Skill, Competences and Current Practice of Library Professionals in Engineering College Odisha: An Analytical Study

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Abstract

The revolutionary innovations of information and communication technologies have changed the ways in which people think, communicate and share knowledge. Libraries play a vital role in the knowledge dissemination process and management. In this context, the library and information professionals have great challenges before them. The Internet technologies as well as the infrastructural advancements are helping to the professionals in serving users improvement. In this paper, survey has created on current library professionals in engineering college libraries within the state of Odisha to spot their activities and skills and competencies, knowledge and attitudes needed by librarians and information processionals to survive in the new era.

Keywords: Core competencies, Traditional skill, Technical skill, Value added skill, Transferable and soft skill.

1. Introduction

There will forever be changes within the atmosphere, and these changes can have an effect on librarians and information professionals in their role, job opportunities, self-image, motivation and even survival. Thus librarians have to be compelled to cope up with this environment for claiming their position. There will never be a simple resolution or a fast direction, and this can never be a short project, while not denying the worth of information and educational style. Today we live in a knowledge society where the information needs new skills in seeking, processing and for using. The base for individual ability to grasp and use of information may be a qualitative, in progress learning method. Learning method and education are necessary topics within the information society and therefore the instructional state of affairs is ever changing for many reasons that develop from the social, cultural, political and economic changes within the society. The impact of internet based mostly e-learning and teaching
surroundings has influenced substantially on each aspects of library and knowledge services in libraries and providing new opportunities and challenges to the library professional. The role of librarians and knowledge professionals during this new atmosphere has been powerfully influenced by these changes. In this context, Library professionals started migrating to become Information professionals.

2. **Skill and competence required for library professionals**

   Skill is a capability or proficiency in execution or performance that is needed for someone to arrange and execute an action designed to attain some goals or accomplish a selected task. A skilled person has the flexibility to perform any task with success. He will face the challenges happens in a very particular profession as a result of the social, economic, and culture changes. Thus in order to cope up with the dynamic library and information science profession, the library professional should be a talented skilled. Because the border less library is absolutely a web-based digital library, therefore the library skilled should be additional aware of traditional and technological ability then this skill should be increased among the operating professionals. The following are some importance skill and Competence, on which the library professional seriously think about improving their skill to provide quality information service to the end user.

   - Traditional Librarian Skill
   - Value added skill
   - Technical Librarian skill
   - Transferable and soft skill
   - Appropriate attitudes, values and personal traits
   - Domain Knowledge

2.1 **Traditional librarian skill**

   The traditional librarian skill can be incorporate with handling of digital and online resources, i.e acquisition, cataloguing and organization of resources, metadata schemes, reference/information services, information packaging, circulation, preservation, online reference service, information search skills, copyright and intellectual property laws, user behavior, user needs, information sources, packaging of
information, management of digital and hybrid libraries, evaluation of information and information sources, knowledge of information flows in society

2.2 **Value added skill**

Value added skill is necessary for library professional in this present era. The professional must find the products and services that none of other organizations will offer. It includes marketing library skill, skill of conducting user education programme, research skill, skills for work and decision-making etc.

2.3 **Technical librarian skill**

Technical skills are those skills, which needed to handle information technology and its other connected fields like computer operation, telecommunications media, creation of online database, designing of websites, net surveying etc. The current scenario of library service is completely depending upon the Information Technology. Thus the entire library professional should have familiar with the latest technology to handle Information Technology and its application within the library environment.

2.4 **Transferable skills**

Transferable skill is general and managerial skill associated with communication, public speaking, public relations, interpersonal and group skill, writing, interviewing skill, listening skills, conduction focus skills, teamwork, time management and research skill etc. which are relevant for the library professional to lead their library in to prime position.

2.5 **Appropriate attitudes, values and personal traits**

This skill associated with user-orientation, service-orientation, belief in the pursuit of knowledge, love of learning, ability to read and respond to novel situations, intellectual curiosity, interaction with members of the profession, ability to articulate the roles of libraries and librarians

2.6 **Domain Knowledge**

Domain knowledge is very important and needed for present library environment. In general, domain knowledge is the subject knowledge that are specific to the type of information service or organization they are working in. For example in library science
domain knowledge is the knowledge about the library environment during which the target system operates.

3. Literature Review

Malhan and Rao (2006) say that “Librarianship is a people based profession. Its core value evolve around managing and serving people” Libraries are nonprofit, labor-intensive service. The main aim of all types of libraries is to satisfy customer’s needs and expectations. Competent staffs are essential to service excellence in any organizations, and information centers are no exception. Competent and suitable LiS professionals in universities are essential to meeting the changing needs of customers in this digital environment. This is even more important in research organizations such as university libraries.

