THE IMPACT OF INFORMATION TECHNOLOGY ON LIBRARY MANAGEMENT: A MARKETING PERSPECTIVE

Aremu, Mukaila Ayanda  
Department of Business Administration,  
University of Ilorin, Ilorin

Saka, Hammed Taiwo  
University Of Ilorin Library

Abstract
The analysis of information technology has important implications for marketing in the identification of a library's competitive position. This paper demonstrates that effective use of Information Technology (IT) will enhance the current operations of university library and assist the library users to carry out their various activities in the library. The prime objective of this paper is to examine the potential impact of Information technology on library management for the purpose of marketing University library and library services. The research study focuses on analysis of perception of 485 users of University of Ilorin library. The result of the investigation reveals that the critical success factors for University libraries in the strategic time-frame will be a type of technology management that requires a high degree of integration within the areas of user-oriented services (marketing) and personnel competence. The paper concludes that Information technology and marketing are relatively new strategic weapons for libraries. The results show that information technology will assist university library strategically for competitive advantage, operational efficiency and help users to cope with the technological changes.

Introduction
The effectiveness of management of library information is accomplished by a combination of basic management functions, roles and skill. The fundamental structural change caused by information technologies not only affects the technical services of libraries but also shapes the library services that are being offered to the public. Libraries are possibly faced with a much more dangerous kind of competition than the one customary among direct competitors: the substitution competition caused by new information technologies.

Information technology (IT) is a strategic resource that facilitates major changes in competitive behaviour, marketing and customer service. In essence, IT enables a firm to achieve competitive advantages. Information technology is a resource that links the "marketing orientation" and "technology exploitation" of an organization, which clearly has to be harnessed and managed correctly (Barnes, 1993; Clear and Votel, 1990; Oasis, 1989).

Management skills are needed when dealing with all types of organized activities and all types of organization indeed, managing a library requires similar management skills to managing a football team or a large local government authority; Bryson (1990). Every organization is usually set up with specific goals and objectives. It therefore becomes
the primary duty of those charged with the implementation of those goals and objectives to ensure not only that the goals and objectives are possible but also that the goals are achieved. According to Martell (1989) the advent of information technology encourages improved dissemination of marketing expertise, through improving marketing analysis, enquiry handling, product planning, etc.

One of the key contributors to future library success, for state owned polytechnics and university libraries will be the exploitation of IT, which will facilitate the use and management of information. Through the use of IT, libraries are presently re-engineering the way in which they carry out their activities. Marketing functions (for example, stock handling, sales ordering and logistics, market research and product planning) lend themselves easily to automation and information technology (Martell, 1989). Many marketing functions require an organization to constantly monitor information from the business and the environments in which it participates. Such information allows the company to adjust its offering to match the customer needs, at a profit. Since IT is also about information, information technology can and should facilitate marketing management and customer service. In essence, information technology can act as a powerful catalyst for improving and advancing customer service (Earl, 1989; Humble, 1991; Lalonde et al., 1988; Oasis, 1989). As articulated by Barnes (1993, p. 45), successful marketing practice must tackle the dual challenges of marketing information and customer service. Marketers will have to place their emphasis on obtaining accurate and timely information about customers and markets and on providing precisely the type and level of service that customers want.

The aim of management in any organization is to solve problems, and thereby ensuring that the mission and objectives of the organizations are accomplished. However, even in non-profit organizations, management practices are very important, since without them the goals of such organizations might not be achieved. Intangible goods such as education, social services, public protection, and recreation are often the primary aim of not-for-profit organizations. Although these and similar organizations such as university library may not have to be profitable to attract investors, they must still employ sound management practices if they are to survive and work towards their goals.

Libraries are social institutions, created to conserve knowledge; preserve the cultural heritage; provide information and underpin education and research; and to serve as fountains of recreation. Recently, libraries are conceived not as archives or reading-rooms, but as “the foyer of living ideas that permeate and animate all aspects of national life (Ikoku 1991). Thus from the foregoing, the prime objective of this paper is to examine the potential impact of Information technology on library management for the purpose of marketing library services.

