INTRODUCTION

The Electronic Theses and Dissertations (ETD) initiative came into being after the development of electronic publishing on the internet and the technological platforms and software that support it (Reeves, Hagen & Jewell, 2006). The idea of ETD submission was first mentioned in 1987 by Universal Microfilms Inc (UMI) in the United States. Twenty years later, many institutions have adopted this initiative. The Networked Digital Library of Theses and Dissertations (NDLTD) was established in 1996 with a mission to coordinate ETD-related activities and support the adoption and implementation of the ETD initiative (Allard, 2003; Suleman et al., 2001). In 2006, NDLTD had more than 233 members from all over the world (Reeves et al., 2006). These included institutional, consortial and individual members.

More and more academic institutions have started to adopt and develop ETD programmes all over the world. The rapid adoption and development of these programmes is influenced by many factors. This paper discusses the contextual factors that have been found to influence the adoption of ETD programs in the Arab Gulf States.

OBJECTIVE

This paper is part of a larger research project that examines the adoption of ETD programmes in the Arab Gulf States. To date, no qualitative or quantitative research has been undertaken in these states to explore factors influencing ETD adoption. This paper examines contextual factors influencing the adoption of ETD programs specifically in the Arab Gulf universities.

METHODOLOGY

The study is primarily qualitative, using semi-structured, face-to-face interviews in conjunction with the analysis of relevant documents to identify, develop an understanding of, and create a picture of the situation in the Gulf States in terms of the factors affecting the adoption of ETD programmes. The interviews cover the key stakeholders, which include postgraduate students, library managers, system administrators, postgraduate officers and academic staff. Forty-five participants from five universities (Sultan Qaboos University, United Arab Emirates University, Imam Muhammad bin Saud Islamic University, University of Bahrain, and Kuwait University) in the Gulf States were interviewed.

The results of the interviews informed the second phase of the study (online survey). The primary aim of this was to test and explore, in a larger sample, the issues identified in the interviews. Three hundred and nine participants from four universities in the Gulf States.
completed the online survey. The results of the survey helped to confirm and complement the findings of the interviews.

This research employed a technique called constant comparative analysis to analyse the interview data. This approach offered a sound framework for working with a large amount of descriptive data. According to Pickard (2007), this technique involves taking one piece of data and judging it with all others that may be related or diverse in order to develop conceptualisations of the potential relations between pieces of data.

Simple statistical tests were used to analyse the survey findings. According to Pickard (2007), the descriptive survey method does not lend itself to more sophisticated statistical analysis. Statistical Package for the Social Sciences (SPSS) software was used for data analysis. Several statistical techniques were used for analysing the questionnaire data including descriptive statistics and an analysis of variance (One Way Anova) test, which is used to explore the possible differences in the five groups’ perceptions.

**FINDINGS**

Research participants identified several factors, including contextual factors, influencing the adoption of ETD programmes in the Arab Gulf States. These factors include misunderstanding of plagiarism, strong economy, recency of research programmes, and younger society. The following subsections discuss these factors.

**Misunderstanding of plagiarism:**

Concerns were raised on the issue of plagiarism. About two thirds of the survey respondents (67.3% n=163 out of 242) and less than half of the interviewees indicated that theses would be more vulnerable to plagiarism when published electronically. This finding confirmed the literature findings. Postgraduate students and their supervisors argue that plagiarism and misuse are facilitated by making theses and dissertations electronically accessible through the web (Bandara, 2008; Copeland, Penman & Milne, 2005; Friend, 1998; Jewell, Oldfield et al., 2006; Lippincott, 2006). The research participants highlighted several reasons for their concerns. For example, they reported that the appropriate policies to protect theses online had not been implemented in the Gulf States. They explained that if the appropriate policies were in place, concerns regarding plagiarism would be alleviated.

