QUALITY RESEARCH SUPERVISION IN SOME MALAYSIAN PUBIC UNIVERSITIES: SUPERVISEES' EXPECTATIONS AND CHALLENGES

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Abstract: Malaysian government has newly embarked on upgrading the higher educational system by changing the universities direction towards research and innovation. In 2009, 23% of national budget was allocated for education and more funds were given to five public universities, making them frontiers Malaysian research universities. This quest of government aligned with the national goals of producing high profile human capital. For the public and research universities to achieve this surmountable task, the universities opted for more postgraduate research students locally and internationally to uplift the university standard in research and development. However, some of these postgraduate students (local and international) find difficulty in adjusting to a less deferential working arrangement with their supervisors and less structure in research direction. This research is therefore aims at examining the best practices relevant to quality supervision of postgraduate research students in some Malaysia public universities. The research tends to investigate supervisees' expectations towards supervision, the problems and challenges faced by supervisees in their research. The results of this study highlight the relationship between quality supervision and students' expectations. Quality research supervision was measured according to the following aspects: availability of supervisor; Research interest comment and feedback; Research development; Relationship and Motivation. This study adopts quantitative research approach respondents (both local and international) from public Malaysia universities participated in this study and the data were gathered through self-administered questionnaire. The study employs various statistical tools such as Rasch model to validate the instrument and Confirmatory Factor analysis to test the model-fit of the research. ANOVA will be employed to examine differences in respondents' perceptions amongst selected universities.

Keywords: Supervision, Supervisor, Supervisee, Relationships.

I. INTRODUCTION

Supervision horizon has been a sensible one; effort on supervision is more intensify on managerial and decision-making strategies for school operation than with analysis and introspection Glanz (1995). The relationship between supervisor and supervisee should create developmental settings Bargar (1983). However, many research reported that a great deal of postgraduate student fail to complete their studies within the stipulated time Abiddin (2007). One of the many factors that contributed to this is the kind of supervision they receive. Effective supervision is closely tied to supervisor who is efficient. The quality of postgraduate study is not only premised on supervision methodology, but also as to do with motivation, institutional admission procedures and policies, faculty/school administration policies as well as assistance and facilities that is provided by faculty/school to supervisors Buttery (2005). While some graduate units assign a supervisor to a student upon admission to the program, in most graduate units, the responsibility for finding a supervisor rests with the student Rossignol (2002).

II. OBJECTIVES OF THE STUDY

The aims of this study are to:

a. Investigate the psychometric properties of quality supervision construct.
b. Examine differences in perception of students on quality supervision among university.
c. Examine differences in perception of students on quality supervision with regards to gender.

d. Examine differences in perception of students on quality supervision with regards to nationality.

III. LITERATURE REVIEW

Buttery 2005 in his findings reported four important categories which are pivotal to the role played by supervisor. These include supervisory style, supervisor's competence, supervisor characteristics, supervisor attitude. Abiddin (2007) in his findings classifies the categories into four: effective supervisor, responsibilities of the students, responsibility of the supervisor and relationship with supervisor. This research uses Buttery dimension as the guiding framework.

Responsibilities of the Supervisor

Within the context of their role as supervisors, a faculty member's primary task is to guide and inspire his or her students reach their scholarly potential. At the same time, each supervisor must try to ensure that each student is in compliance with the rules and regulations of the University. The supervisor should promote conditions conducive to a student's research and intellectual growth and provide appropriate guidance on the progress of the research and the standards expected.

Meeting a potential supervisor is an essential step in determining whether a faculty member would be a good fit for a student's area of interests, and for learning about that faculty member's approach to work and study in general. Such a meeting should provide an opportunity to find out significant information about a supervisor and his or her style Rossignol (2002)

The Responsibilities of Research Students and their Relationship with their Supervisor

The relationship between supervisor and supervisee should create developmental settings Bargar (1983). "Good supervisors are available, accessible, affable, and able." (Alfred & Daneil, 2002, p.1). 'Supervision is an interpersonal process the success of which owes much… to the quality of the relationship between supervisor and supervisee' (Scaife, 2001).Therefore, monitoring or supervising is an ongoing relationship between the supervisor and the supervised, the supervisee's acquisition of professional role identity, and supervisor evaluation of the supervised

performance (Bernard & Goodyear, 1992; Bradley, 1989, cited by Loretta Bradley and L. J.Gould, 2002).

