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Does Quality Matters? Trends in Internationalization of Universities

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Does Quality Matters? Trends in Internationalization of Universities

Muhammad Asif [α] & Shazil Turab [σ]

Abstract- Internationalization is imperative for the future development of the universities. By internationalization we share our insights and knowledge and seek to learn from the experience, cultures and research of others. The purpose of this study is to discuss common trends and patterns of internationalization and analyze empirically that how internationalization of university is important for university prestige and excellence in education and research. The common trends in higher education are the expansion of education, the assurance of education standards and a quality education, encouraging of competition to promote excellence and to promote research and development internationally. The empirical evidences show that internationalization of universities is significantly important for the promotion of education and research as a symbol of excellence.

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I. Introduction

According to one survey total population of whole world is about seven billion and the way the population is increasing," in 2050 the total population of whole world will be about nine billion. There will be increase of only two billion. Most of the population working today will retire in 2050 and few will be working to support the elders the way medical facilities are being provided to rescue diseases" (Dubrin, 2010). "There is one child law in China and even in west people don't prefer to have babies so according to this survey most of the older population will be in China and in west because of less fertility. Fertility rate is very high in countries like Pakistan, India, Middle East, and Arab World. According to one survey about seventy percent of population of these countries is below twenty five means that they are going to universities or are about to start their university life (Robbins, 1993).

"Better education these days is been provided in western countries and people prefer to take admission in universities in these countries because of that. Local universities either don't have that level of education system or are struggling to achieve that standard" (Purvanova & Bono, 2009). If the criterion of international standard is fulfilled in these local universities and campuses then such a huge market of population in China, India, Pakistan, and Arab world that are below twenty five and about to take admission could be acquire.

Most of the books these days are also written by western authors and includes examples and cases from western cultures that local students are not able to understand while reading a book. There comes a major gap between theory and culture and understanding of western theory while studying local culture. The students are not able to absorb western theory. However after having all these concepts still there are few factors that can be accomplished for internationalization of universities.

Internationalization is an essential element for the future development of the Universities. Internationalization is a reciprocal process, where we share our insights and knowledge and where we seek to learn from the experience, cultures and research of others. Internationalization of the university is defined as the process of integrating international, cross-cultural and global perspectives into various dimensions of a university system. It is a systemic institutional strategy to change the internal system of the organization to respond to changes in the globalizing environment. (Knight, 2004; van der Wende, 1997).

In an OECD seminar, Higher Education and the Flow of Foreign Students, held in Japan in 1988, Ebuchi (1989) presented the process-oriented definition and defined internationalization components as "a kind of inventory to measure to what extent a given university is internationalized". He defined internationalization of higher education as:

A process by which the educational provision of a higher education system becomes more sophisticated, enriched and broadly applicable of students from all backgrounds and countries, emphasizing especially the possibility of development of programs which are internationally and cross-culturally compatible, with a view toward providing all students with experiences and training necessary to develop skills for life in a world characterized by increasing international exchange.

The constant flow of people and goods across borders is facilitating the internationalization of education and research. Human interaction is increasing year by year, especially in higher education institutions. Faculty members, researchers and students are moving all over the world to seek more attractive education and research environments and intellectual alliances.

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This global flow of people provides a good opportunity to secure superior human resources from around the world and provide diverse and attractive higher education of an international standard. On the other hand, the progress of internationalization exposes universities to intense international competition. A university that cannot develop its strengths while nurturing a distinct identity will clearly decline in this competitive environment.

There could be many different causes of why universities go international that includes global learning, research, teaching, student life, curriculum, and community service, outreach & engagement. "Firstly with global integration in the area of trade, politics, investment, research, the environment, health, and culture facilitated by advances in communication, information, and transportation technologies. Secondly, the universities needs to stay updated with relevant and innovative research, teaching and mission. Thirdly, universities need to train their students to find employment in global market place. Lastly, university needs to achieve variety of goals like economic, academics and entrepreneurial, national security, social and foreign policy" (Ford & Seers, 2006).

a) Components of Internationalization

The set of internationalization components suggested by Ebuchi (1989) includes Enrichment of educational programs and increase of diversified programs,

(1) Establishment of compatibility of school credits,
(2) Attainment of international consensus in administrating higher education institutions,
(3) Promotion of intercultural understanding and development of norms necessary for cooperative activities (symbiosis) on and off campus, and
(4) Increase in opportunities for individual scholars to international collaborative research projects.

