



FACTORS TO BE TAKEN INTO CONSIDERATION FOR THE SUCCESS OF A Ph.D THESIS; AN EMPIRICAL ANALYSIS

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Abstract

Doctorate in Philosophy is a prestigious endeavour though it has many ups and downs which has to be come across. The roots of Ph.D may be bitter but the fruits are always sweet. Many PhD students feel it difficult in writing their thesis. Combining three to seven years of research into a single, coherent piece of work can be tough. Ph.D is not all about writing a thesis it is more than writing which has to be understood and that is perfection. The future golden years must talk the worthiness of the masterpiece and that is the joy which the researcher should cherish. Right from the selection of a research supervisor until the date of obtaining a research degree certificates the researchers have a tough time. There are various factors which must be considered to finish this endeavour in a smooth way. This paper tries to explore the complicated problems present in finishing a Ph.D thesis in a simple way. Great this is very complex but when they are broken into smaller pieces they look easy. The same principle is to be applied in case of a Doctorate in philosophy. The results obtained from the analysis are highly useful for the researchers to cope up with their endeavour. From the problems identified from the researchers a factor analysis is carried out to finalize the problem constructs. The reliability of the instrument is checked using Cronbach's alpha which shows .800 and proves the set of questions to be perfect. With relation to sample adequacy test and sphericity test ($P < 0.0005$) and the chi square value is (297.865) and thus it is strong enough to proceed with the factor analysis. Practical implications of the findings are also discussed.

Keywords: Research Thesis, Doctorate in Philosophy, Problems, Success

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INTRODUCTION

A Doctorate in Philosophy is not a one night work to be completed; it takes a couple of months or even a few years to hold the degree. The scholars work tirelessly to finish this endeavour. Arts, social sciences and humanities students can have a more isolated and less structured experience. This means they have to be far more self-regulated and motivated, but also more resilient to the inevitable disappointments and confusion of exploring what can feel like an overwhelming area of research.

It is important not to deny that there are many and varied difficulties and problems in doing a PhD, however, the risk is to make over-simplified explanations or causes. The causes and problems may be due to various reasons and factors. There is a tension inherent in writing a PhD. On the one hand, it is an examination of your ability to undertake research independently. The relationship between the supervisor and the scholar must be smooth enough which is so important in this journey of research.

Research Methodology

The paper attempts to identify the various problems faced by Ph.D researchers and to identify the success factors which contribute towards the success of a PhD endeavour. Initially a Cronbach alpha test had been employed to check the reliability of the instrument. Then a principal component analysis along with a rotation matrix is used. In order to determine whether the sub scales were suitable for the study two tests were used i.e., KMO and Barlett's test of sample adequacy.

The type of sampling plan used is Stratified random sampling. The stratified random sampling was considered and data was collected from 70 Research Scholars in and around State of Tamil Nadu from various fields. The collected data was tabulated and coded for analysis. The collected data was analysed using the statistical package for social sciences (SPSS 21.0)

Objective of the study

To explore the success factors which contributes towards the success of a Ph.D thesis

Limitation of the study

The tools used for analysis has its own technical bias and has impact on the findings and the study focuses only on Research scholars in the state of Tamil Nadu.

Literature Review

(Dr. Qais Faryadi)The researcher have clearly stated that a piece of research must pass through a hard tests such as scientific methodology (quantitative, qualitative, experimental, observation and so on), validity, (logical procedure to answer a question), reliability (Quality of measurement) and unbiased conclusion (accurate measures are taken to make sure that it is free from individual interest). As thus, a PhD proposal must describe a significant contribution to the existing academic knowledge..

Analysis and Interpretation

Reliability test

Since this research has utilized proper linkert -type scale it is important to test the internal consistency and the reliability of the questionnaire and thus we employ a Cronbach’s alpha test. A total of 38 scale constructs were tested for reliability.

