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Effective Techniques for Marketing Electronic Resources

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A B S T R A C T

This study examines how Australian academic librarians perceived effective techniques used to market their electronic resources and the factors influencing their perceptions of the used particular techniques. Descriptive (frequencies, percentages, means, and standard deviations) and inferential (ordinal regressions) statistics were used to analyze the collected data from an online survey. The results reveal that demographics, human capital and library variables play an important and significant role in predicting librarians' perceptions of effective techniques used to market electronic resources. The findings are useful for information professionals to reflect on the effectiveness of the techniques used, to balance the weight of the factors' influences, and to better understand various effective techniques to enable them to market electronic resources more effectively in the future.

Introduction

In the digital age, information and communication technologies are consistently evolving. They are being applied in various aspects and making numerous changes in modern society. Marketing plays an important role “in the historical and ongoing development of communication media and technologies” (Liao, 2015, p. 322). Undoubtedly, an academic library is one of the first organizations using these new technologies to market resources and services.

The increasing amount of information now available online has significantly affected the popularity and use of information tools and sources available to users. Previously, the online information tools and resources available to users were sparse, however, they have now become more prevalent, particularly in an academic library setting. Changes in approaches to the delivery and provision of electronic resources to patrons allow greater access to online information both in a library setting and also remotely, using personal computers or handheld devices. Academic libraries are now serving more online users with greater demands than before. However, academic staff, students and users may not have a clear understanding about the relevant electronic resources available, resulting in low usage statistics prior to marketing electronic resources (Kennedy, 2013). Under such circumstances, it is important for academic librarians to use a variety of techniques to market electronic resources using new information and communication technologies in order to effectively connect their users to relevant resources.

According to Kennedy (2011), 30 marketing techniques such as banners/posters, flyers/brochures, newsletter, survey, usage statistics,

use guide and word of mouth were used to market electronic resources in university libraries. However, it was not conclusive about which technique was more effective than any other technique in marketing electronic resources. While a number of studies (Alford, 2009; Dillon, 2003; Hart, Coleman, & Yu, 2000; Kennedy, 2011; Woods, 2007) discussed, explored and even analyzed the marketing techniques used to market electronic resources in libraries, there has been no real study that has examined the effective use of these techniques to market electronic resources, particularly in Australian university libraries. This study examines how Australian academic librarians perceived effective techniques used to market their electronic resources and the factors influencing their perceptions of the used particular techniques.

The value of this study exists in the provision of a better understanding of academic librarians' attitudes and views and the effective techniques used to market their electronic resources. “Librarians may use the results to reflect on the success of these techniques, to balance the weight of the factors' influences and to better understand various techniques” (Yi, 2016). This will enable them to market academic library electronic resources more effectively in the future.

Literature review

The importance of marketing electronic resources is not a foreign concept to libraries. With the rise and ready availability of Web 2.0 technologies, the ubiquity of the Internet and people's reliance on Google as a “go to” information tool, making customers more and more aware of what is available online through the library has become critical. The fact that subscriptions to electronic databases take up such a

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high proportion of academic libraries' budget further adds to the need to ensure high usage to justify the investment.

Searches conducted in library and information databases has shown an increasing number of articles relating to the importance of marketing and its applicability to libraries as a whole. The search primarily focused on the marketing of electronic resources, however, was broadened to include marketing of libraries in general and the way services are marketed to provide better context for the way electronic resources are marketed. Although there are many articles that cover marketing and electronic resources, none cover perceptions and attitudes of library staff regarding the effectiveness of techniques that can be used. The literature consulted relies on differing definitions of marketing. Many use an official definition, such as that by [Kotler \(1994\)](#) and [Lancaster and Reynolds \(1995\)](#) referring to the process of communicating the worth of a product to facilitate a mutually agreeable exchange between parties. For the purpose of this review, the definition of electronic resources is sources of information that a library provides access to electronically. Electronic resources refer to "indexing and abstracting databases, e-newsletter/magazine, electronic thesis and dissertations, full-text databases, e-journals, e-books, e-monographs, reference databases, numerical and statistical databases, e-reports, e-content pages and e-clippings" ([Jena, 2012, p. 51](#)).

A literature search indicates that previous focus has been mainly on how marketing could be applied in non-profit organizations such as libraries, archives and museums ([Doherty, Saker, & Smith, 1995](#); [Edinger, 1980](#)), how the marketing function had to be transformed in the Web environment ([Hoffman & Novak, 1997](#)), how to market databases ([Bibby & East, 1986](#)), and how to market internal business information services ([Yates-Mercer & Steward, 1991](#)) as well as exploring the techniques used to market databases and information services ([Bibby & East, 1986](#); [Doherty et al., 1995](#)). Current studies have been conducted to investigate how to market electronic resources ([Alford, 2009](#); [Dillon, 2003](#); [Hart et al., 2000](#); [Kennedy, 2011](#); [Woods, 2007](#)).

Many authors reviewed electronic resources and their placement in collection development. [Kasalu and Ojiambo \(2012\)](#) examined the importance of using ICT to enhance collection development, however although electronic collections are covered, the main focus is their placement in collection development, rather than how they are marketed. Interestingly, the authors did not list inadequate marketing and promotion as a constraint with developing and sustaining use of electronic collections. [Dillon \(2003\)](#) stresses the importance of placing electronic resources within the context of the rest of the library's collection to ensure that users do not see electronic databases as separate and more distinct resources. Several authors discussed the challenges and impacts of transitioning from print to electronic resources and challenges faced by libraries in the electronic environment ([Adams & Bonk, 1995](#); [Muhonen, Saarti, & Vattulainen, 2010](#); [Premchand-Mohammed, 2011](#); [Xu, 2006](#)). Again these papers had very little focus on the importance of marketing electronic resources. [Knight \(2012\)](#) examined the impact of electronic resources on library resource usage in order to determine investment viability. The paper suggests that inconsistent marketing approaches have a direct impact on fluctuating usage statistics.