The survey respondents were asked to rate the effectiveness of adopting the following policies in eliminating the possibilities of plagiarism (Figure 1). In general, the majority thought that these policies would be very effective. Establishing appropriate plagiarism policies received the most support from the participants (92.8%, m= 4.29 n=217 out of 234), followed by creating access restrictions (72.6%, m= 3.59 n=169 out of 233), making access exclusive to registered library users (64.2%, m= 3.40 n=136 out of 212), and providing only the abstract (57.5%, m= 3.22 n=119 out of 207).
This highlights the importance of the existence of appropriate policies and the fact that the participants’ perceptions regarding plagiarism are influenced by an institutional factor (the availability of appropriate policies). This lack of appropriate policies, in turn, could have been influenced by a contextual factor (due to the relatively recent establishment of research programmes in the Gulf States). Five interviewees also added that people in the Gulf States did not fully understand the concept of plagiarism. One academic explained that students in the Middle East and in the Gulf States do not understand the concept of plagiarism and, thus, believe that copying without referencing is legal. In the Gulf States the culture requires free sharing of knowledge. Due to this cultural value, people lack awareness of plagiarism. This can also be categorised as a contextual factor that influenced perceptions concerning plagiarism. As a result, issues of plagiarism were perceived as a possible barrier to the adoption of ETD programmes in the Gulf States.

**Strong economy:**

With regard to financial resources, the majority of the research participants (both the interviewees and the survey respondents) indicated that the availability of financial support would be one of the major enablers to the adoption of ETD programmes in the Gulf States (98.5% n=132 out of 134, m= 4.45). The survey respondents also perceived and rated the lack of financial resources as the most significant barrier that could negatively affect the adoption of ETD programmes (m= 4.33). Allard (2003) stated that some of the institutions surveyed could not establish an ETD programme and others decided to withdraw from ETD programmes due to funding problems. The interviewees explained that the availability of sufficient funding would allow the university to provide all the required resources, especially the technological infrastructure, such as scanners, storage devices, and security systems. About two-thirds of the survey respondents also indicated that the financial resources were adequately available at their institutions. This is influenced by a contextual factor since the Gulf States are categorised as have strong economies compared to other developing countries. They are also have strong economies in relation to their small populations. These six states have some of the fastest growing economies in the world. This is mostly due to recent discoveries of and investments in oil and natural gas. The following table provides an overview of the Gulf States.
In addition, the majority of respondents stated that the financial cost of the technological infrastructure for ETD programmes was not burdensome compared to its cost in the past. Based on these findings, availability of financial support was perceived as one of the major enablers to the adoption of ETD programmes in the Gulf States.

Recency of research programmes:

Most of the academic institutions in the Gulf States were established in the last few decades. In addition, colleges and universities started with bachelor programmes and the postgraduate programmes were introduced at a later stage only. As a result of this, the quality and the quantity of theses and dissertations were low, and there were shortage of the appropriate polices and the qualified staff. The following sub-sections discuss these consequences.

Low quantity of theses

The number of theses and dissertations was perceived as a possible barrier to the adoption of ETD programmes in the Gulf States by several interviewees. These participants highlighted that the number of postgraduate students and theses were as yet not at the extent sufficient to warrant the adoption of an ETD programme. The reason given for the small volume of theses was the relative recency of the initiation of research programmes. For example, postgraduate programmes at Sultan Qaboos University started in the 1992/1993 academic year with only 35 students (Ministry of Higher Education, 2007). In addition, one academic explained that postgraduate programmes were not held in the same regard as undergraduate programmes given the limited number of postgraduate students compared to undergraduate students. For example, there were 9,119 registered students in all programmes at Qatar University, but only 199 were registered students for master’s and PhD programmes in the 2010/2011 academic year. Another academic added that postgraduate programmes had been suspended for several years and resumed only in the last few years. For these reasons, these interviewees specifically, thought that the adoption of ETD programmes at that time would be ill-advised. Based on these given reasons, it can be said that due to their newness the research programmes in the Gulf States are not mature. As a result of this newness and the low priority given to these programmes, the small quantity of theses and dissertations was perceived as a possible barrier to the adoption of ETD programmes in the Gulf States. Therefore, the issue of theses quantity was influenced by contextual factors, namely, the newness of research programmes in these states and the low priority given to them.