Reliability Statistics	
Cronbach's Alpha	N of Items
.834	38

Sample adequacy test and sphericity test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.722
Bartlett's Test of Sphericity	Approx. Chi-Square	287.865
	Df	45
	Sig.	.000

The above table shows the sample adequacy test by KMO (Kaiser-Meyer-Olkin) and Bartlett’s test.KMO compares the size of the observed correlation coefficient were the size of the partial correlation coefficient for the sum of analysed variables is 85.4% and is considered to be reliable and thus the research can be proceeded with factor analysis. On the other hand the Bartlett’s test of sphericity (Ho 1 All correlation coefficients are close to zero) is rejected as the level of significance (P < 0.0005) for Approx.

Factor analysis

The first and the foremost initial process in factor analysis is to determine the linear components within the data set i.e., the Eigen values by calculating the Eigen values for R-matrix. SPSS extracts factors which has values more than 1 which is acceptable. Principal component analysis is an important technique to determine the strong patterns in the data set and an important instrument for data reduction is followed.

Table explains the initial & extraction for the scale items used in this study

Communalities		
Scale items	Initial	Extraction
Current and different topic	1.000	.852
Being motivated throughout the endeavour	1.000	.647
Becoming lost in the role of a researcher	1.000	.640
Having a vision of success	1.000	.833
The source for data collection	1.000	.658
Meeting expectations	1.000	.747
Considering different priorities and interests	1.000	.785
Smoothing Barriers and problems	1.000	.709
Extensive and Impressive research	1.000	.677
Original Contribution	1.000	.691
Ego and attitude being Nil	1.000	.719
The confidence to step out beyond	1.000	.782
Never-ending hard work	1.000	.765
No false data to be used	1.000	.852
Learn statistical packages	1.000	.786
reaching the level of academic independence	1.000	.827
Choose your project and your supervisor wisely	1.000	.727
Devote your mind and soul to your PhD	1.000	.781
fulfilling your commitments	1.000	.856
double check and check again your data and your results	1.000	.817
Check summary of your progress	1.000	.712
Meet many experts	1.000	.798
Be honest in your work	1.000	.735
exposure to new concepts and learn more	1.000	.755
Consider others views also	1.000	.812
Following University guide lines	1.000	.760
Publishing in high impact factor journals	1.000	.702
Avoid plagiarism	1.000	.779
Write the thesis on your own	1.000	.809
Make it crisp and informative	1.000	.750
arrange a mock viva	1.000	.716
Take into account everything your supervisor says	1.000	.850
Find a colleague, to support you	1.000	.818
Nothing more self-crippling than perfectionism	1.000	.885
re-explain everything in great detail in every chapter	1.000	.785
cite the most authoritative scholars	1.000	.863
Have a back up for data	1.000	.898
Maintain progress report	1.000	.781

Extraction Method: Principal Component Analysis.

Factor Matrix

The factor matrix contains the coefficients which express the standardized variables in terms of the factors. These coefficients, the factor loadings, represent the correlations between the factors and the variables.

A coefficient with a large absolute value indicates that the factors and the variables are closely related. The coefficients of the factor matrix can be used to interpret the factors. Although the initial or unrotated factor matrix indicates the relationship between the factors and individual variables, it seldom results in factors that can be interpreted, because the factors are correlated with many variables.

In this case, the factors have been rotated so that each factor has significant loadings (more than 0.40) ideally with not more than one variable. The method for rotation used here is the varimax procedure.

This is an orthogonal method of rotation that minimizes the number of variables with high loadings on a factor, thereby enhancing the interpretability of the factors. On the basis of Table 1.4, 10 components were identified for the 38 variables. Based on the item loadings, these factors were respectively labelled as follows:

