



Strategic options for information marketing management in Iranian Agricultural Academic Journals (SWOT analysis)

Mojtaba Sookhtanlou

Faculty of Agriculture and Natural Resources, University of Mohaghegh Ardabili, Ardabil, Iran
msookhtanlo@yahoo.com

Received: 23 December 2019

Accepted: 27 January 2020

Published: 14 February 2020

Abstract

The main purpose of this research was to identify strategic options associated with information marketing management in Iranian agricultural academic journals. The research population consisted of all directors in charge and executives of academic journals in the selected Faculties of Agriculture (Universities of Tehran, Ferdowsi of Mashhad, Shiraz, Tabriz and Isfahan technology) (N=62). The respondents selected by census sampling method (n=55). According to the findings, the majority of respondents (78.6%) have a positive and very positive attitude to applying information marketing factors. Also, items of strengths (more scientific credibility of academic journals' than other information competitors and suitable geographical location of academic journals' offices); weaknesses (impact of low budget on staff, facilities, and equipment at journals' offices and weak advertising of scientific journals and articles); opportunities (more tendencies and skills to use ICT among information seekers and developing trans-regional and sometimes international marketing of information products) and threats (the traditional view of society in need of information to free access to information resources and external limiting rules and guidelines of information marketing) were the most outstanding.

Keywords: Information marketing management, SWOT analysis, information products and services.

How to cite the article:

M. Sookhtanlou, *Strategic options for information marketing management in Iranian Agricultural Academic Journals (SWOT analysis)* *J. Practical MIS, 2020; 1(1): 01-08,*

1. Introduction

The educational institutions in higher education system were among the early institutions undergoing radical changes with the dawn of the information age [4]. In this regard, academic Outreach gradually developed in Higher Education System. Academic Outreach is an effort by a faculty/university or organization to connect its ideas, products or practices, to the efforts of other organizations, groups, scientific clients or the general public, in which marketing management activities is a key component [15]. In Iran, marketing management activities for Faculties of Agriculture is in related to Academic Outreach, but trustee unites of marketing of information products and services in them (agricultural academic journals) don't have comprehensive strategies for marketing. Marketing is planning and managing the organization's exchange relations with its clientele. It consists of

studying the target market's needs, designing appropriate products and services, and using effective pricing, communication, and distribution to inform, motivate, and serve the market [10, 7]. But, when the main products and services of marketing is "information", it's called information marketing [12, 14]. Information marketing is an aggregate of activities directed at satisfying information clients and wants through exchange processes. Marketing involve viewing the whole information service or product from the point of view of the final result, i.e. from the information client's viewpoints [8]. Information marketing is not just disseminating information; it includes the optimum use of information products and resources in information centers [14]. Information marketing involves promoting the information products and services by adopting marketing strategies effectively. The most important objective of information marketing is to attract more number of clients and to encourage

them to utilize the resources of the information centers to the maximum extent [13, 11].

Garusing Arachchige (2002) investigated an approach to marketing in special and academic libraries of Sri Lanka. According to findings, special libraries and academic libraries of Sri Lanka had a sufficient amount of resources acquired and market opportunities available. Yet, they practiced poor marketing. In comparison, marketing performances were more available in special libraries than in academic libraries. Special libraries and academic libraries of Sri Lanka had cost recovery capabilities and even profit potentials from their services if they undertake proper marketing. Lack of trained staff; poor library investments (allocations), insufficient technology and know-how etc. identified as problems that hinder the practice of marketing [6, 2].

Kanaujia (2004), in her paper discussed the role of marketing of information products/ services with the help of survey in information centers of India. Her findings revealed that staffs of information units have a positive attitude towards the different aspects of marketing of information products/services. According to 91 percent of the staffs, marketing helps in justifying the involved cost in generation of information products, and aspects such as resource constraints, shrinking budgets, electronic information age have made marketing necessary. Also, many staffs perceived many barriers to apply the concept of marketing in their respective libraries. These barriers consist of lack of knowledge; lack of manpower and financial support and misconception about the concept of marketing. Staffs and information managers were facing challenges such as an increase in clientele, their variety, demands, and expectations; an increase in the initial or capital cost of information and information technology; drying up of the public sponsorship and subsidy and the need to find alternative sources of revenue; and complexity in ways of identifying clients and their requirements, and servicing them, which in following, appropriate strategies for the development of information marketing was presented [14].