According to Elkin, Devjee and Farnsworth (2005), 'internationalization is not something that is either achieved or not achieved: rather it is an engagement with the range of dimensions. An institution's internationalization could be assessed in the light of whether it has successfully engaged in the following aspects:

- Internationally focused programs of study;
- International institutional links;
- Student exchange programs
- Internationally recognized research activity;
- International research collaboration; staff interaction in international context;
- Support for international students;
- Attendance to international conferences; postgraduate international students;
- Undergraduate international students;
- Staff exchange programs

b) Trends and Patterns of Higher Education

According to Cheng and Townsend (2000) and Mok (2006), some of the typical trends and patterns of higher education are as follows:

- The reestablishing of new aims and a national vision for education;
- The expansion and restructuring of education;
- The assurance of education standards and a quality education;
- The use of market forces and the balance between education equality and encouraging of competition to promote excellence;
- The privatization and diversifying of education;
- The shift to decentralization and school-based management;
- The emphasis on the use of development planning and strategic management;
- The use of information technology in learning and teaching;
- The development of new curricula and methods of learning and teaching;
- The changes in examination and evaluation practices;
- The search to enhance teacher quality; and
- The need for continuous professional development for teachers and principals

While acknowledging the trends of 'internationalization', Teichler (2004) argues the following questions before we take internationalization agenda seriously:

- Internationalizing higher education for whose benefits?
- Internationalizing higher education for what?
- Why internationalization should be adopted as a major agenda for contemporary universities?
- Does internationalization matter to students and other stakeholders in the society?
- What purposes should contemporary universities exist for?
- What university education that we believe and should commit ourselves to?

Thus the purpose of this study is through light on the trends and patterns of internationalization and discusses how internationalization of university is imperative for the prestige and the excellence in education globally.

II. Literature Review

After completing a series of comparative studies, Mok and Welch (2003), Mok, Tan and Lee (2000), Tse (2002) and Weng (2000) find that educational developments in the region, including Hong Kong, Taiwan, Singapore, South Korea, Mainland China, Japan, the Philippine, Cambodia, New Zealand, Australia, have been affected by the trends of

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marketization and corporatization. Governments in these societies are increasingly concerned about the role of education in improving the competitiveness of their countries, and their place in regional and global markets. Therefore, they are very keen to promote the idea of 'life-long learning' and 'quality education' in preparing their citizens for the knowledge-based economy. Thus, universities in Hong Kong and Singapore have started changing the university admission criteria by reducing the weight to academic scores but giving more emphasis to non-academic performance, including leadership, community services and other talents (Mok and Tan 2004).

Despite the difficulties in getting a consensus on how 'internationalization of higher education' should be defined, no one can deny that East Asian universities have taken 'internationalization' far more seriously. Academic exchanges, international collaborations, transnational education and other forms of international activities across different national borders are becoming increasingly prominent in East Asia (Mok and Tan 2004; Lo and Weng 2005).

Traditionally, internationalization has referred to international activities that have been a part of the life of the universities based on individual aspirations to seek knowledge and experience internationally; however, during the last decade or so, discourse on internationalization has started to focus on the institutionalization of international activities that have emerged due to changes in the context of higher education. International activities became more diverse, structured and integrated into the regular organizational life of higher education (Watabe, 2010).

According to Lenz and Steinhaus (2010), Bildung of individuals is a unique value by itself which can't be converted into cash terms and does not fit into the world of accountancies, ratios, balance sheets, benchmarking, rankings and accreditation. Embedded in an institutional concept of learning internationalization could contribute significantly towards the individual's process of edification. But internationalization should be never seen as an end in itself or as a means to fulfilling the interests of the institution "university". The focus should be always the individual and its process of Bildung.

Asian scholars should be more critical about what they have learned from the West. Following the global practices and ideologies without developing our own unique systems and honoring the rich traditions, cultures and scholarships of East Asia may easily lead us to entering the processes of re-colonization. Perhaps, Asian scholars are not confident enough as what the previous Prime Minister of Malaysia suggested.

"Dr Mahathir Mohamad said, most Asians have not been able to get over the feelings of inferiority that decades and centuries of colonialism have brought in them. They are politically independent but psychologically they are still colonized. The desire to please the non-Asians is strong among them. Their value system and their way of thinking are still very much dominated by Western thinkers".

