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The challenges faced by management science research scholars in different stages of research: A Study for Maharashtra (INDIA)

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Abstract: The Universities are the research organisations where the different departments are focusing on research in various disciplines. The Management Science department of the university are playing important role in industry academia role. These departments are also focusing on the industry oriented research. The various literatures are talking about the global quality and impact of research. Hence in these aspects of quality and impact of the research, the researcher has tried to study the challenges faced by research scholars of a management science departments. And to know, what are the major hurdles for the research scholars? This research study is survey based descriptive study of research scholar's opinions and views from management science departments and institutes under the affiliation of universities within Maharashtra (India).

Keywords: Academic Research, Research Stages, Research Challenges Knowledge Gap, Knowledge Sharing

1. Introduction and Literature Review

Academic Research is typically conducted in educational institutions. Free from hindrance that may characterize research done in industry, government agencies, or think tanks, such as pressure to turn a profit, instruction to work on specific subjects or promote a certain ideology, and structure to meet deadlines, academic research is a unique privilege and an extraordinary pursuit. A key to creating wealth of a nation is applied research, which, in turn, traces back to academic research. Developed nations have universities as powerhouse to country (N Altbach, P. G., 2013). Now developing countries are also trying to imitate themselves in the same way to develop universities for high quality research in the benefit of country. Indian government is also trying to put forward the same strategies through different policies

Research is a sincere, comprehensive, intellectual searching for facts and their significance or inference with reference to the problem under study. Research is a symmetric activity to achieve the truth. Research is systematic work to create new knowledge or devise new applications of knowledge. Research in common parlance refers to search for knowledge. The concept of research is elaborated here, by means of definitions of research from different author's point of views. "Research is a systematized effort to gain new knowledge", by Redman and Mory. "Research is essentially an investigation, a recording and analysis of evidence for the purpose of gaining knowledge" by Robert Ross. The broad definition of research is given by Martyn Shuttleworth - "In the broadest sense of the word, the definition of research includes any gathering of data, information and facts for the advancement of knowledge."

In these definitions it can be observed that research is mostly related to most important word that is knowledge. Research is systematized effort to gain new Knowledge, to create knowledge, advancement of knowledge, to verify and to expand existing knowledge and so on. Consequently, research most significant harvest is the knowledge; means research is mostly focusing on creation of knowledge in the particular research subject or stream or area (Altbach, P. G., 2013).

As per the researcher's study, it's found that very rare literature is published in the area of academic research.

Researcher has gone through various online research databases like Shodh Ganga, scopus, inderscience, IEEE, Scirus, Google Scholar, but very few research articles and papers were found related to the academic research. From these research papers, researcher has included few relevant research papers review below.

Yunhong, X. U., Lin, J., Hao, J., Chang, Z., Ma, J., & Zhao, D., 2010, have done their research focused on academic research. The authors have studied about the network based approach for discovering academic researchers with shared interests. They have mentioned that the interest or expertise of researchers is a kind of knowledge in organization, like university, research institute and research community. Effectively management of this kind of knowledge can facilitate communication of members in organization and improve their performance. They have explained that the Researchers' cognitive limit and large amount of relevant information becomes a big challenge to discover researchers with similar interests. As per authors views, the social network based approached do not satisfy researchers' needs due to their failure to take into consideration the semantic information related to research interests. To solve this problem, they have proposed an integrated model based on ontology and social network analysis to mine researchers with similar interests.

The authors have mentioned that the many communities (virtual or face-to-face) emerge in academic contexts to support researchers sharing knowledge and communicating with each other. Some researchers have realized that communities work as a powerful platform for supporting knowledge management. They have given one live example of Scholarmate, which has been created and developed as a platform at University of Hong Kong to allow researchers to collect, share and discuss their works. Finally, they have proposed the network based approach could be extended and adapted to learn the profile of researchers, to support researchers doing research in an intelligent way. But the authors have not explained details of the network based approach and the Scholarmate - system implemented in university of Hong Kong. What extent it was used there? What were the pros and cons of the Scholarmate?

Panda A. and Gupta R. K., 2014, they have published their research article focused on academic research in management domain, for making it more relevant; they have given few suggestions through this research study. The authors of this paper have revisited the rigour-relevance debate in light of recent developments and with special reference to the management research scenario in India. The authors have presented an overview of the rigour and relevance debate to argue that the gulf between rigour and relevance needs to be bridged to make academic research more relevant to business organizations and practitioners. They urge academic scholars to reach out to the practitioners and collaborate with the corporate world to take up problem solving research. The authors have presented a number of suggestions for both academic scholars and business schools to ponder. Academic scholars need to take up the responsibility of making academic research more relevant Business Schools need to craft an eco-system that fosters a vibrant research culture in business schools in India. The authors have focused approach of academic research with the industrial collaboration for the economic development of India; and given suggestions for the same. But there is scope of study to find the various problems and challenges faced by faculty researchers, needs and requirements of research scholars.