Component	Total Variance Explained								
	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	7.314	19.247	19.247	7.314	19.247	19.247	6.330	16.659	16.659
2	6.198	16.310	35.557	6.198	16.310	35.557	3.982	10.480	27.139
3	3.838	10.100	45.657	3.838	10.100	45.657	3.199	8.418	35.557
4	2.781	7.320	52.977	2.781	7.320	52.977	3.168	8.338	43.894
5	2.434	6.406	59.383	2.434	6.406	59.383	2.735	7.197	51.091
6	1.657	4.361	63.744	1.657	4.361	63.744	2.427	6.388	57.479
7	1.561	4.108	67.852	1.561	4.108	67.852	2.307	6.072	63.551
8	1.387	3.649	71.501	1.387	3.649	71.501	1.868	4.917	68.468
9	1.123	2.955	74.456	1.123	2.955	74.456	1.790	4.709	73.177
10	1.065	2.803	77.259	1.065	2.803	77.259	1.551	4.082	77.259
11	.966	2.541	79.800						
12	.797	2.098	81.899						
13	.773	2.035	83.934						
14	.724	1.907	85.840						
15	.611	1.609	87.449						
16	.549	1.444	88.894						
17	.510	1.341	90.235						
18	.468	1.233	91.467						
19	.398	1.048	92.515						
20	.351	.923	93.438						
21	.347	.913	94.352						
22	.313	.823	95.175						
23	.275	.725	95.899						
24	.260	.683	96.582						
25	.194	.510	97.092						
26	.176	.463	97.555						
27	.159	.417	97.973						
28	.144	.379	98.352						
29	.119	.314	98.666						
30	.095	.249	98.915						
31	.084	.222	99.137						
32	.076	.200	99.337						
33	.068	.179	99.516						
34	.060	.158	99.674						
35	.054	.141	99.815						
36	.037	.096	99.912						
37	.021	.055	99.967						
38	.013	.033	100.000						

Extraction Method: Principal Component Analysis.

Component Matrix^a

	Component									
	1	2	3	4	5	6	7	8	9	10
Have a back up for data	.798	-.289	.193	.144	.068	-.028	.258	-.214	.029	.035
Choose your project and your supervisor wisely	.745	-.076	-.164	.295	-.152	-.046	-.123	.002	.082	-.072
No false data to be used	.745	-.362	.161	.159	.082	-.021	.241	-.159	.065	.143
fulfilling your commitments	.743	-.410	.193	-.149	-.041	.031	-.070	.116	-.040	-.230
Devote your mind and soul to your PhD	.722	-.328	.166	.183	.176	.028	.204	-.019	-.132	.033
Maintain progress report	.699	-.418	.122	-.194	.017	.007	-.131	.178	.093	-.088
Take into account everything your supervisor says	.676	.022	.230	-.348	.257	.083	.102	-.166	-.056	.322
Learn statistical packages	.662	-.468	.099	.014	-.132	.089	.054	.152	.002	-.259
Check summary of your progress	.633	.246	-.162	-.089	-.230	-.003	-.309	-.080	-.240	.058
Never-ending hard work	.577	.194	-.281	.207	-.490	-.137	-.096	-.033	.014	.053
Find a colleague, to support you	.575	-.147	.170	-.566	.063	.099	-.162	.265	-.059	.056
cite the most authoritative scholars	.551	.155	-.147	.455	-.406	-.148	-.145	.216	-.144	.176
Avoid plagiarism	.404	.360	-.107	-.135	.282	-.098	.322	-.219	-.385	.259
Write the thesis on your own	-.131	.760	.276	.216	-.070	.186	.057	-.074	-.156	-.136
exposure to new concepts and learn more	.147	.714	.067	-.384	.055	-.076	-.033	.141	.201	.027
double check and check again your data and your results	-.081	.650	.450	-.229	-.074	-.067	-.018	.228	.095	.249
Publishing in high impact factor journals	.178	.644	-.270	-.238	.005	.003	.055	-.008	-.342	-.077
Make it crisp and informative	-.035	.640	.380	.303	-.020	.130	-.020	-.063	-.191	-.211
arrange a mock viva	-.048	.579	-.355	.288	.082	-.078	-.198	.150	-.013	.308
Meet many experts	.397	.522	.216	-.412	-.041	.140	.037	.265	.240	.025
Consider others views also	.389	.522	-.457	-.066	.023	.246	-.166	-.075	-.242	-.151
Being motivated throughout the endeavour	.204	.506	-.364	.134	.031	-.107	-.018	-.261	.268	-.215
Be honest in your work	.383	.455	-.408	-.083	.138	.249	-.212	.069	-.139	-.242
Following University guide lines	.445	.453	.341	-.364	.068	-.152	.110	-.044	.166	-.197
Nothing more self-crippling than perfectionism	.024	.539	.689	.267	-.124	.039	.120	.042	-.005	-.121
reaching the level of academic independence	.158	.224	.679	.486	.098	.049	-.037	-.130	.067	-.140
re-explain everything in great detail in every chapter	-.005	.568	.617	.138	.040	.144	-.062	.002	.120	.147
Extensive and Impressive research	.142	.320	-.520	.048	-.227	-.193	.308	-.112	.271	.113