However, the majority of the survey respondents indicated that the limited number of theses and dissertations would not affect negatively the adoption of ETD programmes. It was perceived and rated by the survey respondents as the least important factor with potential to negatively affect the adoption of ETD programmes in the Gulf States (m = 2.51). This variance in the perceptions of interviewees and survey respondents could be reflective of the passage of time between conducting the interviews (in 2008) and distributing the survey (in 2010). This reflects the fact that the number of postgraduate programmes as well as the number of postgraduate students has increased over the last few years. This conclusion is supported by the statistics of postgraduate students in the Gulf universities. For example, there were 1,574 registered students for master’s and PhD programmes in the 2005/2006 academic year at the Al-Imam Muhammad
However, this number increased to 4,711 registered students for master's and PhD programmes in the 2009/2010 academic year. Therefore, the number of postgraduate students was perceived and rated by the survey respondents as the least important factor with potential to negatively affect the adoption of ETD programmes in the Gulf States (m = 2.51).

**Low quality of theses**

One of the possible barriers perceived by more than half of the survey respondents were concerns about the perceived quality of theses and dissertations.

More than half (57.6%, n = 57) indicated that the quality of theses would negatively influence the adoption of these programmes (Figure 2).

![Figure 2: The influence of thesis quality on the adoption of ETD programmes](image)

The interviewees indicated that universities might hesitate in publishing poor quality theses and dissertations electronically since such works might damage the reputation of these institutions. In particular, students who believe that their theses may be of a poor quality might hesitate in participating in ETD programmes due to concerns that this would enable other individuals to read and criticise their work. A number of interviewees explained that academic staff may have less experience with research and, at the same time, be unable to dedicate the same time and effort in evaluating and reviewing their students' work. Therefore, theses are submitted without comprehensive evaluation and revision. In other words, the perceptions of low quality of theses and dissertations were influenced by a contextual factor, namely, the newness of the research programmes in the Gulf States. Due to this newness, academic institutions and advisors had less experience with research programmes. Therefore, the participants were not confident that the outcomes of these research programmes would meet international standards.

**Shortage of appropriate policies**

With regard to the shortage of appropriate policies, a number of interviewees and about half of the survey respondents (45.2%, n = 62 out of 137) indicated that obtaining copyright permission from students would be difficult. Explanations given were that their institutions did not have the appropriate policies in place to give the university the right to publish students' theses and dissertations. This lack of relevant policies is influenced by the recency of the establishment.
of research programmes in the Gulf States. This can be categorised as a contextual factor that influenced the establishment of the appropriate policies, which, in turn, influenced the participants’ perceptions regarding gaining copyright permissions.

**Shortage of qualified staff**

Another issue related to this factor is the shortage of qualified staff and appropriate technological infrastructure. As the results indicate, a minority group of the participants (38.3%, \( n = 36 \) out of 94) perceived that the greater challenge lay in the shortage of qualified staff to perform the technological processes as well as deficiencies in the necessary technological infrastructure and policies. Therefore, the lack of availability of these resources was seen as compounding the difficulties of the technological processes. This lack of resources could be due in part to the newness of these institutions, especially in terms of their electronic services. This, in turn, can be categorised as a contextual factor since most institutions in the Gulf States were established quite recently.

