A Material Purchasing Decision Making Model for Procurement Division of The Academic Library from Supply Chain Point View

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***Abstract*— The purpose of this study is to explore the development of the entities of a material purchasing decision making model for the procurement division of an academic library from a supply chain perspective and to describe the model's verification/validation procedure. Both qualitative and quantitative methodologies have been utilised in this study. Theoretical literature review was utilised to construct the conceptual model of the academic library, while Fuzzy Delphi Method (FDM) was employed to validate the model. This research will emphasise the functions and components necessary to design and validate the material purchase decision making model for the library's procurement division. The conclusion of this research will be the construction of a material purchasing decision making valid model for the procurement division of the academic library model, which will serve as a strategic tool to ensure a quality service for library users and stakeholders.**

***Keywords*—** *Academic library, Supply Chain, Decision Making Model, Fuzzy Delphi Method.*

1. Introduction

The Supply Chain is currently facing inter-system problems. The ability of supply chain to integrate the organization's numerous trade relations will determine its success [18]. Beyond manufacturing, supply chain management is becoming increasingly important for service providers. With successful supply chain management, all service trades seek new ways to achieve competitive advantage. Also, supply chain management is critical for non-profit organizations. Conflicting goals make managing a commercial firm very different from managing a non-profit organization [15]. Profits from non-profit organizations are generally used to balance budgets. Library is a location where people go to read, learn, and take part in library programs. For example, job seekers could learn resume-writing skills, while graduate students could get some quiet time and quick access to study materials. A library's major objective is to provide information, education, and personal growth to its members, as well as a place for leisure and pleasure. It is vital to the upkeep and progress of a civilization. The library also provides access to a wide range of knowledge, ideas, and viewpoints [10].

First, academic libraries were often religious institutions. There were several private and royal libraries in ancient times. As stated in Table 1, libraries today fall into four categories [16].

Table 1. Types of libraries and the patrons served [16].

Type of library	Patrons with service privileges
Academic	Students, faculty, non-academic and administrative staff, alumni; General public often pay for a fee for borrowing privileges.
Public	All residents of the community; Residents of other communities may have to pay a fee to borrow materials.
School	Students, teachers, administrative staff; Some schools also allow parents, students from other schools and the general public to borrow materials.
Special	Most often only employees of the company or institution; Some government libraries or libraries in social services agencies or societies lend to the general public.

Virtual or electronic libraries are a newer fifth form of library. However, this type of library is not yet "officially" included [16]. This study proposes to develop a system for academic/university library collection purchasing decision making model from supply chain management point of view.

2. Literature Review

Academic libraries, often known as university and college libraries, are crucial to any higher education institution. These educational institutions' faculty and students may wish to do research or other academic activities. Academic libraries' collections frequently reflect a wide range of interests and needs. Academic libraries range in size from small liberal arts institutions to large research universities [9].

Regardless of size, academic library management involves numerous activities and processes to achieve the academic institution's goals [7], [24]. The academic library's primary mission is to aid and support academic study and teaching. The academic library aims to [3]: 1 capture and hold the interest of the academic community's reading, 2 produce intelligent users of all types of documents and 3 cultivate in users an appreciation of libraries as academic institutions.

Alternatively, the academic library provides essential reading and research materials [3]. The library collection must cater to all ages, educational levels, and socio-economic groups. To address stakeholder needs, the library upholds intellectual freedom and purchases works that represent multiple viewpoints on a subject/topic. Even if sensible people disagree or object, it is the management team's obligation to represent both [1].

Due to the wide range of resources, no one set of general criteria can be applied at all times. Some objects are chosen for their artistic value or historical documentation, while others are chosen to meet the library's recreational and informational requirements [12].

The issues can be resolved if the library provides the resources required. A library may require several resources to provide the finest service. Thus, library administration should know the library's information flow [2], [17]. The library should also employ adequate information to allocate funds in its operations and then apply proper decisions to ensure proper material selection within budget [6], [27].

Supply chain management helps any organization to reduce cost and helps efficiency by using all resources of the organization properly [14]. Success in the supply chain requires integrating activities into key supply chain operations. In many large corporations/organizations, management has concluded that optimizing process flows requires a process approach to business [13], [8].

