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**THE EFFECT OF MANAGEMENT CONTROL SYSTEM ON THE
RELATIONSHIP BETWEEN BUDGET PARTICIPATION AND
BUDGET SLACK**

MASNAWATY SANGKALA



UUM
Universiti Utara Malaysia

**DOCTOR OF PHILOSOPHY
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**THE EFFECT OF MANAGEMENT CONTROL SYSTEM ON THE
RELATIONSHIP BETWEEN BUDGET PARTICIPATION AND
BUDGET SLACK**

By



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UUM
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**Thesis Submitted to
Tunku Puteri Intan Safinaz, School of Accountancy, Universiti Utara Malaysia,
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**SCHOOL OF ACCOUNTANCY
COLLEGE OF BUSINESS
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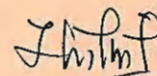
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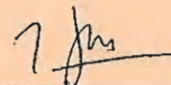
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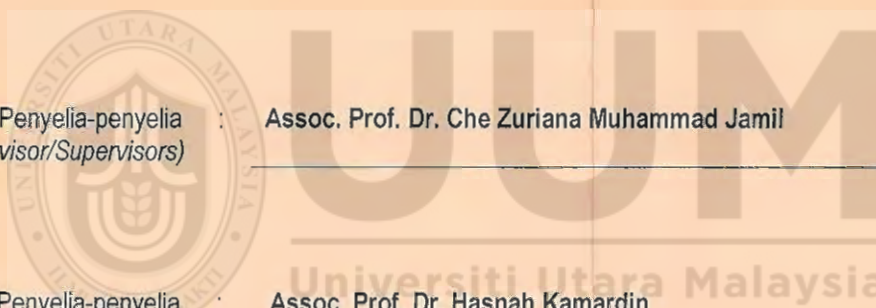


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ABSTRACT

The research objective of this research is to examine the effect of budget participation on budget slack in Indonesian manufacturing firms. In addition, this study investigates the moderating effect of the management control system on the relationship between budget participation and budget slack. The population of the study is manufacturing firms listed on the Jakarta Stock Exchange. Questionnaires were distributed to finance managers, production managers and marketing managers. The respondents of the study are functional managers which represents 34.22 percent of the response rate. Factor analysis, reliability analysis and hierarchical regression analysis are used to analyze the data. The findings are as follows: (a) there is a negative relationship between budget participation and budget slack; (b) there is a negative relationship between budget participation and each of the management control system elements (which are interactive control system, boundary control system, diagnostic control system and beliefs control system) on budget slack; and (c) the management control system package negatively moderates the relationship between budget participation and budget slack. The results of this study suggest that the use of management control system package can reduce the dysfunctional behaviour of managers. The results of the study are also expected to have implications on the manufacturing sector on the importance of managers to participate in the budgeting process and integrate it with management control system to reduce budget slack.

Keywords: budget participation, budget slack, management control system package, management control system elements.

ABSTRAK

Objektif kajian ini adalah untuk mengkaji kesan penyertaan belanjawan ke atas regangan belanjawan di firma perkilangan di Indonesia. Di samping itu, kajian ini mengkaji kesan sistem kawalan pengurusan terhadap hubungan antara penyertaan belanjawan dan regangan belanjawan. Populasi kajian ini adalah firma perkilangan yang disenaraikan di Bursa Saham Jakarta. Borang soal selidik telah diedarkan kepada pengurus kewangan, pengurus pengeluaran dan pengurus pemasaran. Responden kajian adalah 140 *functional managers* yang mewakili 34.22 peratus kadar maklum balas. Analisis faktor, analisis kebolehpercayaan dan analisis regresi berhierarki digunakan untuk menganalisis data. Dapatan kajian ini adalah seperti berikut: (a) terdapat hubungan yang negatif di antara penyertaan belanjawan dan regangan belanjawan; (b) terdapat hubungan yang negatif antara penyertaan belanjawan dan setiap elemen dalam sistem kawalan pengurusan (iaitu sistem kawalan interaktif, sistem kawalan sempadan, sistem kawalan diagnostik dan sistem kawalan kepercayaan) ke atas regangan belanjawan; dan (c) pakej sistem kawalan pengurusan menunjukkan kesan yang negatif terhadap hubungan antara penyertaan belanjawan dan regangan belanjawan. Dapatan kajian ini mencadangkan bahawa penggunaan pakej sistem kawalan pengurusan boleh mengurangkan gelagat salah laku pengurus. Dapatan kajian ini juga dijangka mempunyai implikasi terhadap sektor perkilangan tentang kepentingan pengurus mengambil bahagian di dalam proses penyediaan belanjawan dan mengintegrasikan penyertaan belanjawan dengan sistem kawalan pengurusan untuk mengurangkan regangan belanjawan.

Kata kunci: penyertaan belanjawan, regangan belanjawan, pakej sistem kawalan pengurusan, elemen sistem kawalan pengurusan.

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LIST OF ABBREVIATIONS

BS	Budget Slack
BP	Budget Participation
ICS	Interactive Control system
BCS	Boundary Control System
DCS	Diagnostic Control System
BLFCS	Belief Control System
MCS	Management Control System
MCSP	Management Control System Package



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CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Budgets are tools that managers can use to assist them in carrying out their activities (Tanase, 2013). For achieving the goals of a firm, budgets are necessary for providing information for planning, controlling and determining strategies (Triana & Yuliusman 2012; Maksum, 2009; Ramdeen, Santos, & Chatfiel 2007; Baiman, 1982); as well as for forecasting events (Onsi, 1973). In the increasingly competitive global market, budgets are becoming more and more significant to facilitate the implementation and achievement of business goals (Huang & Chen 2009).

Many employees' participate in budget preparation, known as budget participation (hereafter called BP). It can involve junior employees (Sholihin, Pike, Mangena & Li, 2011), up to all levels of management, and is considered to be the best method for budget preparation (Garrison; Eric, Peter, Chesley & Ray 2006).

Generally, BP has a direct relationship with employees' performance. They drive for success and subordinates' attitude towards their superiors, jobs and firms. According to Nur (1993), the participation of employees in budget preparation has a noticeable effect on the effectiveness of the organization. The process of preparing a BP a proposal by managers. The lower level employees are responsible for the allocation of resources considering the goals of the proposal. In order to receive a large amount of funds for BP, managers are more likely to use a number of action plans. According to Van der Stede, Hansen, and Otley (2003), creating budget slack (hereafter called BS) is one of

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APPENDIX A

1. LETTERS

- * **Cover Letter**
- * **First Reminder Letter**
- * **Second Reminder Letter**

2. QUESTIONNAIRES TO MANAGERS OF INDONESIAN MANUFACTURING FIRMS

Dear Sir/Madam,

Regarding the study on “THE EFFECT OF MANAGEMENT CONTROL SYSTEM ON THE RELATIONSHIP BETWEEN BUDGET PARTICIPATION AND BUDGET SLACK” for my dissertation at the College of Business, Universiti Utara Malaysia, herewith I would like to ask for permission for data collection in your company. This study will involve the managers of manufacturer companies in Indonesia.

Attached is the certification letter of data collection from the Dean of Business Universiti Utara Malaysia. The study will bring benefit to the budgeting process and the application of controlling management system of a company in Indonesia.

The detail of the respondents will be kept confidential. The data will be collected through questionnaires that will reveal the perception of the managers of the company. Therefore, the data will be used for academic purpose solely. The data will be analyzed and presented cumulatively in the dissertation, thus the data will only show the accumulated managerial companies that participate in the study. The summary of the findings of the study will be presented to the participants as well.

According to result of the questionnaire’s pretesting showed that the questionnaire will require not more than 30 minutes. The questionnaires will be distributed and collected by the researcher at the latest June 25, 2012. Your participation will be highly appreciated. If you have any questions related to the study, please do not hesitate to contact me through email or phone below. Thank you for your assistance.

Kind regards,

Masnawaty Sangkala
Phone : 082187515141
Email : wati_4529@yahoo.co.id

Dear Participants,

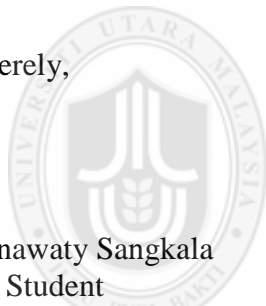
Last week a questionnaire seeking your opinions about management control system was mailed to you. Your name was chosen from a list of people that hold a key position in the company.

If you have already completed and returned the questionnaire to us, please accept our sincere thanks. If not, please complete and return the questionnaire today. We are especially thankful for your assistance because it is only by asking people like you to share your experience that we can understand the importance of management control system and how it can assist on the relationship between budget participation and budget slack.

If you did not receive a questionnaire, or if it was misplaced, please email to us at wati_4529@yahoo.co.id, or may call at +6282187515141 and we will get another one in the mail to you today.

Thank you very much for helping with this important study.

Sincerely,



Masnawaty Sangkala
PhD Student
School of Accounting
Universiti Utara Malaysia
06010 Sintok
Kedah Darul Aman



Dear participants

Re: We need your help

About a month ago we sent a questionnaire that ask your opinion about the effect of management control system on the relationship between budget participation and budget slack to you. To the best of our knowledge, it is not yet been returned.

We are writing again because it is very important to have your response in helping to get accurate results. Although we sent questionnaire to managers of production, managers of marketing, and managers of finance and accounting of every company listed in Jakarta Stock Exchange, it is only by hearing from nearly everyone in the sample that we can sure that the results are truly representative.

We understand that you are a busy person, but we are very appreciated if you can take 30 minutes of your time to answer the questionnaire. Your voluntary participation is extremely important. We therefore encourage you to participate in this voluntary survey by completing this questionnaire and help us to get accurate results.

A questionnaire of identification number is printed on the questionnaire so that we can check your name off of the mailing list when it is returned. This will not affect the confidentiality of your answer. Protecting the confidentiality of people's answers is very important to us as well as the university.

We hope that you will fill out and return the questionnaire soon, however, if for any reasons you prefer not to answer it, please let us know by returning a blank questionnaire in the enclosed stamped envelope so that we can delete your name from the mailing list.

Sincerely,

Masnawaty Sangkala
PhD Student
School of Accounting
Universiti Utara Malaysia
06010 Sintok
Kedah Darul Aman



**THE EFFECT OF MANAGEMENT CONTROL SYSTEM
ON THE RELATIONSHIP BETWEEN BUDGET
PARTICIPATION AND BUDGET SLACK**



**MASNAWATY SANGKALA
PHD STUDENT**

**SUPERVISORS
ASSOC PROF DR CHE ZURIANA BT MOHD JAMIL
ASSOC PROF DR HASNAH KAMARDIN**

**SCHOOL OF ACCOUNTING
UNIVERSITI UTARA MALAYSIA**

Budget Participation Measure (Milani, 1975)

The following items can be used to describe the role which you play in the development of the budget for your department. Please respond by circling a number from 1 to 7 on the scale for each of the following items.

- (1) Which category below best describes your activity when the budget is being set? I am involved in setting:

1	2	3	4	5	6	7
All of the budget						None of the budget

- (2) Which category below best describes the reasoning provided by your superior when budget revisions are made? The reasoning is:

1	2	3	4	5	6	7
Very sound and/or logical						Very arbitrary and/or Illogical

- (3) How often do you state your requests, opinions and/or suggestions about the budget to your superior without being asked?

1	2	3	4	5	6	7
Very frequently						Never

- (4) How much influence do you feel you have on the final budget?