Learning from other systems is desirable but we should guard against copying without proper adaptation and contextualization. Most important of all, Asia has rich traditions and cultures and we should never look down upon our rich scholarly traditions. I strongly believe scholars in Asia should internationalize our academic systems, cultivating and developing our own paradigms. Internationalizing with East Asian characteristics would be a far more challenging and we must commit ourselves to develop alternative academic paradigms for promoting cross-cultural understanding and cross-national policy learning (Mok, 2006).

III. Methodology and Data Source

According to the Webometrics website rank criteria, the world ranking of the universities depends upon the internationalization of the universities that is visibility and quality of education that is activities. By visibility they mean the university international linkages, cultural exchange programs and scholarships offered for foreign students. By activities they mean (1) university presence that is the total number of web pages hosted in the main web domain of the university as indexed by the largest commercial search engine Google (2) university openness that is the global effort to set up institutional research repositories published in dedicated websites according to the academic search engine Google Scholar and (3) university excellence that is the academic papers published in high impact international journals.

Table 1 : Webometrics Rank Criteria

Internationalization		Quality of Education	
Indicator	Weighteges	Indicator	Weighteges
Visibility (External Linkages)	50%	Activities 1.Prescence	20%
		2.Openness	15%
		3.Excellence	15%

The required data is gathered from the website Webometrics. The data includes 140 universities of the World. Universities from fourteen countries of the world are taken for analysis (the top ten universities of each country).

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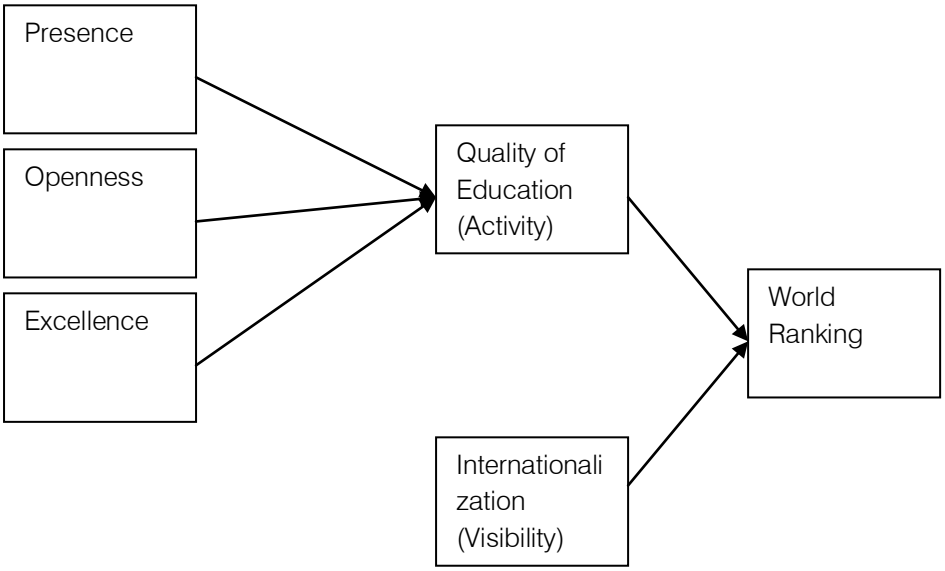
Table 2 : The Study is based on Regions and Countries of the World

Region	Country
Europe	Germany
	United Kingdom
	France
	Greece
North America	Canada
	USA
Africa	South Africa
Asia	Hong Kong
	China
	Japan
	India
	Pakistan
	Malaysia
	Taiwan

a) Theoretical framework

The theoretical framework of the study based on the existed information and literature is as follows:



IV. Methodology

To check the impact of internationalization of universities on the international ranking the study used the following model:

International Ranking = f (Internationalization, Quality of Education) (1)

As discussed above the ranking criteria the equation (1) can be extended as

International Ranking = f (Visibility, Presence, Openness, Excellence) (2)

The mathematical form of this model is presented as

$$Rank = f(vis, pre, open, exc) \quad (3)$$

The log-linear form of the equation (3) is described as

$$\ln Rank = \alpha_0 + \alpha_1 \ln vis + \alpha_2 \ln pre + \alpha_3 \ln open + \alpha_4 \ln exc + \varepsilon \quad (4)$$

To analyze the data the study used the correlation analysis, stationarity of the data, co-integration analysis, causality test, regression and graphical analysis.