Gerolimas & Konsta (2008) conducted their study of 200 job advertisements by collecting data from the United Kingdom, Canada, Australia and the United States in 2006 and 2007 to investigate the qualifications as the skills required of a modern professional librarian. The findings indicated that communication skills were one of the highest ranked skills followed by experience. Additionally, interpersonal skills also appeared frequently.

O’Connor & Li (2008) analyzed 138 academic librarian position advertisements from Australia, America, United Kingdom, New Zealand and Hong Kong between July and November 2007 in a study that covered the period from 1973 to 1998. The position descriptions were analyzed and classified into four groups as computing and technology; interpersonal and intrapersonal; service approaches; and traditional approaches to libraries. In addition, they found that the skills most frequently presented were communication, leadership and interpersonal skills, independent, innovative, confident, judgement, energetic and enthusiasm.

Orme (2008) conducted a content analysis of 180 job advertisements collected between June 2006 and May 2007 from the library sectors in the United Kingdom. She categorized skills into generic, personal and professional. The findings indicated that generic skills are the most normally required. Professional skills and personal skills are as the second and the third place respectively.
Choi & Rasmussen (2009) studied the essential qualifications and skills of digital library positions involved in academic libraries. The study was a content analysis of job advertisements collected from the digital library positions posted in College and Research Libraries News from 1999 to 2007.

In 2009, Mathews and Pardue conducted a content-analysis of randomly selected job ads from ALA online job list over a period of Oct. 2007-Mar. 2008. This study stressed on the substantial need for web development, project management, system development and system applications in the job requirements for librarians. This study suggests that librarians need a compulsory set of technological expertise.

This study is similar to Howard (2009) in the theme of researching the opinion on skills and knowledge required of an information professional working in a digital library environment from the LIS educators. Though this study analyzed and compiled lists of skills and knowledge from related literature. Considering essential skills and knowledge, the researcher applied the theme of skills and knowledge as personality type, discipline specific knowledge, and generic skills from the previous studies mentioned.

Ahmad & Yaseen (2009) compared role of Library & Information Science (LIS) and managers, in their study authors discussed core competences of LIS professionals and core competences of managers. Further authors outlined professional skills and necessary technological skills needed for LIS professionals and managers. Study concluded LIS professionals and managers and found more similarities than differences.

Nonthacumjane (2010) studied the essential competencies of an Information professional working in a digital library environment, from the perspectives of Norwegian and Thai LIS educators. The comparative study used online questionnaires, face-to-face interviews, online interviews and email interviews as data collection methods. The findings of this study revealed that the knowledge and skills that underpin the work of information professionals in both countries encompassed analytical, creative and technical competencies.

4. Engineering college libraries in Odisha

Education is the foremost forefronts of state. The investment for education is especially done by the government and private sector in state. With the changes
happening in terms of technology, the education system in state has additionally
developed new strategies of education to cater to the education desires of the aspirants.
There’s a superfluity of prime engineering schools in state providing fashionable
educational facilities, creating the quality of education system a lot of qualitative. The
foremost objective of establishments in state is to facilitate the scholars with quality
education and to mark the name of the state internationally further as nationwide. The
engineering schools in state provide first infrastructure and quality education system to its
students and this is often the rationale why several students from completely different
elements of the country are approaching the state for higher studies. The major
engineering colleges in state provide extremely qualified faculty with top placement
records for the engineering aspirants.

5. **Aim and objective of the Study**

An important step in coping with theses desires is to style instructional programs
acceptable for making ready for work. To style such programs, we want to grasp the
staffing patterns in library follow, the activities and tasks during which current
practitioners in library development involved measure concerned and therefore the
sensible skills that facilitate these practitioners operate effectively.

The goals of the study were to:

- Understand staffing patterns in concerned library,
- Identify skill and competence of library professionals,
- Determine skills and competence needed for library professional in the digital era.
- Seek feedback on getting ready students for place within the digital setting.

6. **Methodology**

To identify variety of activities and new skill and competence needed within
which library professional are engaged. The survey was distributed to 560 on-line
questionnaires to the library professional’s working in 104 engineering colleges library of
Odisa.

7. **Limitation of the study**
The research shall be limited by its scope and coverage; by subject, library and information science, digital library, and those literature and subjects primarily related to digital libraries taken in to account, by period the present study shall be covered to information and data related to the period within 2012 by geographical limitation. The study is restricted to all 104 engineering colleges of Odisha.