It is unlikely to be acceptable to integrate and manage all supply chain business process connections. Because the reasons for integration change depending on the situation, the levels of integration should also vary [22],[27]. As a result, distributing finite resources throughout the supply chain's various process connections becomes critical.

Kress and Wisner, [11] detail the academic library supply chain processes that are incorporated in the Lied Library supply chain framework. The supply chain of the Lied Library is comprised of operations that connect the numerous library consumers back up the supply chain to the various library providers. These activities include the development of information resources, the construction of collections, the provision of access to collections via the catalogue and website, and lastly, the provision of information resources and services to library customers.

The supply chain of the Lied Library is divided into three broad areas. The supply chain depicted in the picture begins with the collection suppliers, who develop information material, and ends with the operation suppliers, who offer the library organization with products and services. The library is at the heart of the supply chain; it is where content is categorized, stored, and managed. The supply chain's final entities are the users and resource-sharing partners who will finally consume the material.

3. Methodology

This study's goal is to create a material purchasing decision making model for academic library. The first step of this research is to create a conceptual model of the academic library supply chain using theoretical literature review. In the second phase, the Fuzzy Delphi approach is used to validate the conceptual model.

The first step was to acquire information about the structure, functions, and supply chain components of an academic library from articles and other sources. Then conduct a theoretical literature review in order to develop a conceptual model for material purchasing decision making model for procurement division by using academic library supply chain entities, functions, and networks through an examination of theories library supply

chains and operations. Theoretical literature review method is advantageous for establishing present concepts, their relationships, and the depth of investigation of existing theories, as well as for generating new hypotheses for the study [19]. It can assist the researcher in locating a body of knowledge on a particular subject, concept, theory, or phenomenon [25].

The Model was validated by Fuzzy Delphi analysis. This research follows Soni and Kodali, [23] way to verify the built models, covering the validation process from the aspects of verifying (a) the elements or constructs that are included in the supply chain model and (b) the degree of standardization of these elements in the supply chain model. To validate the models, the experts' judgement method was used.

A questionnaire has been designed to collect data for analysis. The questionnaire asks experts to agree on the conceptual models' features and linkages. The designed questionnaire used a seven-digit numeric scale ranging from strongly disagree to highly agree. So "1" to "7" are "strongly disagree" to "strongly agree" respectively. Since seven response categories improve dependability, the Likert scale is used [4].

The respondents of this study are those who expert in the management of the academic library and they must have at least a bachelor's degree in library science and working experience of at least five years in the academic library [20]. A total of 52 library management personnel from several universities answered the questionnaire constructed. All of them responded to answer the questionnaire and their profiles are tabulated in Appendix 1.

Microsoft Excel was used to run the analysis and expected most of the library management personals to agree with our developed conceptual supply chain model for the academic library. The steps of fuzzy Delphi analysis also presented a flowchart in Figure 1 for a clear view.

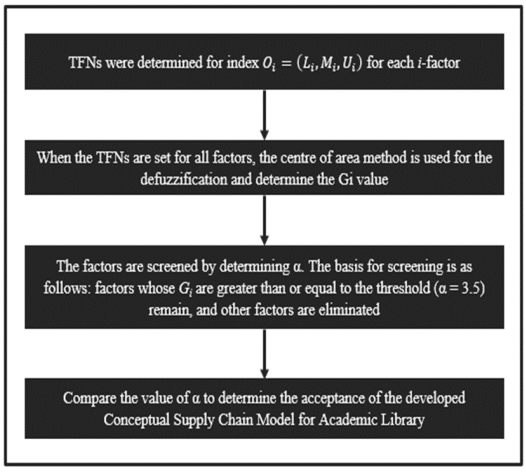

Figure 1. The Flowchart of Fuzzy Delphi Analysis

4. Conceptual Model Development

The material purchasing decision-making model is a diagram layout of the academic library's materials purchase activity, which the Procurement division manages. This model demonstrates the example of how the model of the academic library supply chain can be used for an academic/university's day-to-day activities and decision-making process. The materials purchasing activity has been chosen as this activity was deemed to be the most challenging by the management of the UUM library and Prime University library, which discovered during the interview session conducted on 23rd March,2019. This activity encompasses a process of making decisions involving money. Thus, the decision that has been made cannot be taken for granted. To develop this model, the purchasing frameworks proposed by Wang [26] and Kress and Wisner [11] are used as the main references, which mainly described the collection system of the academic library.