V. Analysis of Data

The current analysis includes correlation analysis, co-integration analysis, causality analysis and regression analysis.

a) Correlation Analysis

The correlation analysis shows the degree of association or dependence between the variables. The results of the correlation analysis are presented in table 1. The results indicate that there is a positive dependence between the variables. The degree of association varies from 42% to 93%. The internationalization (visibility) of universities is directly associated with all other indicators namely university world ranking, presence, openness and university excellence. Thus one cannot deny the significance of the university internationalization as it is the key element for the grooming of the any academic institution.

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Table 3 : Correlation Analysis

Variable	Rank	Visibility	Presence	Openness	Excellence
Rank	1	0.929	0.772	0.799	0.821
Visibility	0.929	1	0.868	0.823	0.565
Presence	0.772	0.868	1	0.882	0.415
Openness	0.799	0.823	0.882	1	0.559
Excellence	0.821	0.565	0.415	0.559	1

b) Stationarity Analysis

Most of the time the data shows the high fluctuations or non-stationarity which cause spurious regression estimates. To check the stationarity of data Augmented Dickey Fuller (ADF) Test is used. The results are shown in table 2 below. The results indicate that each series is stationary at level. Thus the data will provide the better estimates in regression analysis.

Table 4 : Augmented Dickey Fuller (ADF) Test

Variables	Level and Intercept		
	ADF Statistics	Critical Values at 1%	Decision
Rank	-4.123	-3.477	I(0)
Visibility	-3.886	-3.477	I(0)
Presence	-4.636	-3.477	I(0)
Openness	-4.383	-3.477	I(0)
Excellence	-5.889	-3.477	I(0)

c) Causality Analysis

The Granger Causality test shows the existence of causation between two variables. The results are shown in table 5 below. The results indicate that

1. The Visibility (internationalization) cause World Ranking of the Universities
2. The Presence (size of university) cause World Ranking of the Universities
3. The Openness (research output) cause World Ranking of the Universities
4. The world ranking of Universities cause Openness
5. The Visibility (internationalization) cause Openness
6. The Visibility (internationalization) cause Presence
7. The Visibility (internationalization) cause Excellence
8. The Presence cause Openness
9. The Excellence cause Presence
10. The Excellence cause Openness and
11. The Openness cause Excellence

Table 5 : Results of Granger Causality

Null Hypothesis	F-Statistics	Probability	Decision
Visibility does not Granger Cause RANK	**2.67665**	**0.0247**	**Causality**
RANK does not Granger Cause Visibility	1.47256	0.2035	No Causality
Presence does not Granger Cause RANK	**1.93021**	**0.0940**	**Causality**
RANK does not Granger Cause Presence	0.89529	0.4866	No Causality
Openness does not Granger Cause RANK	**3.26129**	**0.0084**	**Causality**
RANK does not Granger Cause Openness	**4.11665**	**0.0017**	**Causality**
Excellence does not Granger Cause RANK	1.12829	0.3489	No Causality
RANK does not Granger Cause Excellence	1.87982	0.1025	No Causality
Presence does not Granger Cause Visibility	1.32483	0.2580	No Causality
Visibility does not Granger Cause Presence	**4.49681**	**0.0008**	**Causality**
Openness does not Granger Cause Visibility	1.74829	0.1285	No Causality
Visibility does not Granger Cause Openness	**4.93536**	**0.0004**	**Causality**
Excellence does not Granger Cause Visibility	1.32524	0.2578	No Causality
Visibility does not Granger Cause Excellence	**2.38909**	**0.0417**	**Causality**
Openness does not Granger Cause Presence	0.53053	0.7528	No Causality
Presence does not Granger Cause Openness	**6.02503**	**5.E-05**	**Causality**
Excellence does not Granger Cause Presence	**2.52573**	**0.0325**	**Causality**
Presence does not Granger Cause Excellence	1.37123	0.2396	No Causality

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Excellence does not Granger Cause Openness	3.24106	0.0087	Causality
Openness does not Granger Cause Excellence	2.04390	0.0770	Causality

d) Regression Analysis

Ordinary Least Squares (OLS) is one of the more simple methods of linear regression. The objective of OLS is to closely "fit" a function with the data. The method of least squares is used to approximately solve over determined systems, i.e. systems of equations in which there are more equations than unknowns. Least squares are often applied in statistical contexts, particularly regression analysis. The results of regression analysis are presented in table 6. The results indicate that the coefficients of each variable (visibility, presence, openness and excellence) have a direct relationship with world ranking. The increase in external university linkages, increasing cultural exchange program for talented students will increase the international ranking of the university towards the top. Based on results any improvement in internationalization will increase about 60% of the world ranking towards top. The diagnostic statistics of the model shows that model is free from specification biasness. The results are highly significant as F-statistic (1082.92) is high. About 98% of the variation in the world ranking is explained by the internationalization, presence, openness and excellence.

