# Risk Analysis for the Faculty of Theology Libraries in Terms of Protection Due to Risk and Archive Dimension

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#### **Abstract**

Libraries are important institutions which contribute to the development of science, art, technology by their library materials. Library materials which exist in the reading room and storage areas face various threats oriented by environmental, disasters and human risks. Without precautionary measures, these hazards can turn into risks and these risks cause material damage. Therefore, the factors giving rise to deterioration of library materials should be identified as a priority and library employees and beneficiaries should be protected from any kind of damage. Libraries of the Faculty of Theology that represent major educational institutions around the globe contain significant number of books, manuscripts and microfilms. Collection management, protection from adverse climatic conditions and disaster risks need to be addressed principally. The aim of this study is to offer protective measures for Faculty of Theology Libraries and develop a preventive model.

**Keywords:** Theology Faculty Libraries, Library Protection, Emergency Planning, Preventive Conservation, Information and Document Management

### 1. Introduction

Libraries are the institutions embodying personal, institutional and social knowledge in cultural, scientific and artistic matters and providing easy access to this knowledge. The library materials are mainly organic based materials such as manuscripts, books, periodical journals, photos, drawings and maps. The organic based materials have fragile structures against environmental, biological and chemical risk factors, so they require to be used and protected in accordance with the standards.<sup>1</sup>

The Faculties of Theology embody many departments and books, journals, notes, theses, digital and visual documents, manuscripts of these departments are present accordingly. Within the volumes of the manuscripts, there are many pamphlets. These are also named as Mecmuatü'r-resail<sup>2</sup>. Due to the fact that, in cases of war and internal disorder, there is a potential loss of especially manuscripts, digitalization of these materials gain more importance. The Institute of Islamic Studies in Mali has such efforts for protection<sup>3</sup>.

There are principles of protection of International Federation of Library Associations and Institutions (IFLA) for covering standards in libraries and archive buildings<sup>4</sup>.

<sup>&</sup>lt;sup>1</sup>Organic and modern materials contain different storage conditions. Due to the fact that organic materials are hygroscopic, they intake water according to the humidity condition of the place. During drying and wetting cycle within relative humidity and temperature fluctuations, various physical and chemical deterioration may occur in the materials such as contraction, fracture, crackage, expansion, disconnection of the volumes.

<sup>&</sup>lt;sup>2</sup> The Pamphlet Journal that is also known as mecmuatü'r-resail is also found in oriental printing. These are books including various manuscripts within a volume. By binding these manuscripts together or copying one after another, mecmuatü'r-resail is formed. The pamphlets having separate author, book title, theme. They are processed as a detached book and bibliographic records are determined diversely. In the volumes of manuscripts in Ankara University Faculty of Theology Library, there are pamphlets from 1 to 20.

<sup>&</sup>lt;sup>3</sup> Rehabilitation and digitalization of manuscripts that have been damaged in war in Mali Timbuktu in accordance with the protocol among TIKA (The Turkish International Cooperation and Development Agency), Department for Manuscripts of Turkey and Ahmed Baba Higher Education and Islamic Studies Institute.

<sup>&</sup>lt;sup>4</sup> Adcock E., IFLA Principles In Maintenance and Use of Library Materials, 1998.

These are the libraries containing scientific publications regarding religious sciences; and also there are special collections covering separate departments in theological sciences. American Theological Library Association<sup>5</sup> (ATLA) has been established with the aim of supporting libraries related to theological sciences.

Recently, intensive studies are performed and standards are promoted on modern technologies diminishing risk in libraries and archive buildings in developed countries. In the world, at the top of the institutions promoting these standards is IFLA (International Federation of Library Associations and Institutions), and this institution determine protection standards providing ideal conditions in libraries and archive buildings<sup>6</sup>.