1	2	3	4	5	6	7
Very high amount						None

(5) How do you view your contribution to the budget? My contributions:

1	2	3	4	5	6	7
Very important			Very Unimportant			

(6) How often does your superior seek your requests, opinions and/or suggestions when the budget is being set?

1	2	3	4	5	6	7
Very frequently					Never	



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Interactive Control System Measure (Widener, 2007)

Please indicate the extent to which you agree or disagree with the following statements (1=SD, 7=SA) based on the following scale:

- | | |
|------------------------|---------------------|
| 1. Strongly disagree | 5. Mildly agree |
| 2. Moderately disagree | 6. Moderately agree |
| 3. Mildly disagree | 7. Strongly agree |
| 4. Neutral | |

- (1) Manager pays little day-to-day attention on the budget system.

1	2	3	4	5	6	7
Strongly disagree						Strongly agree

- (2) Manager relies heavily on staff specialist in preparing and interpreting information from the budget system.

1	2	3	4	5	6	7
Strongly disagree						Strongly agree

- (3) Operating managers are involved infrequently and on an exception basis with the budget system

1	2	3	4	5	6	7
Strongly disagree						Strongly agree

- (4) Managers pay day-to-day attention to the budget system.

1	2	3	4	5	6	7
Strongly disagree						Strongly agree

(5) Managers interpret information from the budget system.

1	2	3	4	5	6	7
Strongly disagree						Strongly agree

(6) Operating managers are frequently involved with the budget system.

1	2	3	4	5	6	7
Strongly disagree						Strongly agree



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Boundary Control System Measure (Widener, 2007)

Please rate the extent to which you agree or disagree with the following (1=strongly disagree (SD), 7 strongly agree (SA) :

- | | |
|------------------------|---------------------|
| 1. Strongly disagree | 5. Mildly agree |
| 2. Moderately disagree | 6. Moderately agree |
| 3. Mildly disagree | 7. Strongly agree |
| 4. Neutral | |

- (1) Our firm relies on a code of business conduct to define appropriate behavior for managers.

1	2	3	4	5	6	7
Strongly disagree						Strongly agree

- (2) Our code of business conduct informs our managers about behaviors that are off-limits.

1	2	3	4	5	6	7
Strongly disagree						Strongly agree

- (3) Our firm has a system that communicates to our managers' risks that should be avoided.

1	2	3	4	5	6	7
Strongly disagree						Strongly agree

- (4) Managers are aware of the firm's code of business conduct.

1	2	3	4	5	6	7
Strongly disagree						Strongly agree

Diagnostic Control System Measure (Widener, 2007)

Please rate the extent to which your top manager currently rely currently on budget measures based on the following scale (1=Small extent, 7= Large extent):

(1) Track progress towards goals.

1	2	3	4	5	6	7
Small extent						Large extent

(2) Monitor results.

1	2	3	4	5	6	7
Small extent						Large extent

(3) Compare outcomes to expectation.

1	2	3	4	5	6	7
Small extent						Large extent

(4) Review key measures.

1	2	3	4	5	6	7
Small extent						Large extent

(5) Enable discussion in meeting of superiors, subordinates and peers.

1	2	3	4	5	6	7
Small extent						Large extent

(6) Enable continual challenge and debate of underlying data, assumption, and action plans.

1	2	3	4	5	6	7
Small extent						Large extent

(7) Provide a common view of the organization.

1	2	3	4	5	6	7
Small extent						Large extent

(8) Tie the organization together.

1	2	3	4	5	6	7
Small extent						Large extent

(9) Enable the organization to focus on common issues.

1	2	3	4	5	6	7
Small extent						Large extent

(10) Enable the organization to focus on critical success factors.

1	2	3	4	5	6	7
Small extent						Large extent

(11) Develop a common vocabulary in the organization.

1	2	3	4	5	6	7
Small extent						Large extent

Belief Control System Measure (Widener, 2007)

Please indicate the extent to which the following items describe your organization (1= not descriptive, 7= very descriptive):

- (1) Our mission statement clearly communicates the firm's core values to our managers.

1	2	3	4	5	6	7
Not descriptive						Very descriptive

- (2) Top managers communicate core values to our managers.

1	2	3	4	5	6	7
Not descriptive						Very descriptive

- (3) Our managers are aware of the firm's core values.

1	2	3	4	5	6	7
Not descriptive						Very descriptive

- (4) Our mission statement inspires our managers.

1	2	3	4	5	6	7
Not descriptive						Very descriptive

Budget Slack Measure (Dunk, 1993)

The following statements relate to the budgetary environment in which you work. Please indicate the extent of your agreement with each statement by circling a number from 1 to 7, based on the following scale:

- | | |
|------------------------|---------------------|
| 1. Strong disagree | 5. Mildly agree |
| 2. Moderately disagree | 6. Moderately agree |
| 3. Mildly disagree | 7. Strongly agree |
| 4. Neutral | |

- (1) Standards set in the budget induce high productivity in my area of responsibility.

1	2	3	4	5	6	7
Strongly disagree						Strongly agree

- (2) Budgets set for my area of responsibility are safely attainable.

1	2	3	4	5	6	7
Strongly disagree						Strongly agree

- (3) I have to carefully monitor costs in my area of responsibility because of budgetary constraints

1	2	3	4	5	6	7
Strongly disagree						Strongly agree

- (4) Budget for my area of responsibility is not particularly demanding.

1	2	3	4	5	6	7
Strongly disagree						Strongly agree

(5) Budgetary targets have not caused me to be particularly concerned with improving efficiency in my area of responsibility.

1	2	3	4	5	6	7
Strongly disagree						Strongly agree

(6) Targets incorporated in the budget are difficult to reach.

1	2	3	4	5	6	7
Strongly disagree						Strongly agree



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Demographics Questions

Please answer the following questions:

1. Age: _____
2. Gender: [] Male [] Female
3. Religion:
 Islam Buddha
 Kristen Others
 Hindu
4. Ethnic : _____(please state, e.g. java, batak, bugis, etc.)
5. Position in the company: _____
6. Length of time in the current position: ____years
7. Length of time you work for the company: ____years
8. Length of time you work in Jakarta: ____years
9. Educational background:
 Diploma PhD
 Degree Others
 Master
10. Citizenship : _____(please state)
11. In the company how many levels are above you?
Please tick (✓)
 You report directly to the director of the company
 The person you report to is directly at the level below the director of the company
 The person you report to is 2 level below the director of the company
 The person you report to Is 3 level below the director of the company
 The person you report to is 4 level below the director of the company

12. Total numbers of employee in the company

- 1 - 25 26 - 100 101 - 1000 1001 - 10.000
 10.000-50.000 more than 50.000

13 .Type of Business (Please tick)

- Food and Beverages
 Tobacco Manufacturers
 Textile Mill Product
 Apparel and other Textile Products
 Lumber and Wood Products
 Paper and Allied Products
 Chemical and Allied Products
 Adhesive
 Plastics and Glass Products
 Cement
 Metal and Allied Products
 Fabricated Metal Products
 Stone, Clay, Glass and Concrete Products
 Cables
 Electronic and Office Equipment
 Automotive and Allied Products
 Photographic Equipment
 Pharmaceuticals
 Consumer Goods
 Others (Please State)

14. Department / Function (please tick)

- Accounting/Finance Manager
- Production/Operation Manager
- Marketing Manager



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PLEASE PUT THE COMPANY STAMP HERE:

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APPENDIX B

TEST OF NON-RESPONSE BIAS

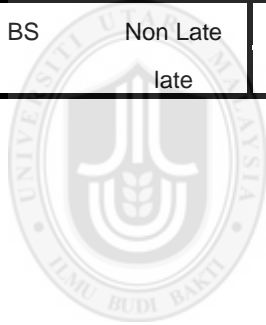


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T-Test

Group Statistics

BIAS		N	Mean	Std. Deviation	Std. Error Mean
ICS	Non Late	100	3.3450	.63177	.06318
	late	40	3.2750	.49721	.07862
BP	Non Late	100	6.0933	.85816	.08582
	late	40	6.1000	.82586	.13058
DCS	Non Late	100	5.9882	.86954	.08695
	late	40	6.0727	.55017	.08699
BCS	Non Late	100	6.1950	.61297	.06130
	late	40	6.0813	.56723	.08969
BLFCS	Non Late	100	6.2850	.73942	.07394
	late	40	6.2063	.63014	.09963
BS	Non Late	100	4.3067	.62752	.06275
	late	40	4.1375	.46053	.07282



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Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
ICS	Equal variances assumed	2.047	.155	.627	138	.532	.07000	.11166	-.15078	.29078
	Equal variances not assumed			.694	90.730	.489	.07000	.10086	-.13035	.27035
BP	Equal variances assumed	.742	.390	-.042	138	.967	-.00667	.15886	-.32079	.30745
	Equal variances not assumed			-.043	74.489	.966	-.00667	.15625	-.31798	.30464
DCS	Equal variances assumed	3.413	.067	-.570	138	.569	-.08455	.14825	-.37768	.20859
	Equal variances not assumed			-.687	111.873	.493	-.08455	.12300	-.32825	.15916
BCS	Equal variances assumed	.001	.975	1.013	138	.313	.11375	.11232	-.10835	.33585
	Equal variances not assumed			1.047	77.299	.298	.11375	.10863	-.10255	.33005
BLFCS	Equal variances assumed	.913	.341	.593	138	.554	.07875	.13287	-.18398	.34148
	Equal variances not assumed			.635	83.779	.527	.07875	.12407	-.16799	.32549
BS	Equal variances assumed	3.490	.064	1.545	138	.125	.16917	.10948	-.04730	.38564
	Equal variances not assumed			1.760	97.298	.082	.16917	.09613	-.02161	.35994

APPENDIX C

FACTOR ANALYSIS RESULTS



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Factor Analysis for Budget Participation

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.914
Bartlett's Test of Sphericity Approx. Chi-Square	545.218
Df	15
Sig.	.000

Communalities

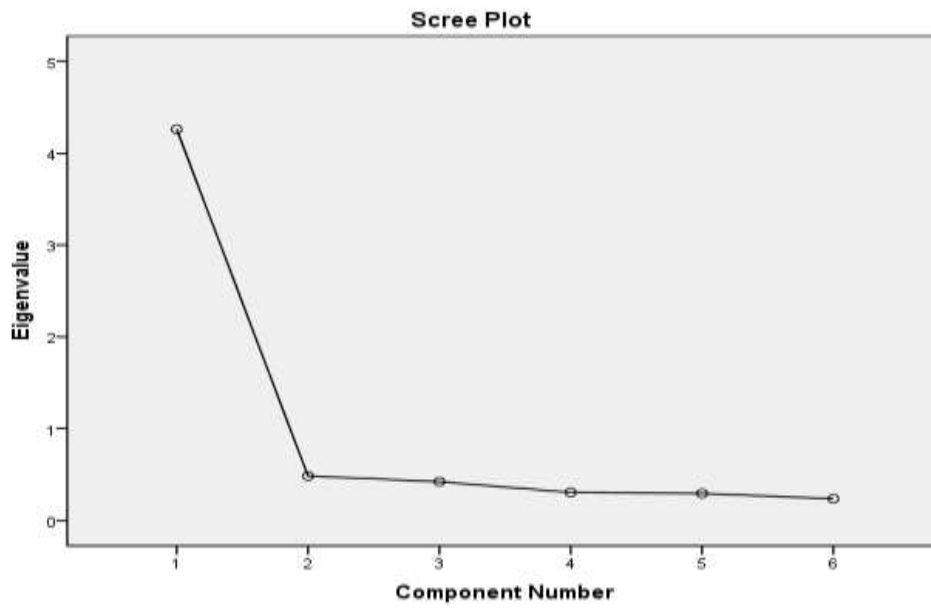
	Initial	Extraction
BP1	1.000	.734
BP2	1.000	.752
BP3	1.000	.644
BP4	1.000	.675
BP5	1.000	.662
BP6	1.000	.795

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.262	71.033	71.033	4.262	71.033	71.033
2	.483	8.056	79.089			
3	.422	7.026	86.115			
4	.305	5.077	91.192			
5	.294	4.894	96.086			
6	.235	3.914	100.000			

Extraction Method: Principal Component Analysis.