**Younger societies:**

According to the research findings, about two thirds of the interviewees indicated that they had the confidence to adopt new technologies from the outset, especially if they were deemed to be highly beneficial to them and their institutions. This finding indicates that the appreciation of the benefits of any new technology helps to reduce people’s resistance to using these new technologies. As the results highlighted, a number of the research participants indicated that some individuals, in particular older academic staff, might be reluctant to use new technologies. This cultural value can be outweighed by promoting the benefits of these new technologies. The interviewees also explained that the use of electronic services was very common at their institutions and, thus, the adoption of ETD programmes would be considered as an additional electronic service. On the other hand, roughly one third of the interviewees expressed concern about using new technologies before others had used them. They believed that new technologies might entail certain problems and, therefore, preferred to wait to evaluate the experiences of others. In addition, about half of the survey respondents (50.6%, \( n = 94 \) out of 186) also indicated that people’s resistance to new technologies would be one of the possible barriers that could negatively affect the adoption of ETD programmes in the Gulf States. However, according to Lutz (1998), recognition and appreciation of the benefits of unfamiliar technology help alleviate reservations with regard to use. Thus, the appreciation of the benefits of ETD programmes could help stimulate willingness to use these. Therefore, there is a need to conduct promotional activities to convince people of the benefits and the importance of ETD programmes in order to motivate them to use this new technology.

The research participants (both the interviewees and the survey respondents) also indicated that older staff who have worked in the university for long time might be more resistant than younger staff. Several interviewees explained that older staff were used to performing tasks manually and did not have much experience in the use of new technologies, while younger staff, having grown up around such technologies, were more familiar with these and would express fewer reservations with respect to their adoption. There is a broad similarity between this finding and the literature review. Muinde (2009) found that institutions headed by managerial staff of a younger age were adopting new technologies faster than those headed by older managers. However, it is worth noting that the issue of resistance on the part of older staff was raised by younger staff members during the interviews, while older personnel themselves did not evidence such resistance to using new technologies. It is possible that younger staff members were used to perceiving difficulties on the part of older staff in accepting new ideas. It is also possible that older staff preferred not to present themselves as a part of the problem. It is important
to highlight here that population statistics in the Gulf States show that the Gulf societies are dominated by younger persons. Young persons account for more than 30% while people aged over 65 represent less than 1.5% of the population (GCC, 2011). Therefore, the adoption of ETD programmes is expected to be more straightforward and rapid in these societies owing to the increased familiarity of younger generations with new technologies having grown up around these, and thus fewer reservations with respect to their adoption would be anticipated.

In general, the survey respondents perceived and rated the issue of resistance to using new technologies as one of the least influential in negatively affecting the adoption of ETD programmes in the Gulf States (m = 3.03). Therefore, the uncertainty of using new technologies was not perceived as a major barrier that could negatively affect the adoption of ETD programmes in the Gulf States.

CONCLUSION

In conclusion, the research participants highlighted contextual factors that influence the adoption of ETD programmes in the Arab Gulf States. The findings show that interviewees and survey respondents in the Gulf States misunderstand the meaning of plagiarism and thus, think that copying without referencing is legal. This suggests that academic librarians in the Gulf States should consider offering courses on copyright in an academic context to resolve this misunderstanding.

In addition, due to the recent discoveries and investment in oil and gas the Arab Gulf states have strong economies in relation to their small population. This could help provide the entire technological infrastructure required to adopt ETD programmes. Furthermore, in alignment with the literature findings, younger people adopt new technologies faster than older people. The six Gulf States are dominated by younger persons. As a result, having strong economies and younger societies could be enablers to the adoption of ETD programmes. However, the recent establishment of postgraduate programmes in these states had negative consequences. Such consequences included low quantity and quality of theses and dissertations, shortage of appropriate policies, and shortage of the qualified staff. Nevertheless, in time, these consequences could be alleviated.

The findings revealed that the research participants (both the interviewees and the survey respondents) thought that older staff might be more resistant to the use of new technologies than younger staff. However, the online survey did not ask the respondents about their age in order to determine if this resistance to the use of new technologies increases with age. Therefore, this paper recommends further investigation on older staff’s resistance and younger staff’s enthusiasm with regard to the use of new technologies. Understanding factors that contribute to their resistance could provide insights for promotional programmes targeted at older staff.

REFERENCES


