

Patron-Driven Acquisition: Current Practice of e-Book Selection in Malaysian Academic Libraries

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Abstract: This paper reports the findings of a study on e-book selection practices and its relationship with library's return on investment. In this preliminary study, questionnaires were distributed to selected professional librarians who are responsible either with e-book acquisition or handling e-book at reference desk in public and private academic libraries in Klang Valley, Malaysia. The finding reveals that the respondents have positive perceptions on the current practices of e-book selection (resource sharing and accessibility) and return on investment. The result also indicates a positive and moderate relationship between resource sharing and library's return on investment.

Keywords: Patron-driven acquisition, e-book selection, return on investment (ROI), academic libraries, Malaysia

1.0 Introduction

Patron-driven acquisition (PDA) is a collection development tool that allows the patron to decide by their behavior what the library buys. It shifts the decision from a librarian driven just-in-case decision to a patron just-in-time decision. In the digital world, PDA of e-book allows for immediate access and shifts library funds from speculative buying to purchasing at point of need (Schroeder & Wright, 2011).

The trend of selection reading material in the acquisition department in Malaysian academic libraries has changed when electronic resources are introduced. e-Book and e-journal have become vital references among students and researchers. Public and private universities in Malaysia provide e-book services in their campus libraries. e-Book has become the main agenda in the collection development for some university libraries, especially to those with research university status.

There are e-book titles which have been purchased through “package” mode in local university library but have not being utilized. Johnson (2009) agreed that many e-book titles do not circulate, nor are they available through interlibrary loan but the cost of these materials are increasing. According to Salisbury (2011), up to 40 percent of libraries' monograph collections are never circulated, and only 20 percent of books are used more than four times. This uneconomical situation brings the idea of adopting patron-driven acquisition (PDA) in selection of e-book at some libraries in the United States, New Zealand and Hong Kong.

Coyle (2006) disclosed that return on investment (ROI) cannot be calculated in the library profession, because library services are intangible and immeasurable. However, Ballestro (2005) indicated that cost-benefit analysis can be structured into hard dollar savings, soft dollar savings, and cost avoidance. The soft dollar saving of e-book usage, such as time saving, cost saving, job commitment and increase in quality will be the antecedents of this study which is the return on investment (ROI).

This paper attempts to describe the results of this preliminary study which aims to look at what are the common practices of the e-book selection among collection development officers in Malaysian academic libraries pertaining to patron-driven acquisition and its relationship with library's return on investment. The objectives are:

1. To examine the common practices of e-book selection (resource sharing and accessibility) and its return on investment.
2. To determine the relationship between e-book selection dimensions (resource sharing and accessibility) and its return on investment
3. To compare mean difference on e-book selection dimensions between gender, grade position and duration served.

2.0 Literature Review

2.1 Patron-driven Acquisition (PDA)

Selection of e-book is not as simple as compared to printed materials. Selection decisions are never made in isolation. It requires broad communication and cooperation of staff across various units working toward common goals and applying common values. Collection development librarians will have final responsibility in evaluating the intellectual content and potential use of e-book and services.

PDA ensures that everything purchased is read at least once, and research indicates that something read once is more likely to be read again than is a book chosen at random. But the books are not available immediately. PDA can

be used as a substitute for inter-library loan (ILL) – it is often cheaper and available for reading again whereas a second ILL is needed if the item is wanted by another user (McGrath, 2011). Polanka (2009), Hames (2011) and Cox (2004) concluded that PDA will save selectors' times and Salisbury (2011) conveyed that with PDA, the manual work on acquisition job such as traditional approval plan and processing purchasing slip can be eliminated.

2.2 Resource Sharing

In facing the declining budgets, cooperative collection development has become vital to the survival of organization. Libraries are redefining themselves as multi-institutional organizations rather than as stand-alone entities. Many libraries have implemented creative approaches to building collaborative collections, facilitating resource sharing, and developing shared collections policies and procedures. Through successful cooperative collection development, libraries have both maintained costs and increased the range of accessible materials they offer. In addition, technologies that facilitate resource sharing, discovery and fulfilment tools, are rapidly improving (Booth & O'Brien, 2011). Patron-driven acquisition will create workflows in the department, which involve complicated, time consuming, and cost effective tasks for searching, verifying, and ordering materials for users (Pitcher, 2010).

2.3 Accessibility

Major issues surrounding the accessibility of e-book includes copyright restrictions (copyright, lending or electronic reserve) and authentication of institutional allied computers/ networks and distant users. Authentication can be referred as automatic login using ID and password, automatic login using IP, library authentication, and proxy server login (Pettijohn & Nevilles, 2003).

Many librarians believed that walk-in patrons should have full access to e-book without having to worry about whether user is affiliated with the institution (Hanson & Levin, 2003). The librarian must work with e-book provider to guarantee accessible content and to inform them of areas that have proven problematic for specific user and utilize proactive measures to encourage providers of information to embrace the concept of universal design (Jacob, 2007).