The researcher observed that there is very few research publications are available on the academic research related problems, challenges and issues and providing study of the current status of academic research in India. Very few research papers available, which are specifically focusing on academic research. As per the available knowledge references and the literature studied on different categories like academic research, current status of India in academic research and challenges of academic research the researcher conclude here that, the academic research is a most important domain of a developing country. The academic research plays very important role in the development of country. India is a fast growing country. But as per the literature review still we need more focus for quality research and to increase India's global research contribution. Hence more focus towards increasing the standard of Higher Education and academic research is required by Indian government. As we have seen overall world ranking of Indian Institutes and Universities; we are lacking behind in different aspects like infrastructure, facilities, ICT network, research collaboration, research environment, legal aspects, rules and regulations and so on.

The literature study about challenges of academic research was focused on different points just from starting with the selection of suitable research topic for the new researchers, to the final completion and submission of thesis. Navigating the new research topic is most important challenge of the new researchers. As compare to last few decades the number of research scholars and their awareness about research is increased. The lots of research scholars are doing their research in India under various research institute and universities. The unavailability of proper infrastructures, expertise, tools, resources, knowledge gap is the most important challenges of the researchers. Again apart from this, various challenges related to research environment, sources, funds, awareness about social requirements, rules, regulations and many more issues might be their under scope of this research.

The researchers are having lot of challenges, from identifying research topic, to how to write the thesis? The research scholars were unaware about the availability of Repository. If few researchers who know about the research information utilities they were not confirmed about a single unit. Researchers have to search on search

engine lot of times for the data and finally lot of time, energy and money had been wasted in throughout this process. Means, there is no any single utility available nationally which can provide proper solution for new researcher to get information about the new research topic, how many researchers are working on this topic, what is status of this topic, what amount of work is done on this topic and so on. These all points putting in mind, the researcher has got idea that there is lack of information and wide scope to study in this area and planned to have a Research on this topic.

The literatures gives knowledge about the lack of information of research, research methodology training, research and communication tools, research and subject expertise and their availability, infrastructure, network, libraries and so on. Hence the literature study diversifies the researcher to focus his research, to study the basic problems, challenges and issues faced by researchers during their research, to know the basic problems of the research scholars and suggest proper solution for them.

Researcher was observed that, lack of information regarding research topics of any particular research field, is the major issue of new researchers. The research scholars are unaware about the availability of the Repositories. If few researchers who know about the research information utilities they were not confirmed about a single unit. Researchers have to search on search engine lot of times for the data and finally lot of time, energy and money had been wasted in throughout this process. Means, there is no any single utility available nationally which can provide proper solution for new researcher to get information about the new research topic, how many researchers are working on this topic, what is status of this topic, what amount of work is done on this topic and so on. Putting these all points in mind, the researcher has though scope to study about this area and planned to have a Research on this topic.

Academic programs like Ph.D., M. Phil. and Master Degrees provided by various universities, are research oriented programs for motivating students for research. The research scholars are doing work on their research as an academic requirement of their degree course. Now days, lot of students are attracted towards research, and competition for these courses is increased. This leads to increase in the number of researchers in the research community. The academic research is a continuous process, which is going on from hundreds of years. The research work creates lot of research knowledge and information. It is physically added in to libraries. It should be easily available to new Researchers (Altbach, P. G.,2013).

In this Information Age, the Research information is awaiting for being open to all for further use of this research. Research means itself generating new knowledge. This knowledge is just kept in the form of thesis, dissertations, research papers, articles and etc. in Libraries as a hard copy format. The researchers could not search this huge amount of research data because it is not available in centralized and easily accessible setup. Libraries are from various universities and institutes at different locations. Due to this, research scholars could not reach to this research publications effectively. Hence researchers may do work of reinventing the wheel again and again. Researchers may not know that the topic selected by them was already used by any other researchers in any other University or not. There is lack of appropriate tools for information and knowledge sharing in academic research. Which is the major problem faced by research scholar.

