Comparing Demographic Profiles on E-Book Selection Practices

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Abstract. This study examines the difference in perceptions on the seven dimensions of e-book selection practices between male and female respondents; between respondents of different age groups; between respondents of different grades; between respondents of different educational levels; and between respondents of different years of service (duration of service). Questionnaires were distributed to 150 professional librarians who dealt with e-book in Malaysian academic libraries. The seven dimensions were resource sharing, accessibility, support distance education, sustainability, collection features, cataloging e-structure, and user friendliness. The finding indicates that female respondents had better perceptions on resource sharing and support distance education than male respondents; that respondents in the youngest age group (21-29 years) had a poorer perception of collection features and user friendliness than those from the other two age groups; that perceptions on e-book selection practices were the same regardless of respondents' grades, levels of education and duration of service.

Keywords. E-book selection practices; Academic librarian; Resource sharing; Academic libraries

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1. Introduction

The academic libraries in Malaysia provide e-book services in their campus libraries to cater the increasing needs for reference materials by a growing number of learners. The e-book has become the central mechanism in the collection development for some university libraries,

especially to those with research university status in Malaysia [1,2]. In sustaining the e-book services to library users, the librarians need to have a better selection model for e-books, such as the patron-driven acquisition [3]. Libraries must enhance their services at par with the technological advancement in this era and the future [4,5]. The use of computer and network to access and to provide electronic resources (e-book, e-journal, e-thesis) are very common in university libraries now. The popularity of e-book among library users is hindered with the problems encountered during the selection, purchasing and servicing process [6,7]. The seven constraints identified are in resource sharing, accessibility, support for distance learning, sustainability, collection features, cataloging e-structure and user friendliness.

In light of the above, this study aims to compare the difference of perception on common practices in e-book selection dimensions across gender, grades or positions, levels of education and duration of service.

2. Methods

In this study, all the librarians in all academic libraries at public and private universities in Malaysia were selected as the study population ($N = 730$). The response rate was 72% with 108 returns ($n = 150$). All the returned questionnaires were used and analyzed. The data were statistically analyzed using the SPSS. Various statistical techniques were applied to analyze the data. The factor analysis techniques were performed to reduce the data to a more manageable set. Descriptive statistics were performed to establish frequency distributions for all the variables in the qualitative data set of the respondents' profile. The mean ranking was carried out to get the highest ranking of variables. One-way analysis of variance (ANOVA), followed by Duncan's Multiple Range test, and independent-samples t-test were used to determine the significant differences in the scale studies by groups.

3. Results and Discussion

Difference in Perception between Male and Female Respondents

Table 1 presents the summary statistics of independent samples t-test involving the seven dimensions of e-book selection practices to determine whether perceptions on these differ between male and female respondents.

The test statistics show that perceptions on e-book selection practices differ between male and female respondents with respect to resource sharing ($p < 0.01$) and support distance education ($p < 0.05$). In the case of resource sharing, female respondents (mean= 5.79) are relatively more likely than male respondents (mean= 5.16) to perceive it as an important dimension of e-book selection. Similarly, female respondents (mean= 6.00) are relatively more likely than male respondents (mean= 5.63) to perceive *support distance education* as an important dimension of e-book selection practices. Finally, there is no difference in perception between male and female respondents with respect to *accessibility, sustainability, collection features, cataloging e-structure* and *user friendliness* ($p > 0.05$).

Table 1. Summary Statistics of *t*-test: Difference in Perception on e-Book Selection Practices between Male and Female Respondents

Variables	Category	Mean rank	*t*	*Df*	*p* value
Resource Sharing	Male	5.16	–2.700	106	0.008**
	Female	5.79			
Accessibility	Male	5.14	–.885	70.900	0.379
	Female	5.32			
Support Dist. Edu	Male	5.63	–2.266	70.312	0.027*
	Female	6.00			
Sustainability	Male	5.58	–.418	60.953	0.678
	Female	5.68			
Collection Fea.	Male	6.01	–1.256	50.783	0.215
	Female	6.22			
Cat.e-structure	Male	5.41	–.641	49.465	0.525
	Female	5.57			
User friendliness	Male	5.85	–1.316	49.068	0.194
	Female	6.09			

*: Differ significantly at the 0.05 level of significance;
**: Differ significantly at the 0.01 level of significance

Difference in Perception between Respondents of Different Age Groups

Table 2 presents the summary statistics of the One-Way Analysis of Variance (ANOVA) involving the seven dimensions of e-book selection practices to determine whether perceptions on these differ between respondents of different age groups. The groups are designated as Junior (21-29 years), Middle (30-39 years) and Senior (40 years and above). ANOVA is used because it involves comparing more than two groups of respondents.