Table 6 : Results of Regression Analysis

Variables	Coefficients	Standard Error	t-Statistics	Probability
C	-0.192649	0.036570	-5.267984	0.0000
LOG(VIS)	0.600187	0.009224	65.06572	0.0000
LOG(PRE)	0.019318	0.006951	2.779023	0.0062
LOG(OPEN)	0.048228	0.010628	4.537899	0.0000
LOG(EX)	0.334086	0.009335	35.78819	0.0000

R-squared	0.976892	Schwarz criterion	-1.774743
Adjusted R-squared	0.966799	Durbin-Watson stat	1.666089
F-statistic	1082.92	Prob(F-statistic)	0.000000

Diagnostic Statistics (Breusch-Godfrey Serial Correlation LM Test: F-statistic =2.401 Prob. = 0.0945, Heteroskedasticity Test: ARCH: F-statistic = 1.798 Prob. = 0.1821, Ramsey RESET Test: F-statistic = 7.832 Prob. = 0.0059)

The results of graphical analysis of data are presented in appendix. The analysis includes normality test, model validity test, residual test, gradient of objective function, derivate of equation specification. The results indicate that model is best fit and free of specification biasness.

VI. Conclusion

Internationalization is imperative for the future development of the universities. By internationalization we share our insights and knowledge and seek to learn from the experience, cultures and research of others. It is a systemic institutional strategy to change the internal system of the university to respond to changes in the globalizing environment. University internationalization could be assessed whether it is involved in internationally focused programs of study, international institutional links, student exchange programs, international research collaboration, support for international students and staff exchange programs. The clear trends in higher education will lead the university towards the process of internationalization. The common trends in higher education are the expansion of education, the assurance of education standards and a quality education, encouraging of competition to promote excellence and to promote research and development internationally. Thus the purpose of this study is through light on the trends and patterns of internationalization and discusses empirically that how internationalization of university is imperative for the prestige and the excellence in education globally.

The results of empirical analysis are significant and positively correlated with internationalization of universities. The log-linear model is used for the analysis of self based conceptual framework for this study. The data regarding university world ranking, internationalization, presence, openness and excellence from 140 universities of the world is taken from website 'Webometrics'. It is clear from the results that internationalization causes world ranking, presence, openness and excellence. The results of regression analysis indicate that the internationalization (visibility), presence, openness and excellence have a direct relationship with world ranking. The increase in external university linkages will increase the international ranking of the university towards the top.

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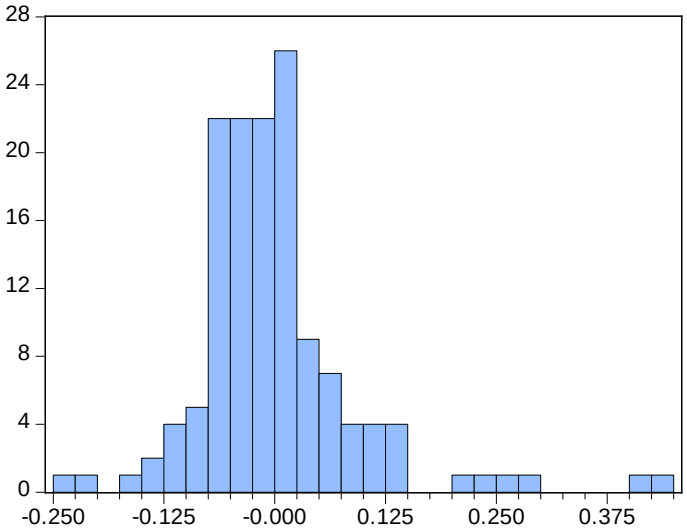
Appendix A