[Manda's \(2005\)](#) study found that the main technique used to market electronic resources is the library webpage however reports the major issue with this is that users generally visit the library website only when they have a specific need, implying that other methods for marketing should be employed. [Leong \(2007\)](#), from the University of New England, argues that a "multi-pronged" approach is more viable when marketing electronic resources, especially in relation to distance education students. These include a combination of methods, including a well-designed website, direct email and, more interestingly, working directly with faculty to develop gradual approaches to increasing students' knowledge of UNE's electronic resources. She espouses direct delivery via email as an extremely effective mode of promoting electronic resources which is supported by [Dillon \(2003\)](#) and [Woods \(2007\)](#) who state that emails need to be tailored to specific audiences. [Dillon](#)

(2003) cautions, however, that other promotional techniques, such as handouts, instructional classes and web pages, are ineffectual and do nothing more than inundate users with too much meaningless information. He claims the strength of these tools is not in using them to market electronic resources, but in using them to market the fact that electronic resources provided by libraries are more professional and authoritative than what is readily available on the Internet. He mentions that a variety of marketing techniques can be used to market electronic resources, but, it is not known which technique is most effective ([Dillon, 2003, 124](#)).

[Woods \(2007\)](#) refers to the strategic plan of Brock University Library in Canada, where the objective is to "promote and strengthen awareness of its services and resources". [Dillon \(2003\)](#) argues the importance of being "marketing aware" where all staff across an organisation are involved in a strategic marketing program. A vital distinction that libraries need to make is whether marketing strategies are aimed at self-starters, who are aware of what the library offers and therefore not likely to require or ask for assistance, or for the most occasional user who is less likely to know where to begin to look for information. He claims that this is the best way to achieve high impact results when marketing electronic resources. This implies the application of differing techniques across libraries, however no clear analysis of the effectiveness of these techniques was covered in the corpus reviewed.

The State and University Library Bremen in Germany implemented as many costs neutral promotional techniques as possible in order to market their electronic resources. These included, in the main, varied format of presentations, most of which did not reach the market penetration levels they were after ([Ellis, 2004](#)); many of the other techniques mentioned (newsletters, alerts, branding and giveaways) had no solid data to support success or failure of the promotion.

Another study conducted to determine electronic resource usage by faculty at Texas A&M University found that lack of knowledge of library resources by the faculty impacted on usage ([Hart et al., 2000](#)). [Dewald \(2005\)](#) in her study assessing how faculty referred students to resources, supports these findings. 12.5% of faculty members made it mandatory for students to use the library's electronic resources for assignments when compared to the 10.3% that required them to use certain websites (as opposed to library databases). The implication of this is that the less the faculty know, the less electronic resources are used and in turn promoted to students.

[Kanaujia \(2004\)](#) conducted a survey across libraries and information centres of research and development institutions of Council of Scientific & Industrial Research of India to ascertain staff attitudes towards marketing. Whilst the survey demonstrated that staff generally held a positive attitude towards library marketing, there was very little effort made to develop and implement marketing plans.

The literature shows that libraries consider electronic resources an important, if not core, addition to library collections, particularly in an academic setting, enhancing resources already on offer. However, in order to maximise uptake and use of electronic resources, consistent marketing needs to be planned and applied. [Kennedy \(2011\)](#) conducted a study examining what marketing techniques libraries used to market their electronic resources. 38 approaches were identified during the study covering 24 libraries, 15 of which were in a university. However, the study did not cover which techniques were the most effective and further identified that only three of the libraries studied had goals and strategies aligned to measuring and assessing success of the strategies. This study fills the gaps.

Study framework and hypotheses

This framework is to study the relationship between effective techniques perceived to be used to market electronic resources and three kinds of predictors: (1) demographics, (2) human capital and (3) library variables. Demographics refer to age and gender. According to [Frank and Bernanke \(2007\)](#), human capital is "an amalgam of factors

such as education, experience, training, intelligence, energy, work habits, trustworthiness, and initiative that affect the value of a worker's marginal product". In this study, human capital is composed of years at present position, education level, number of different positions, years of service, the formal study of marketing and attendance at a marketing workshop in the last 5 years. Library variables are composed of number of library branches, staff, and patrons" (Yi, 2014, 2016).

According to the results of a pilot study by Yi, Lodge, and McCausland (2013), age, years at present position and number of library branches were significant predictors and other independent variables were not significant. It is hypothesised that there are significant relationships between age, or years at present position, or number of library branches and the effective techniques perceived to be used to market electronic resources. It is also hypothesised that there are not significant relationships between effective techniques perceived to be used and gender, number of staff, number of patrons and the last five factors listed under "human capital" above. One of the purposes of this study is to test the above hypotheses through the use of ordinal regressions.

Methodology

Population and sample

The research respondents of this study were recruited from libraries in thirty-seven Australian universities. According to the 2011 statistics of the Council of Australian University Librarians (CAUL), there were 1470 professional staff in thirty-seven universities. After obtaining 700 academic librarians' names and e-mail addresses from available websites, random sampling was used to recruit the respondents. Four hundred randomly selected respondents were cordially invited to complete online surveys. During the study, all of the participants worked and lived in Australia (Yi, 2014).