Table 2. ANOVA: Difference in Perceptions on e-Book Selection Practices between Respondents Different Age Groups

E-book selection practices	Junior	Middle	Senior	*df*	*F*	*p* value
Resource sharing	5.30	5.65	5.80	*2,105*	1.69	0.19
Accessibility	5.31	5.04	5.47	*2,105*	1.66	0.20
Support Distance Education	5.72	5.82	6.13	*2,105*	2.24	0.11
Sustainability	5.50	5.65	5.77	*2,105*	0.60	0.55
Collection features	5.89^a	6.31^b	6.24^b	*2,105*	3.23	0.04*
Cat. e-structure	5.59	5.45	5.54	*2,105*	0.04	0.85
User Friendliness	5.74^a	6.08^b	6.19^b	*2,105*	3.24	0.04*

Note. Measurement was done on a 7-point interval scale in 1 = Strongly Disagree to 7 = Strongly agree
Junior = Age between 21-29 years; Middle = Age between 30 -39 years; Senior = Age 40 and above
*: The test is significant at $p = 0.05$ level
[a] and [b] are group with significant mean differences using Duncan's Multiple Range Test at 0.05 level of significance

The test statistics show that perceptions on e-book selection practices differ between respondents of different age groups with respect to collection features ($p < 0.05$) and user friendliness ($p < 0.05$). Further, the results of the Duncan Multiple Range Test (Table 3) indicate that the respondents of Middle and Senior groups (mean= 6.31 and 6.24, respectively) are relatively more likely than those of the Junior group (mean= 5.89) to consider collection features an important dimension of e-book selection practices. In regards to *user friendliness,* the results of the Duncan Multiple Range Test (Table 4) reveal that respondents belonging to the senior group (mean= 6.20) are relatively the most likely to perceive it as an important dimension of e-book selection practices, and those in the junior group (mean= 5.74), the least likely to do so.

Table 3. Duncan's Multiple Range Test for Collection Features

Age in years	N	Subset for alpha = 0.05	
		1	2
21-29	32	5.8906	
40-50 and above	40		6.2361
30-39	36		6.3125
Sig.		1.000	.660

Table 4. Duncan's Multiple Range Test for User friendliness

Age in years	N	Subset for alpha= 0.05	
		1	2
21-29	32	5.7383	
30-39	40	6.0781	6.0781
40-50 and above	36		6.1979
Sig.		.064	.511

Finally, there is no difference in perception between respondents of the various age groups with respect to *resource sharing, accessibility, support distance education, sustainability* and *cataloguing e-structure* ($p > 0.05$).

Difference in Perception between Respondents of Different Grades

Table 5 presents the summary statistics of the One Way Analysis of Variance (ANOVA) involving the seven dimensions of e-book selection practices to determine whether perceptions on these differ between respondents of different grades.

None of the test is statistically significant at 0.05 ($p > 0.05$). Therefore, the perceptions of respondents on the seven dimensions of e-book selection practices are the same regardless of their grades.

Table 5. Summary Statistics of ANOVA: Difference in Perceptions on e-Book Selection Practices between Respondents of Different Grades

E-book selection	Junior (Mean)	Middle (Mean)	Senior (Mean)	df	F	p-value
Resource Sharing	5.60	5.61	5.60	2 105	0.002	0.990
Accessibility	5.25	5.26	5.30	2 105	0.027	0.970
SupDistEdu	5.80	6.24	5.85	2 105	1.923	0.150
Sustainability	5.62	5.80	5.57	2 105	0.307	0.740
Collection features	6.06	6.49	6.15	2 105	2.254	0.110
Cat. e-structure	5.48	5.25	5.71	2 105	1.179	0.312
User Friendliness	5.88	6.19	6.12	2 105	1.452	0.239

Note. Measurement was done on a 7-point interval scale in 1 = Strongly Disagree to 7 = Strongly agree Junior = Librarian with grade S41; Middle = Librarian with grade S44 and S48; Senior = librarian with grade S52, S54 and PGs

Difference in Perception between Respondents of Different Educational Levels

Table 6 presents the summary statistics of ANOVA involving the seven dimensions of e-book selection practices to determine whether perceptions on these differ between respondents with Bachelor's, Master's and other qualifications.