The Procurement Division of the academic library is part of the operation centre of the library's material resources for an academic library, which is responsible to buy materials (i.e. books, journals and e-materials) for the academic library. These materials mainly supplied by Publishers and Database Vendor, and they are the Tier 2 suppliers for the academic library. The Publishers can sell their hard copy and soft copy of their resources directly to the academic library, but sometimes Serial Subscription Agents might buy from them and consequently, the Academic Library also buys resources that are sold by Publishers and Databases

Vendor from these Serial Subscription Agents. Nevertheless, the Database Vendor's main activity is to take the journals from publishers and sell them to the library. They also publish the electronic journals, which they sell the material to the Academic Library as well as the Serial Subscription Agent. The Serial Subscription Agent is the Tier 1 Supplier under the academic library supply chain network. Meanwhile, the Delivery Services Companies provide all transportation and logistics services if needed.

Nevertheless, the decision on which materials need to be purchased is decided upon the outcome from the information collection conducted by the academic library management under the Procurement Division. From the interviews with librarians, it was revealed that the academic library has designated one person in each school or faculty to collect information on behalf of the institution. The representative usually discusses which books and journals should be bought for academic references purpose with the Dean, Deputy Dean, Head of the departments, coordinators and Professors from that school. Then, the representative submits the suggestions to the Administration Division and the information submitted will be processed and the decision will be made on the materials that should be bought, whereby the amount of money spent on these materials must be within the budget allocated for the library's materials and the materials are available from the suppliers. The complete illustration of the material purchasing decision-making model is presented in Figure 2.

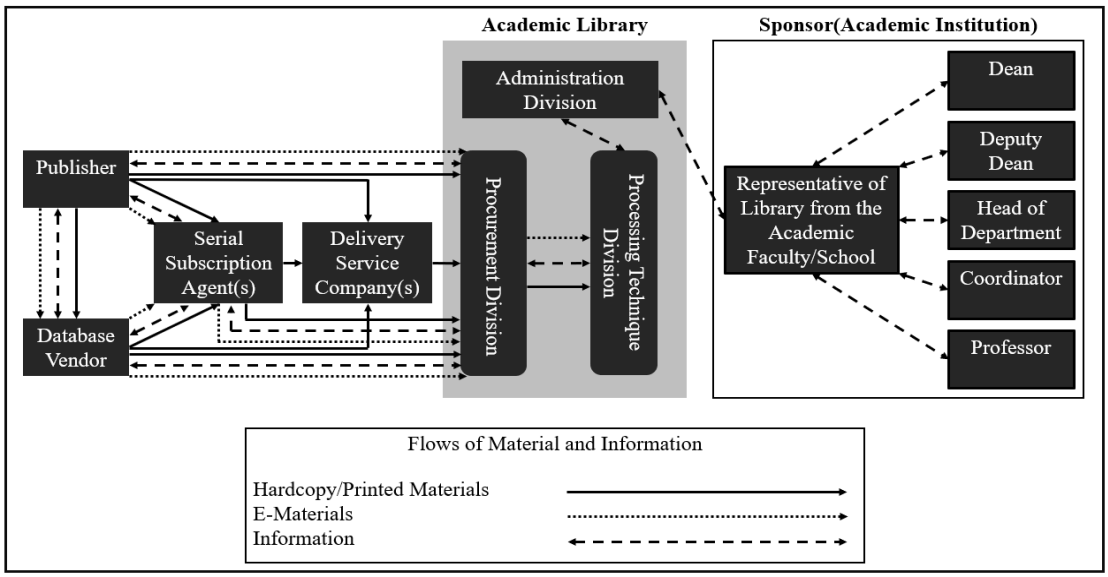

Figure 2. Material Purchasing Decision Making Model

The material purchasing decision-making model represents the process of materials purchase activity and information flow activity of the Procurement Division of the academic library. This Model shows how the academic library supply chain model can be used for a decision-making process and a very important strategical tool. There are several models constructed for solving the library's material purchasing problems, but this model succeeds to illustrate the decision-making process graphically according to the supply chain network framework, which have never been done in any research related to the academic library supply chain research.