Four hundred librarians were sent a revised survey via an introductory email to complete and return within 15 days (Yi, 2014). In order to obtain more responses, reminder emails were also sent. All respondent participation was strictly voluntary. The number of librarians who completed and returned surveys in this study was 230 (57.5%).

Survey design

"In the first section, survey questions focused on three kinds of predictors: (1) demographics (gender and age); (2) human capital (education level, years at present position, years of service, number of different positions, formally studying marketing and workshop attendance on marketing in the last 5 years); and (3) library variables (number of library branches, staff, and patrons)" (Yi, 2014, 2016). One of the main survey questions asked how effective respondents perceived techniques (announcements, banners/posters, branding, brochures, client group training, client individual training, email, flyers, faculty/professionals as marketing tool, giveaways, libguides, newsletters, online social networks, personal contact, public lectures, screen savers, students as marketing tool, surveys, usage statistics, user guide, web page alert and word of mouth) were used to market electronic resources. For the "other" option, librarians could write their free comments on effective tools used to market electronic resources.

Variables and measurements

In this study, the dependent variables were announcements, banners/posters, branding, brochures, client group training, client individual training, email, flyers, faculty/professionals as marketing tool, giveaways, libguides, newsletters, online social networks, personal contact, public lectures, screen savers, students as marketing tool, surveys, usage statistics, user guide, web page alert and word of mouth.

Dependent variables were measured using ordinal variables with the rating scales: *ineffective*, *somewhat effective*, *effective*, *more effective* and *most effective*. Demographics, human capital, and library variables were three kinds of independent variables.

Data analysis and analytical strategies

Descriptive content analysis (Sarantakos, 2005) was used to analyse the data collected from open-ended responses to effective techniques.

"Descriptive statistics (percentages) and inferential statistics (ordinal regression) were used to analyse the collected quantitative data. The main method of this study's analysis was ordinal regression, which was used to determine the relationships between a dependent variable with multiple categories and more than two predictors. Dependent variables should be ordinal ones. However, independent variables can be categorical and continuous variables" (Yi, 2014, 2016).

Findings

In this study, 71.7% (165) of 230 respondents returning the surveys successfully answered the question on the effective techniques used to market electronic resources. The final analysis excluded 65 questionnaires which were not completed fully (Yi, 2014, 2016).

Descriptive results

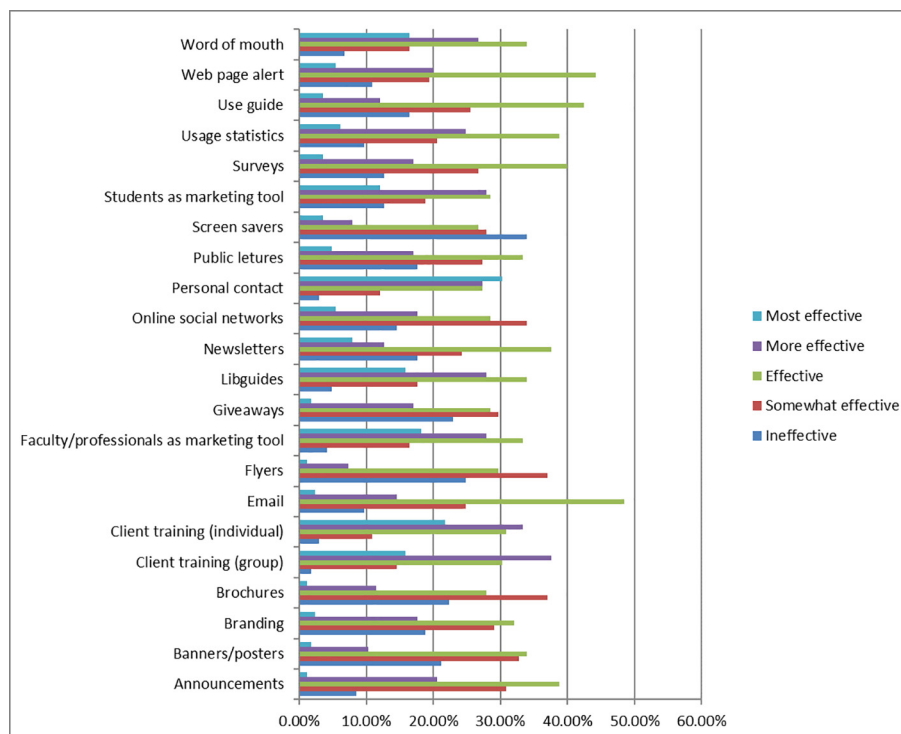
Table 1 below reports the descriptive results of the techniques perceived to be utilized to market electronic resources.

In terms of what techniques were effective ones perceived to be used to market electronic resources, 38.8% of respondents perceived that announcements were effective and 20.6% of respondents reported that announcements were more effective. However, only 1.2% of respondents thought that announcements were most effective. Thirty-three point nine of respondents thought that banners/posters were effective. Thirty-two point one of respondents reported that branding was effective and 17.6% more effective. Twenty-seven point nine of respondents thought that brochures were an effective marketing tool, with 11.5% of respondents perceiving that brochures were more effective. Thirty point three of respondents perceived that client training (group) was effective and 37.6% of respondents reported that client training (group) was more effective. However, 15.8% of respondents thought that client training (group) was most effective. Thirty point nine of respondents thought that client training (individual) was an effective tool, 33.3% thought that client training (individual) was more effective and 21.8% of respondents reported that client training (individual) was most effective.