However, postgraduate students are liable for facilitating their study and getting a PhD/Master degree Abiddin (2007). They must also ensure that they always keep in touch in regular meetings with the supervisors (Moses, 1992; Powles, 1989). Moses (1985) as cited by Abiddin (2007) argued that supervisors expect students to be industrious, to have a sense of urgency. They furthered argued that research students are expected to be enthusiastic and motivated towards research work and to contribute to a good working environment. Also, student should on regular basis give feedback report, so that the supervisor can give an appropriate instruction.

IV. METHODOLOGY

Rasch Analysis

Rasch measurement was conducted in this study to test the reliability of the instrument in order to discover the difficulty of items, to determine the ability of the respondents in responding to the items. Besides, Rasch measurement attempts to show the discrimination between the items and the respondents from selected public universities. Moreover, face and content validities were conducted by consulting some lecturers on this field to check the appropriateness of the items. For construct validity, Confirmatory Factor Analysis (CFA) was performed.

Models are most often used with the intention of describing a set of data. Parameters are modified and accepted or rejected based on how well they fit the data. In contrast, when the Rasch model is employed, the objective is to obtain data which fit the model (Andrish, 2004). In fact, it has been suggested by the researchers that Rasch analysis should be used to identify if there is inappropriateness in item construction or to discover problematic items. Besides, it was advised that Rasch should be conducted to avoid misuse of scales and to avoid misleading findings. In this study, WINSTEPS software developed by (Wright & Linacre, 2000 version 3.64.2) was used to examine item statistics related to the ordering of Likert scale categories across the 45 items (Bond & Fox, 2001).

Fit Statistic

Mean-square valuewas used to determine the fitness of the items. Based on Linacre (2004) items with a mean square of between 0.5 to 1.5 are considered

productive for measurement. It was found in this study that all the Items for supervisor and supervisee fall within the range of ≤0. 5 to ≤1.50, while only 3 items were ≥ 1.50. This indicates that most items fall within the perfect range while 3 items were less productive but not degrading. Thus, those 3 items are still considerable and accepted by the researchers with the general reliability obtained. Reliability of both Items and Persons were also obtained. The examination of both the separation of items and person indices and reliability supervisor and supervisee yield a very good level of 4.29 and (*R= .95*) for items while level 5.29 and 97 for person, respectively.

The person separation reliability is (*R*= .95). This indicates that the items estimates were acceptably dispersed along the study item value continuum. Items separation reliability was (*R*=.95), indicating high reliability of items and that the items were well spread out along the perceived value continuum. This shows that the items in this study are free from difficulty and the respondents exhibited reliability in responding to the items. Although, from the Misfit input, 3 items: (Item 6, 7 & 8) were ≥ .2 which can be interpreted as "unproductive for construction of measurement, but not degrading". Therefore, item deletion is not recommended.
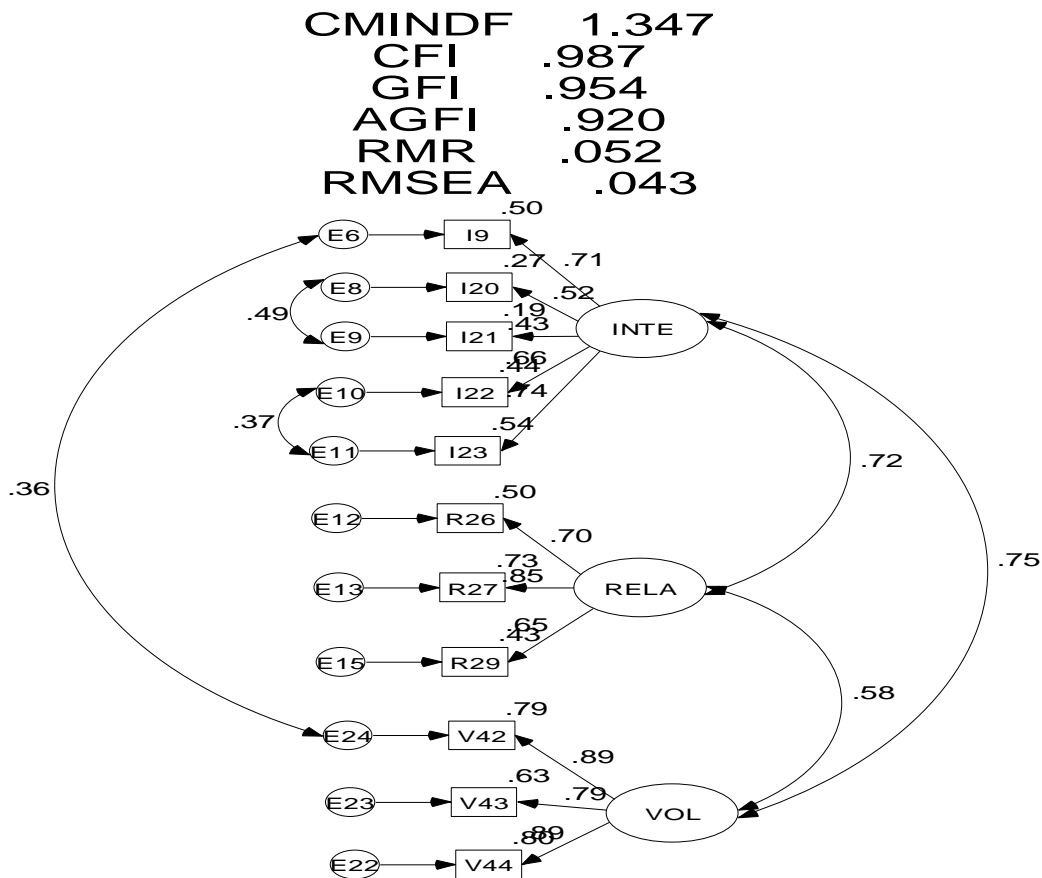
V. DISCUSSION