Component Matrix^a

	Component
	1
BP1	.857
BP2	.867
BP3	.802
BP4	.822
BP5	.814
BP6	.891



Extraction Method:
Principal Component
Analysis.
a. 1 components
extracted.

Factor Analysis for Interactive Control System

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.900
Bartlett's Test of Sphericity Approx. Chi-Square	1244.422
Df	15
Sig.	.000

Communalities

	Initial	Extraction
ICS1	1.000	.896
ICS2	1.000	.887
ICS3	1.000	.884
ICS4	1.000	.923
ICS5	1.000	.865
ICS6	1.000	.887

Extraction Method: Principal Component Analysis.



Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.342	89.041	89.041	5.342	89.041	89.041
2	.243	4.050	93.092			
3	.166	2.770	95.861			
4	.110	1.829	97.690			
5	.086	1.426	99.116			
6	.053	.884	100.000			

Extraction Method: Principal Component Analysis.



Component Matrix^a

	Component
	1
ICS1	.947
ICS2	.942
ICS3	.940
ICS4	.961
ICS5	.930
ICS6	.942

Extraction Method:
Principal Component
Analysis.

a. 1 components
extracted.



Factor Analysis for Diagnostic Control System

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.947
Bartlett's Test of Sphericity	Approx. Chi-Square	1509.873
	Df	55
	Sig.	.000

Communalities

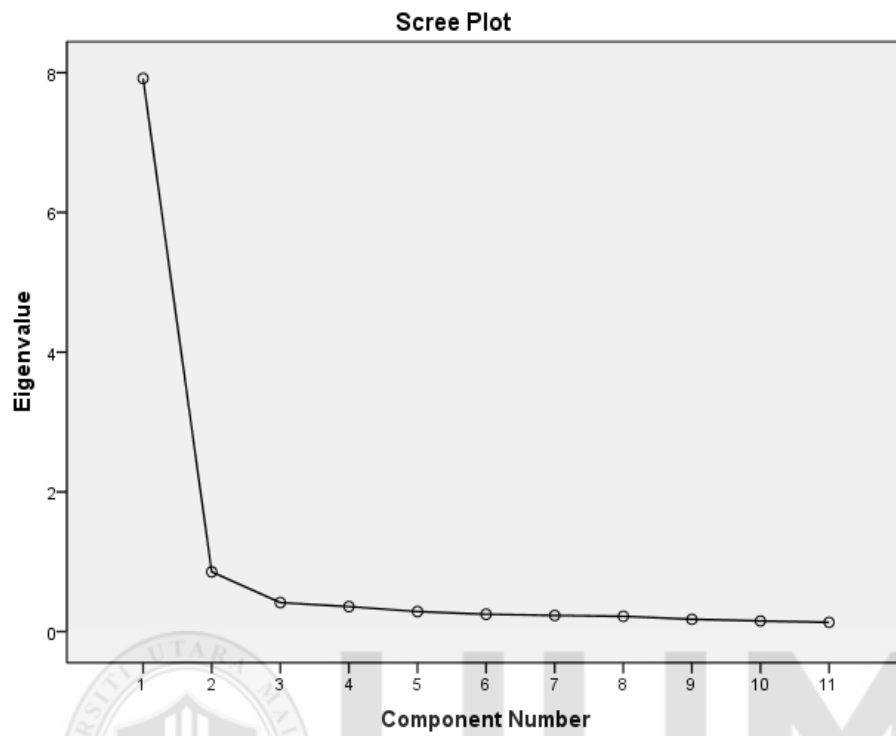
	Initial	Extraction
DCS1	1.000	.774
DCS2	1.000	.760
DCS3	1.000	.767
DCS4	1.000	.705
DCS5	1.000	.711
DCS6	1.000	.738
DCS7	1.000	.814
DCS8	1.000	.764
DCS9	1.000	.682
DCS10	1.000	.640
DCS11	1.000	.564

Extraction Method: Principal
Component Analysis.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	7.919	71.988	71.988	7.919	71.988	71.988
2	.856	7.780	79.767			
3	.416	3.779	83.547			
4	.358	3.256	86.802			
5	.287	2.612	89.414			
6	.249	2.266	91.680			
7	.232	2.113	93.793			
8	.219	1.992	95.785			
9	.177	1.606	97.391			
10	.153	1.391	98.782			
11	.134	1.218	100.000			

Extraction Method: Principal Component Analysis.



Component Matrix^a

	Component
	1
DCS1	.880
DCS2	.872
DCS3	.876
DCS4	.840
DCS5	.843
DCS6	.859
DCS7	.902
DCS8	.874
DCS9	.826
DCS10	.800
DCS11	.751

Extraction Method: Principal Component Analysis.

Factor Analysis for Boundary Control System

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.866
Bartlett's Test of Sphericity	Approx. Chi-Square	678.572
	Df	6
	Sig.	.000

Communalities

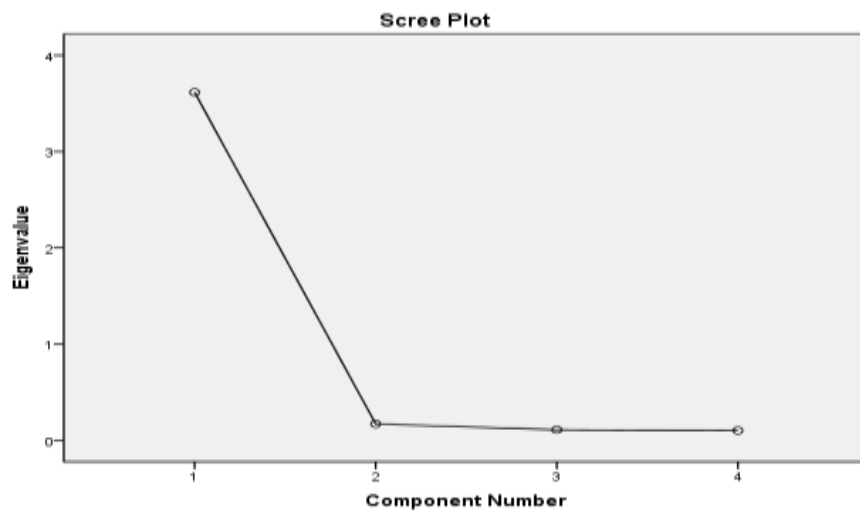
	Initial	Extraction
BCS1	1.000	.914
BCS2	1.000	.902
BCS3	1.000	.906
BCS4	1.000	.893

Extraction Method: Principal
Component Analysis.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.616	90.392	90.392	3.616	90.392	90.392
2	.171	4.282	94.674			
3	.110	2.753	97.426			
4	.103	2.574	100.000			

Extraction Method: Principal Component Analysis.



	Component
	1
BCS1	.956
BCS2	.950
BCS3	.952
BCS4	.945

Extraction Method:
Principal Component
Analysis.

a. 1 components
extracted.



Factor Analysis for Belief Control System

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.861
Bartlett's Test of Sphericity	Approx. Chi-Square	634.533
	Df	6
	Sig.	.000

Communalities

	Initial	Extraction
BLFS1	1.000	.899
BLFS2	1.000	.874
BLFS3	1.000	.904
BLFS4	1.000	.895

Extraction Method: Principal Component Analysis.



Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.571	89.275	89.275	3.571	89.275	89.275
2	.176	4.392	93.667			
3	.151	3.783	97.449			
4	.102	2.551	100.000			

Extraction Method: Principal Component Analysis.



Component Matrix^a

	Component
	1
BLFS1	.948
BLFS2	.935
BLFS3	.951
BLFS4	.946



Extraction Method:
Principal Component
Analysis.
a. 1 components
extracted.

Factor Analysis for Budget Slack

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.924
Bartlett's Test of Sphericity	Approx. Chi-Square	1204.212
	Df	15
	Sig.	.000

Communalities

	Initial	Extraction
BS1	1.000	.877
BS2	1.000	.917
BS3	1.000	.894
BS4	1.000	.877
BS5	1.000	.878
BS6	1.000	.901

Extraction Method: Principal
Component Analysis.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.345	89.086	89.086	5.345	89.086	89.086
2	.212	3.540	92.626			
3	.161	2.691	95.317			
4	.113	1.886	97.203			
5	.093	1.552	98.755			
6	.075	1.245	100.000			

Extraction Method: Principal Component Analysis.



Component Matrix^a

	Component
	1
BS1	.937
BS2	.958
BS3	.946
BS4	.937
BS5	.937
BS6	.949



Extraction Method:
Principal Component
Analysis.
a. 1 components
extracted.

APPENDIX D



RELIABILITY RESULTS

Reliability scale for Budget Participation

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.918	.918	6

Inter-Item Correlation Matrix

	BP1	BP2	BP3	BP4	BP5	BP6
BP1	1.000	.678	.671	.671	.587	.718
BP2	.678	1.000	.627	.658	.676	.735
BP3	.671	.627	1.000	.572	.558	.645
BP4	.671	.658	.572	1.000	.582	.675
BP5	.587	.676	.558	.582	1.000	.717
BP6	.718	.735	.645	.675	.717	1.000

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	5.856	5.757	6.043	.286	1.050	.010	6
Item Variances	1.259	1.154	1.394	.240	1.208	.007	6
Inter-Item Covariances	.820	.679	.969	.290	1.426	.007	6
Inter-Item Correlations	.651	.558	.735	.176	1.316	.003	6

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
BP1	29.0929	22.056	.786	.636	.901
BP2	29.3786	22.654	.800	.644	.899
BP3	29.3357	23.534	.717	.529	.910
BP4	29.2929	23.058	.740	.559	.907
BP5	29.3357	22.958	.729	.570	.909
BP6	29.2429	21.941	.833	.701	.894



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Reliability scale for Interactive Control System

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.975	.975	6

Inter-Item Correlation Matrix

	ICS1	ICS2	ICS3	ICS4	ICS5	ICS6
ICS1	1.000	.852	.866	.932	.849	.859
ICS2	.852	1.000	.892	.885	.840	.864
ICS3	.866	.892	1.000	.908	.828	.829
ICS4	.932	.885	.908	1.000	.840	.872
ICS5	.849	.840	.828	.840	1.000	.910
ICS6	.859	.864	.829	.872	.910	1.000

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	3.315	2.886	3.800	.914	1.317	.166	6
Item Variances	3.311	3.125	3.643	.518	1.166	.042	6
Inter-Item Covariances	2.872	2.712	3.217	.505	1.186	.017	6
Inter-Item Correlations	.868	.828	.932	.104	1.125	.001	6

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
ICS1	16.9643	74.625	.922	.884	.970
ICS2	16.5429	73.847	.916	.852	.970
ICS3	16.7571	74.948	.913	.866	.971
ICS4	17.0071	74.022	.941	.918	.968
ICS5	16.1000	73.904	.900	.854	.972
ICS6	16.0929	72.560	.917	.876	.971

