
**on Job Satisfaction in Owner-Managed Bank Sample**

Source of variation	df	SS	MS	F	p-value
Budget-Based					
Performance Evaluation	1	89.97	89.97	1.33	0.2506
Residual	129	8714.76	67.56		
Total	130	8804.73			

**Table 4.63**  
**Mean Responses of Job Satisfaction between**  
**Congruence and Incongruence Styles**  
**in Owner-Managed Bank Sample**

Styles	Mean	Standard Deviation	Standard Error
Congruence	36.30	7.39	0.90
Incongruence	34.64	9.01	1.13

**Table 4.64**  
**ANOVA on the Effect of Budget Participation**  
**on Job Satisfaction in Owner-Managed Bank Sample**

<b>Source of variation</b>	<b>df</b>	<b>SS</b>	<b>MS</b>	<b>F</b>	<b>p-value</b>
Budget Participation	1	317.40	317.40	4.80	0.0303
Residual	132	8736.66	66.19		
Total	133	9054.06			

**Table 4.65**  
**Mean Responses of Job Satisfaction between**  
**the High and Low Budget Participation Levels**  
**in Owner-Managed Bank Sample**

<b>Levels</b>	<b>Mean</b>	<b>Standard Deviation</b>	<b>Standard Error</b>
High	36.60	6.93	0.78
Low	33.48	9.57	1.28

**Table 4.66**  
**ANOVA on the Effect of Budget Use**

<b>Source of variation</b>	<b>df</b>	<b>SS</b>	<b>MS</b>	<b>F</b>	<b>p-value</b>
Budget Use	1	79.62	79.62	1.30	0.2549
Residual	222	13568.09	61.12		
Total	223	13647.71			

**Table 4.67**  
**Mean Responses of Job Satisfaction Between**  
**the High and Low Budget Use Levels**  
**in Owner-Managed Bank Sample**

<b>Levels</b>	<b>Mean</b>	<b>Standard Deviation</b>	<b>Standard Error</b>
High	35.94	7.96	0.59
Low	37.51	7.10	1.14

**Table 4.68**  
**ANOVA on the Effect of Budget Participation and**  
**Use on Job Satisfaction in Owner-Managed Bank Sample**

Source of Variation	df	SS	MS	F	p-value
Main Effect	2	257.61	128.80	1.91	0.151
Budget Participation	1	254.52	254.52	3.79	0.054
Budget Use	1	0.24	0.24	0.00	0.952
Interaction Effect					
Budget Participation * Budget Use	1	9.26	9.26	0.14	0.711
Explained	3	266.86	88.95	1.32	0.270
Residual	127	8537.87	67.23		
Total	130	8804.73	67.73		

#### **4.4.5 Relationship between Budget-Based Performance Evaluation and Job Satisfaction in Professional-Managed Bank Sample**

The relationship between budget-based performance evaluation and job satisfaction in professional-managed bank sample is examined. Results in table 4.69 indicate that there are no significant differences (  $p\text{-value} = 0.4311$  ) in the mean responses of job satisfaction between the congruence and incongruence styles. However insignificant, the congruence style is shown in table 4.70 to be associated with the high mean responses of job satisfaction. Therefore, budget-based performance evaluation is concluded to have no impact on job satisfaction. Further analysis is conducted to explain the impact of budget participation and use on job satisfaction.

First, the relationship between budget participation and job satisfaction is investigated. Results in table 4.71 indicate that there are no significant differences (  $p\text{-value} = 0.1270$  ) in the mean responses of job satisfaction between the high and low budget participation levels. However insignificant, the high budget participation level is shown in table 4.72 to be associated with the high mean responses of job satisfaction. Therefore, budget participation is concluded to have no impact on job satisfaction.

Second, the relationship between budget use and job satisfaction is investigated. Results in table 4.73 indicate that there are no significant differences (  $p\text{-value} = 0.7838$  ) in the mean responses of job satisfaction between the high and low budget use levels. However insignificant, the high budget use level is shown in table 4.74 to be associated with the high mean responses of job satisfaction. Therefore, budget use is concluded to have no impact on job satisfaction.