5. Model Validation Process

The purpose of validating the model is to confirm that the conceptual model that proposed in this research are reliable and able to be practiced by the academic library management. Soni and Kodali, [23] approach is applied in this research for designing the questionnaire for validation of this

model which covers the aspects of verifying the elements or constructs that are included in the supply chain model, the degree of standardization of these elements in the supply chain model and the materials and information flow for procurement division in the supply chain model. For analysis, this study used the experts' judgment analysis for analyzing their opinion of agreement with the proposed models. The three main activities involved in this analysis are constructing the structured questionnaire, collecting the questionnaire data, and analyzing the data using the Fuzzy Delphi Method (FDM). Fuzzy Delphi techniques are the combination of the old and traditional Delphi Technique and Fuzziness method to get the consensus of the experts on some decision after twice undergoing a process of verifying a comprehensive questionnaire [5].

The technique allows the experts to derive the results more realistic and applicable in terms of any situation. The term is applied to various numbers that have been collected after great efforts and weights are being assigned to the various attributes based on their relative importance. The consensus is then being developed on the decision provided by experts. In the questionnaire, the experts have been asked on their agreement with the statement constructed that describes the graphical layout of Model and the statements are listed in Table 3 as follows.

Table 3. Statements Constructed in the Questionnaire

No.	Statement
1	All the elements are covered (included) in the proposed conceptual model of the academic library supply chain.
2	All the linking lines correctly cover the functions of the proposed conceptual model of the academic library supply chain.

The data for analysis has been collected from 52 library management personnel of several universities. Then, the data were analyzed with the Fuzzy Delphi method to examine whether the view or agreement from the experts can achieve a consensus.

5.1 Data Coding

Firstly, the data from the questionnaire filled by each of the expert has been codified into the triangular fuzzy number (TFN). The outcome from this process is tabulated in Table 4 for the developed model.

5.2 Defuzzification Process

The defuzzification process has been deployed to determine the agreement among the experts on the statement constructed about the models, which can be represented by the G_i value. The G_i value is calculated using the center of area method equation. The calculation involved transforming the triangular fuzzy number tabulated in Appendix 2 into the G_i values for each of the statements.

To interpret the meaning of the G_i score, the value is compared with the value of the threshold where α = 3.5 as a screening basis. If the G_i value is greater than α, then it can be accepted as the experts indicate their consent on the statement being discussed. Otherwise, the statement will be eliminated if the G_i value is less than α [22]. The G_i value and screening results are shown in Appendix 3.

Based on the result in Appendix 3 only one librarian disagreed other than that all of the librarians were consensually agreed on the elements or constructs included in the model where the degree of standardization of elements of the G_i values obtained in both models is greater than α = 3.5.

5.3 The G_i Value Aggregation

To overcome the issue of reaching consensus from all experts, all the experts' responses were aggregated to see the result in a form of group consensus as tabulated in Table 4. From Table 4, for the Model the experts agreed with all of the entities included in the proposed conceptual model with Aggregated G_i = 8.04 and all the lines linked correctly cover the functions of the proposed conceptual model (Aggregated G_i = 8.01).

Table 6. The Results from Aggregation Process.

Section	Statement	Aggregated G_i	Screening
The elements or constructs that are included in the model.	All the elements are covered (included) in the proposed conceptual model of the academic library supply chain.	8.04	Accepted
	All the linking lines correctly cover the functions of the proposed conceptual model of the academic library supply chain.	8.01	Accepted

Overall, the outcome from the fuzzy Delphi analysis succeed to achieve the saturation on the librarians' agreement with the conceptual model developed in this study, thus have a high potential to be proposed as the strategic decision-making tools for an academic library.

6. Discussions

The material purchasing decision-making model depicts the Procurement Division of an academic library's materials procurement and information flow processes. This Model illustrates how the academic library supply chain model can be utilised for decision-making and as a vital strategic instrument. This Model illustrates the decision-making process graphically according to the supply chain network structure, something that has never been accomplished in academic library supply chain research.