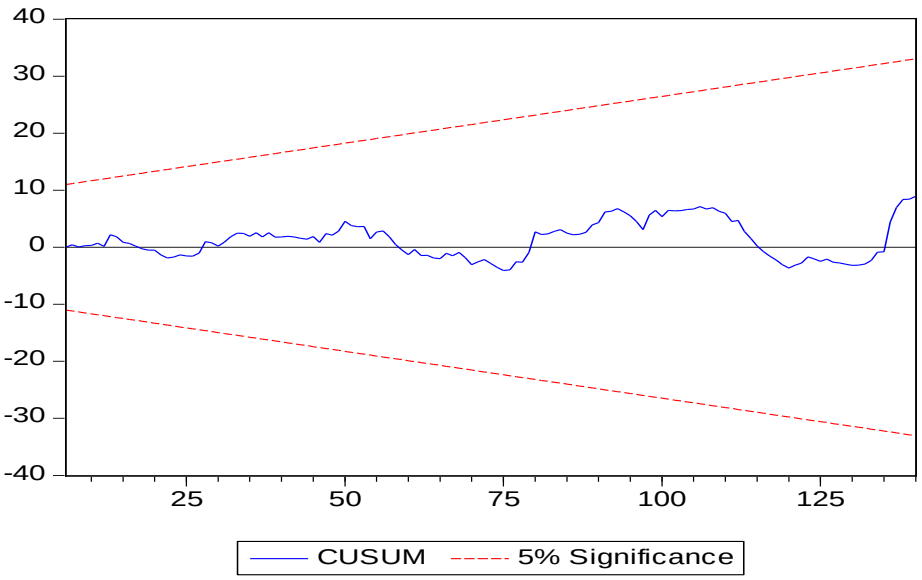
Normality Test



Series: Residuals	
Sample 1 140	
Observations 140	
Mean	4.86e-16
Median	-0.012683
Maximum	0.447737
Minimum	-0.249522
Std. Dev.	0.091541
Skewness	1.776399
Kurtosis	9.639399
Jarque-Bera	330.7733
Probability	0.000000

Appendix B

Model Validity Test



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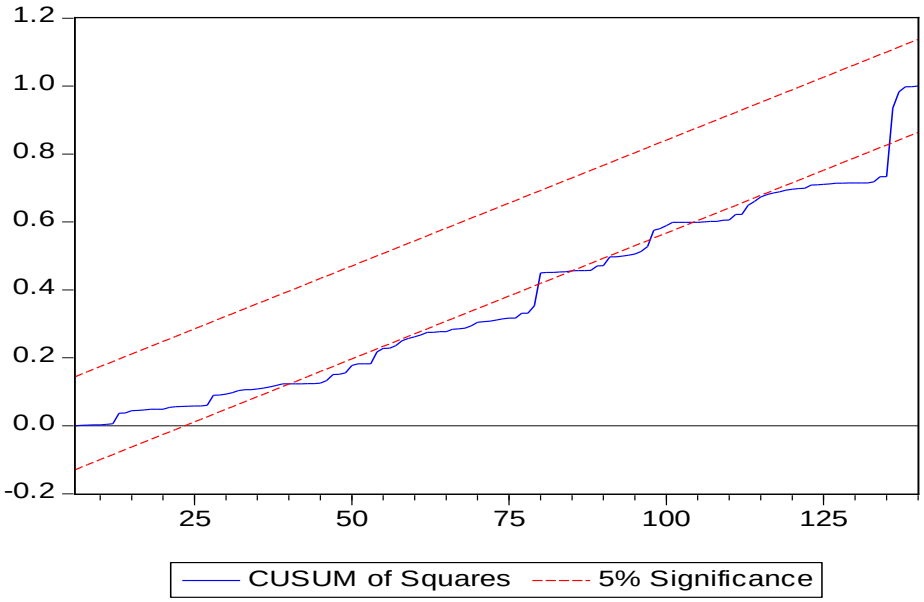
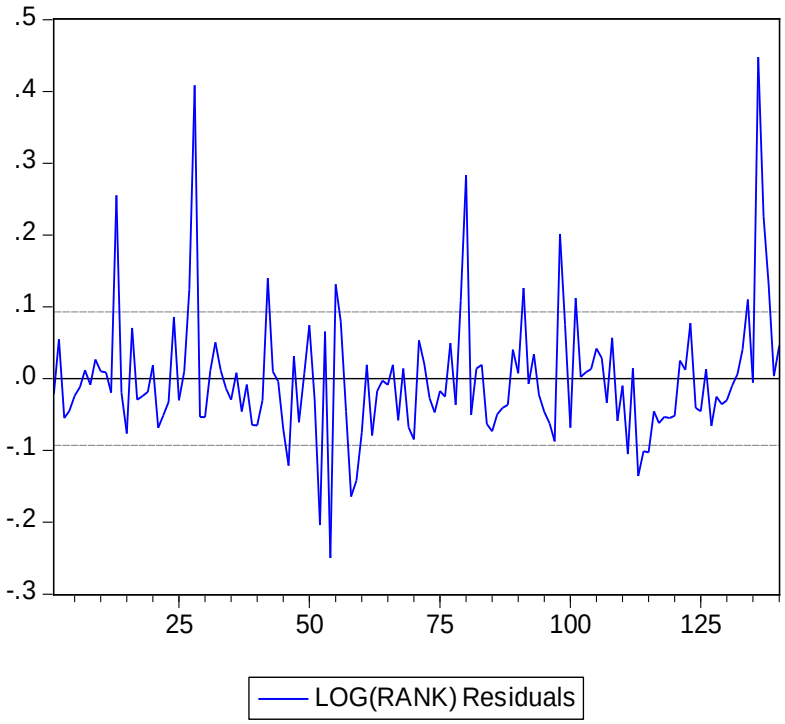