Suresh Kumar (2012), in your research performed an objective analysis of the strength, weakness, opportunities and threats (SWOT analysis) of four university libraries in Kerala viz. Kerala University Library (KUL), Mahatma Gandhi University Library (MGUL), Cochin University of Science and Technology Library (CUSATL) and CH Mohammed Koya Library of University of Calicut (CHMKL) in terms of collections, infrastructure, human resources, and library and information services. According to findings, all University Librarians in Kerala have a positive opinion towards marketing but none of the libraries has specific allocation of funds or a designated person or a marketing wing for marketing of information products and services.

According to SWOT, Based on the average score of university libraries in Kerala, the strengths and the major weaknesses identified were lack of fund, customer care, special collection, membership, and geographical position of the library, shortage of staff strength, inadequate fund, space problem, lack of weeding out policy, lack of adequate computer networks etc. The opportunities identified were in related to academic plan, new sources of funding, cooperation and consortium in collection building, technology; also the opportunities identified were consist of alternative information providers and rate of change in information field and information technology [13].

Given aforementioned discussion, the present research seeks to determine the appropriate approaches to develop information marketing while identifying the strengths and weaknesses, opportunities and threats related to information marketing in Iranian agricultural academic journals. Secondary objectives of the study are as follows:

- 1- Respondents' attitude to applying information marketing factors in agricultural academic journals' offices,
- 2- Determine the correlation among individual variables of respondents and their attitude to applying information marketing management,
- 3- Identification of internal and external factors affecting information marketing management in agricultural academic journals, and
- 4- Prioritization of internal and external factors affecting information marketing in agricultural academic journals.

2. RESEARCH METHOD

This research is applied and has been done with survey method. The statistical population of the study consisted of all directors in charge and executives in agricultural academic journals in the selected Faculties of Agriculture of Iran (N=62). The representative Faculties of Agriculture were found to be selected through quintuple classification (polarization) by Ministry of Science, Research and Technology (MSRT) (Institute for Research and Planning in Higher Education [5]). Within each class, the most appropriate Faculty of Agriculture in terms of facilities and infrastructures for information marketing were selected (Faculties of Agriculture in Universities of Tehran, Ferdowsi of Mashhad, Shiraz, Tabriz and Isfahan technology). The respondents selected by census sampling method, so that ultimately number of 55 questionnaires obtained (n=55). Questionnaires contained personal and professional characteristics (7 items), attitudes toward information marketing (9 items) and items related to strengths (12 items) and weakness (12 items), opportunities (12 items) and threats (12 items) in the Likert scales.

The content validity of the questionnaire was obtained using a panel of faculty members

(Department of agricultural extension and education (University of Tehran) and Departments of Communications and Informatics (Universities of Tehran and Ferdowsi of Mashhad) and a multi-step correction and review process. Reliability of scales determined with Cronbach-Alpha coefficient (higher than 0.7). For describing dispersion of respondents' attitudes to applying information marketing factors, Interval of Standard Deviation from Mean (ISDM) index was used as follows [3, 1]. A: Very negative: $A < \text{Mean} - \text{SD}$; B: Negative: $\text{Mean} - \text{SD} < B < \text{Mean}$; C: Positive: $\text{Mean} < C < \text{Mean} + \text{SD}$; D: Very positive: $\text{Mean} + \text{SD} < D$

It should be noted that in the above formula, SD imply the deviation from mean. The main method of study was SWOT analysis to generate strategies and actions for information marketing. Identification of SWOT is essential, because subsequent steps in the process of planning for achieving the selected objectives may be derived from SWOT [9]. Items of SWOT determined by Delphi technique in three steps. Naturally, SWOT analysis allows strategies to be planned that can successfully utilize strengths and opportunities to overcome the threats and weakness facing the organization or information unit [13].

FEM was used for simulation of two-pass processing tube tension-reducing of the new steel 33Mn2V for oil well tubes using.

3. RESULTS

3.1 Respondents personal and professional Characteristics

According to the findings, the most age frequency of the respondents was (28.6%) between 35 to 39 years old. With a view to the gender of the respondents, 52.4 percent were women and 47.6 percent were men. As for work experience among respondents, the majority of them were (33.3%) between 11 to 13 years. Respondents with educational level of Bachelor's degree had the highest frequency (47.6%). Also, the highest prevalence rate of participation in the courses / workshops in conjunction with information marketing varied 3 to 4 courses (52.5%).

3.2 Respondents' attitudes to applying information marketing factors

For assessing of respondents' attitudes to applying information marketing factors used of ISDM. Results in table I, showed that the majority of respondents have a positive and very positive attitude to applying information marketing factors (74.5%).