The scope of study general risk factors which are caused deterioration of the library collections are defined. Additionally, a risk assessment method are developed due to allow for transferability of the another Theology Libraries. Turkey Theology Faculties current situation are examined in the study. In all of the Faculties of Theology in Turkey, there are libraries private to that faculty. However, some part of them will be functionalized in case they move to the new service buildings, and in the other parts preparation of inventory lists has not been concluded yet. All Libraries and their contents are given in the scope of the study. An risk assessment technique is aimed to improve as a method in Library & Information Science.

## 2. Methodology

In this study, general conditions for protection are stressed and statistical information regarding Faculties of Theology Libraries in Turkey is given. Additionally, general risks against protection of libraries are mentioned and a quantitative risk analysis model on risks in accordance with the dimension of the collections is introduced. It is used several scales which are weighted according to perceived importance in the scoring methods. In the study, risk scales are applied in terms of number of books and number of manuscripts. Risk profiles are defined as low risk: 1 points, medium risk: 2 points, high risk: 3 points, extreme risk: 4 points. After score definition, prioritizing risk levels are determined. In order to provide that the application shall be operable for all of the Theology Libraries and serve as a model, likely overall risks should be evaluated. In this rapid risk assessment study, control risks are evaluated according to size of the collection inventory.

#### 3. Risk Factors on Libraries

The chemical and physical structures of library materials are subject to rapid deterioration due to environmental, biological, man-made and natural factors. These factors are; environmental (temperature, relative humidity, radiation, ultraviolet radiation, air pollution, dust, vibration, etc.); biological activity (microorganisms, pests and rodents, etc.); man-made risks (improper storage, improper transportation, not caring hygiene rules, fires, etc.); natural disaster oriented risks (earthquake, fire, flood, storm, thunder, etc.) (Adcock,1998). These factors cause severe deterioration on organic based materials containing paper, leather and adhesive and polyester, PVC (polyvinyl chloride) based modern materials and physical or chemical damage of the materials (Caneva, 1991).

### 3.1. Environmental Risk Factors

It is required to provide environmental conditions to minimize or totally terminate damage ratio of materials at shelves of the reading hall and storage areas at library buildings. The factors to be controlled are the risk factors such as temperature, relative humidity, light, ultraviolet radiation, air pollution, gases and particles, vibration, dust, showcase type. It may not be possible to establish automation systems that will provide ideal values for environmental conditions due to the limited budgets of the libraries. However, placing data loggers that have low costs compared to the automation systems, at indoor areas are crucial both for the health of staff and the collections. Spot measurements at certain periods can also give information about climatic conditions of that place (Cassar, 1994).

<sup>&</sup>lt;sup>5</sup> American Theological Library Association - ATLA was founded in 1941, and still it has 1000 private and institutional members. The association presents consultancy and training for libraries functioning in theology and religious studies, makes publishing and performs digitalization of the books (<a href="https://www.atla.com">www.atla.com</a>).

<sup>&</sup>lt;sup>6</sup> "Principles In Maintenance and Use of Library Materials" that are determined by IFLA.

Because of the fact that the shelves on which books are places are timber, the gases exhaled from these shelves can give damage to organic based materials. As it is stated in the standards<sup>7</sup>, using steel materials shall reduce the risk of deterioration. Also, protection of the materials at locations without air conditioner, by which heating, cooling and ventilation are met, within acid-free boxes or within micro conditions, is a precaution preventing the deterioration<sup>8</sup>. This kind of protection method will also protect the materials against the fluctuations of temperature and relative humidity. Periodical ventilation is important both for the staff and the materials. Additionally, placing rolling blind in front of the window or sticking film at the windows in order to prevent direct sunlight are risk reducing precautions.

Another factor damaging the materials is dust and air pollution. Both of them are threats against human health and the health of the collections. Due to the dust is organic based and accordingly as it massed at inner locations, these spaces become available for fungi and bacteria (Sahoo, 1990).

Dust and polluters in tough nature, by giving harm to chemical deterioration of the materials and damage their structural properties.