**Theoretical Framework**

A library management system is a significant investment for library. Hitherto, the literature of librarianship was full of articles on library administration. Library schools also had courses on library administration only. However, now things have changed, librarians have changed and decided to move with the times and so we now have management courses taught in library schools and management principle practiced in libraries.

Library job nomenclature hardly has the word “manager” attached to any post, at least not in our immediate environment, management positions do exist. The people who are placed in such positions invariably apply management principles and practice in their work. In the university library, Head of Administrations, Head of Sections, and even shift heads are not management positions. Evan (1976) said that the profit and loss statement does not exist for library; but the need for good managerial skills is just as critical in the library as it is in a profit making organization.
Librarians are veritable mediators between man and information resources that have been produced through generations. Thus the main objective of the librarian is to maximise the social utility of these records of human culture for the benefit of humanity. Libraries are living agencies of progress, cultural enrichment and public enlightenment. They are embedded in the foundations of the cultural process and form part of the foundation of a civilized life (Aguolu and Aguolu 2002).

We live in an age of options. A host of competitors compete to satisfy our wants and whims. We may choose products and services based on familiarity, comfort, trust, and satisfaction. However, rapid innovation, sophisticated marketing, and advances in communication result in an increasing awareness of new options and a greater variety of choices. Thus we may abandon our traditional choices for new products and services based on curiosity, effective marketing, and evidence of a clearly superior option. The ability of businesses and organisations to promote their services or to make potential users aware of their products can mean the difference between success and extinction (Kotler, 1997).

Do the tribulations of market competition also apply to traditionally well-regarded non-profit institutions such as college or university libraries? Though long considered well insulated from the storms of entrepreneurial competition, the academic library profession is now finding alternative information providers eroding their user base (Coffman and McGlamery, 2000; Gibbons, 2001; Mercado, 1998). Information costs are wreaking havoc with the budgets of most university libraries (Bosch and Simons, 1996). On many campuses, competition for funds and the stewardship of information is threatening the heretofore-inviolate role of the library as an essential information provider within the academia. For the current generation of college students the university library is but one of many information providers (OCLC, 2002).

For the current generation of university and their various faculties, library is becoming an increasingly unfamiliar locale - providing ever more complex and complicated information tools while simultaneously reducing traditional formats of information such as the print journal (Hagner, 2000; Morton, 1997). For the current generation of university administrators, the library is another mouth to feed, perhaps to be subsumed under a campus IT unit (Renauld, 2001). Alternatively, the university administration may view the library as just a quaint repository for books and a provider of quiet study space whose role as a primary information provider has been superseded by the Internet (Hawkins, 2001, Stone, 2002).

Librarians and information specialists now argue that to ensure a prominent position within the future world of academia, library faculty must market their skills, services and resources (Brunsdaile, 2000; Dodsworth, 1998; McCarthy, 1994; Rowley, 1995). Without effective ongoing public relations, academic libraries may appear less relevant and less necessary to future generations of students, faculty and administrators.

**Promoting Library Marketing in a University**

Library marketing efforts appeared to have no discernible impact on the circulation of library materials. There is need for marketing of library instruction in this university and promotion of library instruction through the faculty and university’s newsletter. During the last 50 years interest in marketing theory and practice has been steadily increasing. This interest has deepened because of the popularisation of the term "marketing" and greater expansion and sophistication in its practical use. Consumers' choices have become a major concern for business organisations and meeting consumers' needs is now considered the main objective of enterprises. The realisation of the importance of consumers' dictates has eased the path towards the marketing concept and market orientation.

Tangible evidence of the benefits to be accrued by marketing a university library waits further and perhaps more detailed study. However, it might be argued that it is the many intangible benefits of library promotion that will have a larger and more long-term positive
impact. When university administrators understand and value the mission of the university library, the role of the library will more often appear as a vital element within the plans, goals and objectives of the university. When the role of the library is seen as an essential one by university administrators - financial support is more likely. As university is made more aware of the full potential of their library - their curricula and research are enriched. University administrator must equipped library with library resources and services and also supports library initiatives and encourages their students to make regular use of the library. As students take more advantage of library services and resources, their horizons are broadened and their appreciation of libraries in general is strengthened - thus possibly ensuring long-term support for libraries when these students later assume decision-making roles.

