

Supplementary information

**BIDIRECTIONAL APPROACH FOR UNIVERSITY MANAGEMENT:
IMPROVED RELATIONSHIP WITH STUDENTS AND
EDUCATIONAL COSTS MANAGEMENT**

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Annex 1. Equation 1 (between V5 and V1)

Variables Entered/Removed ^a						
Model	Variables Entered	Variables Removed	Method			
1	R&D costs ^b	.	Enter			
a. Dependent Variable: LCC Associated Cost.						
b. All requested variables entered.						
Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	0.768 ^a	0.591	0.454	1.898.133		
a. 0.768484.						
ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	15590605.101	1	15590605.101	4.327	0.129 ^b
	Residual	10808728.899	3	3602909.633		
	Total	26399334.000	4			
a. Dependent Variable: LCC Associated Cost.						
b. Predictors: (Constant), R&D costs.						

End of Annex 1

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	53634.545	1360.051		39.436	0.000
	R&D costs	0.995	0.478	0.768	2.080	0.129

a. Dependent Variable: LCC Associated Cost.

Annex 2. Equation 2 (between V5 and V2)

Variables Entered/Removed ^a						
Model	Variables Entered	Variables Removed	Method			
1	Total service costs ^b	.	Enter			

a. Dependent Variable: LCC Associated Cost.
b. All requested variables entered.

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.149 ^a	0.022	-0.304	2,933.466

a. Predictors: (Constant), Total Service Costs.

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	583661.941	1	583661.941	0.068	0.811 ^b
	Residual	25815672.059	3	8605224.020		
	Total	26399334.000	4			

a. Dependent Variable: LCC Associated Cost.
b. Predictors: (Constant), Total service costs.

Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	54602.429	4948.207		11.035	0.002
	Total service costs	.921	3.537	0.149	0.260	0.811

a. Dependent Variable: LCC Associated Cost.

Annex 3. Equation 3 (between V5 and V3)

Variables Entered/Removed ^a						
Model	Variables Entered	Variables Removed	Method			
1	operational costs ^b	.	Enter			
a. Dependent Variable: LCC Associated Cost.						
b. All requested variables entered.						
Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	0.100 ^a	0.010	-0.320	2,951.437		
a. Predictors: (Constant), operational costs.						
ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	266395.321	1	266395.321	0.031	0.872 ^b
	Residual	26132938.679	3	8710979.560		
	Total	26399334.000	4			
a. Dependent Variable: LCC Associated Cost.						
b. Predictors: (Constant), operational costs.						
Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	74951.859	109267.545		0.686	0.542
	Operational costs	-0.373	2.135	-0.100	-0.175	0.872
a. Dependent Variable: LCC Associated Cost.						

Annex 4. Equation 4 (between V5 and V4)

Variables Entered/Removed ^a						
Model	Variables Entered	Variables Removed	Method			
1	Withdrawal costs ^b	.	Enter			
a. Dependent Variable: LCC Associated Cost.						
b. All requested variables entered.						
Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	0.426 ^a	0.182	-0.091	2,683.724		
a. Predictors: (Constant), Withdrawal costs.						
ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4792205.000	1	4792205.000	0.665	0.474 ^b
	Residual	21607129.000	3	7202376.333		
	Total	26399334.000	4			
a. Dependent Variable: LCC Associated Cost.						
b. Predictors: (Constant), Withdrawal costs.						
Coefficients ^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	55355.500	1341.862		410.253	0.000
	Withdrawal costs	0.443	0.543	0.426	0.816	0.474
a. Dependent Variable: LCC Associated Cost.						