Because of this, with the aim of examining the structure and density of the dust at inner locations, tests and measurements shall be performed; in case of having more deteriorating impact (mechanical deterioration) such as the physical structure of the dust is angled and dust density is high; additional measures such as filtering of the windows, routine alteration of the filter if there is an air-conditioning system, making frequent cleaning, wearing galosh, removing carpets that will cause dust should be taken. The determination of the dust is performed by dust exposure on sticky samplers and measurement of dust density in accordance with this exposure or by the help of dust and particle counting devices. Due to the fact that air polluters can be industrial and traffic based, they include sulfide-containing gases. Also gas-containing polluters can be exhaled from low-quality storage materials, packaging materials and other materials at that location. The studies for determination of existence of air polluters are made by gas measuring devices.

### 3.2. Biological Risk Factors

With the fact that organic based materials are much at library buildings as a microbiological activity, as it is combined with high relative humidity and temperature risk, by making knock-on effect, it causes growth of the damage. In this kind of situation, there is a space for easy reproduction of mold and fungi. Again, pests and rodents that can easily reproduce due to improper conditions at inner locations, can give harm to paper based materials. Organic materials such as paper, glue, leather, yarn are proper nutritional sources. Because of the remains of these micro organisms deteriorations such as color change, spotting, and yellowing can occur. In addition to this, it shall be learnt the types of micro organisms and against which locations they resist. Within the scope of "Insect Risk Management" against both micro organisms and pests and rodents, applications are performed in all of the library buildings. Against these pests, fumigation method shall be used once each year and inner locations shall be frequently cleaned and become more hygienic. Measures should be taken against the spores in certain periods (spring and fall). Wet clothes used in cleaning, drying these clothes at inner locations, entering by umbrella and wet dresses in rainy days, toilets at inner locations, visitor density, inadequate ventilation are the factors increasing relative humidity of that locations. With different solution offers in accordance with the size of inner locations, disinfectants that are easy to apply such as fumigation, hygienic condition shall be provided. The materials providing disinfection of this kind of a location shall be used. By immediately removing materials biological activity damage of which are determined, they shall be sent to conservation laboratory. Food and beverage at inner locations shall be prohibited.

#### 3.3. Man-made Risk Factors

Procedures for the protection of manuscripts, library materials and special collections have been published in Pitts Theology Library in Department of Theology of Emory University in Atlanta, USA. These procedures are under the title of material request, transportation and protection, duplication and publishing permission.

<sup>7</sup> "General Rules In Arranging Archive Locations According to Turkish Standards" (TS 13212) P.7, IFLA Principles In Maintenance and Use of Library Materials (1998) P.45.

<sup>&</sup>lt;sup>8</sup> It is one of the most crucial factors having impact on deterioration of acid-containing papers and volumes collections (Johnson, 2009)

Under material request procedures; it is stated that all of the manuscripts and library materials shall be held under lockers, support shall be taken from library assistants, the materials shall be open within definite periods, the researchers shall submit their application forms together with their identification cards, the materials shall not be given out of a definite border. Under transportation and protection of the materials procedure; it is stated that the researcher shall admit the responsibility of carrying the materials carefully, he/she shall protect the books taken from the library assistant in the order they are taken, he/she shall report the responsible assistant of rare/private collections in case of determining an irregular situation, he/she shall not rearrange the content of the materials; not defect, distort, fold the books or not leave a mark to follow up, it is obligatory to have limited number of book at each time, use of ink is prohibited; eating, drinking and smoking is banned; he/she has the right to use within certain hours, and he/she is subject to prosecution in case of damage and theft.

Within the scope of risks regarding transportation stated in the so-called procedures, it shall be provided that researchers are trained on transportation rules and warned about threats such as the current steps and ladders. Attention shall be given to proper packaging of library materials that will taken out within the aim of exhibition or conservation.

The conservators participating in the conservation team established with the aim of giving service to Pitts Theology Library of the Department of Theology in Emory University and in other Theology Libraries, are equipped by private equipment and personal accessories (private clothing, mask, glove) for the periodical maintenance of the books (www.pitts.emory.edu).

