

Exploring Academic Library Managers' Communication Skills and the Effect on Librarians' Job Motivation and Satisfaction

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ABSTRACT

This study investigated the effect of academic library managers' communication skills on the librarians' motivation and job satisfaction. By determining the status and impact of library managers' communication skills on the librarians' level of motivation and job satisfaction, it is possible to design the necessary plans to promote librarians' motivation and job satisfaction. The study population comprised 90 librarians from 20 universities and their branches. Data were collected via a questionnaire, and the relationships between variables were assessed via multiple regression. The average communication skills of library managers in academic libraries were 63.90 per cent and the average communication skills of librarians were 73.06 per cent, higher than the identified average. The library managers' communication skills did not have a significant effect on librarians' motivation, but had a significant effect on their job satisfaction. Moreover, effective communication between managers and employees leads to the provision of high-quality services and a better understanding of the tasks assigned to the employees. The results of this study are useful for administrators, librarians, and other university staff.

Keywords: Communication skills; Managers; Job motivation; Job satisfaction; Academic libraries; Librarian

1. INTRODUCTION

Academic libraries, as an organisation, are effective institutions in supporting education and research¹ and depend on their librarians to carry out their duties. In the success of libraries in general and academic libraries in particular, job motivation and satisfaction are among the effective factors on librarians' behavior, and the promotion of these factors can improve the librarians' performance².

Motivation refers to an inner attraction, movement, or intention making a person act in a certain way or move toward a specific goal³. Job satisfaction is one of the factors of organisational behavior reflecting the individual's general attitude towards her/his job⁴. It refers to the satisfaction of a complex combination of feelings, values, and evaluation of individual performance. Several theorists describe job satisfaction as a pleasant emotional state resulting from a person's evaluation of his/her job as a facilitator of achieving job values⁵.

The literature shows that the mean job satisfaction score of librarians is lower than the defined mean score⁶⁻⁷. It has also been reported that librarians with high levels of job satisfaction perform well, and this shows that there is an obvious correlation between job satisfaction and performance⁸. Therefore, it is the managers' duty to promote their librarians' motivation and job satisfaction.

The results of studies imply that most managers and employees of an organisation view the role of communication skills in the success of their job tasks as more important than technical skills⁹. Thus, success in an organisation depends on the communication skills of all the staff.

Having this skill is critical for academic library managers who are in charge of library affairs and human resources. To achieve organisational goals, academic library managers need to communicate effectively with their employees, especially librarians, who interact with different types of users. No library can claim to achieve its goals by having appropriate resources and equipment without having efficient human resources⁸.

Ensuring the job satisfaction and motivation of library staff is a principal duty of managers. If, for any reason, librarians' job satisfaction is not guaranteed, the natural flow of work and the overall performance of the library will be disrupted. The present study examines library managers' communication skills to determine whether they affect librarians' motivation and job satisfaction.

2. OBJECTIVES AND HYPOTHESES

The current study identifies librarians' views and experiences about communication skills and the managers' methods of interaction. It also examines the impact of demographic variables (years of experience in the organisation, sex, etc.) on librarians' views about the impact of communication skills, methods of interaction between managers and librarians, and

their effect on job motivation and satisfaction. The objectives and hypotheses are:

- Objective: Identifying the communication skills of academic library managers and librarians
- Hypothesis 1: The communication skills of academic library managers affect the librarians' job motivation.
- Hypothesis 2: The communication skills of academic library managers affect the librarians' job satisfaction.

3. METHODOLOGY

A cross-sectional study was designed to investigate the status of library managers' communication skills and their effect on librarians' job satisfaction and motivation. The research population consisted of 90 librarians of academic libraries.

The data were collected from 20 universities in East Azerbaijan Province (Iran), including four state-run universities, six Payame Noor universities (distance learning institutes), nine Azad universities (recipients of tuition), and one non-profit university.

East Azarbaijan Province is located in the northwest of Iran with a population of 4 million and 20 districts¹⁰. The data collection period started from October 14, 2018, and ended in early January 2019, lasting for three months.