Third, the relationship between budget participation and use, and job satisfaction is simultaneously investigated. Results in table 4.75 indicate that the main effects of budget participation are not significant (  $p$ -value = 0.096 ) to explain variation in the mean responses of job satisfaction, while those of budget use are not significant either (  $p$ -value = 0.267 ). The interaction effects of budget participation and use are not significant (  $p$ -value = 0.239 ) to explain variation in the mean responses of job satisfaction.

It should be noted that the impact of budget participation on job satisfaction appears to be more significant as  $p$ -value decreases from 0.127 ( table 4.71 ) to 0.096 ( table 4.75 ) when the number of variables in the statistical model increases from budget participation to budget participation and use. This may indicate that the significance of budget participation to explain job satisfaction might have been influenced by the number of variables included in the statistical model.

Lastly, the relationship between budget participation and use is classified into four possible combinations. Results of multiple comparison tests indicate that there are no significant differences in the mean responses of job satisfaction among the four combinations as follows:

1. High budget participation and high budget use
2. Low budget participation and low budget use
3. High budget participation and low budget use
4. Low budget participation and high budget use

With respect to professional-bank sample, the following results can be summarized:

1. Budget-based performance evaluation is not significantly related to job satisfaction.
2. Budget participation is not significantly related to job satisfaction.
3. Budget use is not significantly related to job satisfaction.
4. Budget participation and use are not significantly related to job satisfaction.

**Table 4.69**  
**ANOVA on the Effect of Budget-Based Performance Evaluation**  
**on Job Satisfaction in Professional-Managed Bank Sample**

Source of variation	df	SS	MS	F	p-value
Budget-Based					
Performance Evaluation	1	59.38	59.38	0.64	0.4311
Residual	30	2797.49	93.25		
Total	31	2856.87			

**Table 4.70**  
**Mean Responses of Job Satisfaction between**  
**Congruence and Incongruence Styles**  
**in Professional-Managed Bank Sample**

Styles	Mean	Standard Deviation	Standard Error
Congruence	35.89	8.72	2.06
Incongruence	33.14	10.75	2.87

**Table 4.71**  
**ANOVA on the Effect of Budget Participation**  
**on Job Satisfaction in Professional-Managed Bank Sample**

<b>Source of variation</b>	<b>df</b>	<b>SS</b>	<b>MS</b>	<b>F</b>	<b>p-value</b>
Budget Participation	1	216.82	216.82	2.46	0.1270
Residual	30	2640.05	88.00		
Total	31	2856.87			

**Table 4.72**  
**Mean Responses of Job Satisfaction between**  
**the High and Low Budget Participation Levels**  
**in Professional-Managed Bank Sample**

<b>Levels</b>	<b>Mean</b>	<b>Standard Deviation</b>	<b>Standard Error</b>
High	36.57	7.80	1.70
Low	31.09	11.93	3.60

**Table 4.73**  
**ANOVA on the Effect of Budget Use**  
**on Job Satisfaction in Professional-Managed Bank Sample**

Source of variation	df	SS	MS	F	p-valu
Budget Use	1	6.15	6.15	0.08	0.7838
Residual	61	4941.40	81.01		
Total	62	4947.55			

**Table 4.74**  
**Mean Responses of Job Satisfaction between**  
**the High and Low Budget Use Levels**  
**in Professional-Managed Bank Sample**

Levels	Mean	Standard Deviation	Standard Error
High	35.56	8.86	1.20
Low	34.62	9.98	3.53

**Table 4.75**  
**ANOVA on the Effect of Budget Participation and**  
**Use on Job Satisfaction in Professional-Managed Bank Sample**

Source of Variation	df	SS	MS	F	p-value
Main Effect	2	327.01	163.50	1.90	0.168
Budget Participation	1	254.93	254.93	2.97	0.096
Budget Use	1	110.19	110.17	1.28	0.267
Interaction Effect					
Budget Participation * Budget Use	1	124.62	124.62	1.45	0.239
Explained	3	451.62	150.54	1.75	0.179
Residual	28	2405.25	85.90		
Total	31	2856.87	92.157		