8. Data Analysis and Interpretation

Information collected in the survey included demographic information (such as age, gender, and educational background), current job title and responsibilities, job history, academic preparation for the position, perception of the knowledge and skills important in performing their job, and suggestions about education and training programs.

The total number of survey responses collected was 275, from 560 questionnaires was being distributed to 104 engineering college libraries.

9.1 Demographics background of the respondents

There were slightly more men (185, 67.27%) than women (90, 32.73%) among the respondents 117 (42.54%) of respondents were aged in their 30s, while 105(38.18%) were aged in 40s, 35(12.72%) were aged in their 50s and 18(6.54%) were aged in their 60s.

<table>
<thead>
<tr>
<th>Age</th>
<th>Male</th>
<th>Male %</th>
<th>Female</th>
<th>Female %</th>
<th>Total</th>
<th>Total %</th>
</tr>
</thead>
<tbody>
<tr>
<td>21-30</td>
<td>82</td>
<td>44.32</td>
<td>35</td>
<td>38.88</td>
<td>117</td>
<td>42.55</td>
</tr>
<tr>
<td>31-40</td>
<td>73</td>
<td>39.45</td>
<td>32</td>
<td>35.55</td>
<td>105</td>
<td>38.18</td>
</tr>
<tr>
<td>41-50</td>
<td>19</td>
<td>10.27</td>
<td>16</td>
<td>17.77</td>
<td>35</td>
<td>12.73</td>
</tr>
<tr>
<td>51-60</td>
<td>11</td>
<td>5.94</td>
<td>7</td>
<td>7.77</td>
<td>18</td>
<td>6.55</td>
</tr>
<tr>
<td>Total</td>
<td>185</td>
<td>67.27</td>
<td>90</td>
<td>32.73</td>
<td>275</td>
<td></td>
</tr>
</tbody>
</table>

Table 9.1 Demographic background of the respondents
It reveals from table-6.1, among 185 male responded, 82 (44.32%) are between the age group of 21-30, 73 (39.45%) are between the age group of 31-40, 19 (10.27%) are from 41-50 and 11 (5.94%) are found between the age group of 51-60. Similarly among 90 female responded, 35 (38.88%) are from the age group of 21-30, 32 (35.55%) are between the age group of 31-40, 16 (17.77%) are between the age group of 41-50 and 7 (7.7%) are found between the age group of 51-60.

6.2 Library Position

The results of our survey found that, position titles like "Sr. Librarian", "Librarian, Assistant Librarian" and "Library Assistant" are designated in the Libraries. Positions of more than one Third of the respondents (105, 38%) had the position of Assistant Librarian, (75, 27%) each as Librarian and Library assistant and rest of (20, 7%) are identified themselves as Sr Librarian

<table>
<thead>
<tr>
<th>Position</th>
<th>Total</th>
<th>%</th>
<th>Male</th>
<th>Qualification</th>
<th>%</th>
<th>Female</th>
<th>Qualification</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sr Librarian</td>
<td>20</td>
<td>7</td>
<td>15</td>
<td>Ph.D</td>
<td>75</td>
<td>5</td>
<td>Ph.D</td>
<td>25</td>
</tr>
<tr>
<td>Librarian</td>
<td>75</td>
<td>27</td>
<td>48</td>
<td>Ph.D, Mlis</td>
<td>64</td>
<td>27</td>
<td>Ph.D, Mlis</td>
<td>36</td>
</tr>
<tr>
<td>Asst Librarian</td>
<td>105</td>
<td>38</td>
<td>65</td>
<td>Blis, Mlis</td>
<td>62</td>
<td>40</td>
<td>Blis, Mlis</td>
<td>38</td>
</tr>
<tr>
<td>Lib. Asst</td>
<td>75</td>
<td>27</td>
<td>57</td>
<td>B.Lis, Clib</td>
<td>76</td>
<td>18</td>
<td>B.Lis, Clib</td>
<td>24</td>
</tr>
<tr>
<td>G total</td>
<td>275</td>
<td>185</td>
<td>90</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

It reveals from table 6.2, that among 275 responded (20, 7% ) are identify themselves as Sr Librarian. From 20, (15, 75% ) are male and (5 , 25% ) are female with
doctoral degree. 75 (27%) are identify themselves with the designation of Librarian, from 75 (48, 64%) are male and (27, 36%) female with master and doctoral degree. (105, 38%) are working as Asst librarian with Master Degree and Bachelor degree. From 105 (65, 62%) are male and (40, 38%) are female. 75 (27%) are identify them self as Lib. asst with the qualification of Blib and C Lib. Apart from 75, (57, 76) are male and (18, 24%) are female.