Reliability scale for Diagnostic Control System

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.960	.961	11

Inter-Item Correlation Matrix

	DCS1	DCS2	DCS3	DCS4	DCS5	DCS6	DCS7	DCS8	DCS9	DCS10	DCS11
DCS1	1.000	.784	.764	.683	.770	.784	.768	.721	.708	.659	.535
DCS2	.784	1.000	.759	.772	.777	.788	.779	.716	.595	.586	.546
DCS3	.764	.759	1.000	.738	.708	.703	.812	.727	.653	.639	.651
DCS4	.683	.772	.738	1.000	.692	.742	.758	.696	.609	.560	.565
DCS5	.770	.777	.708	.692	1.000	.751	.766	.685	.612	.583	.493
DCS6	.784	.788	.703	.742	.751	1.000	.708	.693	.681	.597	.547
DCS7	.768	.779	.812	.758	.766	.708	1.000	.800	.687	.688	.623
DCS8	.721	.716	.727	.696	.685	.693	.800	1.000	.706	.737	.669
DCS9	.708	.595	.653	.609	.612	.681	.687	.706	1.000	.747	.738
DCS10	.659	.586	.639	.560	.583	.597	.688	.737	.747	1.000	.703
DCS11	.535	.546	.651	.565	.493	.547	.623	.669	.738	.703	1.000

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	5.858	5.650	6.014	.364	1.064	.015	11
Item Variances	1.295	1.078	1.589	.511	1.474	.039	11
Inter-Item Covariances	.885	.645	1.165	.520	1.805	.012	11
Inter-Item Correlations	.690	.493	.812	.319	1.647	.006	11

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
DCS1	58.4714	93.301	.846	.780	.955
DCS2	58.6286	91.127	.833	.780	.955
DCS3	58.6214	93.532	.844	.752	.955
DCS4	58.5643	93.456	.800	.701	.956
DCS5	58.4714	94.366	.801	.713	.956
DCS6	58.6571	92.659	.822	.745	.955
DCS7	58.4286	92.650	.874	.802	.954
DCS8	58.4571	90.437	.845	.738	.955
DCS9	58.7929	91.058	.794	.731	.956
DCS10	58.5643	93.312	.766	.678	.957
DCS11	58.7714	92.753	.711	.660	.960

Reliability scale for Boundary Control System

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.964	.965	4

Inter-Item Correlation Matrix

	BCS1	BCS2	BCS3	BCS4
BCS1	1.000	.872	.872	.892
BCS2	.872	1.000	.892	.848
BCS3	.872	.892	1.000	.856
BCS4	.892	.848	.856	1.000

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	5.657	5.600	5.736	.136	1.024	.004	4
Item Variances	2.228	2.081	2.579	.499	1.240	.056	4
Inter-Item Covariances	1.938	1.771	2.066	.294	1.166	.015	4
Inter-Item Correlations	.872	.848	.892	.044	1.052	.000	4

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
BCS1	16.9500	17.285	.921	.853	.951
BCS2	17.0286	18.675	.910	.837	.953
BCS3	17.0143	18.489	.913	.841	.952
BCS4	16.8929	18.787	.903	.825	.955

Reliability scale for Belief Control System

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.960	.960	4

Inter-Item Correlation Matrix

	BLFS1	BLFS2	BLFS3	BLFS4
BLFS1	1.000	.856	.879	.847
BLFS2	.856	1.000	.832	.847
BLFS3	.879	.832	1.000	.881
BLFS4	.847	.847	.881	1.000

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	5.486	5.400	5.550	.150	1.028	.004	4
Item Variances	2.529	2.324	2.681	.357	1.154	.023	4
Inter-Item Covariances	2.165	2.039	2.253	.214	1.105	.005	4
Inter-Item Correlations	.857	.832	.881	.049	1.059	.000	4

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
BLFS1	16.3929	20.111	.906	.827	.945
BLFS2	16.5429	20.595	.885	.788	.952
BLFS3	16.4500	21.041	.911	.840	.944
BLFS4	16.4429	20.565	.902	.822	.946

Reliability scale for Budget Slack

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.975	.975	6

Inter-Item Correlation Matrix

	BS1	BS2	BS3	BS4	BS5	BS6
BS1	1.000	.855	.903	.833	.832	.882
BS2	.855	1.000	.882	.887	.906	.893
BS3	.903	.882	1.000	.872	.835	.864
BS4	.833	.887	.872	1.000	.856	.857
BS5	.832	.906	.835	.856	1.000	.878
BS6	.882	.893	.864	.857	.878	1.000

Summary Item Statistics

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	3.533	3.450	3.650	.200	1.058	.008	6
Item Variances	1.373	1.215	1.483	.268	1.221	.008	6
Inter-Item Covariances	1.192	1.107	1.291	.184	1.166	.003	6
Inter-Item Correlations	.869	.832	.906	.074	1.089	.001	6

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
BS1	17.5500	30.782	.908	.857	.971
BS2	17.7500	30.304	.938	.891	.968
BS3	17.5571	30.191	.921	.872	.970
BS4	17.7214	30.807	.909	.834	.971
BS5	17.6857	30.807	.909	.850	.971
BS6	17.7357	31.361	.926	.864	.970



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APPENDIX E

REGRESSION ANALYSIS RESULTS



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Simple Regression Analysis

1. SIMPLE REGRESSION : BP - BS

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.866 ^a	.749	.748	.55573	.749	412.725	1	138	.000

a. Predictors: (Constant), ABP

ANOVA^b

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	127.462	1	127.462	412.725	.000 ^a
	Residual	42.619	138	.309		
	Total	170.081	139			

a. Predictors: (Constant), ABP

b. Dependent Variable: ABS

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics		
		B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF	
1	(Constant)	9.465	.296		32.004	.000	8.880	10.049						
	ABP	-1.013	.050	-.866	-20.316	.000	-1.112	-.914	-.866	-.866	-.866	1.000	1.000	

a. Dependent Variable: ABS

2. SIMPLE REGRESSION : ICS - BS

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.929 ^a	.864	.863	.40950	.864	876.264	1	138	.000

a. Predictors: (Constant), AICS

ANOVA^b

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	146.940	1	146.940	876.264	.000 ^a
	Residual	23.141	138	.168		
	Total	170.081	139			

a. Predictors: (Constant), AICS

b. Dependent Variable: ABS

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics		
	B	Std. Error				Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF	
			Beta										
1 (Constant)	5.519	.076		73.100	.000	5.370	5.669						
AICS	-.599	.020	-.929	-29.602	.000	-.639	-.559	-.929	-.929	-.929	1.000	1.000	

a. Dependent Variable: ABS

3. SIMPLE REGRESSION : DCS - BS

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.867 ^a	.752	.750	.55312	.752	417.916	1	138	.000

a. Predictors: (Constant), ADCS

ANOVA^b

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	127.860	1	127.860	417.916	.000 ^a
	Residual	42.221	138	.306		
	Total	170.081	139			

a. Predictors: (Constant), ADCS

b. Dependent Variable: ABS

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics		
	B	Std. Error				Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF	
1 (Constant)	9.381	.290		32.364	.000	8.807	9.954						
ADCS	-.998	.049	-.867	-20.443	.000	-1.095	-.902	-.867	-.867	-.867	1.000	1.000	

a. Dependent Variable: ABS

4. SIMPLE REGRESSION : BCS - BS

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.579 ^a	.335	.330	.90512	.335	69.609	1	138	.000

a. Predictors: (Constant), ABCS

ANOVA^b

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	57.026	1	57.026	69.609	.000 ^a
	Residual	113.055	138	.819		
	Total	170.081	139			

a. Predictors: (Constant), ABCS

b. Dependent Variable: ABS

Coefficients^a

	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics		
	B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF	
1 (Constant)	6.089	.316		19.284	.000	5.464	6.713						
ABCS	-.452	.054	-.579	-8.343	.000	-.559	-.345	-.579	-.579	-.579	1.000	1.000	

a. Dependent Variable: ABS

5. SIMPLE REGRESSION : BLFCS – BS

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.581 ^a	.338	.333	.90340	.338	70.398	1	138	.000

a. Predictors: (Constant), ABLFS

ANOVA^b

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	57.454	1	57.454	70.398	.000 ^a
	Residual	112.626	138	.816		
	Total	170.081	139			

a. Predictors: (Constant), ABLFS

b. Dependent Variable: ABS

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations			Collinearity Statistics	
	B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part	Tolerance	VIF
ABLFS	-.428	.051	-.581	-8.390	.000	-.529	-.327	-.581	-.581	-.581	1.000	1.000

a. Dependent Variable: ABS

Multiple Regression Analysis

Multiple Regressions for the Relationship between Budget Participation and Budget Slack

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.866 ^a	.750	.748	3.33024	.750	413.500	1	138	.000

a. Predictors: (Constant), NGBP

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4585.915	1	4585.915	413.500	.000 ^a
	Residual	1530.485	138	11.090		
	Total	6116.400	139			

a. Predictors: (Constant), NGBP

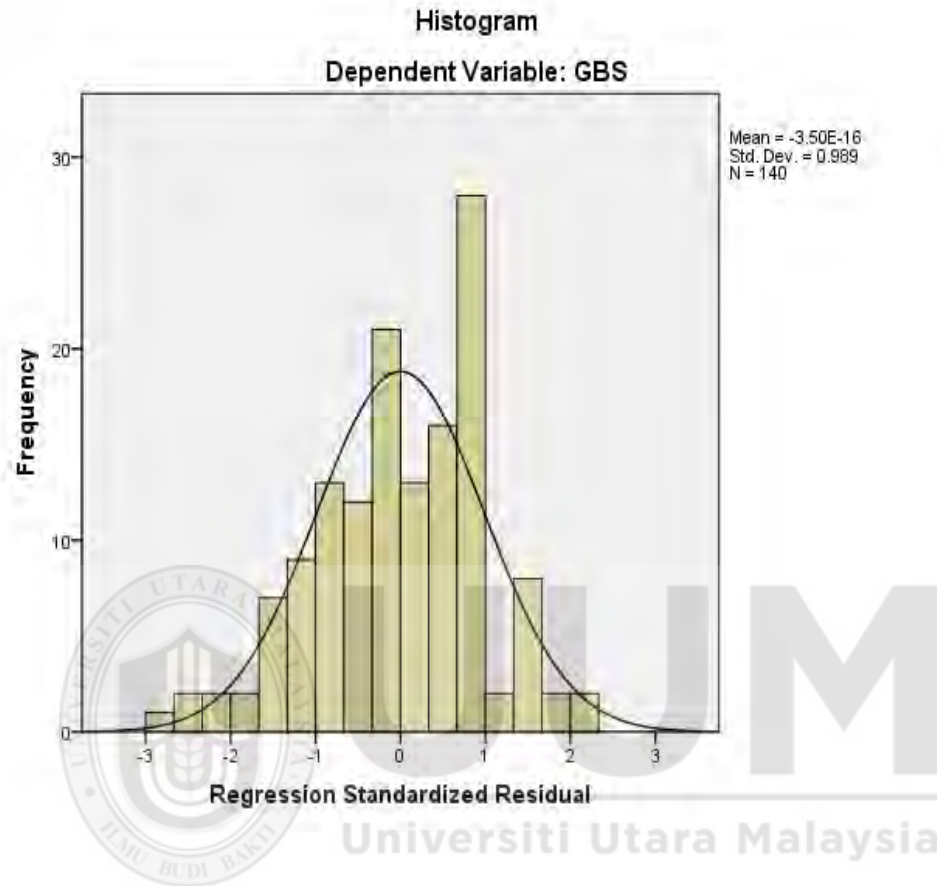
b. Dependent Variable: GBS

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations	Collinearity Statistics									
	B	Std. Error	Beta			Lower Bound	Upper Bound		Zero-order	Partial	Part	Tolerance	VIF					
														1 (Constant)	21.200	.281		75.323
NGBP	-1.013	.050	-.866	-20.335	.000	-1.111	-.914	-.866	-.866	-.866	1.000	1.000						