An effective marketing program requires the devotion of energetic planners and participants. Significant employee work hours must be focused on the development and execution of each new marketing initiative. Effort is the price that must be paid for successful library promotion.

If a university library is successful in promoting its resources and services, those resources and services will receive more use. This is not problematic for certain resources such as unlimited-use online databases where the library is relatively unaffected by increased demand. However, for services provided directly by librarians such as reference, circulation, instruction, distance education support, and inter-library loan, increased demand can have a significant impact. As librarian mediated services are promoted, expectations on campus may result in demands for extended hours and faster, more efficient service. The promotion and provision of new resources such as online journals, e-books, full-text databases, and workstations may also increase expectations for yet more of these resources. As a non-profit institution the university library is unable to realise increased revenue as a result of increased demand. Without additional funds, increased expectation may go unmet. Though it may be possible to meet new expectations through funding from grant-giving agencies and from the university itself, demands for increased resources and services could well exceed the capacity of the library to deliver. A university library must choose its marketing battles carefully. The library should promote those resources that can accommodate increased use. The library should promote services only when the library is prepared to support demands for increased services or when the demand for a service is clearly diminishing.

**The Changing Role of Marketing in University Library**

Libraries are limited in their ability to perform their traditional role effectively, due to equipment with insufficient information technology. Many libraries consider technology as a route for service quality improvement, while others consider it as a cost-effective expansion strategy. Whatever the underlying strategy, nobody questions the importance of understanding the patterns of technology adoption by university libraries.

The management approach to the study of marketing can be traced to such concepts as the marketing concept, marketing mix, product life cycle and market segmentation. According to Moller (1994) this management approach can be characterized as trying to solve the problem of "how to develop an optimal marketing mix consisting of Product, Place, Price and Promotion solutions for the competing preferences of a chosen target segment of consumers, households or organisational buyers". The concept of the marketing mix focuses on the need for marketing managers to view the marketing task as the process of mixing or integrating several different functions simultaneously Sheth, Gardner and Garrett (1988). This management approach evolved in the 1950s and 1960s, when marketing management became a widely accepted business function, growing out of the more traditional sales management approach. Marketing is responsible for more than sales - it is the management function responsible for making sure that every aspect of the business is focused on delivering superior value to customers in the competitive marketplace, Webster (1992).
In the 1990s the marketing management function and the more traditional, bureaucratic, hierarchical organizations will be complemented by new, more flexible, organizational forms such as strategic partnerships and networks. This means that the marketer will need to manage three sets of relationships - with customers, with suppliers and with resellers. The business is increasingly likely to be a network of strategic partnerships and the business scope will be essentially defined by its customers. In network organizations, especially, the marketing task will include responsibility for being expert on customer relationships and keeping the rest of the network informed about them. The marketing personnel will need skills and knowledge in relationship management and these skills will become valuable business assets, Thorelli (1986).

Marketing needs to "manage complexity rather than minimise it, to manage innovation rather than routinize it and to embrace change rather than avoid it" (Applegate, 1994). There are limits to what IT can do without the benefit of good marketing (Burnstein and Kline, 1995). Information Technology based systems cannot work miracles. They will not offset a poorly conceived or poorly executed marketing strategy. IT on its own will not deliver benefits, what is needed is a transformation in marketing activities to harness the opportunities from IT (Ward et al., 1996). Ultimately with IT "the wisdom of its use, depends on the wisdom of the user" (Glaser, 1997).

