KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY, KUMASI, GHANA

Towards the Establishment of Relationship between Macroeconomic Indicators and Cost of Public Educational Buildings in Ghana

By

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Topic: Towards the Establishment of a Relationship between Macroeconomic and cost of Public Educational Buildings.

Cost management for the building industry during construction period is a concern to all the parties in the building construction industry. This study is a preliminary work to establish a research gap for a PhD research programme on the need to identify the effect of changes in Macroeconomic components and cost of public educational buildings in Ghana. These questionnaires solicit opinion from professionals (Quantity Surveyors/Estimators) of the Development offices Public Universities in Ghana

Please select appropriate box - example ☐

1. What is your educational level?

   a. HND ☐

   b. BSc ☐

   c. MSc/ MPhil ☐

   d. PhD ☐

2.   Are you involved in project cost management?

   Yes ☐   b. ☐

3. Are you a member of the Ghana Institution of Surveyors?

   Yes ☐   b. No ☐

b. if yes, how long (years)

    a.   1- 5 ☐

    b.   6-10 ☐

    c.   11-15 ☐

    d.   16 - Above ☐

Part II:

4.   Which of these cost management methods do you consider during project monitoring?

    a. Cash Flow ☐   d. Budgetary Control ☐

    b. Cost Control ☐   e. Cost Data ☐

    c. Progress Report ☐   f.   Any other ……………………

5.   Are you satisfied with the level of cost monitoring during (Planned against Physical) construction phase?

    a.   Yes ☐   b. No ☐

5a. If yes, what is the level of accuracy in percentage?

    5-25 ☐

    25-50 ☐

    50-75 ☐

    75-100 ☐

6. How do you monitor contract sum of projects during construction phase?

a. Historical data ☐   b. Cost Models ☐   c. Personal Experience ☐

d. Any other ………………………………………………………………………..

7. Which of these Macroeconomic Component have significant on cost of public construction during post contract?

Item	Macroeconomic Components	very Significant 4	Significant 3	low significant 2	Not significant 1
1	Taxation				
2	Interest Rate				
3	Consumer Price Index				
4	Exchange Rate				
5	Gross Domestic Product				
6	Unemployment				
7	Foreign Direct Investment				
8	Loan				
9	Grant				
10	Control of Inflation				
11	Producer Price Index				
12	Prime Rate (Central Bank)				
13	Money Supply				

8. Will you recommend the need for further research into the impact of macroeconomic variables on the cost of building construction in Ghana?

a.   Yes   ☐   b. No   ☐

Rating by Professionals

Item	Macroeconomic Components	Professional Quantity				Estimate			
	Rating of Significant	4	3	2	1	4	3	2	1
1	Taxation	17	3	0	0	17	2	1	0
2	Interest Rate	18	2	0	0	18	0	2	0
3	Consumer Price Index	11	6	2	1	9	7	2	2
4	Exchange Rate	18	2	0	0	17	3	0	0
5	Gross Domestic Product	8	8	1	3	3	4	8	5
6	Unemployment	2	4	8	6	0	4	6	10
7	Foreign Direct Investment	4	4	8	4	2	4	8	6
8	Loan (Government Borrowing)	13	7	0	0	10	10	0	0
9	Grant	10	10	0	0	10	10	0	0
10	Inflation	20	0	0	0	17	3	0	0
11	Producer Price Index	11	9	0	0	10	10	0	0
12	Prime Rate (Central Bank)	18	2	0	0	18	1	1	0
13	Money Supply	9	9	1	1	10	8	2	0

Final Analysis after using Relective Important Index (RII)

Item	Macroeconomic Components	Professional Quantity		Estimators		Average	
		RII	Ranking	RII	Ranking	RII	Ranking
1	Taxation	0.963	5	0.950	4	0.96	4
2	Interest Rate	0.975	2	0.950	4	0.96	4
3	Consumer Price Index	0.838	10	0.788	10	0.81	10
4	Exchange Rate	0.975	2	0.963	3	0.97	3
5	Gross Domestic Product	0.763	11	0.600	11	0.68	11
6	Unemployment	0.525	13	0.425	13	0.48	13
7	Foreign Direct Investment	0.600	12	0.525	12	0.56	12
8	Loan (Government Borrowing)	0.913	7	0.875	6	0.89	7
9	Grant	0.875	9	0.875	6	0.88	8
10	Inflation	1.000	1	0.975	1	0.99	1
11	Producer Price Index	0.888	8	0.875	6	0.88	8
12	Prime Rate (Central Bank)	0.975	2	0.975	1	0.98	2
13	Money Supply	0.950	6	0.850	9	0.90	6

NOTE

Relective Importnace Index(RII) = $(4n_4 + 3n_3 + 2n_2 + n_1)/ 4N)$

n_4 - very Significant

n_3 - Significant

n_2 - low significant

n_1 - Not significant

Total Number of respondents (N) = 40

Professional Quantity Surveyors Registered with Ghana Instittution of Surveyors =20

Estimators not registered with Ghana Institution of Surveyors =20