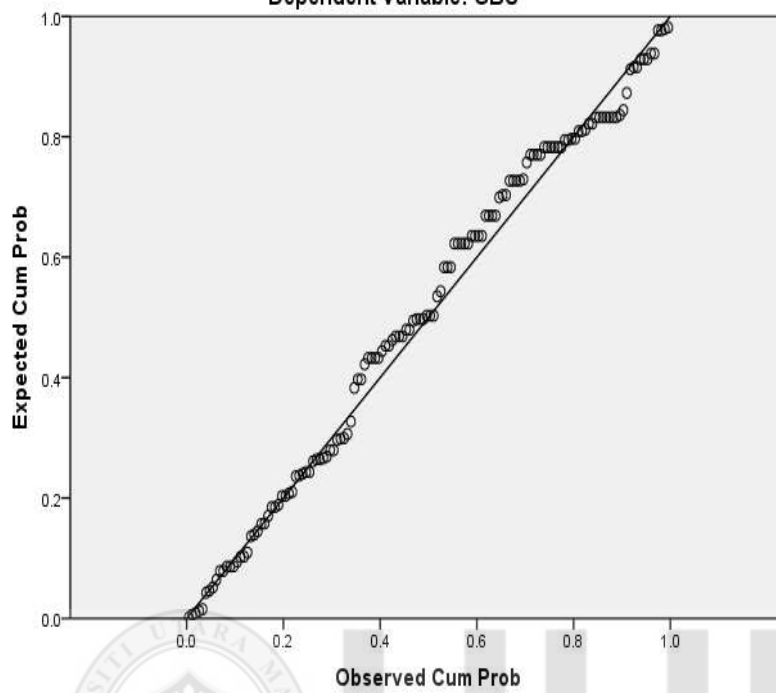
a. Dependent Variable: GBS

Charts



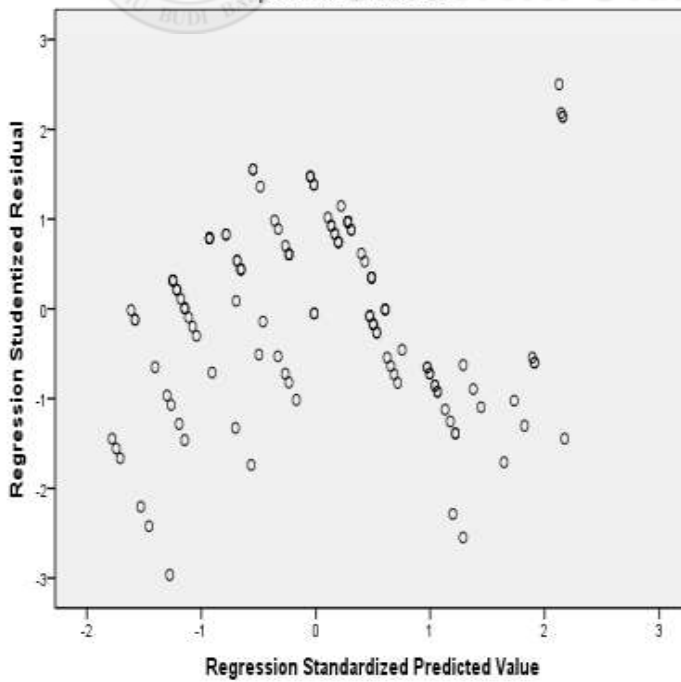
Normal P-P Plot of Regression Standardized Residual

Dependent Variable: GBS



Scatterplot

Dependent Variable: GBS



Multiple Regressions for the Relationship between Budget Participation, Interactive Control System and Budget Slack

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.866 ^a	.750	.748	3.33024	.750	413.500	1	138	.000
2	.957 ^b	.916	.914	1.94077	.166	269.332	1	137	.000
3	.965 ^c	.931	.930	1.75905	.016	30.768	1	136	.000

a. Predictors: (Constant), NGBP

b. Predictors: (Constant), NGBP, NGICS

c. Predictors: (Constant), NGBP, NGICS, NGBPNGICS

ANOVA^d

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4585.915	1	4585.915	413.500	.000 ^a
	Residual	1530.485	138	11.090		
	Total	6116.400	139			
2	Regression	5600.378	2	2800.189	743.429	.000 ^b
	Residual	516.022	137	3.767		
	Total	6116.400	139			
3	Regression	5695.581	3	1898.527	613.565	.000 ^c
	Residual	420.819	136	3.094		
	Total	6116.400	139			

a. Predictors: (Constant), NGBP

b. Predictors: (Constant), NGBP, NGICS

c. Predictors: (Constant), NGBP, NGICS, NGBPNGICS

d. Dependent Variable: GBS

Coefficients^a

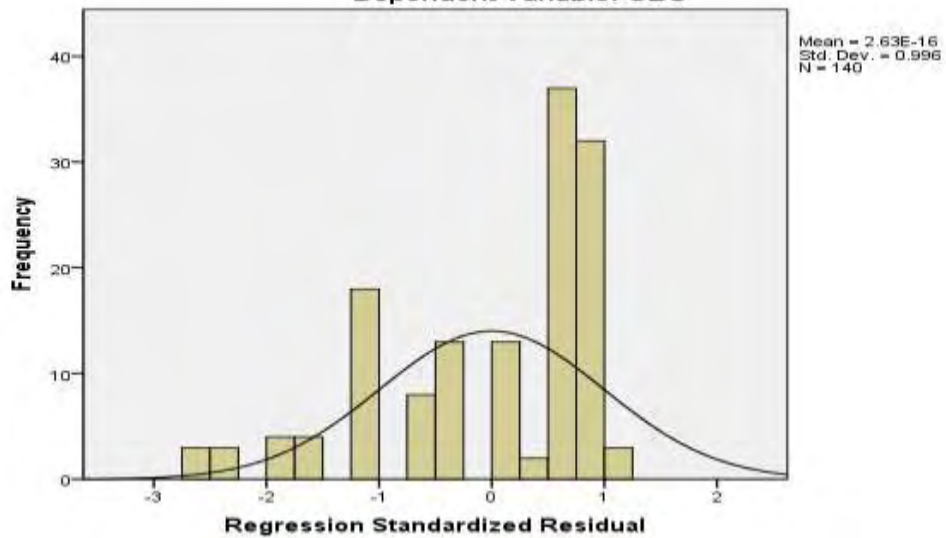
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
	B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1 (Constant)	21.200	.281		75.323	.000					
NGBP	-1.013	.050	-.866	-20.335	.000	-.866	-.866	-.866	1.000	1.000
2 (Constant)	21.200	.164		129.249	.000					
NGBP	-.425	.046	-.363	-9.216	.000	-.866	-.619	-.229	.396	2.523
NGICS	-.417	.025	-.647	-16.411	.000	-.929	-.814	-.407	.396	2.523
3 (Constant)	22.817	.327		69.722	.000					
NGBP	-.926	.100	-.792	-9.303	.000	-.866	-.624	-.209	.070	14.315
NGICS	-.190	.047	-.294	-4.039	.000	-.929	-.327	-.091	.095	10.505
NGBPNGICS	-.036	.006	-.298	-5.547	.000	.094	-.430	-.125	.175	5.698

a. Dependent Variable: GBS

Charts

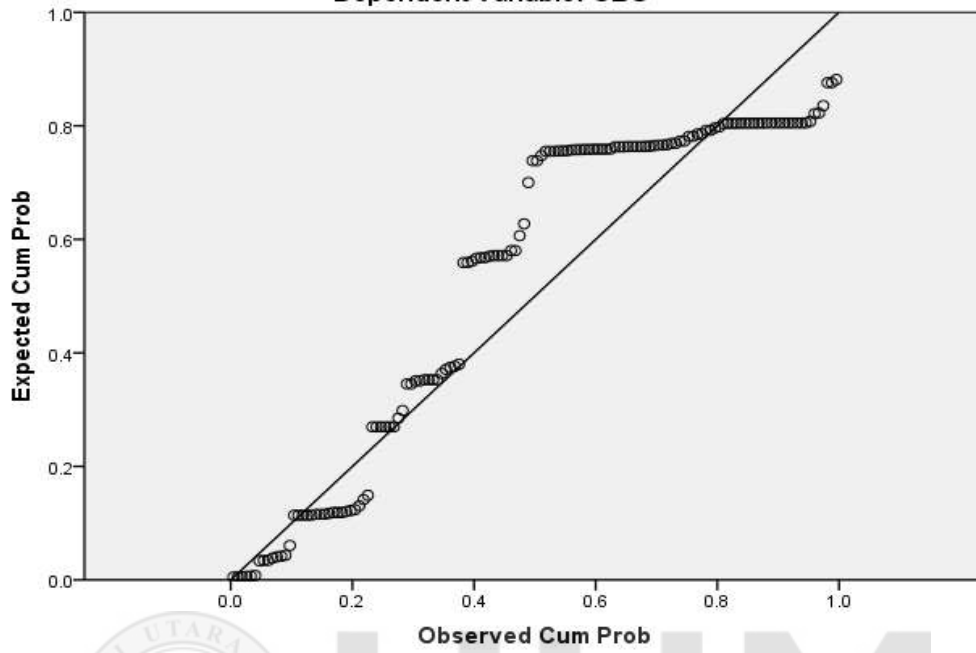


Histogram
Dependent Variable: GBS



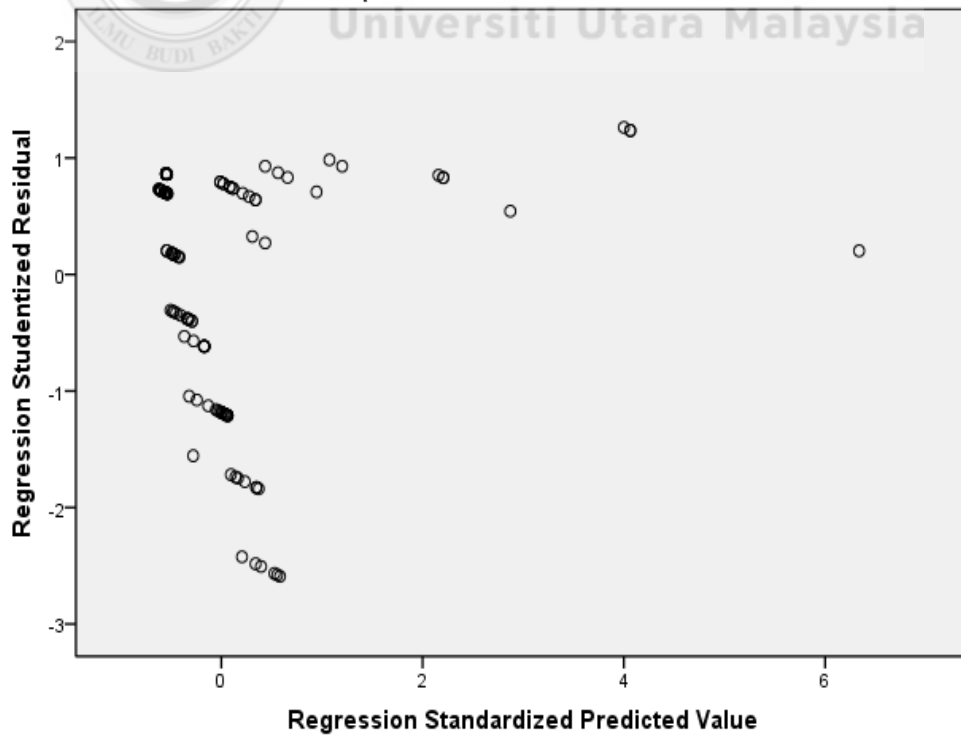
Normal P-P Plot of Regression Standardized Residual