Forty-eight point five of respondents thought that email was effective and 14.5% of respondents thought that email was more effective. Twenty-nine point seven of respondents reported that flyers were effective. Faculty/professionals were perceived to be effectively, more effectively and most effectively used to market electronic resources by 33.3%, 27.9% and 18.2% of respondents. Twenty-eight point five of respondents thought that giveaways were effective. Thirty-three point nine of respondents thought that libguides were an effective tool, 27.9% thought that libguides were more effective and 15.8% of respondents reported that libguides were most effective. Thirty-seven point six of respondents thought that newsletters were effective.

Online social networks were perceived to be effective and more effective when used to market electronic resources by 28.5% and 17.6% of respondents. Twenty-seven point three of respondents thought that personal contact was an effective tool, 27.3% thought that personal contact was more effective and 30.3% of respondents reported that personal contact was most effective. Public lectures were perceived to be effective by 33.3% of respondents. Twenty-six point seven of respondents thought that screen savers were effective. Students as marketing tools were thought to be effective and more effective by 28.5%

Table 1
Percentages of the techniques perceived to be used to market electronic resources.



and 27.9% of respondents. 40.0% of respondents reported that surveys were effective. Usage statistics were perceived to be effective and more effective in marketing electronic resources by 38.8% and 24.8% of respondents. Forty-two point four of respondents reported that usage guides were an effective technique. With regard to the web page alerts used, 44.2% and 20.0% of respondents perceived that they were effective and more effective. Thirty-three point nine of respondents reported that word of mouth was effective and 26.7% of respondents thought that word of mouth was more effective. However, 16.4% of respondents thought that word of mouth was most effective. All the techniques were perceived to be used by all respondents. Twelve free comments on the other techniques used indicated that there was no true “other” technique in this study.

Dependent and independent variables

Table 2 below shows the percentage, medians and ranges of the variables. The dependent variables were the techniques used to market electronic resources. They were ordinal variables. An ordinal variable is a categorical one with observations logically ordered or ranked (Yi, 2014).

Gender, formally studying marketing and attending a workshop on marketing in the last 5 years were nominal variables. The ordinal variables included age and education level. Age is an ordinal variable because age comprised ten categories (24 or under, 25–29 years, 30–34 years, and on up to > 64 years). Education consisted of five levels from bachelor's degree to doctorate. A continuous variable is a numeric one. The other independent variables were continuous ones (Yi, 2014).

Results of ordinal regressions

The ordinal regression estimates predicting the effective techniques perceived to be used to market electronic resources were demonstrated in Table 3 (parts 1 and 2). The results show that there were significant relationships between the effective techniques perceived to be used and

independent variables -male, age, education level, years of present position, number of staff, number of library branches, formally studying marketing and attending a workshop on marketing in the last 5 years.

Table 3 (part 1) above shows that the relationships between males and branding and brochures perceived to be used were detected to be significant and negative. This implies that male librarians were less likely than female librarians to respond that branding and brochures were most effective techniques. This rejects the second hypothesis that there is no significant relationship between male and the branding and brochures used. It suggests that female librarians might obtain the most effective results of using brochures and branding, whereas male librarians may get more effective results using other techniques. However, the predictor of male did not affect the respondents' other techniques used such as announcements, banners/posters, group client training and individual client training.

The predictor of education level was detected to be negatively and significantly related to the announcements and brochures used. Those with more education had a higher likelihood than their counterparts to respond that announcements and brochures were most effective techniques. This might imply that librarians with more education were more receptive to using these techniques and would use them to market their electronic resources, whereas those with less education perceived that using other techniques may be more effective in marketing.

A negative and significant relationship between number of staff and brochures was detected. Those who worked in the libraries with more staff were less likely than their counterparts to respond that brochures were most effective. This is not consistent with the hypothesis. It may indicate that librarians working in libraries with a higher number of staff may not be more receptive to using brochures than their counterparts.

Formally studying marketing was detected to be positively and very significantly associated with the probability of brochures used. Librarians formally studying marketing were more likely than their counterparts to respond that brochures were most effective when used to market electronic resources. This is not consistent with the second hypothesis. It suggests that librarians who formally studied marketing

Table 2
Descriptive statistics of variables used in the analysis.

Variables	Percent/Mean	SD
Dependent Variables		
Announcements	3 ^a	4 ^b
Banners/posters	3 ^a	4 ^b
Branding	3 ^a	4 ^b
Brochures	2 ^a	4 ^b
Client training (group)	4 ^a	4 ^b
Client training (individual)	4 ^a	4 ^b
Email	3 ^a	4 ^b
Flyers	2 ^a	4 ^b
Faculty/professionals as marketing tool	3 ^a	4 ^b
Giveaways	2 ^a	4 ^b
Libguides	3 ^a	4 ^b
Newsletters	3 ^a	4 ^b
Online social networks	3 ^a	4 ^b
Personal contact	4 ^a	4 ^b
Public lectures	3 ^a	4 ^b
Screen savers	2 ^a	4 ^b
Students as marketing tool	3 ^a	4 ^b
Surveys	3 ^a	4 ^b
Usage statistics	3 ^a	4 ^b
Use guide	3 ^a	4 ^b
Web page alert	3 ^a	4 ^b
Word of mouth	3 ^a	4 ^b
Independent Variables		
Male	27.3%	
Age (10-point scale)	7 ^a	9 ^b
Education level	3 ^a	5 ^b
Years of present position	6.4	5.5
Years involved in all library services	21.6	10.9
Number of different library professional positions	5.7	3.5
Number of staff	98.4	61.9
Number of library branches	4.7	3.2
Number of total population	30236.9	17859.1
Formally studying marketing	15.2%	
Attending a workshop on marketing in the last 5 years	35.8%	

Legend: SD = Standard deviation.