The model has been validated using an analysis of expert opinion for acceptance as the standard model for all academic libraries. In this instance, we were able to consult specialists from Malaysia, Bangladesh, Pakistan, Venezuela, Canada, Germany, Italy, Sweden, and New Zealand, among others. The analysis of expert opinion was conducted by building a structured questionnaire, collecting questionnaire data, and analysing the data using the fuzzy Delphi approach (FDM). The outcome of the fuzzy Delphi analysis achieves the librarians' agreement with the conceptual model formed for this study.

7. Conclusion

The supply chain model is widely utilized in the modern world to improve the effectiveness and cost-efficiency of business operations. Despite the fact that only a small number of studies have been conducted on the library supply chain, Supply chain research could be a useful tool for making academic libraries more cost-effective. The material purchasing decision-making model, which is a material purchasing decision-making process under the academic library's procurement division, exemplifies how the academic library supply chain model could be utilized for a decision-making process and is a highly important strategic instrument. This model graphically depicts the decision-making process based on the supply chain network framework; hence, it could be a significant contribution to academic library supply chain research.

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Appendix

Appendix 1. List of Respondents' Profile of the Library Management Personals.

No.	University	Position	Working Experience in Academic Library
1.	Prime University, Bangladesh	Deputy Chief Librarian	11-12 years
2.	Universiti Utara Malaysia, Malaysia	Library System Officer	5-10 years
3.	Universiti Utara Malaysia, Malaysia	Librarian	5-10 years
4.	Universiti Utara Malaysia, Malaysia	Reference Librarian	5-10 years
5.	Universiti Utara Malaysia, Malaysia	Librarian	11-20 years
6.	Central University of Venezuela, Venezuela	Assistant Librarian	0-4 years
7.	Daffodil International University, Bangladesh	Librarian	0-4 years
8.	University Malaysia Perlis, Malaysia	Librarian	11-20 years
9.	University Malaysia Perlis, Malaysia	Librarian	11-20years
10.	University Malaysia Perlis, Malaysia	Librarian	5-10 years
11.	University Malaysia Perlis, Malaysia	Librarian	5-10 years
12.	University Malaysia Perlis, Malaysia	Senior Librarian	11-20 years
13.	University Malaysia Perlis, Malaysia	Librarian	11-20 years
14.	University Malaysia Perlis, Malaysia	Librarian	11-20 years
15.	University Malaysia Perlis, Malaysia	Librarian	11-20 years
16.	University Malaysia Perlis, Malaysia	Deputy Chief Librarian	11-20 years
17.	Universiti Sains Malaysia, Malaysia	Senior Librarian	11-20 years
18.	Universiti Sains Malaysia, Malaysia	Senior Librarian	11-20 years
19.	Universiti Sains Malaysia, Malaysia	Assistant Chief Librarian	11-20 years
20.	Universiti Sains Malaysia, Malaysia	Chief Librarian	21+ years
21.	Dhaka University, Bangladesh	Librarian	5-10 years
22.	Khulna University of Engineering & Technology, Bangladesh	Deputy Librarian	11-20 years
23.	Khulna University of Engineering & Technology, Bangladesh	Assistant Librarian	5-10 years
24.	Shahjalal University of Science and Technology, Bangladesh	Librarian	5-10 years
25.	North South University, Bangladesh	Librarian	5-10 years
26.	Eastern University, Bangladesh	Assistant Librarian	5-10 years
27.	Shahjalal University of Science & Technology, Sylhet, Bangladesh	Librarian	5-10 years
28.	Brandenburg University of Technology- Cottbus, Brandenburg, Germany	Assistant Librarian	0-4 years
29.	Brandenburg University of	Assistant Librarian	0-4 years