Dependent Variable: GBS



Scatterplot

Dependent Variable: GBS



Multiple Regressions for the Relationship between Budget Participation, Diagnostic Control System and Budget Slack

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.866 ^a	.750	.748	3.33024	.750	413.500	1	138	.000
2	.880 ^b	.774	.771	3.17645	.024	14.685	1	137	.000
3	.911 ^c	.830	.827	2.76120	.056	45.305	1	136	.000

a. Predictors: (

Constant), NGBP

b. Predictors: (Constant), NGBP, NGDCS

c. Predictors: (Constant), NGBP, NGDCS, NGBPNGDCS

ANOVA^d

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4585.915	1	4585.915	413.500	.000 ^a
	Residual	1530.485	138	11.090		
	Total	6116.400	139			
2	Regression	4734.089	2	2367.044	234.596	.000 ^b
	Residual	1382.311	137	10.090		
	Total	6116.400	139			
3	Regression	5079.503	3	1693.168	222.077	.000 ^c
	Residual	1036.897	136	7.624		
	Total	6116.400	139			

a. Predictors: (Constant), NGBP

b. Predictors: (Constant), NGBP, NGDCS

c. Predictors: (Constant), NGBP, NGDCS, NGBPNGDCS

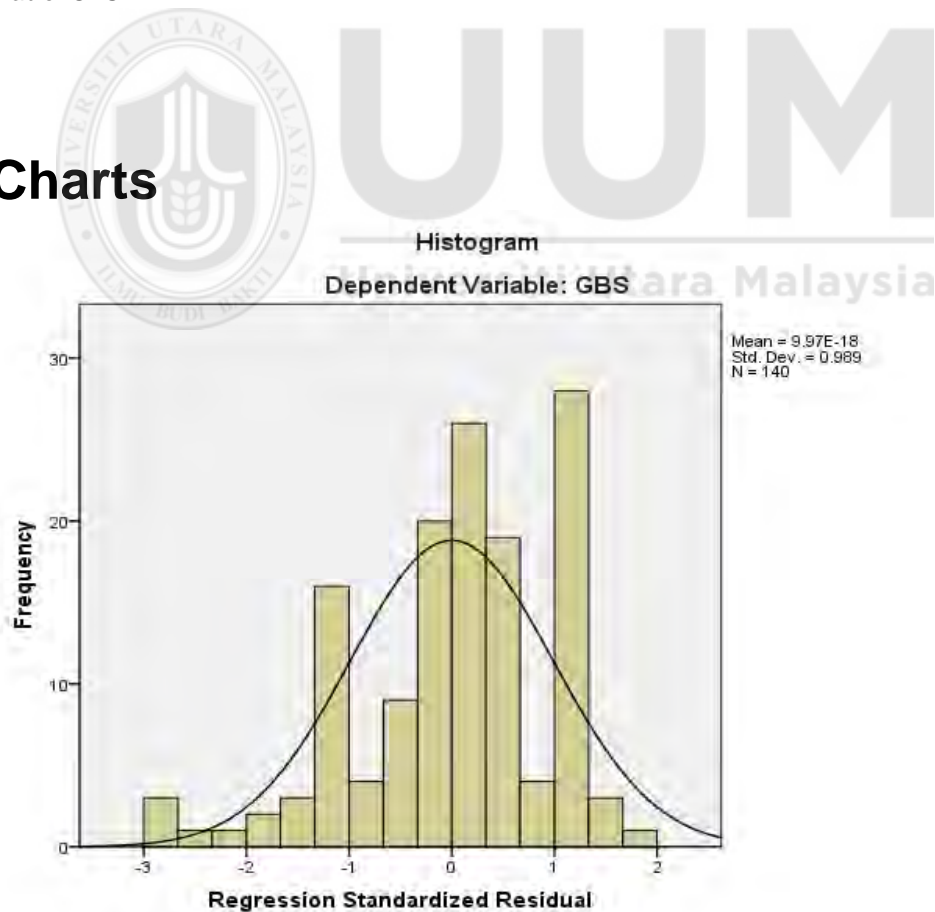
d. Dependent Variable: GBS

Coefficients^a

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
	B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1 (Constant)	21.200	.281		75.323	.000					
NGBP	-1.013	.050	-.866	-20.335	.000	-.866	-.866	-.866	1.000	1.000
2 (Constant)	21.200	.268		78.969	.000					
NGBP	-.514	.139	-.439	-3.703	.000	-.866	-.302	-.150	.117	8.520
NGDCS	-.285	.074	-.454	-3.832	.000	-.867	-.311	-.156	.117	8.520
3 (Constant)	22.323	.287		77.821	.000					
NGBP	-.661	.123	-.565	-5.392	.000	-.866	-.420	-.190	.114	8.800
NGDCS	-.366	.066	-.583	-5.562	.000	-.867	-.431	-.196	.113	8.814
NGBPNGDCS	-.020	.003	-.345	-6.731	.000	.475	-.500	-.238	.474	2.111

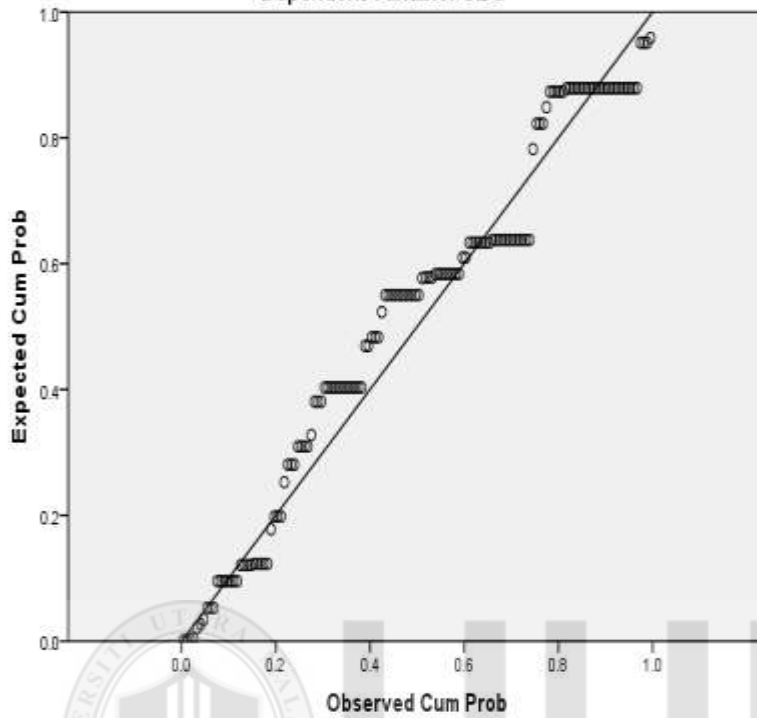
a. Dependent Variable: GBS

Charts



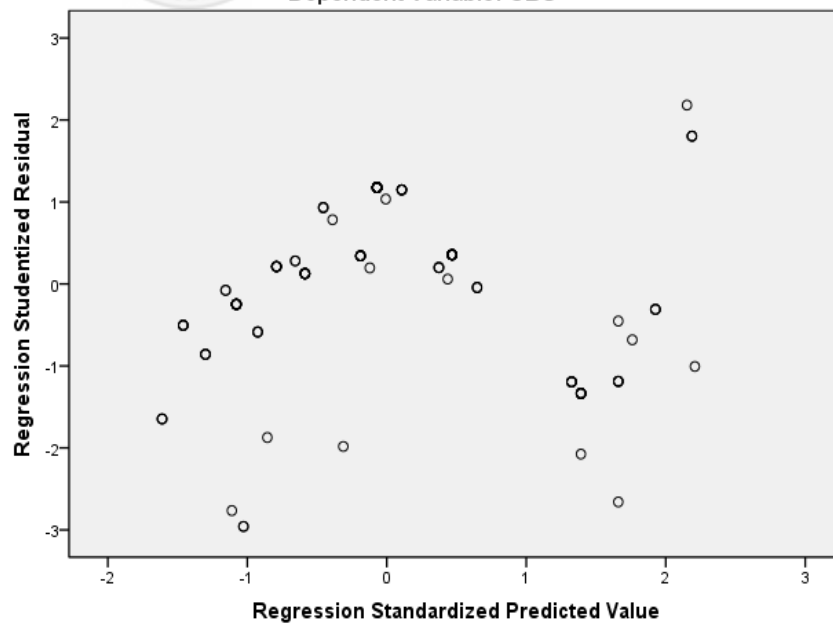
Normal P-P Plot of Regression Standardized Residual

Dependent Variable: GBS



Scatterplot

Dependent Variable: GBS



Multiple Regressions for the Relationship between Budget Participation, Boundary Control System and Budget Slack

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.866 ^a	.750	.748	3.33024	.750	413.500	1	138	.000
2	.866 ^b	.751	.747	3.33664	.001	.470	1	137	.494
3	.882 ^c	.779	.774	3.15410	.028	17.317	1	136	.000

a. Predictors: (Constant), NGBP

b. Predictors: (Constant), NGBP, NGBCS

c. Predictors: (Constant), NGBP, NGBCS, NGBPNGBCS



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ANOVA^d

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4585.915	1	4585.915	413.500	.000 ^a
	Residual	1530.485	138	11.090		
	Total	6116.400	139			
2	Regression	4591.152	2	2295.576	206.192	.000 ^b
	Residual	1525.248	137	11.133		
	Total	6116.400	139			
3	Regression	4763.427	3	1587.809	159.606	.000 ^c
	Residual	1352.973	136	9.948		
	Total	6116.400	139			

a. Predictors: (Constant), NGBP

b. Predictors: (Constant), NGBP, NGBCS

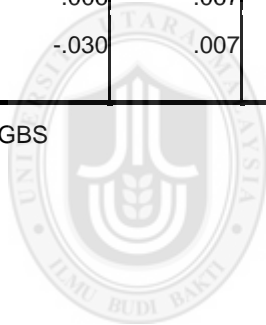
c. Predictors: (Constant), NGBP, NGBCS, NGBPNGBCS