^a Median.

^b Range.

may use brochures to market electronic resources more effectively.

A positive and significant relationship between attending a workshop on marketing in the last 5 years and banners/posters used was detected. Those who attended more workshops on marketing in the last 5 years were more likely than their counterparts to respond that banners/posters were most effective marketing techniques. This is not consistent with the hypothesis. It may indicate that the librarians attending marketing workshops can be more receptive to using banners/posters, as well as obtaining more knowledge and skills to market electronic resources, using these techniques more effectively in practice.

The relationships between male and flyers, faculty/professionals as marketing tool and giveaways were detected to be significant and negative. Male librarians were less likely than female librarians to perceive that flyers, faculty/professionals as marketing tool and giveaways were most effective techniques. This does not support the second hypothesis. It suggests that male librarians could get more effective results by using other techniques and female librarians could use these tools and obtain more effective marketing results.

There was a significant and negative relationship between age and giveaways used. Interestingly, those who were older were less likely to perceive that giveaways were most effective. This is consistent with the first hypothesis. The implication is that younger librarians may get more effective results while using giveaways to market electronic resources.

There was a significant and positive relationship between number of library branches and giveaways used. Those who worked in the libraries with more branches were more likely than their counterparts to

respond that giveaway was a most effective technique. This supports the first hypothesis. It implies that librarians with more branches at their workplaces could get more effective results using giveaways rather than other marketing techniques.

The relationship between formally studying marketing and email used was detected to be significant and positive. Those who formally studied marketing were most likely than their counterparts to respond that email was a most effective marketing technique. This is not consistent with the second hypothesis. It suggests that librarians who formally studied marketing could obtain more effective results using email to market electronic resources.

Table 3 (part 2) above demonstrates that the predictor of years of present position was detected to be positively and significantly related with newsletters used. Those with more years of present position were more likely than their counterparts to respond that using newsletters was a most effective technique. This is consistent with the first hypothesis. It suggests that librarians with more years of present position could get more effective results using this technique. It also implies that newsletters are a more traditional marketing approach, and librarians who have been in their positions longer are more comfortable with older approaches.

Male was detected to be significantly and negatively related to the online social networks, public lectures, screen savers and students as marketing tool used. Male librarians were less likely than female librarians to perceive that the online social networks, public lectures, screen savers and students as marketing tool were most effective. This does not support the second hypothesis. It suggests female librarians may use these techniques more and therefore get more effective results of marketing electronic resources in practice.

There was a significant and negative relationship between age and screen savers used. It is interesting to note that those who were older were less likely to perceive that screen savers were most effective. This supports the first hypothesis, implying that younger librarians may get more effective results of using this technique to market electronic resources.

A significant and positive relationship between number of library branches and personal contact, public lectures and students as marketing tool used was detected. Those who worked in the libraries with more branches at their workplaces were more likely than their counterparts to respond that personal contact, public lectures and students as marketing tool were most effective. This is consistent with the first hypothesis. It suggests that librarians working in the libraries with more branches obtain more effective results while using these techniques to market electronic resources.

The predictor of attending a workshop on marketing in the last 5 years was detected to be significantly and positively related with students as marketing tool used. Those attending more workshops on marketing in the last 5 years were more likely than their counterparts to respond that using students as marketing tool were most effective. This does not support the second hypothesis. It implies that those who did not attend more workshops on marketing in the last 5 years might not obtain more effective results while using students as marketing tool to market electronic resources to patrons.

The predictor of male was detected to be significantly and negatively related to the surveys, guides, web page alerts and word of mouth used. Male librarians were less likely than female librarians to perceive that surveys, guides, web page alert and word of mouth online social networks, public lectures, screen savers and students as marketing tools were most effective. This is not consistent with the second hypothesis. It may imply that female librarians use these techniques more and get more effective results of marketing electronic resources in practice.

There was a significant and negative relationship between education level and surveys, using guides and word of mouth. Those with more education were less likely than their counterparts to perceive that surveys, guides and word of mouth were most effective. This does not support the second hypothesis. The implication is that librarians with

Table 3
Ordinal regression estimates predicting the effective techniques perceived to be used to market electronic resources.