Marketing and Management Information Systems and Strategic Plans

The best place to launch a less stressful marketing campaign would be from within the library strategic plan. The goals of a marketing plan would reflect the goals of the library through alignment with the library strategic plan. One means of reducing the burden of increased marketing might be to focus only on those areas of highest priority. Thus a library marketing committee or team would be all the more likely to receive the support of their administrators and colleagues (in so far as the strategic goals of the library are supported by the personnel of the library). A marketing plan could focus first on those goals and objectives that deal with library image, with enhancing library services and resources, or with increasing the use of the library by a particular segment of the library community. How then might these goals be arrived at and how could the plan - put into action to achieve those goals - best be evaluated? Through feedback!

To create and launch a successful strategic plan or marketing plan, the wants and needs of both the library faculty and the library community should be clearly understood. A marketing team will elicit the greatest effort and support for their activities by taking into account the interests, expectations, priorities, and fears of those who must help implement these plans (De Stricker, 1998). A marketing plan will be most effective if the marketing team has a clear understanding of the interests, expectations, priorities, and fears of those for whom the plan is intended. Feedback from well-designed marketing surveys of the library staff and the university community is needed to maximise the effectiveness of a marketing plan and to ensure internal support for its implementation.

Methodology

This present study seeks to examine the organisation of the marketing function in a university library. University libraries in recent time have experienced considerable change over in response to technology and a more sophisticated and demanding readers.

A total of 485 social sciences and non-social sciences students at university of Ilorin mini campus library participated in the completion of the questionnaires. The questionnaires were administered to library users in the University of Ilorin library during Harmattan semester examination 2012/2013 academic session which took place in June/July 2013. The library users were stratified into male and female for the purpose of the analysis.
A filter question measured their level of reading in the library (the behavioral-intent component of attitude). No attitude differences were found between the students at varying levels and Departments, so all questionnaires were retained for analysis.

**Empirical Analysis and Discussions**

Marketing is now operating in a changed and changing environment with a reliance on IT to practice marketing. Much of the IT research to date lacks a marketing focus. It can be said that there are similarities with IT's use in other functions, though marketing requires a slightly different perspective due to its inter-functional emphasis (Leverick *et al*., 1998). Many academic studies focus on analysing one IT separately with the obvious lack of inter-relativeness. There has been a call for more holistic multidisciplinary studies of IT in business (Galliers and Baets 1998) and also calls for more emphasis on what marketers actually do in practice (Brownlie and Saren 1997). This study attempts to bridge this gap and evaluate the overall impact and benefits from IT in marketing, in university library.

Marketing actions, along with information technologies, were classified by most of the respondents as the greatest critical success potential in library management. There is inefficient knowledge of user preferences. This weak point is consistent with the assessment of the difficulties in fulfilling the critical success factor under discussion. Thus we can see here an obvious strategic need to increase the level of information technology in university library in order to establish user preferences.

University library services are divided into conventional and electronically supported catalogs, information supply through outside databases, supplying of books, transparent access to catalogs of other libraries and conveying of knowledge. The study reveals that in university of Ilorin library most catalog data are still traditional card catalogs which were no longer having a strategic role. It is high time the university change from traditional card catalogs to machine readable catalogs.

The purpose of the field study is to test the theoretical foundations of information technology, identifying the different dimensions, which make up the user's commitment to the relationship with the library. Qualified persons interviewed a total of 485 library users individually. All of them were requested to identify the frequency of using the library facilities, concretely in completing assignment and home work and to base their answers on it. 61 percent of the sample is male and 39 percent female. Seven age groups were defined on the basis of the similarities and differences on the level of usage. 67.5 per cent of the sample population is within of 21 and 30; 12.3 per cent between 31 and 35; 10.5 per cent between 36 and 40; 10.7 per cent the rest. The sample was generally educated: 53.6 per cent of respondents are 300 level and 400 level students. The median age of the respondents is 24 years. 52.8 per cent of the sample population has contact with the library three times per week and 23.7 respondents visited the library two times per week.

In responding to who are the students’ requests for assistance as regards to the home work. 40.3% of the respondents said that they usually asked their class mate and 24.7% of the library users said that they seek for assistance from the instructors. 19.2% of the library users said that they do not ask anybody. 15.8% of the library users said that they approach the librarian for assistance and guidance when they are given assignments. This therefore means that there is strongly need to adequately market the university library among the users about its uses. This will assist the students to have better understanding on the direction to go when they want to use the library or any facilities in the library.