The questionnaire used for data collection was designed based on the studies by Payne¹¹,¹² and Stigall¹³ and consisted of four categories: The section for assessing managers' communication skills from librarians' perspectives, librarians' communication skills, librarians' motivation and job satisfaction consisted of 37 questions; 32 questions were designed with a five-point Likert scale (strongly agree to strongly disagree), and the scoring was as follows: strongly agree: 100, agree: 75, neither agree nor disagree: 50, disagree: 25, and strongly disagree: 0; for negative questions, this rating was reversed. Moreover, three questions were qualitative on a four-point spectrum.

Most questionnaire data were collected during in-person interviews. The questionnaires were distributed manually in nearby universities and in those to which we could travel. In libraries that were far away, the questionnaires were distributed over the telephone or online messengers (such as Telegram).

The validity of the questionnaire was confirmed by 10 professors of

medical librarianship and information science, health services management, and health information technology from Tabriz University of Medical Sciences, and also professors of information science of Tabriz University. The reliability of the questionnaire was verified by librarians, and Cronbach's alpha for this scale was 0.70.

The data were analysed in SPSS 25. The mean and standard deviation indices were reported for quantitative description, and multivariate regression was used to examine the relationships between indicators.

Table 1. Multiple regression between managers' communication skills and librarians' motivation

Communication skills and demographic variables	Coef.	P-value	95 % Conf	
Librarians communication skills	0.35	0.02*	(0.05, 0.66)	
Managers communication skills	0.12	0.08	(-0.01, 0.26)	
Average years of experience	0.20	0.41	(-0.28, 0.69)	
Number of incentives	-0.20	0.40	(-0.69, 0.28)	
Age	-0.35	0.20	(-0.90, 0.19)	
Gender	Male	ref		
	Female	2.92	0.37	(-3.56, 9.41)
Degree of education	Associate	ref		
	Bachelor	12.59	0.07	(-1.05, 26.24)
	Masters and PhD	14.01	0.04*	(0.18, 27.83)
Librarian's field of study	Relevant	ref		
	Irrelevant	3.82	0.38	(-4.90, 12.54)
Manager's field of study	Relevant	ref		
	Irrelevant	2.23	0.51	(-4.63, 9.10)
Library type	Governmental	ref		
	Payam-e-Nor	-3.29	0.47	(-12.43, 5.85)
	Azad	0.57	0.89	(-7.97, 9.12)
Work Experience	<5	ref		
	5-15	2.24	0.64	(-7.29, 11.78)
	15-25	5.29	0.28	(-4.54, 15.13)
	>25	7.88	0.27	(-6.48, 22.25)
Type of employment	Formal	ref		
	In contract	1.07	0.78	(-6.87, 9.02)
	Others	-1.29	0.81	(-12.06, 9.46)
Type of work activity	Circulation section	ref		
	Reference services	-0.57	0.93	(-14.41, 13.27)
	Management	-5.21	0.43	(-18.50, 8.07)
	Office affairs	-1.89	0.65	(-10.20, 6.41)

4. RESULTS

Among 90 participants, 64 (71.1 %) were female, and the mean age was 40.52±7.5 years. In terms of education, the highest frequency was related to masters and doctoral degrees, which comprised 47 people (52.8 %). The field of study of most of the participants was medical librarianship or librarianship (67.4 %), and the field of study of library managers was medical librarianship and librarianship (56.3), while the rest of the participants employed in libraries with other fields of study.

Librarians reported their job performance as good (60 %), excellent (33.3 %), and average (3.3 %), and the rest were not dissatisfied with their performance.

The greatest effect on librarians' motivation was exerted by the internal factor (31.1 %), followed by the nature of librarianship work for the librarians (28.9 %) and the manager (18.9 %), while the other factors had the least effect on them. The average years of experience were 10.62 years and the average number of incentives was 5.31.

Two dimensions of communication skills, i.e., communication skills of library managers and librarians, were examined. The level of communication skills of managers' and librarians' were high (mean±SD respectively 63.90±19.96 and 73.06±10.38). The mean score of the participants' motivation and job satisfaction was also examined; the results showed that the librarians' level of motivation and job satisfaction was above average (respectively 80.91±12.78 and 76.66±20.54).

The results of multiple regression for motivation between managers' communication skills and librarians' communication skills indicated that librarians' communication skills and their degree have a significant effect on librarians' motivation. The results also revealed that there was no significant relationship between managers' communication skills and age, sex, the field of study, type of university, type of employment, number of years of experience, number of incentives, and type of work)P-value<0.05((Table 1).