Results Of The General Hypothesized Model

It is almost impossible for a designed measurement model to be absolutely perfect. To produce a reliable model, a proposed general measurement should be tested separately (Hair et al. 1998). The confirmatory factor analysis was conducted to test the statistical sound of the general hypothesized model of the research. CFA's fit indices (Figurer 1) indicate reasonable results for the general hypothesized model of the research. The quick overall model fit indicated that the minimum was achieved; chi-square shows a value of 51.1 with 38 degree of freedom, and probability of $p \leq 0.75$ demonstrating that the general hypothesized model appears to be statistically sound. Accordingly, figure 1 indicates value of 0.052 for the root mean residual (RMR, .037 for the root mean square error of approximation (RMSEA). 1.34 for CMIN/DF, .97 for the goodness-of-fit index (GFI), .96 for the adjusted goodness-of-fit (AGFI), and .98 for the comparative fit index (CFI). Conclusively, the CFA fits indices of the proposed model were between the minimum and maximum requirement, thus, it can be considered a good model.

Table 1

Person Reliability: INPUT: 193 Persons 45 Items MEASURED: 193 Persons

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+-------------------------------------------------------+
|      RAW                       MODEL     INFIT OUTFIT |
|    SCORE COUNT MEASURE ERROR   MNSQ ZSTD MNSQ  ZSTD   |
|-------------------------------------------------------|
|MEAN 192.0 45.0   .70     .17   1.11  -.2 1.08  -.4    |
|S.D. 34.4   .0    .92     .03    .84  3.3  .83   3.3   |
|MAX. 260.0 45.0  3.39     .33   4.79  9.9 5.64   9.9   |
|MIN. 73.0  45.0 -1.93     .13    .12 -6.7  .12  -7.0   |
|-------------------------------------------------------|
|REAL RMSE .21 ADJ.SD .90 SEPARATION 4.29 Person R.95   |
|MODEL RMSE.17 ADJ.SD .91 SEPARATION 5.29 Person R.97   |
|           | S.E. OF Person MEAN = .07                  |
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Table 2