Appendix C

Residual Test



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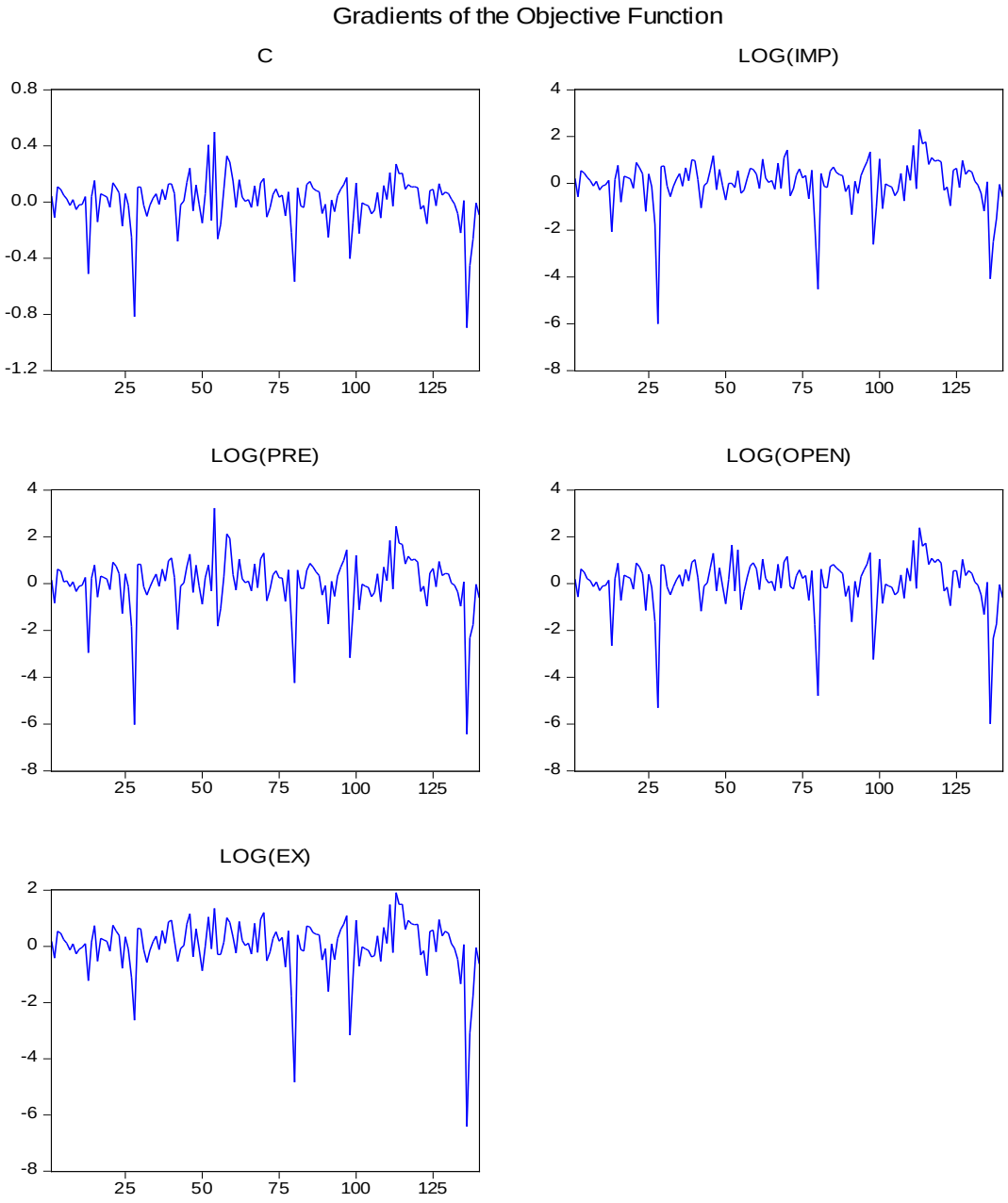
Appendix D