The results of multiple regression of job satisfaction between managers' communication skills and librarians' communication skills showed that librarians' communication skills, managers' communication skills, librarians' field of study, work experience, and type of employment have a

Table 2. Multiple regression between the managers' communication skills and librarians' job satisfaction

Communication skills and demographic variables	Coef.	P-value	95% Conf	
Librarians' communication skills	0.71	0.001*	(0.31, 1.12)	
Manager's communication skills	0.48	0.000*	(0.29, 0.67)	
Average years of experience	-0.28	0.39	(-0.93, 0.37)	
Number of incentives	-0.008	0.97	(-0.66, 0.64)	
Age	-0.70	0.05	(-1.44, 0.26)	
Gender	Male	ref		
	Female	1.91	0.66	(-6.73, 10.56)
Degree of education	Associate	ref		
	Bachelor	11.56	0.20	(-6.62, 29.74)
	Master and PhD	9.92	0.28	(-8.49, 28.34)
Librarian's field of study	Relevant	ref		
	Irrelevant	14.25	0.017*	(2.61, 25.88)
Manager's field of study	Relevant	ref		
	Irrelevant	-7.86	0.09	(-17.02, 1.28)
Library type	Governmental	ref		
	Payam-e-Nor	0.92	0.88	(-11.26, 13.11)
	Azad	4.57	0.42	(-6.81, 15.96)
Work experience	<5	ref		
	5-15	9.25	0.15	(-3.45, 21.97)
	15-25	12.51	0.05	(-0.30, 25.92)
	>25	25.29	0.010*	(6.14, 44.44)
Type of employment	Formal	ref		
	In contract	-0.77	0.88	(-11.37, 9.82)
	Others	-15.41	0.036*	(-29.75, -1.06)
Type of work activity	Circulation section	ref		
	Reference services	-8.59	0.35	(-27.05, 9.85)
	Management	-4.76	0.59	(-22.46, 12.94)
	Office affairs	-0.56	0.91	(-11.63, 10.50)

significant effect on the librarians' job satisfaction. The results also demonstrated that there is no significant relationship between age, sex, degree, number of incentives, type of library, and type of tasks that librarians perform in libraries) P-value<0.05((Table 2).

5. DISCUSSION

The results of the present study showed that the average communication skills of academic library managers and

librarians were above average. The results of this study were different from those of Afkhami and Rad in which the average communication skills of librarians of public libraries in Mashhad and Astan Quds Razavi Central Library (Iran) were moderate^{14, 15}. The communication skills of librarians in Isfahan (Iran) in Rajai's study were above average, which was consistent with the present study¹⁶. According to Rentfrow, geographical differences strongly affect human personality and lifestyle¹⁷; it can be concluded that the level of communication skills in different geographical areas exerts different effects on people.

The findings of the present study also indicated that academic library managers' communication skills had no effect on librarians' job motivation. However, there was a significant relationship between librarians' communication skills and their motivation.

Idiegbeyan-Ose (2019) in a study of librarians' motivation concluded that the average of internal motivations was higher than external motivations. The motivation that librarians gain through salary, promotion, and job security was less than factors such as work experience and skills that they attain through intrinsic motivation⁷.

These results are consistent with the results of the present study, and it was shown that the greatest effect on librarians' motivation was exerted by intrinsic motivation. To be more precise, the results of this study demonstrated that for one unit of increase in librarians' personal communication skills, the average job motivation increased by 0.35 per cent.

On average, job motivation increased by 0.14 per cent in librarians with master's and doctoral degrees compared to librarians with an associate degree. The results of Sivrikaya's study were consistent with the results of our study, showing that there is a direct relationship between education level and motivation, suggesting people with high motivation had a higher level of education¹⁸.