d. Dependent Variable: GBS

Coefficients^a

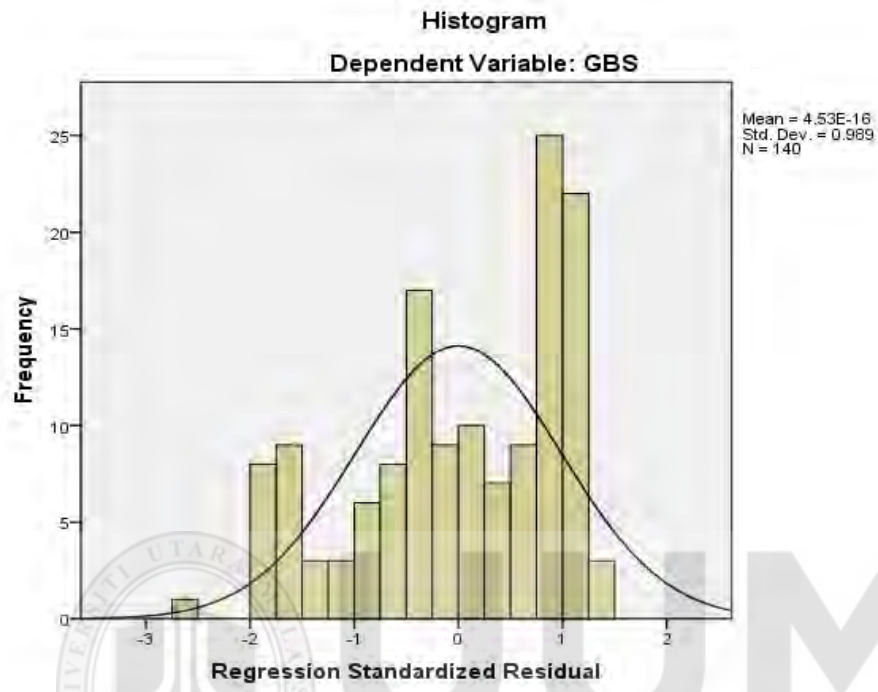
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	21.200	.281		75.323	.000					
	NGBP	-1.013	.050	-.866	-20.335	.000	-.866	-.866	-.866	1.000	1.000
2	(Constant)	21.200	.282		75.178	.000					
	NGBP	-1.046	.069	-.894	-15.099	.000	-.866	-.790	-.644	.519	1.926
	NGBCS	.048	.069	.041	.686	.494	-.579	.058	.029	.519	1.926
3	(Constant)	21.871	.312		70.202	.000					
	NGBP	-1.203	.076	-1.028	-15.919	.000	-.866	-.807	-.642	.390	2.565
	NGBCS	-.006	.067	-.005	-.094	.925	-.579	-.008	-.004	.500	2.001
	NGBPNGBCS	-.030	.007	-.238	-4.161	.000	.481	-.336	-.168	.496	2.017

a. Dependent Variable: GBS

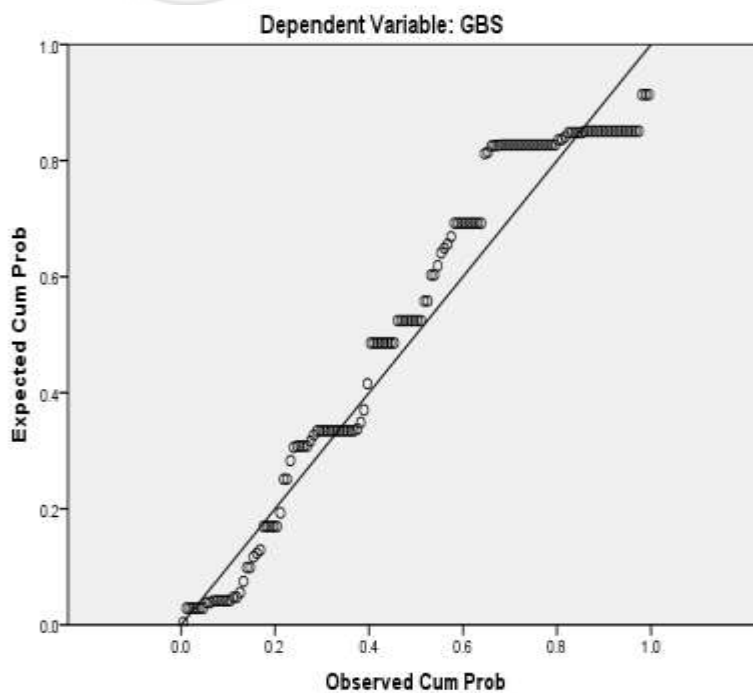


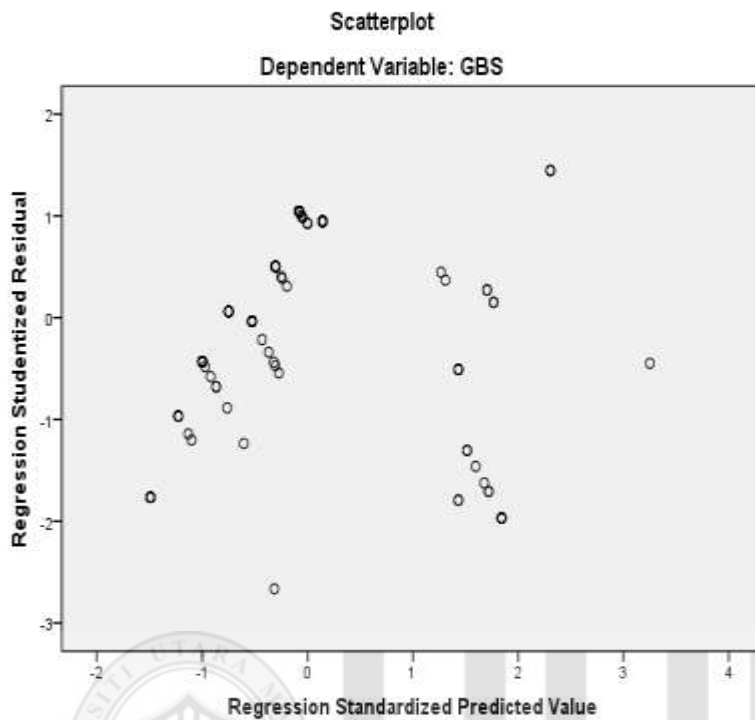
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Charts



Normal P-P Plot of Regression Standardized Residual





Multiple Regressions for the relationship between Budget Participation, Belief Control System and Budget Slack

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.866 ^a	.750	.748	3.33024	.750	413.500	1	138	.000
2	.880 ^b	.775	.772	3.17008	.025	15.296	1	137	.000
3	.893 ^c	.797	.793	3.02089	.022	14.865	1	136	.000

a. Predictors: (Constant), NGBP

b. Predictors: (Constant), NGBP, NGBLFCS

c. Predictors: (Constant), NGBP, NGBLFCS, NGBPNGBLFCS

ANOVA^d

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4585.915	1	4585.915	413.500	.000 ^a
	Residual	1530.485	138	11.090		
	Total	6116.400	139			
2	Regression	4739.634	2	2369.817	235.817	.000 ^b
	Residual	1376.766	137	10.049		
	Total	6116.400	139			
3	Regression	4875.292	3	1625.097	178.077	.000 ^c
	Residual	1241.108	136	9.126		
	Total	6116.400	139			

a. Predictors: (Constant), NGBP

b. Predictors: (Constant), NGBP, NGBLFCS

c. Predictors: (Constant), NGBP, NGBLFCS, NGBPNGBLFCS

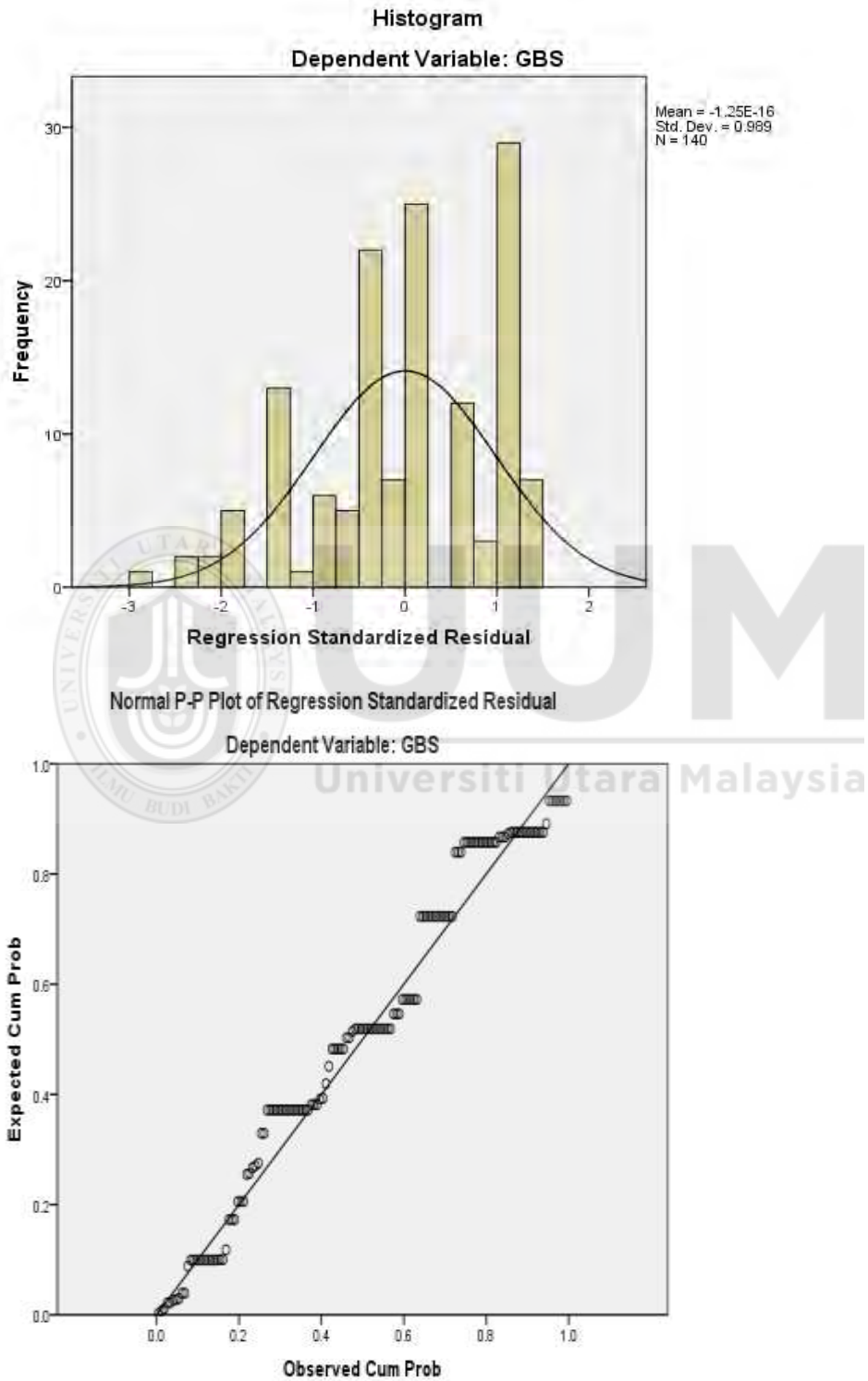
d. Dependent Variable: GBS

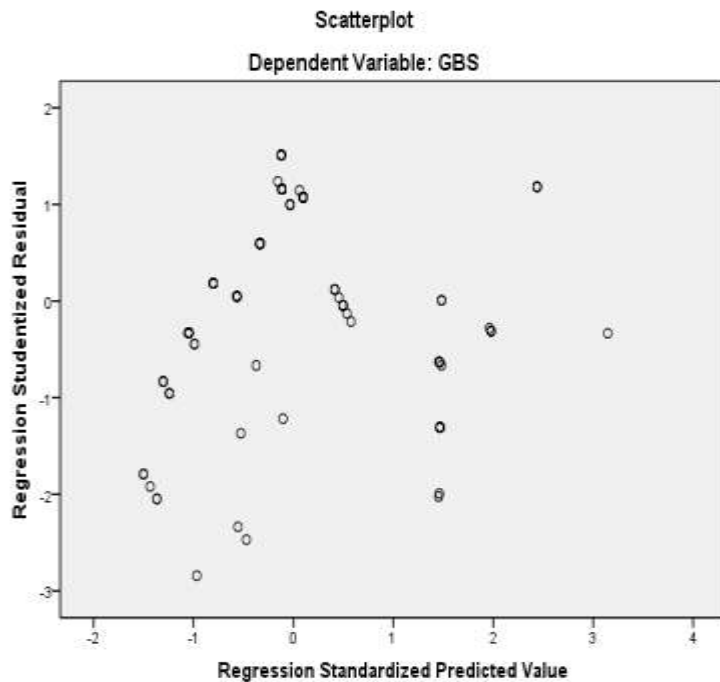
Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics		
		B	Std. Error	Beta			Sig.	Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	21.200	.281		75.323	.000						
	NGBP	-1.013	.050	-.866	-20.335	.000	-.866	-.866	-.866	1.000	1.000	
2	(Constant)	21.200	.268		79.128	.000						
	NGBP	-.902	.055	-.771	-16.304	.000	-.866	-.812	-.661	.735	1.360	
	NGBLFCS	-.204	.052	-.185	-3.911	.000	-.582	-.317	-.159	.735	1.360	
3	(Constant)	21.646	.280		77.238	.000						
	NGBP	-1.011	.060	-.864	-16.891	.000	-.866	-.823	-.652	.570	1.755	
	NGBLFCS	-.219	.050	-.198	-4.389	.000	-.582	-.352	-.170	.731	1.368	
	NGBPNGBLFCS	-.026	.007	-.180	-3.856	.000	.370	-.314	-.149	.684	1.461	

a. Dependent Variable: GBS

Charts





Multiple Regressions for the relationship between Budget Participation, MCS and Budget Slack