Our investigation also revealed that the current state of information technology in the University of Ilorin library needs to be braced up. An average of 73.5% of the library users strongly agreed that there is need for improvement of the University library internet facilities. The position of the library users is that the current internet facilities in the library are unsatisfactorily. The library needs to be well equipped with the internet ready computer which
will enable the users to access information and link up with other universities library via the net. This will serve as another means of marketing the University of Ilorin library.

The majority of respondents say that information technology will assist University of Ilorin library in marketing for strategic benefits. Henceforth, Departmental and Faculties journals and publications of various academicians in the University of Ilorin can be put on the net which can be accessed by other people in various universities throughout the world.

Our research indicates that current users feel Information technology is the good channel for some interactions with the library (see table I). If it is well integrated into the overall system, the Information technology can enable library to provide more customized service, and stronger personalized relationships. Thus, users do not seem to see the Information technology as a channel to replace traditional relationships, but rather as a way to supplement and enhance the relationships.

**Table I: The means and standard deviation for the summated variables**

<table>
<thead>
<tr>
<th>Variables</th>
<th>M e a n</th>
<th>S t a n d a r d D e v i a t i o n</th>
</tr>
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<tbody>
<tr>
<td>Study in the library</td>
<td>8.56</td>
<td>3.6</td>
</tr>
<tr>
<td>Check out a book in the library</td>
<td>12.5</td>
<td>3.2</td>
</tr>
<tr>
<td>Read a book to complete assignment in the library</td>
<td>10.8</td>
<td>3.8</td>
</tr>
<tr>
<td>Work on a group project in the library</td>
<td>11.3</td>
<td>4.4</td>
</tr>
<tr>
<td>Use Library computer for e-mail</td>
<td>12.4</td>
<td>4.3</td>
</tr>
<tr>
<td>Ask questions from librarians</td>
<td>8.23</td>
<td>2.5</td>
</tr>
<tr>
<td>Use a library computer to complete assignments</td>
<td>5.30</td>
<td>1.1</td>
</tr>
<tr>
<td>More facilities like internet service should be provided</td>
<td>16.7</td>
<td>5.9</td>
</tr>
</tbody>
</table>

*Source: Author’s calculation*

**Conclusion and Policy Recommendation**

University libraries will continue to play a central role in the intellectual vitality of university communities. However, university administrators and students must also believe this, by heightening campus awareness of library services and resources.

Few higher educational institutions now offer virtual delivery of academic programs via the Internet and the World Wide Web, and cater to the needs of growing numbers of distance education students. Before university of Ilorin library can adequately address the needs, preferences, and expectations of its users, however, it needs to understand the
peculiarities and challenges of serving users. A portrait of library resources and services available to campus students must be presented, and results of our investigation shows that University of Ilorin students' perceptions, expectations and use of Web-based library resources are reported. A key finding is that students are fairly pleased with the quality and availability of library services, but not fully partaking of the vast array of services and collections.

The question for University of Ilorin administration is how can library staff be effectively organized to exploit the information technology to the benefit of the library users? What practical steps can be taken to train staff and students in the availability and use of the systems? These questions will be answered if the University of Ilorin management creates a library marketing committee. The objective of this committee is to enlighten and create necessary awareness to the staff and students on library resources and services. The marketing committee will also help the management, staff and students realise that the library is capable of galvanising, nurturing, and supporting the research of the university community.

The committee can also employ marketing efforts and experiments such as: promotional newsletters and e-mail postings, student surveys, co-operative marketing studies among the students, participation in student and faculty orientations and creative advertising via library pens, online library newsletters and sidewalk slogans.

When one considers operative and strategic management fields it becomes clear that, in the field of operative decision making, libraries – because of the lack of various details at their disposal, such as market price, advertising, promotions, etc. – can structurally obtain only a low management productivity, especially when compared with private industry.

References