(part 1)											
	Announcements	Banners/ Posters	Branding	Brochures	Client training (group)	Client training (individual)	Email	Flyers	Faculty/ professionals	Giveaways	Libguides
Predictors	β	β	β	β	β	β	β	β	β	β	β
Threshold 1	-1.870** (.772)	-1.696* (.749)	-1.963** (.752)	-2.152** (.760)	-4.927*** (.947)	-3.963*** (.859)	-1.829* (.780)	-1.754*** (.756)	-3.916*** (.835)	-2.770*** (.763)	-3.243*** (.805)
Threshold 2	.158 (.743)	-.168 (.736)	-.485 (.734)	-.409 (.741)	-2.537*** (.768)	-2.304** (.760)	-.205 (.755)	-.080 (.742)	-2.015** (.751)	-1.337 (.739)	-1.479* (.739)
Threshold 3	1.966*** (.760)	1.715* (.755)	1.087 (.741)	1.224 (.754)	-.945 (.743)	-.616 (.736)	2.138** (.778)	1.887** (.772)	-.377 (.734)	.107 (.735)	.072 (.729)
Threshold 4	5.155*** (1.030)	3.734*** (.924)	3.471*** (.878)	3.757*** (1.008)	.974 (.748)	.937 (.739)	4.302*** (.911)	3.938*** (1.014)	1.078 (.741)	2.683** (.908)	1.526* (.743)
Male	-.284 (.330)	-.346 (.327)	-.861** (.331)	-.770* (.334)	-.553 (.329)	-.423 (.326)	-.304 (.335)	-.792** (.335)	-.895** (.331)	-.914** (.332)	-.482 (.325)
Age	.139 (.120)	-.060 (.119)	.073 (.118)	.024 (.119)	-.045 (.119)	-.081 (.118)	.051 (.122)	.022 (.119)	-.153 (.119)	-.253* (.120)	.022 (.117)
Education level	-.216* (.097)	-.103 (.095)	-.171 (.096)	-.205* (.097)	-.137 (.096)	-.069 (.095)	-.011 (.098)	-.175 (.097)	-.100 (.095)	-.121 (.095)	-.132 (.095)
Years of present position	.011 (.032)	-.013 (.032)	-.015 (.032)	.041 (.032)	-.014 (.032)	.016 (.032)	.010 (.032)	.010 (.032)	-.041 (.032)	.013 (.032)	.010 (.031)
Years involved in all library services	-.011 (.023)	.011 (.023)	-.021 (.023)	-.026 (.023)	-.011 (.023)	-.004 (.023)	-.015 (.024)	-.004 (.023)	.029 (.023)	.018 (.023)	-.006 (.023)
Number of different library professional positions	-.007 (.055)	-.001 (.054)	.067 (.054)	-.008 (.055)	.013 (.054)	.038 (.054)	.018 (.056)	-.023 (.055)	.050 (.054)	-.030 (.054)	.046 (.054)
Number of staff	-.003 (.003)	.001 (.003)	.000 (.003)	-.007* (.003)	-.005 (.003)	-.003 (.003)	-.006 (.003)	-.001 (.003)	.000 (.003)	-.003 (.003)	-.001 (.003)
Number of library branches	.069 (.053)	.017 (.052)	.022 (.052)	.073 (.052)	.065 (.052)	.077 (.052)	.092 (.054)	.030 (.052)	-.028 (.052)	.109* (.052)	-.004 (.051)
Number of total population	.849 (.016)	.962 (.006)	.490 (.048)	.225 (.005)	.247 (.003)	.623 (.006)	.325 (.025)	.601 (.009)	.012 (.073)	.043 (.942)	.140 (.875)
Formally studying marketing	.141 (.417)	-.128 (.413)	.743 (.414)	.834* (.417)	.074 (.415)	-.021 (.411)	.886* (.433)	.788 (.419)	.165 (.412)	-.168 (.412)	.427 (.410)
Attending a workshop on marketing in the last 5 years	.151 (.313)	.605* (.313)	.163 (.308)	.089 (.312)	.539 (.314)	.495 (.311)	.327 (.320)	-.049 (.312)	.552 (.311)	.127 (.308)	-.265 (.307)
-2 log likelihood	422	443	455	432	440	456	417	423	459	455	477
Model χ^2	13	8	18	18	13	9	10	12	24	17	7
Pseudo R ²	.075	.047	.102	.101	.077	.052	.060	.070	.133	.100	.040
N	165	165	165	165	165	165	165	165	165	165	165

(part 2)											
	Newsletters	Online social networks	Personal contact	Public lectures	Screen savers	Students	Surveys	Usage statistics	Use guide	Webpage alert	Word of mouth
Predictors	β	β	β	β	β	β	β	β	β	β	β
Threshold 1	-1.417* (.744)	-2.045** (.752)	-3.999*** (.859)	-2.824*** (.768)	-2.266** (.764)	-2.874*** (.771)	-1.724* (.762)	-2.880*** (.780)	-3.458*** (.797)	-2.391*** (.779)	-3.768*** (.813)
Threshold 2	-.132 (.732)	-.266 (.730)	-2.242** (.759)	-1.333 (.741)	-.976 (.747)	-1.580* (.743)	-.093 (.743)	-1.424 (.744)	-2.027** (.764)	-1.029 (.751)	-2.237** (.759)
Threshold 3	1.642* (.745)	1.039 (.736)	-.763 (.737)	.316 (.737)	.718 (.756)	-.236 (.732)	1.902* (.758)	.308 (.736)	.140 (.752)	1.087 (.752)	-.558 (.737)
Threshold 4	2.796*** (.781)	2.711*** (.791)	.454 (.736)	2.128** (.793)	2.002* (.824)	1.528* (.752)	3.945*** (.855)	2.301** (.787)	1.809* (.826)	2.973*** (.814)	.958 (.746)
Male	-.499 (.326)	-.766* (.330)	-.543 (.326)	-1.011* (.334)	-.952** (.342)	-.978** (.330)	-.976** (.336)	-.240 (.326)	-.899** (.336)	-.711* (.334)	-.905** (.332)
Age	-.121 (.118)	-.202 (.118)	-.008 (.118)	-.143 (.119)	-.283* (.123)	-.149 (.118)	.139 (.120)	.062 (.119)	.047 (.120)	-.048 (.120)	-.044 (.118)
Education level	-.001 (.095)	-.117 (.095)	-.172 (.095)	-.126 (.095)	-.142 (.097)	-.126 (.095)	-.305** (.098)	-.172 (.096)	-.236* (.098)	-.065 (.099)	-.236* (.096)
Years of present position	.064* (.032)	.018 (.031)	-.010 (.031)	-.004 (.033)	-.002 (.032)	-.024 (.031)	.006 (.032)	-.014 (.032)	-.014 (.032)	.007 (.032)	-.015 (.031)
Years involved in all library services	.010 (.023)	-.006 (.023)	.003 (.023)	-.007 (.023)	.032 (.024)	.002 (.023)	-.010 (.023)	-.021 (.023)	.014 (.023)	.012 (.024)	-.011 (.023)
	.004 (.054)	.015 (.054)	-.053 (.054)	-.007 (.054)	-.019 (.055)	.066 (.054)	.027 (.055)	.088 (.054)	.061 (.055)	-.012 (.056)	.092 (.055)