Proper storage of library materials (convenience of the storage shelves, measures against potential emergency/disasters, providing idealization of the inner location, etc.) is a prerequisite in terms of health of the materials. Training of the staff at storage areas shall be considered. Additional measures (Locating CCTV cameras, theft alarm, by pre-communicate with the police force and provide coordination accordingly) regarding providing security both at reading halls and storage areas shall be taken.

Additionally, training on hygiene shall be given to staff in order to avoid improper conditions that will lead to formation of microorganisms, pests and rodents.

### 3.4. Natural Disaster Based Risk Factors

The libraries can be damage severely or totally destructed due to natural disasters such as earthquake, fire, flood, thunder. Because of this, measures shall be taken against emergency conditions and disasters. Following a potential emergency condition or a disaster, it shall be aimed to sustain library and information services of the libraries. In the construction of new libraries, or in renovation and risk reduction at the current libraries which go on their performances by allocating a space within the building, disaster-oriented (earthquake, fire, flood, etc.) analyses shall be made.

In Turkey where 98% of the population lives in regions with high earthquake risk (www.jmo.org.tr), it is crucial to take structural or nonstructural measures against the earthquake. Earthquake is the primary disaster by being able to cause structural damage and the most life and property. Damaging of the nonstructural materials due to the quake occurring in accordance with diverse earthquake sizes at the buildings, makes many functions of the building dysfunctional. In case that slubbered and low cost measures are not taken, damages with high costs, life and property loss are caused. Because of this, together with bearing construction materials, brittle analysis shall be made for nonstructural materials, too. In accordance with the data obtained by these analyses, the materials shall be evaluated in terms of the security of the objects and people within the building and risk reduction shall be performed. By defining all risks, priorities shall be determined in accordance with the degree of influence".

Damages resulting from structural and nonstructural materials; bear risk for the collections, workers, readers and visitors at the libraries. Because of this, risk reduction shall be given priority, methodologies and techniques shall be developed in this respect and they shall be applied carefully.

As making risk evaluation at the libraries, the sources of these threats, who can be affected by them, the resulting effects shall be foreseen. In the emergency planning for the libraries, firstly, all of the risk factors shall be considered, by determining the priorities, implementation strategies shall be determined and made in written form. In these strategies; determination of key locations such as reading halls and storage areas; the status of the ground and building of the location of the museum, measures providing life security for users and staff, minimizing damage risk for the materials, preparation of disposal plans shall be stated.

In place selection for the library buildings, areas bearing risk such as stream beds, water basins, fault lines shall be watched out and if there are buildings that have previously been constructed at those areas, additional measures shall be taken for those. In addition to this, due to the fact that the installment has been established to the building later in library buildings serving within historical buildings, in due a potential disaster, because the installment is old and it is not periodically controlled, installment-based flood may occur. As new additions are made on the system with weak infrastructure, there is the risk that the system cannot stand on this and accordingly results with fire due to heating of the cables.

Because of the fact that the kitchen, cafes and materials used there can cause to risks such as relative humidity, temperature, fire, explosion, etc. they shall be taken away from exhibition and storage areas. All of the doors in the building shall be designed to be opened towards outside and not be damaged in fire, in interior design separators avoiding the spread of the fire and fire-retardant, non-toxic materials shall be used. At disposal corridors, the positions of heavy objects that may block the disposal, the locations of fire extinction systems shall be chosen carefully.

An effective minimizing fire damage strategy shall be realized. The rescuing priorities regarding the collections shall be determined. According to the prioritization in rescuing plans for Cornell University Library in New York by rank; strategies for rescuing rare materials, maps, reserve books, local historical books, formal documents, books, fictional books, periodic journals, daily materials in reading halls, index tables are determined (<a href="https://www.library.cornell.edu">www.library.cornell.edu</a>). Attention shall be given for designing of the fire extinguishing systems in a way to have minimum impact on aesthetical and architectural value of the historical library buildings.