2. Research Methodology and Objectives

The overall aim of this research was to study the challenges, issues and problems faced by research scholars in management science research practices. This research is an empirical study and descriptive research. This is a combination of qualitative and quantitative research and has been adopted to investigate the challenges, problems and issues related to management science research practice. The research depends on the understanding and analysis of various recent literatures on academic research, current status of academic research in the India. Review of literature helps to support the research work with other research on the academic research to provide more understanding and strength to the research topic and provide other examples to make the research more credible. Existing research in the domain will be reviewed and analysed. The stages of the research and problems related to it will be studied in order to search for appropriate solutions of problems. This provides a theoretical basis for the research. Specific objectives have been formulated and methodologies have been followed in order to achieve the stated aim. The specific objectives of the research are as follows:

2.1 Research Objectives:

- To study the Process of Management Science Research.
- To study the challenges faced by Management Science Research Scholars.
- To study the major hurdles faced by Management Science Research Scholars.

3. Data Analysis and Interpretation

As given in table 2.1, data has been collected from these eight universities. The descriptive statistics of data collection from universities is given in table 3.1, the actual respondents per University is described in the table with its percentage. Total 392 responses have been collected for this research from different eight universities situated at different five regions in Maharashtra. The data has been coded, entered in IBM SPSS ver. 21 for

analysis.

Name of University	No of Respondents	Percent
Dr. Babasaheb Ambedkar Marathwada University	63	16.1
Mumbai University	33	8.4
North Maharashtra University	37	9.4
Sawitribai Phule Pune University	84	21.4
Swami Ramanand Teerth Marathwada University	13	3.3
SYMBIOSIS - International University	42	10.7
The Rashtrasant Tukadoji Maharaj Nagpur University	115	29.3
Tilak Maharashtra Vidyapeeth	5	1.3
Total	392	100.0

Table 3.1 University wise respondents.

The respondents were asked, “Are they facing problems in their research?” Then as per the Pie Chart given below it can be seen that 61.99% of respondents said “Yes” means they are facing problems in their research and 29.34% said “NO” means they are not facing problems, while 8.67% respondents have not noted any response for this question.



The steps of the scientific research are mentioned differently in various literature from these literature and from various thesis reviews the following ten steps are considered for academic research. These ten steps considered are given below:

1. Identification of Research Issue or topic:
2. Construction of Research Title
3. Literature Review of the Research
4. Secondary Data Collection
5. Research Methodology Selection
6. Research Design (Questionnaire / Experiment Design)
7. Primary Data Collection
8. Data Analysis and Interpretation
9. Research Conclusion, Suggestions and Recommendations
10. Research Presentation and Writing Research Report – Thesis

Hypothesis 1: Review of literature, Primary Data Collection, Secondary Data collection and Research Methodology Selection are the major hurdles faced by the research scholars during their research process.

Statistical Test: Friedman Chi Square Test.

Variables and Measurements: The respondents were offered the following various stages in research process: The respondents were asked to record their opinions using Seven point Scale Likert, the equilateral options were provided for selection, as follows:

1. Strongly disagree
2. Mostly disagree
3. Somewhat disagree
4. Neither agree nor disagree
5. Somewhat agree
6. Mostly agree
7. Strongly agree

H0: All stages of research process are equal in magnitude of difficulty. (Mean ranks are equal)

H1: All stages of research process differ in magnitude of difficulty. (Mean ranks are different)

Test Statistics	
N	286
Chi-Square	105.312
df	9
Asymp. Sig.	.000

Level of Significance (α) = 0.05

Observations: Chi Square - χ^2 (9) = 105.312 and P = 0.000

Conclusion: Since P-value (0.000) is less than level of significance the null hypothesis is rejected. Hence it is concluded that “All stages of research process differ in magnitude of difficulty. (Mean ranks are different).

To find out where the difference lies we refer Ranks Table given below. From given Ranks Table it can be seen that the research stage “Literature Review” has a mean rank of 6.18, “Research Method Selection” has a mean rank of 6.18, “Research Design” has a mean rank of 5.86, “Secondary Data Collection” has a rank of 5.60, “Primary Data Collection” has a mean rank of 5.56, “Construction of Research Title” has a rank of 5.55, “Data Analysis and Interpretation” has a rank of 5.43, “Identification of Research issue or topic” has a rank of 5.31, “Research Conclusion, Suggestions and Recommendations” has a rank or 4.79 and Research Presentation and Writing Research Report – Thesis” has a rank of 4.54. Hence the Hypothesis – “Review of literature, Primary Data Collection, Secondary Data Collection and Research Methodology Selection are the major hurdles faced by the research scholars during their research process.” stands proved.