Continue.....

The source for data collection	.332	-.129	.317	.450	-.349	.086	-.050	.253	-.065	.169
The confidence to step out beyond	-.002	-.018	-.257	.426	.598	.045	.001	.387	.030	-.154
Becoming lost in the role of a researcher	.217	.138	-.288	-.011	.564	.226	.075	.324	.099	.031
Ego and attitude being Nil	.171	-.126	.027	.397	.488	-.245	-.384	.231	.039	.126
Having a vision of success	.469	.335	-.223	.332	.476	.071	.241	-.137	.102	.149
Meeting expectations	.223	-.196	-.152	-.048	-.342	.637	-.169	-.200	.131	.156
Current and different topic	-.099	-.109	.063	.082	.253	.578	-.449	-.370	.235	.167
Original Contribution	-.135	-.093	-.226	.155	-.045	.510	.526	.160	-.018	-.158
Smoothing Barriers and problems	-.290	.015	-.135	.066	-.351	.375	.334	.410	-.030	.239
Considering different priorities and interests	.436	.404	-.396	.096	-.219	-.068	.095	.025	.440	-.096

Extraction Method: Principal Component Analysis.

a. 10 components extracted.

	Rotated Component Matrix ^a									
	Component									
	1	2	3	4	5	6	7	8	9	10
fulfilling your commitments	.885	-.103	.105	.096	-.116	.082	-.028	-.102	-.099	-.016
Learn statistical packages	.849	-.103	.035	-.051	-.025	.127	-.009	-.160	.085	-.032
Have a back up for data	.836	.083	-.096	-.077	.171	.100	-.001	.363	-.066	.035
Maintain progress report	.797	-.230	.017	.199	-.083	.110	.061	-.097	-.134	.055
No false data to be used	.792	-.001	-.186	-.075	.135	.147	.048	.367	-.041	.077
Devote your mind and soul to your PhD	.782	.052	-.029	-.112	-.035	.137	.169	.324	.001	-.019
Choose your project and your supervisor wisely	.587	-.009	.192	-.085	.348	.432	.111	-.012	-.118	.065
Find a colleague, to support you	.559	-.255	.205	.549	-.290	.021	-.029	.031	-.093	.049
arrange a mock viva	-.501	.079	.250	.114	.256	.408	.349	.160	-.067	.023
Nothing more self-crippling than perfectionism	-.016	.888	-.073	.242	-.017	.078	-.091	-.013	.034	-.129
reaching the level of academic independence	.213	.834	-.188	-.044	-.024	.050	.101	-.004	-.171	.082
Make it crisp and informative	-.180	.799	.266	.051	.003	.045	.000	.011	.000	-.057
Write the thesis on your own	-.338	.748	.303	.132	.079	.017	-.057	.065	.109	-.033
re-explain everything in great detail in every chapter	-.145	.736	-.096	.409	-.052	.071	.016	.098	-.068	.154
Consider others views also	-.004	.021	.829	.089	.255	.117	.089	.132	.022	.111
Be honest in your work	.059	.006	.770	.156	.212	.040	.240	-.005	.006	.096
Publishing in high impact factor journals	-.190	.086	.678	.248	.142	.019	-.053	.258	.030	-.215
Check summary of your progress	.293	-.029	.549	.161	.114	.429	-.156	.136	-.225	.085
Meet many experts	.168	.197	.220	.808	.149	.002	-.017	.022	.076	.009
exposure to new concepts and learn more	-.187	.187	.276	.720	.241	-.065	.014	.072	-.113	-.097
double check and check again your data and your results	-.309	.421	-.043	.706	-.067	.105	-.090	.088	-.046	-.102
Following University guide lines	.303	.320	.180	.579	.219	-.209	-.122	.109	-.214	-.184
Considering different priorities and interests	.117	-.015	.219	.233	.781	.216	.066	-.063	.065	-.012
Extensive and Impressive research	-.154	-.189	.085	.058	.711	.153	-.073	.187	.142	-.134
Being motivated throughout the endeavour	-.106	.131	.339	.017	.682	-.039	.092	.026	-.166	.021
cite the most authoritative scholars	.245	.103	.187	-.047	.228	.829	.045	.026	-.013	-.109
The source for data collection	.346	.294	-.193	-.049	-.115	.608	-.003	-.082	.146	.041