In order to respond to disasters that develop rapidly and have deep impact, the institutions shall give great importance to disaster emergency planning. With the aim of reducing disaster risks, being ready, reducing damage, performances for intervention and rehabilitation shall be planned to make the libraries resistant against a potential earthquake, by sustainable rehabilitation of these plans within a scenario the most ideal plan shall be achieved. In order to do this, firstly, risks at library buildings shall be determined. In addition to large scale emergency situations, precaution shall be taken against threats such as roof leakage, pest infestation, theft, intoxication and fire by the institutions.

Within disaster preparation plan for Faculty of Theology libraries, strategies concerning, firstly, rescuing and evacuating the users / staff, then library materials in reading halls and storages and equipments and accessories used in library services shall be determined.

It is necessary that the libraries having no emergency plan shall immediately make plans containing measures increasing their capacities against a disaster is highly crucial for sustainability of the collections in their inventories. In order to achieve this, the reading halls and storages shall be transformed effectively (positioning of smoke, heat sensor, sprinkler, fire extinguishing systems, emergency labeling, etc.). The participation of all of the staff in revision plans and rehabilitation studies shall be provided.

Emergency plans shall be prepared separately for each of the disasters such as earthquake, fire, flood, etc. the floor plans and exit doors showing emergency exits shall be determined beforehand. By determining areas where library materials to be rescued in the first priority, it shall be written. Emergency staff and equipments and materials to be used shall be made ready. The plans shall be determined by minimum one supporting staff being well-equipped and having private training each of the search and rescuing and disposal and fire fighting within the library within the scope of the Regulation on Emergency At Workplaces<sup>9</sup>. By providing performance of an operation on the utilization of these, the determination of missing parts of the action plan is required. By determining contact people of emergency services such as first aid, police forces, Prime Ministry Disaster & Emergency Management Presidency of Turkey (AFAD) Directorates, Fire Departments and other Municipality Units that will be contacted in emergency cases, coordination shall be provided. These kinds of emergency plans are living processes and in case of not making corrections and rehabilitation on them, the roles are not determined (missions and responsibilities) it may not be possible to achieve success in due a potential emergency situation/disaster.

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<sup>&</sup>lt;sup>9</sup> 11th article of the Regulation published in Official Gazette with the date of 18 June 2013 and the number of 28681.

With the development of technology, as the result of improvement in digital recording devices and materials and having larger data storage capacity, "digitalization" becomes more crucial. The protection of library materials bearing great risk in terms of protection problems by backing up at digital database, provides that greater masses utilize from the libraries. Digitalization of rare books /manuscripts in Theology Libraries is a method to minimize damages resulting from frequent use of the libraries and presentation of the current books as electronic books will provide facility for the staff and researchers.

## 4. Faculty of Theology Libraries in Turkey

In Turkey Faculties of Theology performing training and education currently, give service with the Departments such as Main Islamic Sciences, Philosophy and Religious Sciences, Islamic History and Arts. In this study, Faculty of Theology libraries in 51 universities in Turkey within the education period of 2013-2014 are analyzed<sup>10</sup>. These are in alphabetic order as the Faculties of Theology within; Abant İzzet Baysal, Akdeniz, Amasya, Ankara, Artvin Çoruh, Atatürk, Balıkesir, Bayburt, Bingöl, Bozok, Bülent Ecevit, Celal Bayar, Cumhuriyet, Çanakkale 18 Mart, Çukurova, Dicle, Dokuz Eylül, Dumlupınar, Erciyes, Erzincan, Eskişehir Osmangazi, Fırat, Gaziantep, Gaziosmanpaşa, Gümüşhane, Hakkari, Harran, Hitit, Iğdır, İnönü, İstanbul, Kafkas, Kahramanmaraş Sütçü İmam, Karabük, Karadeniz Teknik, Kastamonu, Kilis 7 Aralık, Marmara, Necmettin Erbakan, Nevşehir, Ondokuz Mayıs, Pamukkale, Recep Tayyip Erdoğan, Sakarya, Siirt, Süleyman Demirel, Şırnak, Trakya, Uludağ, Yalova, Yüzüncü Yıl Universities<sup>11</sup>. The Faculties of Theology of Kyrgyzstan-Turkey Manas, Cyprus Near East operate out of Turkey.