Ranks Table -1	
Research Stages	Mean Rank
Identification of Research Issue or topic:	5.31
Construction of Research Title	5.55
Literature Review of the Research	6.18
Secondary Data Collection	5.60
Research Methodology Selection	6.18
Research Design (Questionnaire / Experiment Design)	5.86
Primary Data Collection	5.56
Data Analysis and Interpretation	5.43
Research Conclusion, Suggestions and Recommendations	4.79
Research Presentation and Writing Research Report - Thesis	4.54

Hypothesis 2: “Time constraints and stress of workload” is a most important challenge for the research scholar as compare to other offered challenges.

Statistical Test: Freidman Chi Square Test.

Variables and Measurements: The respondents were offered the following various challenges faced during research process:

1. Lack of training of Research or Research Methodology
2. Lack of Research Level Interaction with expertise in your discipline
3. Lack of Literature's availability and access
4. Lack of confidence doing research
5. Lack of code of conduct in Research / Research Process
6. Cost associated with Research Work & Research Publications
7. Time constraints and stress of workload

They further asked to tell whether they faced these challenges during research process using the 7 Point Likert Scale (1. Strongly Disagree, 2. Mostly Disagree, 3. Somewhat Disagree, 4. Neither Agree nor Disagree, 5. Somewhat Agree, 6. Mostly Agree, 7. Strongly Agree).

H0: “Time constraints and stress of workload” is not a most important challenge for the research scholar as compare to other offered challenges.

H1: “Time constraints and stress of workload” is a most important challenge for the research scholar as compare to other offered challenges.

Test Statisticsa	
N	360
Chi-Square	348.216
df	6
Asymp. Sig.	.000

Ranks Table - 2	
Challenges Faced by Research Scholars	Mean Rank
Lack of training of Research or Research Methodology	4.47
Lack of Research Level Interaction with expertise in your discipline	4.31
Lack of Literature's availability and access	4.03
Lack of confidence doing research	2.74
Lack of code of conduct in Research / Research Process	3.43
Cost associated with Research Work & Research Publications	3.97
Time constraints and stress of workload	5.05

Level of Significance (α) = 0.05 Observations: Chi Square - $\chi^2(6) = 348.216$ and P value = 0.000

From given Ranks Table it can be seen that the challenge offered to research scholar, “Time constraints and stress of workload” has a mean rank of 5.05, “Lack of training of Research or Research Methodology” has a mean rank of 4.47, “Lack of Research Level Interaction with expertise in your discipline” has a mean rank of 4.31, “Lack of Literature's availability and access” has a rank of 4.03, “Cost associated with Research Work & Research Publications” has a mean rank of 3.97, “Lack of code of conduct in Research / Research Process” has a rank of 3.43, “Lack of confidence doing research” has a rank of 2.74. Hence from table it can be seen that, “Time constraints and stress of workload” has a maximum mean rank that is 5.05 as compare to other challenges. **Hence Hypothesis “Time constraints and stress of workload” is a most important challenge for the research scholar as compare to other offered challenges.” - Stands proved.**

VI. Conclusion, Recommendations and Future work

A. Conclusion

This study is specifically focused on the challenges or problems faced by research scholars in management research. The research study provides idea that Management Research scholars follows ten stages as mentioned above during their research. The main objective of the research that is “to study the challenges faced by Management Science research scholars” has been achieved by following the research methodology. The data analysis of the research shows that 61.99% of research scholars are saying that they are facing challenges during their research. Hence it shows that the most of the research scholars are facing challenges in their research work. They are facing challenges at almost all stages of research study. Further it has been investigated that, what is magnitude of difficulty at different stages are not equal? The result of the study shows that, the various stages of research are having different level of magnitude of difficulty as per the research scholars’ response analysis. This research’s important objective was “To study the major hurdles faced by Management Science Research Scholars”. This research study was used **Friedman Chi Square Test** for doing comparative study of the research (Bhanoji Rao, Nov. 2011). The university management should think about the research knowledge sharing and improving the problems faced by research scholars.

B. Recommendations

The research study shows that research scholars are facing problems at various stages of research. They are facing lack of resources, time constraints and various challenges during their research. The university Management should focus on these points and should provide proper knowledge resources, infrastructure and facilities to the research scholars. The university must go for all discipline wise or common investigation for the same and the results should be submitted to the University Grant Commission (UGC). So that Government can take proper and corrective actions for the same (Bhanoji Rao, Nov. 2011).

C. Future Work

This for is just focusing on the management science faculty’s research scholars, within university various department are also working on research projects and provides research degrees throughout India, hence research scope can be increased to university level research nationally and common challenges faced by the research scholars through various universities can be investigated at university level to provide good quality research environment for the research scholars in the Indian Universities (Bhanoji Rao, Nov. 2011).

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