The present study demonstrated that the librarians' average job satisfaction was higher than the average; this finding was in line with the study by Piri *et al.* in Iran conducted among librarians of central libraries of universities affiliated with the Ministry of Science, Research and Technology¹⁹. However, the results of Idiegbeyan-Ose's 2019 study were not in line with the results of the present study. Idiegbeyan-Ose reported that librarians' level of job satisfaction was low because no attention was paid to their needs and they did not have the opportunity to present creative initiatives and ideas⁷. It was also reported that what formed librarians' job satisfaction was career advancement. The cited study was conducted on librarians of non-governmental universities, and career promotion was very important for the librarians; however, in the present study conducted on all universities, including state-run, Payam-e-Nor, and Azad, the results showed that career promotion had no effect on librarians' job satisfaction and, in general, the librarians reported their performance as good. A review of the results of Ranoera and Tinuoye's studies indicates that librarians are relatively satisfied with their jobs^{20, 21}. Tinuoye considered appreciation, feedback, and cooperation with librarians as factors that managers paid less attention to; ignoring these factors reduced librarians' job satisfaction, while managers'

attention to libraries improved their job satisfaction²¹.

Regarding academic library managers' communication skills, the results of the present study revealed that these skills had a significant effect on librarians' job satisfaction. For one unit of increase in the communication skills of the library manager, job satisfaction increased by 0.48 per cent. The results of Paksoy's 2017 study and Mohebi's 2015 study were consistent with the present study²²⁻²³.

The results of a 2018 study by Wikaningrum *et al.* were in line with the results of the present study. They confirmed that leaders' communication skills had a positive and significant effect on employees' job satisfaction²⁴. Maimon and Jenna also concluded that employees who were very satisfied with their jobs were productive, loyal, supportive, and committed to work.

Moreover, librarians' communication skills had a significant effect on their job satisfaction; for one unit of increase in their communication skills, their job satisfaction increased by 0.71 per cent. The findings of Mohebbi's study were consistent with the results of the present study and demonstrated a strong relationship between managers' communication skills and employees' job satisfaction²⁵. Mohebbi collected information through the distribution of questionnaires among managers to assess managers' communication skills²²; however, in the present study, the managers' communication skills were measured based on the opinions of their employees.

We also found that in librarians whose field of study was irrelevant, the effect of job satisfaction was significant. Librarians whose field of study was other than librarianship had an average job satisfaction of 14.25 per cent higher than librarians employed with a degree in librarianship. Based on this, it seems that librarians who have been hired in the library from fields other than librarianship have lower expectations than employees with a degree in librarianship, and this has led to their satisfaction. Furthermore, librarians with >25 years of experience had an average job satisfaction of 25.29 per cent higher than librarians with <5 years of experience, indicating that work experience had a significant effect on job satisfaction.

The study by Piri *et al.* revealed that there is no relationship between sex, education, and experience and job satisfaction¹⁹, but the results of Chukwusa's study among librarians in libraries in southeastern Nigeria showed that librarians' sex affects their job satisfaction²⁶. Moreover, the average job satisfaction was 15.41 per cent lower in librarians whose employment was not formalised, compared to librarians with formal employment. It was obvious that employees who were formally employed in the library felt secure in their job. Chatterjee reported a significant relationship between job security and job satisfaction, and many researchers stated that job security was the most important cause of job satisfaction²⁷.

The results of Wikaningrum and Raina also showed that managers' communication skills had a positive effect on employees' job attitudes, especially their job satisfaction. In fact, communication with managers increased employees' satisfaction with what they did^{24, 28}.

The results of Ritamen's 2014 study were in line with the findings of the present study. Ritamen concluded that leaders

who sought changes had a high level of communication skills. To implement this skill, they used rich communication channels such as face-to-face communication, telephone calls, and holding public meetings with employees, which means that managers with high communication skills looked for two-way communication²⁹.

In general, the results of this study indicated no significant relationship between academic library managers' communication skills and librarians' job motivation, but there was a significant relationship with job satisfaction. The results were also consistent with the results of Owocye's study. This study revealed that effective communication between managers and employees provides high-quality services and a better understanding of the tasks assigned to employees. Effective communication also allows the staff to participate in the work of the library and reduces frustration among them, thereby promoting productivity³⁰.

6. CONCLUSION

This study opens a new perspective on managers' communication skills and their relationship with librarians' job satisfaction. Considering the significant relationship between these skills in managers and the employees' job satisfaction, it is necessary to pay attention to the components of job satisfaction in order to strengthen this relationship. A lack of relationship between communication skills and motivation requires further study of employees' motivation status and identification of motivating factors among them.