6.3 Working experiences as a library Professional

Among the 275 respondents who are working as Library professional, 98 (35.63%) have 1-5 years experience, (66, 24%) have 6-10 years, (50, 18.18%) have 11-15 year, (38, 13.82%) 16-20 and (23, 8.36%) have a relatively short period 21-25 years of experience.

Table 6.3 Working experiences as a library Professional

<table>
<thead>
<tr>
<th>Years</th>
<th>Total</th>
<th>Total %</th>
<th>1-5 years</th>
<th>1-5 years</th>
<th>6-10 years</th>
<th>6-10 years</th>
<th>11-15 years</th>
<th>11-15 years</th>
<th>16-20 years</th>
<th>16-20 years</th>
<th>21-25 years</th>
<th>21-25 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>185</td>
<td>63.6</td>
<td>72</td>
<td>6</td>
<td>44</td>
<td>6</td>
<td>33</td>
<td>66</td>
<td>22</td>
<td>9</td>
<td>14</td>
<td>6</td>
</tr>
<tr>
<td>Femal e</td>
<td>90</td>
<td>36.3</td>
<td>26</td>
<td>8</td>
<td>22</td>
<td>3</td>
<td>17</td>
<td>34</td>
<td>16</td>
<td>0</td>
<td>9</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>275</td>
<td>100.0</td>
<td>98</td>
<td>3</td>
<td>66</td>
<td>24</td>
<td>50</td>
<td>8</td>
<td>38</td>
<td>2</td>
<td>23</td>
<td>8.36</td>
</tr>
</tbody>
</table>

It reveals from the table 6.3, among 98 (35.63%) of responded having 1-5 years experience (72, 73.46%) are male and (26, 28.88%) are female. Among 66 (24%) who have 6-10 years of experiences (44, 66.66%) are male and (33.33%) are female. From 50(18.16%) of responded between 11-15 years of experience, (33, 66%) are male and (17,34%) are female. Among 38 (13.82%) of responded (22, 57.89%) are male and (16, 42.10%) are female having 16-20 years of experience and 23 (8.36%) of responded (14,
60.86% male and (9, 39.13%) female are relatively short period of experiences between 21-25 years.

7. **Main Activities/Tasks**

Participants were asked to provide statements of their job responsibilities. From the responses of the 275 participants who provided this information, 22 specific job responsibilities were gleaned, and these were individually analyzed and grouped into four broad categories: Traditional, Value added Technical, and other activities.

<table>
<thead>
<tr>
<th>Table-7. Main activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category</td>
</tr>
<tr>
<td>Traditional</td>
</tr>
<tr>
<td>Value added Task</td>
</tr>
<tr>
<td>Technical Task</td>
</tr>
<tr>
<td>Other Task</td>
</tr>
</tbody>
</table>

Job responsibilities in the "Traditional" category were the most frequently mentioned, with almost half (161, 58.54%) of the identified job responsibilities falling into this area. Followed by Responsibility like Technical (97, 35.27%), Value added (89, 32.36%), and (35, 12.72%) of the job responsibilities identified were grouped in the others category.

The job responsibilities within each category are as follows:

<table>
<thead>
<tr>
<th>Category</th>
<th>Sub Category</th>
</tr>
</thead>
</table>
8. **Skills and Knowledge Needed**

Participants were asked to rate the importance of skills and knowledge in performing their work for three areas (technical, traditional library-related and other areas), with 17 sub-areas on a 3-point Likert scale. The three highest ranked choices among all sub-areas were classification (WAM 2.54) is the first choice followed by Digital Library service (WAM 2.51) and Library Automation (WAM 2.5).

The highest ranked choices for each area are shown in Table 8.

**Table 8: Ranking of Skills and Knowledge**

<table>
<thead>
<tr>
<th>Slno</th>
<th>Technical</th>
<th>Opinion</th>
<th>WAM</th>
<th>SD</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>No Opinion</td>
<td>Disagree</td>
<td>Agree</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Knowledge of Digital library software</td>
<td>27</td>
<td>57</td>
<td>142</td>
<td>5964 2.51</td>
</tr>
<tr>
<td>2</td>
<td>Net surfing</td>
<td>44</td>
<td>62</td>
<td>120</td>
<td>2.34 .6817</td>
</tr>
<tr>
<td>3</td>
<td>Web Mark up Language</td>
<td>52</td>
<td>145</td>
<td>29</td>
<td>1.9 .8399</td>
</tr>
<tr>
<td>4</td>
<td>Web Design skill</td>
<td>45</td>
<td>133</td>
<td>48</td>
<td>2.01 .7993</td>
</tr>
</tbody>
</table>
These findings proved the continuing importance Classification, Digital library and Library automation skills identified from table-8.