Table 1: Grouping the respondents' attitudes to applying information marketing factors

Attitude levels	Frequency	Percent	Cumulative percent
Very negative	4	7.3	7.3
Negative	10	18.2	25.5
Positive	17	30.9	56.4
Very positive	24	43.6	100.0
Total	55	100	-

4. FINDINGS OF SWOT ANALYSIS

4.1 Internal and external factors affecting information marketing

This analysis aimed to assess internal and external conditions affecting information marketing in agricultural academic journals in respect to its

strengths and weaknesses (internal factors) and opportunities and threats (external factors). Summary of factors in addition to their ranking are presented in table 2.

Table 2: Weighted scores in SWOT matrix

	Items	Relative Weight	Mean Rank	Weighted Score	Ranking
Strengths	1- More scientific credibility of academic journals' than other information competitors.	0.052	4.02	0.2090	1
	2- Utilizing the expert and skillful human resources in academic journals offices.	0.045	3.26	0.1467	4
	3- Appropriate knowledge of information marketing among directors and staff of academic journals' offices.	0.039	2.31	0.0901	9
	4- Easier and more convenient access to journals and articles on the internet.	0.058	2.60	0.1508	3
	5- Conditions for presenting the journals or articles to external customers.	0.065	1.00	0.0650	10
	6- Conditions to hold a variety of courses and workshops specialized in information marketing for staff of academic journals' offices.	0.065	2.10	0.1365	5
	7- Positive attitude to implement an information marketing plan among managers and staff of academic journals' offices.	0.026	2.33	0.0606	11
	8- Suitable geographical location of academic journals' offices.	0.052	3.24	0.1685	2

	Items	Relative Weight	Mean Rank	Weighted Score	Ranking
	9- Appropriate number of qualified staff in various fields of information services at journals' offices.	0.045	2.38	0.1071	7
	10- Rich and valid academic information resources and communication with scientific sections of universities.	0.039	2.64	0.1030	8
	11- Neighborhood with academic departments and research centers.	0.032	3.76	0.1203	6
	12- Internal rules and procedures in support of information marketing at journals' offices.	0.026	1.67	0.0434	12
Weaknesses	1- Weak interaction with other units or centers providing information (educational institutions, research centers, etc.)	0.052	2.33	0.1212	6
	2- Lack of required proportion between the budget of journals' offices and inflation rate in the community.	0.058	3.45	0.2001	3
	3- Weak interactions with other units or centers producing information (educational departments, research centers, etc.).	0.013	0.64	0.0083	12
	4- High cost to update or provide new information sources.	0.006	4.19	0.0251	11
	5- Weak advertising of scientific journals and articles.	0.058	3.81	0.2210	2
	6- Impact of low budget on staff, facilities, and equipment at journals' offices.	0.065	3.57	0.2321	1
	7- Shortage of experienced human resources to provide science and information services.	0.045	3.29	0.1481	5
	8- Inadequate required physical infrastructure in journals' offices (marketing unit, sales department, warehouse, ICT, etc.) for information marketing.	0.039	1.14	0.0445	9
	9- Lack of a systematic approach to staffs service and performance assessment at journals' offices.	0.026	1.02	0.0265	10
	10- Inattention to duties and additional rights for staff of journals' offices in information marketing.	0.052	3.17	0.1648	4
	11- Inadequate required infrastructures of information and communication technology (electronic and online) for information marketing.	0.019	2.45	0.0466	8
	12- Lack of appropriate adaptation of staff to keep pace with new information and communications technologies.	0.026	3.62	0.0941	7
	IFE= 2.7333	1	-	2.7333	-
Opportunities	1- To recruit new staff to develop new activities and services in related to information marketing.	0.041	2.95	0.1210	6
	2- The growing increasing of higher education system and the number of students.	0.035	2.21	0.0774	10
	3- More tendencies to interdisciplinary studies among researchers.	0.029	1.71	0.0496	12
	4- To build and expand domestic and foreign cooperation with other institutions, organizations and universities.	0.041	3.17	0.1300	5
	5- Good potential for efficient use of Faculty of Agriculture spaces for information marketing in journals offices.	0.035	1.69	0.0592	11
	6- New and varied target markets for scientific journals or articles.	0.047	2.45	0.1152	8
	7- Growing need to the information products and services in community.	0.053	2.98	0.1579	4
	8- More tendencies and skills to use ICT among information seekers.	0.059	3.02	0.1782	1
	9- More information seeking skills and Higher educational levels among the most visitors of journals' offices.	0.041	2.64	0.1082	9
	10- Government and higher education policies regarding the development of electronic products and services.	0.035	3.43	0.1201	7
	11- Developing trans-regional and sometimes international marketing of information products and services.	0.041	4.19	0.1718	2
	12- Developing regional marketing of information products and services.	0.047	3.44	0.1617	3
Threats	1- Misallocation of academic credits for journal offices.	0.053	2.38	0.1261	6
	2- Increasing the cost of advertising and informing.	0.024	2.76	0.0662	11
	3- Insufficient expertise and proficiency ability of journal offices in order to keep pace with new information technologies	0.035	3.95	0.1383	4