Item Reliability: INPUT: 193 Persons 45 Items MEASURED: 193 Persons

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+-------------------------------------------------------+
|      RAW                       MODEL     INFIT OUTFIT |
|    SCORE COUNT MEASURE ERROR   MNSQ ZSTD MNSQ  ZSTD   |
|-------------------------------------------------------|
|MEAN 823.3 193.0  .00    .08     .99 -1.0 1.08  -1.1   |
|S.D. 66.6    .0   .39    .00     .62  3.5  .98   3.7   |
|MAX. 922.0 193.0 1.45    .09    3.54  9.9 5.81   9.9   |
|MIN. 555.0 193.0 -.66    .07     .55 -5.1  .54  -5.3   |
|-------------------------------------------------------|
|REAL RMSE .09 ADJ.SD .38 SEPARATION 4.42 Item R .95    |
|MODEL RMSE.08 ADJ.SD .38 SEPARATION 4.75 Item R .96    |
|          |S.E. OF Item MEAN = .06                      |
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Notice: R= Reliability

A statistical significant difference at the $p<0.05$ level in quality supervision was found among the universities: $F_{(3, 189)}=3.32$, $p=0.021$. Post-hoc comparison using the Tukey HSD test indicated that the mean score for IIUM ($M=4.41$, $SD=0.65$), was statistically different from Others (M=3.83, SD=0.93). UM (M=4.07, SD=0.80), did not significantly differ from IIUM, Others and UKM (Table 3 and 4).

Table 3
Comparison Based on University

ANOVA

T-test Analysis

Superviso
r

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	6.089	3	2.030	3.31	.021
Within Groups	115.620	189	.612		
Total	121.710	192			

Table 4 Post hoc
Comparison Based on Universities

Post Hoc

University	N	Subset for alpha = 0.05	
		1	2
Others	28	3.8279	
UM	55	4.0661	4.0661
UKM	69	4.1910	4.1910
IIUM	41		4.4058
Sig.		.140	.186

Means for groups in homogeneous subsets
are displayed.

According to Table 5, an independent-sample t-test was conducted to compare quality supervision score for males and females, the levene test for equality of variance was not violated **Levene's F** is statistically significant (sig > .05), F=.385 . There was no significant difference in quality supervision score for males and females. Male (M=4.1579, SD=0.79124), and females, (M=4.1346, SD=0.80813); t (191) = .199, p= .842 (two-tailed).

Table 5
T-test for Equality of Means Gender

				T-test Analysis			
		F	Sig.	T	df	Sig. (2-tailed)	Mean Difference
Supervisor	Equal variances assumed	.385	.536	.199	191	.842	.02326
	Equal variances not assumed			.198	165.6	.843	.02326

Independent-sample t-test in Table 6 shows that, the assumption was sustained and did not violate **Levene's** Test (sig > .05), F=.0477. There was a statistically significant difference in quality supervision score for Malaysian and non Malaysian respondents. Malaysians (M=4.3348, SD=0.73871), and non-Malaysian, (M=4.0017, SD=.81226); t (191) = 2.942, p<0.05 (two-tailed).

Table 6
T-test for Equality of Means of Nationality

				T-test Analysis			
		F	Sig.	T	df	Sig. (2-tailed)	Mean Difference
Supervisor	Equal variances assumed	.47	.491	2.94	191	.004	.33308
	Equal variances not assumed			2.97	186.9	.003	.33308

VI. CHALLENGES

1.Some of the supervisors are not available for their students.

2.Some of the supervisors have no time to read students' chapters.

3. Some of the supervisors' involvement in administrative job delays students

4. Some of the supervisors travel a lot and keep students waiting.

5. Late feedback from some of the supervisors.

6. Some of the supervisors did not explore students' weakness for improvement.

7. Some of the supervisors did not clarify problems that the students having in their research.

8. Some of the supervisors did not provide solutions to students' problems.

9. Some of the supervisors did not check citations, errors and references.

10. Some of the supervisors did not care about students' welfare.

11. There are some problems on supervision and guidance.

12. Postgraduate students are very dependent on their supervisors

VII. CONCLUSION

The results of this study revealed the importance of quality supervision in universities. The research has also explored the expectation and challenges of postgraduate students in selected Malaysia universities. In doing a Master/PhD progamme, students face challenges with their research, their supervision, and their personal problems. It is not easy to triumph over all these problems without interest, vigor, support and dedication. The study also found that postgraduate students in these universities are very dependent on their supervisor. They need more support and motivation from their supervisor, department or school and the other people neighboring them. Besides, the person who is contiguous to them in a professional affiliation is their supervisor. A good relationship with their supervisor is very imperative factor as this will lead them to getting many benefits in their study.

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