7. SUGGESTIONS

Since increasing job satisfaction and motivation improves service quality and effective communication and providing services to users are critical for librarians, it is suggested that managers seek to establish friendly and effective communication with their staff in different ways. If managers have friendly attitudes and fair behavior in their relationship with employees and support their efforts by focusing on their lives and personal problems, working in such an environment will be enjoyable and increases employees' job satisfaction and motivation.

REFERENCES

- Schöpfel, Joachim. The future of academic libraries. *Biblioteca Universitaria*, 2014, **17**(1), 3-16.
- Ziaei, Soraya; Amiri, Mohammad Reza; Sharif Moghadam, Hadi & Fayyazi, BiBi Marjan. Identifying dimensions of organisational culture affecting job motivations in public libraries in Iran: A qualitative research. *Iranian J. Ergonomics*, 2017, **5**(2), 26-33. doi: 10.21859/joe-05024.
- He, Pei-Xu; Wu, Tung-Ju; Zhao, Hong-Dan & Yang, Yang. How to motivate employees for sustained innovation behavior in job stressors? A cross-level analysis of organisational innovation climate. *Int. J. Environ. Res. Public Health*, 2019, **16**(23), 4608. doi: 10.3390/ijerph16234608
- Mousavi, Seyed Mohammad Hadi; Dargahi, Hossein; Asgari, Mojgan; Sharifiyan, Roya; Shaham, Golsa & Mokhtari, Zahra. Investigation of staff's job satisfaction and related factors in TUMS teaching hospital. *J. Payavard Salamat*, 2016, **10**(2), 133-44.
- Chamberlain, Stephanie A; Hoben, Matthias; Squires, Janet E & Estabrooks, Carole A. Individual and organisational predictors of health care aide job satisfaction in long term care. *BMC Health Services Research*, 2016, **16**(1), 577. doi: 10.1186/s12913-016-1815-6
- Karimzadeh, Mahnaz; Zandian, Fatemeh & Hasanzadeh, Mohammad. Identification of the relationship between librarians' job satisfaction and public library endusers' satisfaction: The case of Zanjan Public Libraries. *Inf. Syst. Serv.*, 2016, **5**(2), 23-36.
- Idiegbeyan-Ose, Jerome; Opeke, Roseline; Aregbesola, Ayooluwa; Owolabi, Sola & Eyiolorunshe, Toluwani A. Relationship between motivation and job satisfaction of staff in private university libraries, Nigeria. *Acad. Strategic Manage. J.*, 2019, **18**(1).
- Soleimani, Mohammadreza. Job satisfaction of librarians and their impact on the quality of library service delivery. *J. Acad. Libr. Inf. Res.*, 2000, **32**(35).
- Pourasghar, Mehdi; Najafi, Kyumars; Tirkari, Abdolhakim; Yazdani, Jamshid; Falaki, Mozghan & Salehi, Fariba. Investigating employees' and health care practitioners' communication skills. *Iranian J. Psychiatry Clin. Psychol.*, 2017, **23**(2), 208-17. doi: 10.29252/nirp.ijpcp.23.2.208.
- Statistical center of Iran. Iran statistical yearbook 2017-2018, 2019. <https://www.amar.org.ir/Portals/1/yearbook/1396/03.pdf>. (Accessed on 22 March 2020).
- Payne, Holly J. Revisiting a nebulous construct: Exploring the impact of relational communication competence on job performance. University of Kentucky; 2003. PhD Thesis. <https://www.proquest.com/openview/2a584f05c30784ad79d704bcc60a66ed/1?cbl=18750&diss=y&pq-origsite=gscholar>. (Accessed on 25 June 2020).
- Payne, Holly J. Reconceptualizing social skills in organisations: Exploring the relationship between communication competence, job performance, and supervisory roles. *J. Leadership Organ. Stud.*, 2005, **11**(2), 63-77.
- Stigall, Deborah J. A vision for a theory of competent leader communication: The impact of perceived leader communication behaviors on emergent leadership and relational and performance outcomes in collaborative groups. University of Kentucky, 2005.
- Afkhami, Narges; Tajafari, Masoumeh; Nowkarizi, Mohsen & Nekah, Seyyed Mohsen Asghari. The status of Librarians' communication skills and the effective factors in public libraries. *Libr. Philos. Pract.*, 2019, **4**.
- Radad, Iraj & Ghotbzadeh-Ardakani, Mostafa. Survey about impact of communication skills of librarians of Central Library of Astan Quds Razavi on Quality of services they provided. 2017, **21**, 91-110.
- Rajaei khozani, Zahra & Oraee, Narges. Investigating the relationship between communication skills and cultural intelligence among public library librarians in Isfahan. *Sci. J. Manage. Syst.*, 2018, **3**(4), 109-20. doi: 10.22091/stim.2018.2694.1181.