Items	Relative Weight	Mean Rank	Weighted Score	Ranking
4- Insufficient financial ability of journals' offices to keep pace with new information technologies.	0.041	1.74	0.0713	9
5- The disregard of laws related to reserving material and spiritual ownership of information authors and providers in society and on internet.	0.047	2.79	0.1311	5
6- External limiting rules and guidelines of information marketing.	0.041	4.12	0.1689	2
7- The growing cost of supplying raw materials for information resources (the rising cost of articles, etc.).	0.035	4.17	0.1460	3
8- Managerial instability and constant changes in policies and decisions in journals' offices.	0.024	2.24	0.0538	12
9- Increased information competitors in the community.	0.029	2.36	0.0684	10
10- Increased the rate of inflation in the community.	0.053	1.90	0.1007	8
11- Mismatch between produced information products and services and the needs of target markets.	0.059	1.71	0.1009	7
12- The traditional view of society in need of information to free access to information resources.	0.053	4.14	0.2194	1
EFE= 2.8412	1	-	2.8412	-

4.2 Identification of strategies options from SWOT matrix

In strategies formulation, the internal and external factors in SWOT matrix were compared with each

other to prepare possible strategies as a result of SWOT matrix in table 3.

Table 3: The obtained strategies options from SWOT matrix

	Opportunities	Threats
Strengths	SO1- Advancing toward the internationalizing indexes of agricultural academic journals such as attracting foreign judges and etc.	ST1- Strengthening the agricultural journals website with more appropriate features and in related to information marketing.
	SO2 - Development of supporting regulations and rules to define intellectual and property rights and publishing rights of agricultural journals' articles in journals' offices.	ST2- Holding training courses for personnel in order to acquire new knowledge regarding the new information and internet technologies and marketing and financial management software.
	SO3- Developing or strengthening the systems for communicating with information users and customers to get feedbacks and orders regarding information products and services.	ST3- Invitation of agricultural journals from University professors and educators to introduce agricultural journals to agricultural graduate students.
	SO4- Creation and development of electronic journals (non-printed) specialized in the field of agriculture by eliminating the bulk of the costs.	ST4- Creating a section called information marketing in agricultural journals' offices in Agriculture Faculties or University level by adopting a set of written responsibilities, tasks and instructions.
	SO5- Providing the possibility of acceptance and publishing foreign articles in agricultural academic journals, according to reduplicate the categories of articles in some numbers (both in Persian and English) or full allocation of periodic numbers for foreign and English articles.	

Weaknesses	<p>W01- Revision of the definition of national standards for agricultural academic journals and defining special privileges in the form of scientific indicators in accordance with information marketing.</p> <p>W02- Revision of the constructive communication interactions with other units or producers of information centers in agricultural higher education system.</p> <p>W03- Revision of developing new responsibilities to staffs with employment benefits in connection with the engagement in information marketing activities.</p> <p>W04- Revision of the traditional view of mere acceptance of domestic articles and attention to acceptance of foreign articles to enter the international information markets.</p>	<p>WT1- Developing supporting and facilitating legislations and guidelines to provide information products and services to internal and external customers and users.</p> <p>WT2- supporting the creation of network organizations for agricultural academic journals with the financial support of information products and services.</p> <p>WT3- Development of internet advertising and marketing solutions through web pages and e-mail.</p> <p>WT4- Organizing the information marketing system in regional and international levels for agricultural academic journals to obtain competitiveness abilities with rival information units.</p> <p>WT5- Identifying ways to reduce costs in communication sections and databases and shared usage of portals and communication networks in agriculture academic journals' offices in Faculties of Agriculture to implement an information marketing plan.</p>
-------------------	---	--

5. CONCLUSION

According to the results, the majority of respondents (74.5%) has a positive and very positive attitude to applying information marketing factors and supported applying information marketing initiatives, in turn paves the way to adopt implement the information marketing plan in agricultural academic journals. In light of the obtained results, as for the most important items of strengths, those items regarding "more scientific credibility of academic journals' than other information competitors" and "suitable geographical location of academic journals' offices" were the most outstanding. As for weaknesses, "impact of low budget on staff, facilities, and equipment at journals' offices" and "weak advertising of scientific journals and articles" were found to be as the most important internal weaknesses. The major external opportunities were "more tendencies and skills to use ICT among information seekers" and "developing trans-regional and sometimes international marketing of information products and services". Additionally, some items like "the traditional view of society in need of information to free access to information resources" and "external limiting rules and guidelines of information marketing" were the most important external threats to information marketing. It seems that the need for appropriate training of the information marketing activities is essential for directors in charge and executives of academic journals. Therefore, training courses and workshops as well as supporting the provision of scientific articles about information marketing by staffs of academic journals' offices, and their participation in conferences and congresses related to information marketing activities can play a constructive role for more efficient use of information marketing plan in agricultural journals' offices.