Within the scope of the study, the communication; that can be deemed as rapid evaluation<sup>12</sup>; with library experts, custodians, faculty secretaries and academicians is achieved by telephone and electronic mail (December, 2013). In all of Faculty of Theology, a library is present. In these libraries Turkish, Arabic weighted books are present. The books are obtained by donation and purchasing. Especially the donations of the retired members contribute much to enrichment of Faculty of Theology Libraries. The recently founded libraries require books. Among these libraries, catalog scanning for the Faculties of Theology of Ankara, Atatürk, Cumhuriyet, Dokuz Eylül, Erciyes, Hitit, Marmara, Necmettin Erbakan, Ondokuz Mayıs, Recep Tayyip Erdoğan, Sakarya, Süleyman Demirel, Uludağ Universities can be made online.

Because a part of the Faculties of Theology has newly been founded, they do not have their own buildings, so they temporarily give service in the buildings of other Faculties. Accordingly, as they move to their own buildings, they will give healthier, therefore the classification of the materials are planned to be made at their new locations. To provide that these libraries function physically, the request for new furniture, cabinets, etc. have been made, and the demand for purchase of new books have been done. There are university faculty of theology libraries which function by transferring the library into University Central Library (Eskişehir Osmangazi Faculty of Theology), which opened library within Faculty of Theology of University Central Library (Yüzüncü Yıl Faculty of Theology), which function by setting place for Faculty of Theology at Central Library of the University (Gümüşhane University Faculty of Theology), function in common ground with another Faculty (Şırnak University Faculty of Theology).

General problems determined in these libraries;

- They don't have their own buildings,
- Catalog and inventory studies go on,
- Physical inadequacy,
- Tender process for obtaining the books go on,
- They have no web sites,
- They have no digitalization units.

<sup>&</sup>lt;sup>10</sup> 2013-OSYS (Student Selection and Placement Center of Turkey) Guideline For Additional Placement to Higher Education Programs

<sup>&</sup>lt;sup>11</sup> Faculties of Islamic Sciences established by the Decree of Board of Ministers and functioning by obtaining students by additional placement are not included in this study.

<sup>&</sup>lt;sup>12</sup> Rapid evaluation can be made in library science by telephone, fax and electronic mail (Singer, 2002).

As the number of books in Faculties of Theology Libraries the classification procedure of which have not bneen completed are analyzed, it is found that the highest number of books are in Marmara University Faculty of Theology with 117.267 books, and the lowest number of books in Bayburt University Faculty of Theology with 700 books. As manuscripts are analyzed, Ankara University Faculty of Theology has the highest number with 1.700 and the lowest number is owned by Hitit University Faculty of Theology with 7 manuscripts. With the fact that only 27 of 51 Faculties are found to serve as private libraries to Faculties of Theology, Faculties of Theology libraries recently functioning are taken under the analysis.