	Technology- Cottbus, Brandenburg, Germany		
30.	Brandenburg University of Technology- Cottbus, Brandenburg, Germany	Librarian	5-10 years
31.	University of Management Sciences, Lahore, Pakistan	Senior Librarian	11-20years
32.	University of Management Sciences, Lahore, Pakistan	Librarian	5-10 years
33.	Habib University, Karachi, Pakistan.	Librarian	5-10 years
34.	Habib University, Karachi, Pakistan.	Librarian	5-10 years
35.	Habib University, Karachi, Pakistan.	Assistant Librarian	0-4 years
36.	American International University-Bangladesh, Bangladesh	Deputy Librarian	21+ years
37.	State University of Bangladesh	Assistant Librarian	5-10 years
38.	State University of Bangladesh	Library Officer	5-10 years
39.	State University of Bangladesh	Librarian	11-20 years
40.	World University of Bangladesh	Librarian	5-10 years
41.	World University of Bangladesh	Librarian	5-10 years
42.	Sher-e-Bangla Agricultural University, Bangladesh	Librarian	21+ years
43.	Sher-e-Bangla Agricultural University, Bangladesh	Assistant Librarian	5-10 years
44.	Linköping University, Sweden	Librarian	11-20years
45.	Linköping University, Sweden	Librarian	11-20years
46.	Linköping University, Sweden	Assistant Librarian	5-10 years
47.	Sant'Anna School of the Advanced Studies, Pisa, Italy	Librarian	11-20years
48.	Sant'Anna School of the Advanced Studies, Pisa, Italy	Librarian	11-20years
49.	Bangladesh University of Engineering and Technology, Bangladesh	Librarian	11-20years
50.	University of Regina, Saskatchewan, Canada.	Librarian	5-10 years
51.	University of Rajshahi, Bangladesh	Assistant Librarian	0-4 years
52.	University of Auckland, New Zealand	Librarian	5-10 years

Appendix 2. The Triangular Fuzzy Number (TFN) for the Statements in Table 3.

Expert	Statement					
	1			2		
	l	*m*	*u*	*l*	*m*	*u*
Librarian 1	9	10	10	9	10	10
Librarian 2	1	3	5	1	3	5
Librarian 3	9	10	10	9	10	10
Librarian 4	9	10	10	9	10	10
Librarian 5	5	7	9	9	10	10
Librarian 6	9	10	10	9	10	10
Librarian 7	9	10	10	7	9	10
Librarian 8	9	10	10	9	10	10
Librarian 9	9	10	10	9	10	10
Librarian 10	9	10	10	9	10	10
Librarian 11	5	7	9	5	7	9
Librarian 12	9	10	10	9	10	10
Librarian 13	9	10	10	9	10	10
Librarian 14	5	7	9	5	7	9
Librarian 15	3	5	7	3	5	7
Librarian 16	7	9	10	7	9	10
Librarian 17	9	10	10	9	10	10
Librarian 18	3	5	7	3	5	7
Librarian 19	7	9	10	7	9	10
Librarian 20	7	9	10	7	9	10
Librarian 21	9	10	10	9	10	10
Librarian 22	9	10	10	9	10	10
Librarian 23	9	10	10	9	10	10
Librarian 24	9	10	10	9	10	10
Librarian 25	5	7	9	5	7	9
Librarian 26	7	9	10	7	9	10
Librarian 27	5	7	9	5	7	9
Librarian 28	7	9	10	5	7	9
Librarian 29	7	9	10	5	7	9
Librarian 30	5	7	9	5	7	9
Librarian 31	9	10	10	9	10	10
Librarian 32	7	9	10	7	9	10
Librarian 33	7	9	10	7	9	10
Librarian 34	5	7	9	5	7	9
Librarian 35	3	5	7	3	5	7
Librarian 36	7	9	10	7	9	10
Librarian 37	5	7	9	5	7	9
Librarian 38	3	5	7	3	5	7
Librarian 39	7	9	10	7	9	10
Librarian 40	5	7	9	5	7	9
Librarian 41	3	5	7	3	5	7
Librarian 42	7	9	10	7	9	10
Librarian 43	7	9	10	7	9	10
Librarian 44	7	9	10	7	9	10
Librarian 45	7	9	10	7	9	10
Librarian 46	5	7	9	5	7	9
Librarian 47	7	9	10	7	9	10
Librarian 48	5	7	9	5	7	9
Librarian 49	5	7	9	5	7	9
Librarian 50	5	7	9	5	7	9
Librarian 51	3	5	7	3	5	7
Librarian 52	9	10	10	9	10	10
Sum	342	429	484	340	427	483
Average	6.58	8.25	9.31	6.54	8.21	9.29

Appendix 3. The G_i Value for the Statements in Table 3.