According to the results, strategies derived from the contrasting strengths and weaknesses, with opportunities and threats in SWOT analysis are discussed in the form of constructive suggestions as the main results of the research. In addition, when a unit called agriculture information marketing is created in Faculty of Agriculture or any information unit, it should be considered that based on short-term, medium-term and long-term goals agreed by the managers and information units, codified responsibilities must be defined to facilitate and develop Outreach activities in the field of information marketing products and services. Finally, the strategies presented in this paper to design a strategic plan is not enough because turning developed strategies to operational plans and implement them to overcome weaknesses and exploit opportunities and avoid threats play determinant role.

REFERENCES

- [1] Jamini, D., Ghadermarzi, H., Mafakheri, A., Jamshidi, A., Nikbakht, S. (2013). Investigation and assessment of factors that influence sustainable farming: A case study of rice farmers in Shirvan Cherdavel Town, Ilam province, Iran. *International Journal of Agri-science*, vol. 3, no. 6, p.444-452.
- [2] Garoufallo, E., Zafeiriou, G., Siatiri, R., Balapanidou, E. (2013). Marketing applications in Greek academic library services", *Library Management*, vol. 34, no. 8/9, p.632- 649.
- [3] Gangadharappa, H. V., Pramod, K.T.M., Shiva, K.H.G. (2007). Gastric floating drug delivery systems: a review. *Indian J. Pharm. Ed. Res.* Vol. 41, p. 295-305.
- [4] Ismail, I., Ramli, A., Rosli, M., Idrus, R. M. (2013). Information Technology System Environment: The Needs for Learning Materials in e-Learning Portal. *Malaysian Journal of Educational Technology*, vol. 10, no. 2, p. 83-89.
- [5] Institute of Research and Planning in Higher Education (IRPHE). (2010). *The statistics of higher education (polarization of agricultural and natural resources faculties)*, Tehran: The Institute of Research and Planning in Higher Education, Ministry of Science, Technology, and Higher Education. In Farsi.

- [6] Garusing Arachchige, J. J. (2002). An approach to marketing in special and academic libraries of Sri Lanka: a survey with emphasis on services provided to the clientele. *JULA*, vol. 7, no. 1, p. 12-36.
- [7] Joseph Jestin, K.J., Parameswari, B. (2002). Marketing of Information Products and Services for Libraries in India, *Library Philosophy and Practice*, vol. 5, no. 1, p. 1-6.
- [8] Kamba, M. A. (2009). Access to information: the dilemma for rural community development in Africa. Paper *GLOBELIGS 2009, 7th International Conference*, Dakar, Senegal, p. 6-8.
- [9] Hazidah, N. A., Edzan, N.N. (2012). The SWOT analysis: marketing and promotional strategies used at the University of Malaya Library. In: International Conference on Gennext Libraries , *University Brunei Darussalam*, p. 8-10.
- [10] Kotler, P. (2000). *Marketing Management*. The Millennium Edition. 10th Edition. Prentice Hall, London.
- [11] Kumarjit, P., Mohan, L. V. (2014). Tools and techniques for marketing of information products and services of libraries in ICT environment. *E-Library Science Research Journal*, vol. 2, no. 6, p.1-7.
- [12] Suresh Kumar, P.K. (2010). *Marketing of information products and services of the University libraries in Kerala: An investigative study*. University of Kerala, Trivandrum, Doctoral thesis, p. 320-25.
- [13] Suresh Kumar, P.K. (2012). University Libraries in Kerala: A SWOT Analysis for Marketing. *Library Philosophy and Practice*. Paper 787, p: 1-10.
- [14] Kanaujia, S. (2004). Marketing of information products and services in Indian R&D library and information centers. *Library Management*, vol. 25, no. 8/9, p.350-360.
- [15] McGivney, V. (2000). *Recovering Outreach: Concepts, issues and practices*. National Institute of Adult Continuing Education. Leicester: NIACE. p. 128.