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.866 ^a	.750	.748	3.33024	.750	413.500	1	138	.000
2	.936 ^b	.877	.875	2.34338	.127	141.705	1	137	.000
3	.949 ^c	.901	.899	2.11297	.024	32.507	1	136	.000

a. Predictors: (Constant), NGBP

b. Predictors: (Constant), NGBP, NGMCS

c. Predictors: (Constant), NGBP, NGMCS, NGBPNGMCS

ANOVA^d

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4585.915	1	4585.915	413.500	.000 ^a
	Residual	1530.485	138	11.090		
	Total	6116.400	139			
2	Regression	5364.075	2	2682.037	488.405	.000 ^b
	Residual	752.325	137	5.491		
	Total	6116.400	139			
3	Regression	5509.207	3	1836.402	411.320	.000 ^c
	Residual	607.193	136	4.465		
	Total	6116.400	139			

a. Predictors: (Constant), NGBP

b. Predictors: (Constant), NGBP, NGMCS

c. Predictors: (Constant), NGBP, NGMCS, NGBPNGMCS

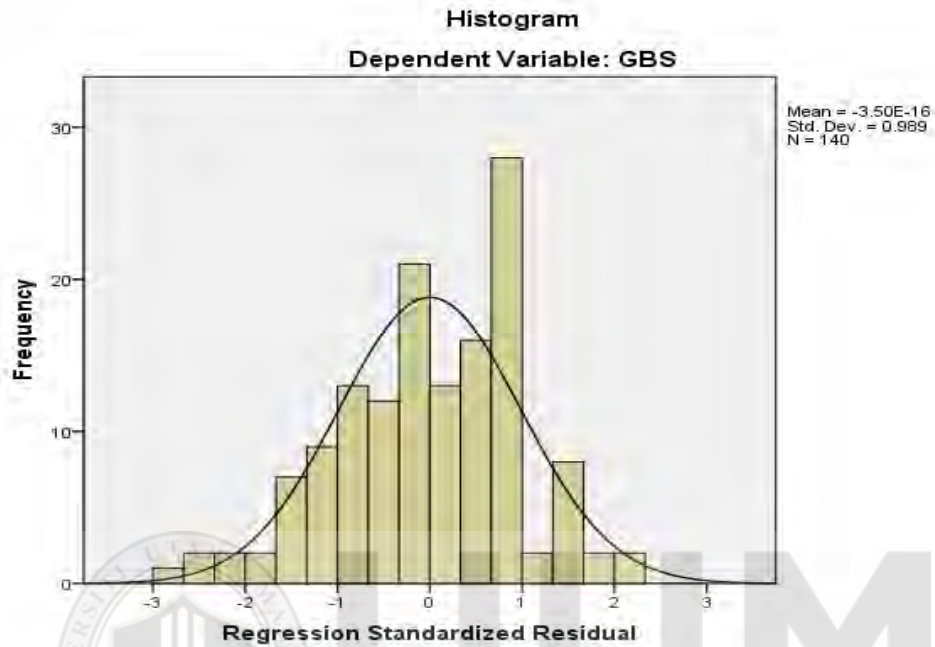
d. Dependent Variable: GBS

Coefficients^a

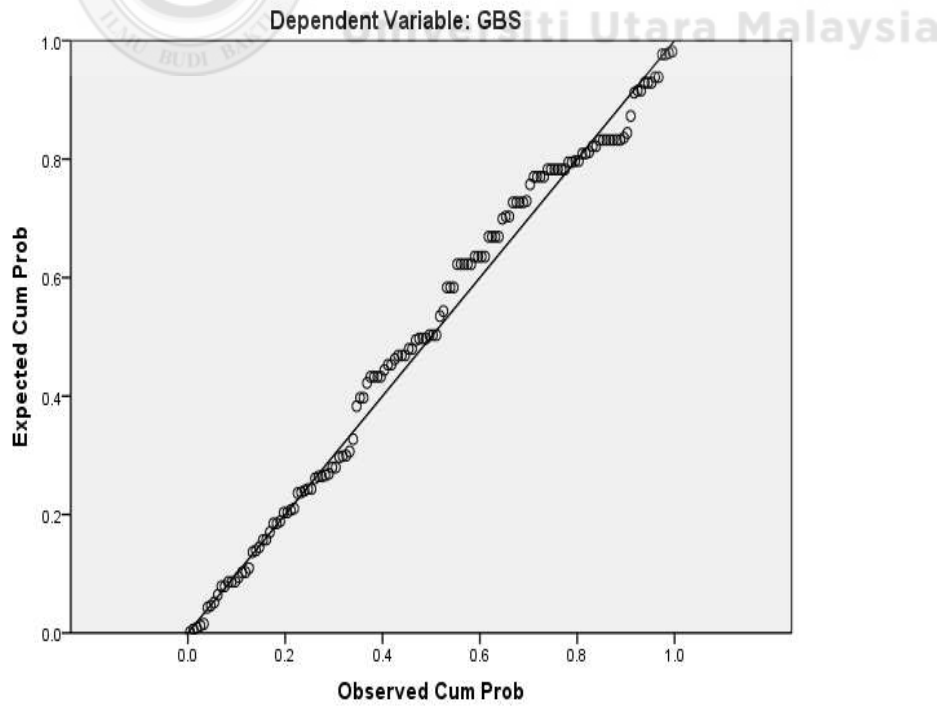
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	21.200	.281		75.323	.000					
	NGBP	-1.013	.050	-.866	-20.335	.000	-.866	-.866	-.866	1.000	1.000
2	(Constant)	21.200	.198		107.043	.000					
	NGBP	-.061	.087	-.052	-.697	.487	-.866	-.059	-.021	.161	6.206
	NGMCS	-.216	.018	-.889	-11.904	.000	-.936	-.713	-.357	.161	6.206
3	(Constant)	22.001	.227		96.845	.000					
	NGBP	-.363	.095	-.310	-3.823	.000	-.866	-.311	-.103	.111	9.010
	NGMCS	-.187	.017	-.769	-10.900	.000	-.936	-.683	-.294	.147	6.812
	NGBPNGMCS	-.006	.001	-.219	-5.701	.000	.399	-.439	-.154	.495	2.022

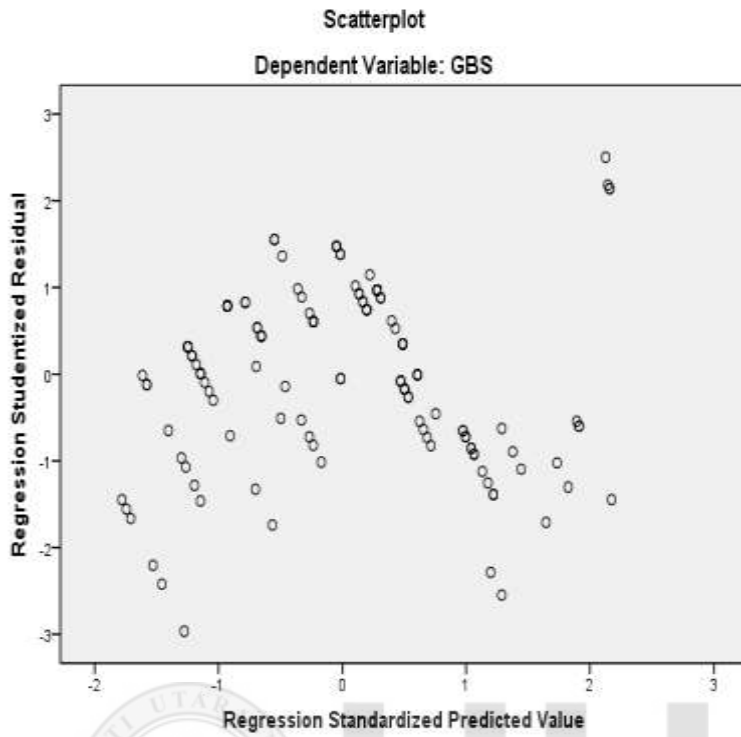
a. Dependent Variable: GBS

Charts



Normal P-P Plot of Regression Standardized Residual

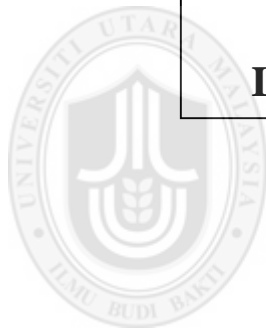




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APPENDIX F

LIST OF PUBLICATIONS



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INTERNATIONAL CONFERENCE PROCEEDINGS PUBLISHED

1. The Effect of Budget Participation, Locus of Control, Job Relevant Information, Cultural Dimension on Job Performance and job Satisfaction. A paper presented at The 2nd International Conference on Arab-Malaysia Islamic Global Business and Entrepreneurship at Yarmouk University Jordan and Damascus University Syria, 20-24 March 2010.
2. The Relationship of Budgetary Process in Management Accounting Techniques and Job Performance. A paper presented at 1st International Conference on Public Policy and Social Sciences at Universiti MARA Kedah Darul Aman, Malaysia. 26-27 May 2010.
3. The Effect of Interactive Control System and Boundary Control System in the Relationship between Budget Participation and Budget Slack. A paper presented at The 14th Asian Academic Accounting Association Annual Conference at Penang, Malaysia. 27-30 October 2013.
4. The Effect of Diagnostic Control System and Belief Control System in the Relationship between Budget Participation and Budget Slack. A paper presented at The International Congress on Interdisciplinary Behavior and Social Sciences 2013 (ICIBSoS 2013) at Swiss Bell Ciputra Hotel, Jakarta, Indonesia. 04-05 November 2013.

5. The Moderating Effect of Interactive Control System and Diagnostic Control System in the Relationship between Budget Participation and Budget Slack. A paper presented at The International Conference on Social Transforming towards Sustainable Society, EDC – Universiti Utara Malaysia, Kedah Darul Aman, Malaysia. 16 December 2013.