2.4 Return on Investment

Patron-driven acquisition (PDA) will improve library's return on investment (ROI), whereby librarian need not to do the same job with less money but to do a better job with the same money (Hames, 2011). On the part of intangibles benefits of PDA, Cox (2004) asserted that it may make sense to

provide access online rather than to process the printed version, give it expensive shelf space and subsequently withdraw it from stock as part of a labour-intensive weeding program. There will also be ongoing savings in terms of activities such as lending, shelving, cataloging and repair. The project is able to generate dynamic and well-exploited e-book that makes for a good return on investment.

Library can eliminate manual and physical processing such as packing, unpacking, shelving and circulation of books and also to save cost in the whole acquisition process because of the instant delivery of an ordered e-book title. In addition, there is no risk of the book being lost, stolen or damaged nor are there any physical space requirements (Tedd, 2005).

3.0 Methodology

A survey research method was adopted to address the research questions. In this pilot study, a set of questionnaire was personally distributed to thirty selected respondents who are involved in e-book acquisition or handling e-book at reference desk. The questionnaire was designed on a 1 (strongly disagree) through 7 (strongly agree) Likert scale. A combination of descriptive and inferential statistics were used in analysing the data from this study. Mean ranking and standard deviation were performed to analyze the descriptive part of the analysis, and the non-parametric test were used to analyze the inferential part of the analysis.

4.0 Results and Discussions

4.1 Reliability Analysis

The reliability test was performed on each dimension to determine their internal consistency, hence their reliability. The number of items for each variable ranges from 8 to 22 (Table 1). The Cronbach's alpha reliability test results that show the value for resource sharing (0.70), accessibility (0.82) and return on investment (0.95) have a high consistency. It is concluded, therefore all dimensions are reliable and can be used for further analysis.

Table 1: Reliability Test Results

Variables	Cronbach Alpha	Number Of Items
Resource Sharing	0.70	8
Accessibility	0.82	6
Return On Investment	0.95	22

4.2 Profile of the Respondents

The summary statistics for the profiles of the 30 respondents are presented in Table 2. The largest population (76.7%) of the sample is made of female and the others (23.3%) are males. Half (50%) of the respondents are in grade position of S41, compared with those in grade S44 (30%), and those in grade position of S48 (20%). More than half (60 %) served within 1-10 years, 20% served between 11-20 years, and 21 and above, respectively.

Table 2: Summary of Respondents Profile

Variable	Category	Number of Respondents	Percent of Sample (%)
Gender	Male	7	23.3
	Female	23	76.7
Grade position	41	15	50
	44	6	20
	48	9	30
Duration served	1-10	8	60
	11-20	6	20
	21 and above	6	20

Normality Test

Table 3 contains the results of the Shapiro-Wilk test for normality which show the score for the three dimensions are greater than 0.05 therefore normality is assumed. The score for resource sharing (p-value=0.76>0.05), accessibility (p-value=0.22>0.05) and return on investment (p-value=0.13>0.05) are normally distributed. However the non parametric test will be used for the rest of the analysis due to small number of the sample.

Table 3: Results of Normality Test

	Test Statistic	Shapiro-Wilk	
		df	p-value
Resource Sharing	0.978	30	0.759
Accessibility	0.954	30	0.220
Return on Investment	0.946	30	0.130

Perception of e-Book Selection Practices and Return on Investment

The level of perception is measured by the aggregated mean of the 7-point Likert scale items (Table 4). The results show the perception of the respondents on the three dimensions. They perceived themselves moderately high for return on investment (5.87) and resource sharing (5.83), followed by accessibility (5.11).

Table 4: Ranking of the Level of Perception

No	Dimension	Mean Score	StdDeviation
1	Return on Investment	5.87*	0.729
2	Resource sharing	5.83	0.656
3	Accessibility	5.11	1.069

*The higher mean score, the more positive is the perception

Perception of Resource Sharing

Table 5 shows the mean scores of perception on resource sharing. The respondents perceive themselves relatively high (6.53 to 6.10) regarding the three items measure in resource sharing (*My library considers purchasing e-book because it can be accessed by off campus students, My library considers purchasing e-book because it allows simultaneous user at one time and My library considers purchasing e-book because it is easy to conduct a search*). They perceived themselves moderately high (5.87 to 5.20) for the other five items measured.

Table 5: Result of Means Scores by Resource Sharing

Statement	Mean	StdDeviation
My library considers purchasing e-book because ...		
1. It can be accessed by off campus students	6.53	0.629
2. It allows simultaneous user at one time	6.17	0.834
3. It is easy to conduct a search	6.10	0.803
4. It provides external link to related context of the content	5.87	1.106
5. It provides print option	5.77	1.006
6. It provides copy option	5.60	1.163
7. It can be shared among participating libraries	5.40	1.773
8. It requires user authentication to access the content	5.20	1.584
Overall	5.83	1.112

Perceptions of Accessibility

The mean scores in Table 6 also indicate that on the average the respondents have perceived themselves moderately high regarding the accessibility in e-book selection. Among the six statements, the respondents were moderately positive (5.63) that the library considers purchasing e-book because it offers a license coverage for all library users but quite positive (4.47) that the library

considers purchasing e-book because it requires certain degree of computer knowledge to get maximum benefit of it.