Table 6. Summary Statistics of ANOVA: Difference in Perceptions one-Book Selection Practices between Respondents of Different Educational Levels

E-book selection practice	Bachelor	Master	Others	F	p-Value
Resource sharing	5.60	5.68	4.80	1.28	0.28
Accessibility	5.13	5.38	6.00	2.05	0.13
Support Distance Education	5.90	5.89	5.83	0.01	0.99
Sustainability	5.64	5.67	5.40	0.15	0.86
Collection features	6.07	6.23	5.95	1.62	0.20
Cat. e-structure	5.52	5.55	5.40	0.04	0.96
User Friendliness	5.93	6.13	6.12	0.83	0.44

None of the mean difference is statistically significant at 0.05 ($p > .05$). Therefore, there is no evidence to conclude that the perception of respondents on the seven dimensions of e-book selection practices differ significantly between librarians of different qualification (Bachelor's, Master's or other qualifications).

Comparing Perception between Respondents of Different Duration of Service

Table 7 presents the results of comparing the mean scores of perception between respondents of different durations of service (ANOVA). Based on the p-values (> 0.05), there is no difference in

the perceptions of respondents on the seven dimensions of e-book selection practices regardless of whether a respondent has been in service for 1-5 years, or 6-15 years or 16 years and more.

Table 7. Summary Statistics of ANOVA: Difference in Perceptions on e-Book Selection Practices between Respondents of Different Durations of Service

E-book selection practices	Length of Service (years)			df	F	p-value
	1-5	6-15	16 +			
	Mean of Perception					
Resource sharing	5.42	5.70	5.78	2, 105	1.24	0.30
Accessibility	5.32	5.16	5.27	2, 105	0.23	0.80
Support Dist. Education	5.70	6.13	6.01	2, 105	2.74	0.07
Sustainability	5.50	5.80	5.74	2, 105	0.98	0.38
Collection features	6.05	6.38	6.14	2, 105	1.84	0.16
Cat. e-structure	5.42	5.59	5.67	2, 105	0.55	0.58
User Friendliness	5.89	6.17	6.17	2 , 105	2.26	0.11

Male and female librarians differ significantly in their perception of *resource sharing* and *support distance education*. Female librarians have shown more positive attitude in resource sharing of the e-book. Their willingness to share could be about their natural behavior compared to the opposite sex. The female librarian also shows more concerned with support distance education in the process of e-book selection. Perhaps many of them were distance learners before as they show their empathy in the selection task.

There is a significant difference in perception of *collection features* between respondents of different age groups. That Middle and Senior librarian had similar consideration of the collection feature in the selection of e-book. However, junior librarians had lesser concerned on the collection feature in e-book selection. This signified that Middle and Senior librarians are more aware of their users' need of e-books such as the full-text version, content relevancy and content accuracy and the most important thing; they may have the art of negotiating the price with e-book suppliers.

Another finding indicated that there is a significant difference in perception on *user friendliness* between respondents of different age groups. Middle and Senior librarians had similar consideration on user friendliness in e-book selection. Meanwhile, junior librarians had lesser concerned on user friendliness in e-book selection. This implied that middle and senior librarians are more concerned with aspects of the *search strategy* (simple or advanced), *external link, download and printing facilities* of the e-book in the selection process.

4. Conclusions

The study shows that female respondents had better perceptions on *resource sharing* and *support distance education* than male counterpart while respondents in the youngest age group (21-29 years) had a poorer perception of *collection features* and *user friendliness* than those

from the other two age groups. The librarians' perceptions on *e-book selection practices* are the same regardless of respondents' grades, levels of education and duration of service. As discussed above, an important limitation in this research is the librarians who dealt with e-book either on purchasing or references as a sample, future research would benefit more from the use of the larger sample, perhaps from users' and vendors' perspective. The insight of the study is meant for those who have the same interest in this field and as a guiding resource for Malaysian library planners in developing e-book collection development policy. In conclusion, all librarians may realize that their investment in education by providing e-book services is pre-requisite for the prosperity of the country and for their users to lead a balanced life.

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Competing Interests

The authors declare that they have no competing interests.

Authors' Contributions

All the authors contributed significantly in writing this article. The authors read and approved the final manuscript.

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