Never-ending hard work	.261	-.022	.282	.009	.461	.604	-.184	.013	-.054	-.033
The confidence to step out beyond	-.008	.007	.062	-.199	.021	-.048	.845	-.067	.084	-.096
Becoming lost in the role of a researcher	.079	-.136	.221	.211	.072	-.134	.665	.152	.168	.070
Ego and attitude being Nil	.099	.012	-.131	-.099	-.118	.241	.656	-.009	-.423	.019
Avoid plagiarism	.094	.052	.349	.121	.077	-.010	.034	.768	-.043	-.181
Take into account everything your supervisor says	.534	-.020	.093	.408	-.069	-.033	-.023	.575	-.151	.171
Having a vision of success	.170	.185	.175	-.008	.439	.021	.509	.527	.010	.098
Original Contribution	.028	.004	.045	-.213	.077	-.173	.106	-.017	.771	.027
Smoothing Barriers and problems	-.258	-.077	-.114	.078	-.086	.236	-.048	-.065	.740	.002
Current and different topic	-.067	.072	-.012	-.098	-.111	-.157	.123	-.024	-.124	.875
Meeting expectations	.220	-.154	.141	-.030	.052	.171	-.259	-.069	.288	.683

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 10 iterations.

- The factor “Dedication in Research work” explains the 1st component.
- The factor “Motivation & knowledge” explains the 2nd component.
- The factor “Look for opportunities beyond Thesis” explains the 3rd component
- The factor “Get exposed to new learning source” explains the 4th component.
- The factor “Efforts to follow global standards” explains the 5th component.
- The factor “Honest & follow instructions” explains the 6th component
- The factor “Develop confidence and positive attitude” explains the 7th component.
- The factor “Be truthful in research” explains the 8th component.
- The factor “Continuous hard work” explains the 9th component
- The factor “Consider expert opinion” explains the 10th component

Conclusion

Research endeavour as known by its time span has lots of negative factors which must be kept aside in order to finish the task with greater success level. The research scholar must be sincere and must be over dedicated to complete the task in a successful way. Dedication must be seen right from the day one to the last day of the oral test.

Dedication will help the researcher to come out of the struggle in a smooth way. Motivation plays an important role in finishing the research endeavour. It is so important that the researcher must be self motivated so that saturation is never an incoming visitor. Apart from just concentrating on the research dissertation the researcher can concentrate on the global opportunities like project work, learning components, Getting exposed to new theories etc so that it may help the researcher to gain more exposure. Research and education is never ending though the research topic is related to a confined area it is important to explore to new concepts and ideas to sharpen the knowledge. The thesis and the research methodology differ based on the university norms .High attractive dissertations come from the global standard universities and thus the researcher must take efforts to follow and learn their innovative and unique methodology. The researcher must make sure that all the views given by experienced people are taken into consideration. Positive views must be incorporated and negative critics must be analysed to find a solution. Last but never the least honesty, confidence, positive attitude and clear vision will contribute to the success of this beautiful endeavour.

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