(continued on next page)

Table 3 (continued)

(part 2)	Newsletters	Online social networks	Personal contact	Public lectures	Screen savers	Students	Surveys	Usage statistics	Use guide	Webpage alert	Word of mouth
Predictors	β	β	β	β	β	β	β	β	β	β	β
Number of different library professional positions											
Number of staff	-.002 (.003)	.002 (.003)	-.001 (.003)	-.004 (.003)	-.005 (.003)	-.002 (.003)	-.001 (.003)	-.008* (.003)	-.003 (.003)	.004 (.003)	-.005 (.003)
Number of library branches	.003 (.052)	.031 (.051)	.113* (.053)	.166** (.053)	.165 (.054)	.111* (.052)	.123* (.053)	.056 (.052)	.016 (.053)	.006 (.053)	.130 (.053)
Number of total population	.998 (.002)	.462 (.908)	.565 (.917)	.637 (.945)	.366 (.017)	.975 (.900)	.488 (.005)	.665 (.967)	.844 (.019)	.843 (.051)	.941 (.342)
Formally studying marketing	.971 (.417)	.449 (.409)	.083 (.411)	.514 (.413)	.268 (.417)	.064 (.409)	.437 (.418)	.043 (.413)	.386 (.420)	.479 (.420)	.057 (.411)
Attending a workshop on marketing in the last 5 years	-.313 (.309)	.076 (.307)	.466 (.310)	.562 (.311)	.316 (.313)	.952** (.314)	.411 (.314)	.081 (.310)	.519 (.317)	.490 (.318)	.591 (.312)
-2 log likelihood	473	475	460	459	436	477	437	462	439	396	465
Model χ^2	15	10	12	28	25	33	26	12	23	24	28
Pseudo R ²	.086	.057	.070	.155	.140	.181	.148	.070	.131	.134	.155
N	165	165	165	165	165	165	165	165	165	165	165

* $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$.

Note: Standard errors are in parentheses.

more education may get more effective results using other techniques to market electronic resources.

A significant and negative relationship between number of staff and usage statistics was detected. Those who worked in the libraries with more staff were less likely than their counterparts to respond that usage statistics was most effective. This rejects the second hypothesis. It suggests that librarians with a higher number of staff at their workplaces may obtain more effective results by using other techniques.

The relationship between number of library branches and surveys used was detected to be significant and positive. Those who worked in the libraries with more branches were more likely than their counterparts to perceive that surveys were most effective when used as a marketing technique. This is consistent with the first hypothesis. It implies that librarians with more branches at their workplaces might use these tools more and obtain effective marketing results.

Discussion

With the changing information technologies, the choices and demands of learning, teaching and research are changing. Academic libraries have undergone a comprehensive and wide-reaching transformation in how they create, use and maintain scholarly materials, and have become providers of electronic resources as well as places in which physical collections can be accessed and used. The findings of this study display that an emphasis has been put on the effectiveness of marketing electronic resources. This study confirmed that the effective ways to market electronic resources to patrons have been perceived to be widely used in order to attract patrons, generate non-user awareness and raise awareness of available electronic resources, and demographics, human capital and library variables play a significant role in academic librarians' perceptions of the effective techniques used, which was also found according to the results of correlation tests (Yi, 2017, p. 94).

The descriptive results of this study show that librarians perceived that most of tools were effectively, more effectively or most effectively used to market electronic resources, and that librarians in practice used a variety of effective techniques. With regard to the techniques used, the high percentages demonstrate that personal contact, client training

(individual), faculty/professionals as marketing tool, libguides, client training (group), word of mouth, and students as marketing tool were the most effective techniques. These findings reflect the points made in the studies by Kennedy (2011), Kennedy and LaGuardia (2013), Jotwani (2014), Nevers (2007), and Yi et al. (2013). These techniques used suggest the importance and effectiveness of "human touch" and individual and group interactions and trainings. Academic libraries are expanding their provision of online information resources at an escalating rate. E-books, e-journals and streaming videos are replacing print books, journals and DVDs. Changes and innovations in accessibility of electronic resources necessitate the provision of more one-to-one contacts, training sessions, and workshops for clients to know how to access and use electronic resources effectively in their learning, teaching, or research.

"Combining the determinants of demographics and human capital, the statistically significant factors influencing librarians' perceptions of the effective techniques used were arrived at in this study" (Yi, 2016). The significant factors were age, gender, education level, years of present position, formally studying marketing and attending a workshop on marketing in the last five years. "This conceptual model also identified library characteristics associated with the effective techniques used" (Yi, 2016). The likelihood that a technique is most effective was significantly determined by number of staff and number of library branches.