Gradient of Objective Function

IMP represents the visibility, PRE represents presence, OPEN represents openness and EX represents excellence



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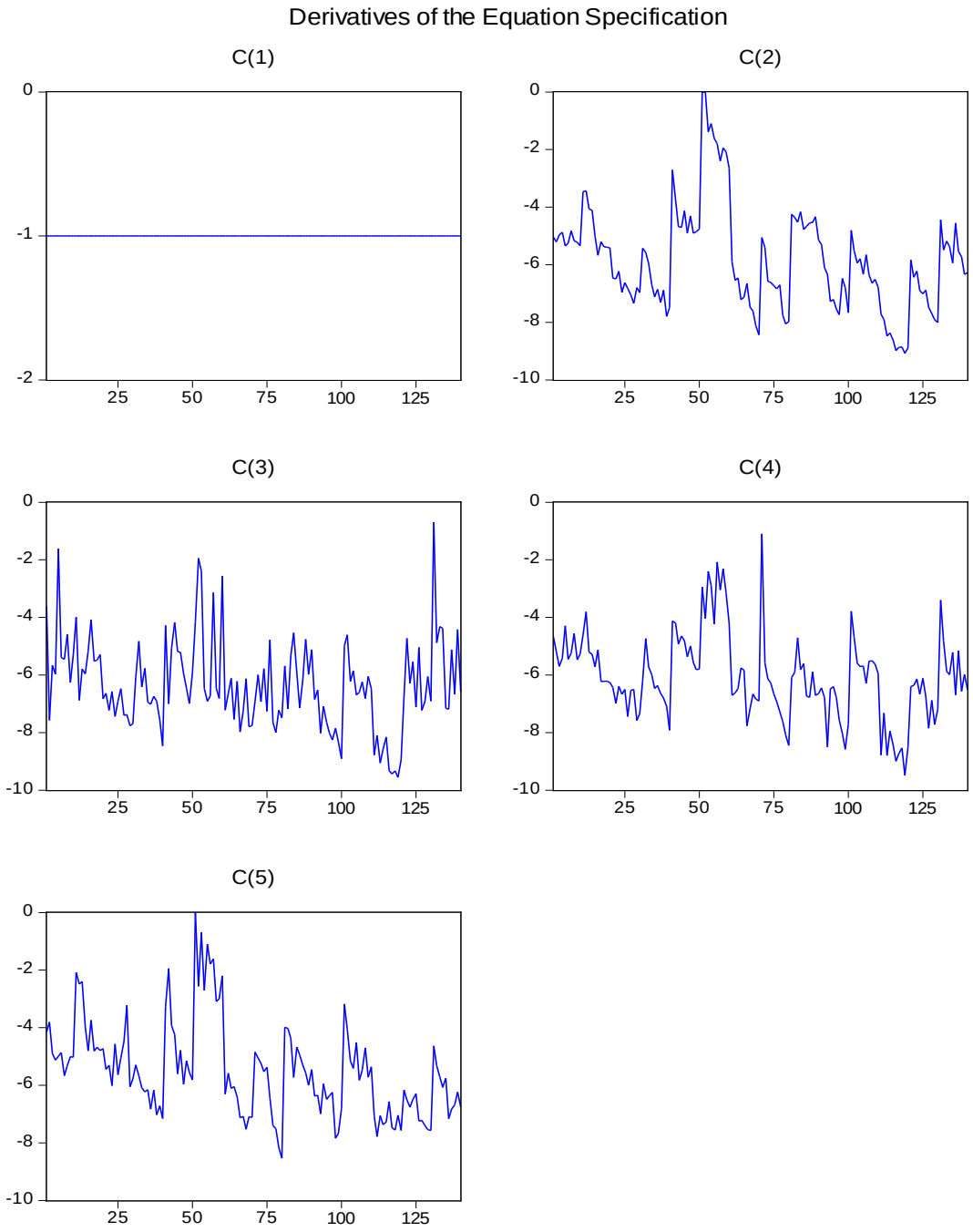
Appendix E

Derivatives of Equation Specification



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