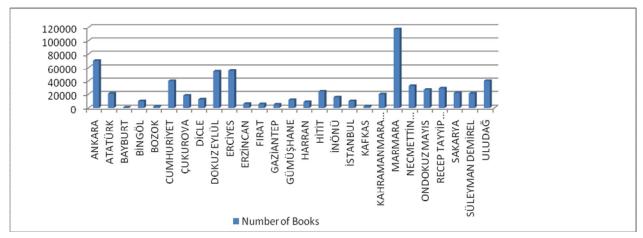


Figure 1: Graphic on number of books in Faculties of Theology Libraries

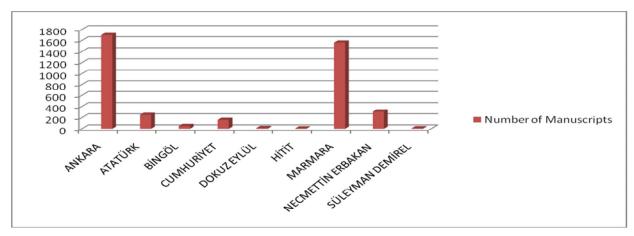


Figure 2: Graphic on Number of Manuscripts in Faculties of Theology Libraries

With the fact that as the number of inventories in libraries increase, control risks will also increase, risk evaluation shall be made accordingly. Additionally, in case of a potential emergency situation/disaster, the size of the inventory will also complicate the disposal (Kahn, 2008). If the information about the type and amount of library materials and their current locations (being borrowed, in restoration, in reading halls, at the shelf, etc.), the information regarding the security of the work will also be inadequate. <sup>13</sup>

As taking the security risks<sup>14</sup> according to the size of the collection inventory as the basis, it is stated as According to degree of priority of risk regarding **number of books**; 1-1000 low risk: 1 points

<sup>&</sup>lt;sup>13</sup> According to a research made in 225 libraries in USA it is seen that the most remarkable problem in libraries is theft (Kent, Lancour, Daily, 1975). In UK, Association of British Theological and Philosophical Libraries (ABTAPL) stresses that common issue is inadequate storage area, and draws attention on taking measure against theft in Theology Libraries containing rare and precious archive materials (Gale and Reekie, 2008).

<sup>&</sup>lt;sup>14</sup> These security risks: In case of emergency situation/disaster risks physical risks such as combustion, wetting, dropping, crashing, theft due to inadequate security, sabotage and inadequate storage.

1001-10.000 medium risk: 2 points 10.001-50.000 high risk: 3 points Over 50.000> extreme risk: 4 points

According to degree of priority of risk regarding **number of manuscripts**<sup>15</sup>;

1-50 medium risk: 2 points 51-100 high risk: 3 points Over 100> extreme risk: 4 points

According to this analysis, a score table in which risk scores are determined is obtained (Table 1).

Table 1: Risk score in Faculties of Theology Libraries According to Number of Books and Manuscripts

<b>Faculty of Theology Libraries</b>	Number of Books	Risk Score	Number of	Risk	Total Risk
			Manuscripts	Score	Score
Ankara University	70000	5	1700	4	9
Atatürk University	21000	4	250	4	8
Bayburt University	700	1	0	0	1
Bingöl University	10000	2	50	3	5
Bozok University	2000	2	0	0	2
Cumhuriyet University	40000	3	160	4	7
Çukurova University	18000	3	0	0	3
Dicle University	12500	3	0	0	3
Dokuz Eylül University	53963	4	15	2	6
Erciyes University	55000	4	0	0	4
Erzincan University	5955	2	0	0	2
Firat University	5611	2	0	0	2
Gaziantep University	5000	2	0	0	2
Gümüşhane University	11599	3	0	0	3
Harran University	8629	2	0	0	2
Hitit University	24000	3	7	2	5
İnönü University	15562	3	0	0	3
İstanbul University	10000	2	0	0	2
Kafkas University	2500	2	0	0	2
Kahramanmaraş Sütçü İmam University	20000	3	0	0	3
Marmara University	117267	4	1562	4	8
Necmettin Erbakan University	32752	3	308	4	7
Ondokuz Mayis University	27168	3	0	0	3
Recep Tayyip Erdoğan University	29285	3	0	0	3
Sakarya University	22000	3	0	0	3
Süleyman Demirel University	21000	3	10	2	5
Uludağ University	40000	3	0	0	3

In the prioritization made according to this scoring, by ranking; it is evaluated in terms of risks against the number of inventories in Atatürk-Marmara, Cumhuriyet-Necmettin Erbakan, Dokuz Eylül, Bingöl-Hitit-Süleyman Demirel, Erciyes, Dicle-Gümüshane-İnönü-Kahramanmaras Sütçü İmam, Ondokuz Mayıs-Recep Tayyip Bozok-Erzincan-Fırat-Gaziantep-Harran-İstanbul-Kafkas, Erdoğan-Sakarya-Uludağ, Bayburt Faculties of Theology Libraries. Development of control mechanisms bound to the number of inventories in these libraries (emergency measures) and increasing security measures shall be provided being libraries having the highest risk score in the first priority.