9. **Educational Courses Supporting Current Work**

The survey asked participants to indicate (multi choice) the most relevant and valuable courses they had taken in Library science school for performing their current work. One hundred Forty Five respondents provided answers to this survey question.

**Table-9: Educational Courses Supporting Current Work**

<table>
<thead>
<tr>
<th>Table-9: Educational Courses Supporting Current Work</th>
<th>One-Sample –T Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digital archive and preservation</td>
<td>79</td>
</tr>
<tr>
<td>Networking and hardware</td>
<td>116</td>
</tr>
<tr>
<td>Library Automation</td>
<td>35</td>
</tr>
<tr>
<td>Cataloguing</td>
<td>57</td>
</tr>
<tr>
<td>Classification</td>
<td>43</td>
</tr>
<tr>
<td>Indexing</td>
<td>56</td>
</tr>
<tr>
<td>Current awareness</td>
<td>35</td>
</tr>
<tr>
<td>Collection Development</td>
<td>85</td>
</tr>
<tr>
<td>Communication and Interpersonal skill</td>
<td>71</td>
</tr>
<tr>
<td>Project management skill</td>
<td>110</td>
</tr>
<tr>
<td>Grant proposal</td>
<td>92</td>
</tr>
<tr>
<td>Writing skill</td>
<td>85</td>
</tr>
<tr>
<td>Technical and group presentation skill</td>
<td>92</td>
</tr>
</tbody>
</table>

This table shows the courses and their corresponding values and significance levels.
The above table -9 depicts that most (100, 68.96%) responded with the mean difference is 1.6621 had viewed that Classification & Cataloguing are relevant and valuable course they had taken in their LIS course is helpful to performing their current work place. Followed by System Analysis and Information Technology 95, 62.06% (1.5655), Collection Development 5, 44.82% (1.5448), Technical Writing 30, 20.68% (1.3172), Research Methodology 19, 13.10% 1.1862 and Copy Right 13, 8.96% (1.0897) out of 145 responded viewed their opinion.
10. Findings & Suggestion

A summary of our findings from the survey follows:

Survey result proved that majority of library professionals are from male and young aged between 21-30 year and having short period of experience between 1-5 years.

The library position is well categorized, most of the library professional having qualification with Bachelor and Master Degrees and have a position as Assistant Librarian. Only Ph.D holders are with the position of Sr Librarian.

There are less professional are engaged with digitization work. This should be improved because digital library is the feature of the present era and its job s very attractive to the next generation library professionals.

Although LIS professionals of Odisha possess fair knowledge on different OSS, its use in engineering college libraries are not up to the satisfactory level. Hence, the authorities of these libraries need to be cooperative towards LIS professionals and some autonomy must be given to them, so that they can prove their talent in using OSS comfortably.

Most important responsibility of the library professional are involvement in traditional and technical skill. Traditional skill involves in Collection & Development, Preparing budget, Classification & Cataloguing, Indexing Service, Reference Service, Library Supervision while Technical skill emphasized on Digital projects/initiatives, Website Designing, Library Automation, Open Source Software Development, and Networking.

It is seen that less number of respondents are having proficiency in Technical and interpersonal skill, networking, XML language and project management skill, which mostly needed for the librarian in this current environment. The management should encourage them for developing those skill by means of sending them seminar, workshop and various short term course.
Survey result confirm that the course like, Classification, cataloguing, Information Technology and collection development are more support to the librarian for performing their current work.

11. Conclusion

The present era library professionals are the guardian of electronic information and will be responsibility to preserve democratic access to information. The role of the present library professional become increasingly towards offering consultancy service to the users for providing information in the finger tips, digital reference service, navigating, searching and retrieval of electronic information within span of time through web or other Universal and Global digital library. The new era library professional are embodiment of co-professional or the user, who will make sure that the digital libraries are used with ease, user-friendly and effectively. The new era library professionals, with his newly acquired skill play a tremendous role in the networked information society of the current era. The knowledge & skill that library professionals in the new era bring to this knowledge environment would provides multiplicity of digital collections and resources, and assist users in the publication and help them to acquire new knowledge.

In this connection several personal skill, characteristics and competences are needed for current era library professional. Additional knowledge and skills across the dimensions of traditional library knowledge, technical, value added, soft skill and human relations also required to challenge the digitization age. The complexity of present library education programs of those professionals should provide technical skills, traditional skills along with management skill like project management skill, interpersonal and communication skill etc. Apart from there will be much emphasized on practical classes in regular interval on digital library project, library automation, open source software and some new technology.

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