Table 6: Results of Means Scores for Accessibility

Statements	Mean	Std Deviation
My library considers purchasing e-book because...		
1. It offers a license coverage for all library users	5.63	1.299
2. It offers a perpetual (ongoing) access to the title by the vendor	5.60	1.163
3. It offers a fee waiving when the library made additional purchases.	5.13	1.570
4. It requires network with vendor to inform of problematic area in its content	5.03	1.351
5. It requires network with vendor to guarantee accessibility of its content	4.77	1.612
6. It requires certain degree of computer knowledge to get maximum benefit of it	4.47	1.814
Overall	5.11	1.47

Perception of Return on Investment

Table 7 exhibits the mean scores of perception by respondents on library’s return on investments. On the average, the respondents were moderately positive regarding the perception on return on investment (5.87). Further analysis reveals that respondents were most positive that their job commitment increases with e-book services. The mean scores of the other item are quite similar ranging from 5.97 to 5.65 (*I am happy with e-book because the service quality has increased, I support e-book because it is cost saving, I support e-book because it is time saving*).

Table 7: Perception on Return on Investment

Dimensions	Mean	StdDeviation
1. My job commitment increases with e-book services	6.02	0.792
2. I am happy with e-book because the service quality has increased	5.97	0.847
3. I support e-book because it is cost saving	5.81	1.056
4. I support e-book because it is time saving	5.65	1.163
Overall	5.87	0.965

Relationships between e-Book Selection Practices and Return on Investment

The results of the Spearman's rho Coefficient Correlations test (Table 8) show the relationship between resource sharing and return on investment is significant and moderately correlated at 5% level (p=0.015, r=0.442).

Nevertheless, the relationship between accessibility and library return on investment is weak and not significant ($p=0.189$, $r=0.247$).

Table 8: Spearman's rho Correlations Analysis

			Reshare	Access	Roi
Spearman's rho	Reshare	Correlation Coefficient	1.000	0.128	0.442*
		Sig. (2-tailed)	.	0.499	0.015
		N	30	30	30
	Access	Correlation Coefficient	0.128	1.000	0.247
		Sig. (2-tailed)	0.499	.	0.189
		N	30	30	30
	Roi	Correlation Coefficient	0.442*	0.247	1.000
		Sig. (2-tailed)	0.015	0.189	.
		N	30	30	30
*. Correlation is significant at the 5% level					

Comparison of Perception toward e-Book Selection Practice Dimensions between Gender, Grade Position and Duration Served

Table 9 presents the Mann-Whitney U test to compare the perception of resource sharing and accessibility regarding respondents' gender. There was no evidence of gender difference in their perception in both dimensions.

Table 9: Results of Mann-Whitney U Tests for Resource Sharing and Accessibility with Gender

Variables	Category	Mean Rank	Mann-Whitney U Statistic	Z-Value	p-Value
Resource sharing	Male	9.88	41.00	-1.942	0.052
	Female	17.22			
Accessibility	Male	11.79	54.50	-1.279	0.201
	Female	16.63			

Table 10 presents the Kruskal-Wallis test for resource sharing and accessibility by selected variables. The result shows the respondents' perception on

accessibility with grade position and duration served is not significant, at 0.98 and 1.00 respectively. Also, there is no evidence of differences among respondents' grade position and duration served in their perception regarding resource sharing.

Table 10: Results of Kruskal-Wallis Tests for Resource Sharing and Accessibility with Grade Position and Duration Served

Variables			Mean Rank	p- value
Resource sharing	Grade position	S41	17.37	0.44
		S44	15.17	
		S48	12.61	
	Duration served	1-5	16.72	0.44
		6-10	16.30	
		11 and above	11.79	
Accessibility	Grade position	S41	15.50	0.98
		S44	16.08	
		S48	15.11	
	Duration served	1-5	15.58	1.00
		6-10	15.50	
		11 and above	15.29	

5. Conclusion

The finding reveals respondents' perception are moderately high on resource sharing and accessibility and relatively high on library's return on investment. The result also shows the respondents' perception on resource sharing and accessibility do not differ regardless of their gender, grade position and duration served. The study also indicates a positive and moderate relationship between resource sharing and return on investment (ROI). Since this data was based on the preliminary study from public and private academic libraries in Klang Valley, Malaysia, the results should not be generalised to other libraries. Perhaps future study should consider consortia as one of the dimension as this antecedent has the element of sharing the information within the libraries. The finding of the study is thus useful for the top management of libraries to realize that by purchasing e-book, it can easily be shared by library users simulatenously in and off the campus, is consequently contribute to librarians' time saving, cost saving, job committment and increase quality of library services. On top of this, the local academic libraries may consider using the latest mode of purchasing e-book that is a patron-driven acquisition as it will yield the greatest library's ROI.

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