17. Rentfrow, Peter J. Geographical psychology. *Current Opinion Psychol.*, 2020, **32**,165-70.
doi: 10.1016/j.copsyc.2019.09.009.
18. Sivrikaya, Ahmet. The relationship between academic motivation and academic achievement of the students. *Asian J. Educ. Train.*, 2019, **5**, 309-15.
doi: 10.20448/journal.522.2019.52.309.315
19. Asnafi, Amir; Piri, Zahra; Pourebrahim, Tagi; Salemi, Najmeh & Rezaeefard, Sara. The study of the relationship between emotional intelligence and job satisfaction in librarians who work in university central libraries belonged to Science, Research and Technology Ministry in Tehran. 2018, **10**,15-23.
20. Ranaweera, RAAS & Li, Si. Job satisfaction of staff in university libraries in Sri Lanka. *Int. J. Organ. Innovation*, 2018, **11**(1),1.
21. Tinuoye, Gloria Oyovwe; Omeluzor, Saturday U. & Akpojotor, Lucky Oji. Factors influencing job satisfaction of academic librarians in university libraries in Edo and Delta states, Nigeria. *The Electron. Libr.*, 2016.
doi: 10.1108/EL-07-2015-0128.
22. Mohebi, Mohammad Mahdi & Zandebageleh, Golnosh. The relationship between communication skills and job satisfaction of construction companies staff in Hamadan province. *J. UMP Soc. Sci. Technol. Manage.*, 2015, **3**(3).
23. Paksoy, Meltem; Soyer, Fikret & Çalik, Fehmi. The impact of managerial communication skills on the levels of job satisfaction and job commitment. *J. Human Sci.*, 2017, **14**(1), 642-52.
24. Wikaningrum, Tri & Yuniawan, Ahyar. The relationships among leadership styles, communication skills, and employee satisfaction: A study on equal employment opportunity in leadership. *J. Bus. Retail Manage. Res.*, 2018, **13**(1).
25. Hadizadeh Talasaz, Zahra; Nourani Saadoldin, Shahla & Taghi Shakeri, Mohammad. The relationship between job satisfaction and job performance among midwives working in healthcare centers of Mashhad, Iran. *J. Midwifery Reprod. Health*, 2014, **2**(3), 157-64.
doi: 10.22038/JMRH.2014.2623.
26. Chukwusa, Joseph. Gender difference in organisational commitment, job satisfaction and job involvement: evidence from university library staff. *Int. Inf. Libr. Rev.*, 2020,1-9.
doi: 10.1080/10572317.2019.1675444.
27. Chatterjee, Subhasish & Chatterjee, Dipali. Job satisfaction and its relation with job security of paramedical staff—with reference to various private hospitals. *Int. J. Soc. Sci. Interdiscip. Res.*, 2015, **4**(5),138-49.
28. Raina, Reeta & Roebuck, Deborah Britt. Exploring cultural influence on managerial communication in relationship to job satisfaction, organisational commitment, and the employees' propensity to leave in the insurance sector of India. *Int. J. Bus. Commun.*, 2016, **53**(1), 97-130.
29. Men, Linjuan Rita. Strategic internal communication: Transformational leadership, communication channels, and employee satisfaction. *Manage. Commun. Q.*, 2014, **28**(2), 264-84.
30. Owoeye, Peter Olufemi & Dahunsi, Florence Tope. The role of communication in effective service delivery in libraries and information centres: A case study of Ekiti State University Librar. *Int. J. Libr. Inf. Sci.*, 2014, **6**(5),75-87.

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