<sup>&</sup>lt;sup>15</sup> By underestimating material values of manuscripts, scoring is performed only by the numbers. With the fact that no low risk is considered regarding manuscripts, no low risk scoring is foreseen in the risk analysis. 222

### 5. Discussion and Conclusion

In the rapid evaluation method performed for Faculties of Theology Libraries of the Universities that are the crucial scientific establishments, physical conditions of the current libraries (whether they are functioning or not, number of the collections, content of the collections, etc.) are analyzed. With the rapid evaluation, detailed questionnaires shall be prepared to analyze whether inner comfort conditions and adequate experts are present in the hall where books and rare books are located and in storage conditions or not. In case that inadequate protection conditions are present, strategies shall be developed for rehabilitation of these conditions. Participation of all of the library staff and the administrators to risk evaluation and damage reduction shall be provided.

Because of not taking adequate measures within the scope of preventive protection, not recognizing value and importance of the materials, lack of consciousness occurs. In issues such as storing, inventory follow-up, transportation, cleaning, selection of material experts shall be trained. If there are materials to be damaged, the foundation of a laboratory within the university for conservation of these; if this cannot be obtained, utilizing the staff as common association or service procurement shall be provided. With the aim of learning protection techniques, short-term workshops, seminars, conferences shall be held.

The administrative procedures containing orders for the utilization, transportation, duplication, rescuing in emergency shall be faultless. If the indoor conditions of the materials (temperature, relative humidity, dust, vibration, air pollution, etc.) are not in ideal values, methodologies shall be developed for optimization of the conditions. Especially fluctuations of temperature and relative humidity shall be watched out carefully (by spot analyses and stable measuring devices). By the protection recommendations that will be brought as the result of this follow-up physical, biological and mechanical deterioration of library materials shall be minimized.

The risk of tumbling of the shelves and other furniture fittings and accordingly the materials that is a nonstructural risk in library buildings, the risk of dropping of ceiling materials, fire risk; risks resulting from pipe and cable systems due to air conditioner and cabling, suspended ceiling, fire pipes and equipments, sanitary pipes, and lighting system connections shall be evaluated. The damage of nonstructural construction materials in case of earthquake will be threat both for people and objects for themselves and their surroundings. In order to avoid risks resulted from connection and assembly, whole of the pipe system in library buildings shall be examined periodically.

It is crucial to choose fire rated and resistant materials. It is a priority to establish fire detection systems such as temperature, smoke sensors and sprinkler system. Additional measures shall be taken against fire and earthquake risks in air-conditioning, heating and generator systems in library buildings. The potential fire sources shall be determined and old electric installation shall be renewed.

Regarding the security risks stated in the study; short, medium, long term strategies shall be developed for physical damages in emergency/disaster risks (setting prerecognition and monitoring systems against fire, earthquake and flood risk) and risks such as theft due to inadequate security, sabotage. By the help of training, increase in the consciousness level of the workers and library users shall be provided.

Establishment of digitalization units for rare materials within Faculties of Theology even if they are damaged in a potential earthquake. Within the scope of increasing number of books in the libraries, the increase of donations (donations by member of faculty, publishers, etc.) shall be provided.

Dissemination of the systems providing opportunity for scanning of the whole of the inventory of the university library online shall be provided. In accordance with minimizing the risks on library materials by these studies, increase of the level of consciousness shall be aimed, arrangements providing the most efficient and easy access to libraries shall be made.

## 6. References

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