Expert	Statement			
	1	Screening	2	Screening
Librarian 1	9.67	ACCEPTED	9.67	ACCEPTED
Librarian 2	3.00	DELETED	3.00	DELETED
Librarian 3	9.67	ACCEPTED	9.67	ACCEPTED
Librarian 4	9.67	ACCEPTED	9.67	ACCEPTED
Librarian 5	7.00	ACCEPTED	9.67	ACCEPTED
Librarian 6	9.67	ACCEPTED	9.67	ACCEPTED
Librarian 7	9.67	ACCEPTED	8.67	ACCEPTED
Librarian 8	9.67	ACCEPTED	9.67	ACCEPTED
Librarian 9	9.67	ACCEPTED	9.67	ACCEPTED
Librarian 10	9.67	ACCEPTED	9.67	ACCEPTED
Librarian 11	7.00	ACCEPTED	7.00	ACCEPTED
Librarian 12	9.67	ACCEPTED	9.67	ACCEPTED
Librarian 13	9.67	ACCEPTED	9.67	ACCEPTED
Librarian 14	7.00	ACCEPTED	7.00	ACCEPTED
Librarian 15	5.00	ACCEPTED	5.00	ACCEPTED
Librarian 16	8.67	ACCEPTED	8.67	ACCEPTED
Librarian 17	9.67	ACCEPTED	9.67	ACCEPTED
Librarian 18	5.00	ACCEPTED	5.00	ACCEPTED
Librarian 19	8.67	ACCEPTED	8.67	ACCEPTED
Librarian 20	8.67	ACCEPTED	8.67	ACCEPTED
Librarian 21	9.67	ACCEPTED	9.67	ACCEPTED
Librarian 22	9.67	ACCEPTED	9.67	ACCEPTED
Librarian 23	9.67	ACCEPTED	9.67	ACCEPTED
Librarian 24	9.67	ACCEPTED	9.67	ACCEPTED
Librarian 25	7.00	ACCEPTED	7.00	ACCEPTED
Librarian 26	8.67	ACCEPTED	8.67	ACCEPTED
Librarian 27	7.00	ACCEPTED	7.00	ACCEPTED
Librarian 28	8.67	ACCEPTED	7.00	ACCEPTED
Librarian 29	8.67	ACCEPTED	7.00	ACCEPTED
Librarian 30	7.00	ACCEPTED	7.00	ACCEPTED
Librarian 31	9.67	ACCEPTED	9.67	ACCEPTED
Librarian 32	8.67	ACCEPTED	8.67	ACCEPTED
Librarian 33	8.67	ACCEPTED	8.67	ACCEPTED
Librarian 34	7.00	ACCEPTED	7.00	ACCEPTED
Librarian 35	5.00	ACCEPTED	5.00	ACCEPTED
Librarian 36	8.67	ACCEPTED	8.67	ACCEPTED
Librarian 37	7.00	ACCEPTED	7.00	ACCEPTED
Librarian 38	5.00	ACCEPTED	5.00	ACCEPTED
Librarian 39	8.67	ACCEPTED	8.67	ACCEPTED
Librarian 40	7.00	ACCEPTED	7.00	ACCEPTED
Librarian 41	5.00	ACCEPTED	5.00	ACCEPTED
Librarian 42	8.67	ACCEPTED	8.67	ACCEPTED
Librarian 43	8.67	ACCEPTED	8.67	ACCEPTED
Librarian 44	8.67	ACCEPTED	8.67	ACCEPTED
Librarian 45	8.67	ACCEPTED	8.67	ACCEPTED
Librarian 46	7.00	ACCEPTED	7.00	ACCEPTED
Librarian 47	8.67	ACCEPTED	8.67	ACCEPTED
Librarian 48	7.00	ACCEPTED	7.00	ACCEPTED
Librarian 49	7.00	ACCEPTED	7.00	ACCEPTED
Librarian 50	7.00	ACCEPTED	7.00	ACCEPTED
Librarian 51	5.00	ACCEPTED	5.00	ACCEPTED
Librarian 52	9.67	ACCEPTED	9.67	ACCEPTED