This study indicates that the use of branding, brochures, flyers, faculty/professionals as marketing tool, giveaways, online social networks, public lectures, screen savers, students as marketing tool, surveys, use guide, webpage alert and word of mouth was significantly impacted by gender and the predictor of age significantly impacted giveaways and screen savers used. The significant impact of education level on the techniques used was confined to announcements, brochures, surveys, use guide and word of mouth used. The use of newsletters was significantly impacted by years of present position. The predictor of number of staff significantly impacted the use of brochures and usage statistics. The use of giveaways, personal contact, public lectures, students as marketing tool and surveys was significantly impacted by the predictor of number of library branches. The predictor of formally studying marketing had a significant impact on the use of

brochures and email. The use of banners/posters and students as marketing tool was significantly impacted by the predictor of attending a workshop on marketing in the last 5 years. These findings reveal a significant impact of demographics, human capital and library characteristics on the likelihood of the effective techniques used and suggest that, in practice, more techniques can be considered to help attain the effectiveness of the techniques used.

The results will allow a better understanding of librarians' perceptions of effective techniques used to market electronic resources. Librarians may use these results to reflect on various choices of the techniques and to balance the weight of these influences. While marketing electronic resources, librarians need to have a good understanding of their own demographic characteristics and human capital. In general, this will give them a better idea of what techniques they would be more likely to use in a given situation. For instance, those who formally studied marketing were found to have a higher likelihood than their counterparts to respond that emails and brochures were most effective promotion techniques. This implies that librarians formally studying marketing might obtain more effective results while using these techniques, could use these techniques further, and were more receptive to using these tools. Those who did not formally study marketing could consider the effectiveness of these techniques used while marketing electronic resources and attend the workshops on how to use these techniques more effectively. "Therefore, it is important for them to know the range of approaches, the approaches that are likely to be successful, approaches that best suit their libraries and the factors influencing the techniques used. Their choices of effective techniques depend on their own decisions and situations. Reviewing the characteristics of the situation and their favoured techniques will help librarians adjust their behaviours to meet the needs of the situation" (Yi, 2016).

"The findings of this study will help librarians analyse what library characteristics there are in their libraries, reflect on different options of techniques, and balance the weight of library factors that significantly influence the techniques used, as shown by both quantitative and qualitative data analyses" (Yi, 2016). The effective techniques chosen depend on the situation. As the situation evolves, so should the techniques used. If students of library and information science are educated in these techniques and how to appropriately use them, they will have a better understanding of these techniques. This knowledge will enable them to understand various techniques. "The classes may be given in schools. Librarians may have workshops on this for future librarians" (Yi, 2016).

This study further confirms the finding obtained in the pilot study by Yi et al. (2013, p. 594) that the predictors of age, years of present positions and number of library branches were significant.

Conclusion

The values of this study lie in the contribution of new knowledge to "the library marketing literature by examining in great depth the effectiveness of the techniques used and the factors influencing the perceptions of the effective techniques used" (Yi, 2016). "This study compares the current findings with those of existing empirical studies of the techniques used and regards the roles of demographics, human capital and library characteristics" (Yi, 2016). It has practical implications for how to market electronic resources. The findings are useful to librarians in practice as they consider their own techniques and they will be useful in the education of new librarians who need to understand various techniques.

This study found that personal contact, client training (individual), faculty/professionals as marketing tool, libguides, client training (group), word of mouth, and students as marketing tool were the most effective techniques. One of the main findings for this study is that librarians used a variety of techniques to market electronic resources. This study displays that librarians had varying perceptions of effective

techniques used. Demographic variables such as gender and age, human capital variables such as education level, years of present position, formally studying marketing and attending a workshop on marketing in the last 5 years and library variables such as number of library staff and number of library branches were significant predictors of librarians' perceptions of the effective techniques used, but this study indicates that other independent variables such as years involved in all library services, number of different professional positions and number of patrons made no difference.

This study has provided examples of how demographics, human capital and library characteristics relate to the perceptions of effective techniques used to market electronic resources. "All information professionals can benefit from knowing how demographics, human capital, and library characteristics influence librarians' perceptions of the effective techniques used" (Yi, 2016). To market electronic resources, librarians need to use techniques relevant to the given situations. How to use effective techniques to market electronic resources may be taught in schools as well as in work places. "Schools of library and information studies may offer specific modules related to librarians' perceptions of effective techniques used to better prepare students as effective marketers" for electronic resources in the future, "while libraries or professional associations may provide related training programs and workshops for information professionals to further their learning" (Yi, 2016).

The study was dependent upon the willingness and ability of librarians to respond accurately to the survey questions. Academic librarians' views about how to market electronic resources using effective techniques might be different from the views of independent observers and the data were collected for only one point in time. "Accordingly, the results of the study might lack generalisability" (Yi, 2016). Misinterpretation of the survey questions and personal bias might also result in inaccurate responses.

Currently, there is an increasing need for academic libraries to employ effective techniques to market electronic resources in response to external and internal pressures. Librarians play a key role in effectively marketing electronic resources and, as such, the roles of academic librarians are crucial to ensure this happens. This study confirmed that some librarians marketed electronic resources using a variety of effective techniques such as online social networks, email, survey, web page alert and word of mouth, while others used different, but still effective, techniques such as group client training, announcements for marketing. Future research will focus on how often librarians use these techniques and other techniques for marketing electronic resources in the digital age.

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