



Sustainability in Open Distance Learning (ODL) Education: Canvassing the Right Market Segmentation and Effective Advertising Strategy

Mohd Nazri Mohd Noor

Open University Malaysia

mohdnazri@oum.edu.my

Norsiah Aminudin

Open University Malaysia

norsiah_aminudin@oum.edu.my

Azlina Abdul Aziz

Open University Malaysia

azlina@oum.edu.my

Yanty Roslinda Harun

Open University Malaysia

yanty@oum.edu.my

Zulaikha Zakariah

Open University Malaysia

zulaikha@oum.edu.my

Abstract

This paper addresses the perceptions that lead prospective learners' to favour the right market segmentation and effective advertising messages in Open Distance Learning (ODL) advertisements. A descriptive study was conducted among the prospective ODL learners in Malaysia between January to March 2021. A self-administered questionnaire was utilised to gather data from 314 respondents throughout that period. Analysis of this study was conducted using SPSS Version 22 and SMART-PLS Version 3.2 to examine the reliability and validity of the questionnaire, thus, determining the significance of every independent variable and dependent variable in this research. The result obtained reveal that majority of the respondents give prominence to accessibility than substantiality between the ODL institution and market segment. On the other hand, the respondents place significance on the element of reminder and persuasive messages that received their attention towards the ODL institutions. The standardised path coefficients showed that accessibility, reminder and persuasive types of messages are the significant predictors of sustainability of ODL institutions whereby substantiality has been perceived by the respondents as not significant. Therefore, it is noteworthy to develop creative advertisements with emotional attachment in order to attract the audience's attention and fit in the context of their opinions and beliefs. As a whole, the results from this study help the ODL institutions to be more focused in designing their advertising messages as well as understanding market needs. The findings have strong implications to both academic and the ODL institutions particularly in the aspect of institutional sustainability focusing on the effective market segmentation and the right strategy of advertising messages.



Keywords: *Accessibility, Market Segmentation, Open Distance Learning, Sustainability*

Introduction

The recent development of tertiary education business indicates the importance of effective implementation of marketing strategy (Bao, 2020). Open Distance Learning (ODL) has gained momentum in the past two decades due to the remarkable global growth and expansion of the higher education sector (Faridi & Ouseph, 2014; Kalman, 2017; Latchem, 2018). Higher Education Providers (HEPs) that provide ODL education have aggressively sought to gain competitiveness through the development of their capabilities and resources, especially with the increasing competition from the traditional and other ODL institutions which are also aiming for business sustainability (Blaschke, 2012; Park, 2011). ODL institutions are continuously searching for more practical ideas to create and maintain sustainability through strategic competitive advantage. These effort are done by leveraging available resources in the existing ODL environment such as institutional reputation, technological advances, e-learning modules and learning centres (Latchem, 2018; Munira & Fadzil, 2008; Richter & McPherson, 2012).

The Covid-19 pandemic has witnessed the rising trend that favours ODL in becoming the new learning platform (Bao, 2020; Favale et al., 2020). Here, the urgent imperative to 'move online has moved the learning process beyond the existing physical classroom environment that brings to life learning experiences in and outside the classroom. ODL offers numerous benefits such as a personalised lifelong learning programme, valuable social networking, time and cost saving for both institutions and students. In fact, many conventional HEPs have advised their students to sign up for online courses in the effort to initiate a new learning culture (QS Rankings, 2020). In fact, the number of online programmes is also showing an increasing trend ranging from certificate to PhD level and the choices of programme depend on the interests of the prospective students. This trend also includes an increasing number of programmes that received accreditation from the regulatory bodies. Therefore, creativity is very important for universities to promote their programmes to the public.

The decision to promote ODL programmes must be well thought out by the university. This is because the budget spent on advertising must bring in satisfactory return. Therefore, several decisions must be put into consideration on the aspects of the strength of the selected media channel, words of messages utilised as well as the target selection of target market segment. This is to ensure satisfactory responds from the target market. The choice of media and type of messages must also take into account its exclusivity (Oh, 2013). This is to portray a good image of the ODL institution and its programmes. Creative messages will add value to the advertisement and change the users' perception. However, as the business environment is becoming more competitive, more companies are developing a closer harmony between the advertisement and what the consumer wants to know.

To date, there are limited studies linking different types of advertising messages and market segmentation focusing on the intention of working adults to pursue their studies as ODL students (Bao, 2020; Favale et al., 2020). Generally, any type of business organisation will identify the appropriate market segment and decide which one to serve. Regardless of the type of market segmentation used by the organisation, the primary goal is to create a marketing advertising programme that fits the context of a particular segment (Kotler & Armstrong, 2018).



There are several methods that can be adopted in developing market segment (Grover et al., 2011). Initially, a business organisation will determine which segment to serve and how substantial the size is. Some business organisation will combine more than one variable to obtain a clearer and well-defined target group. However, not all the segmentation schemes are useful (Kotler & Armstrong, 2018). In order to make it useful, a business organisation must focus on the criteria of effective market segmentation such as substantiality and accessibility (Donovan & Henley, 2012; Lamb et al., 2011). This is to boost students' intake hence contributing towards the sustainability of the business.

From another perspective, ODL institutions are also searching for the best type of messages to attract the prospective learners' attention. Among the important strategies is that the institution will start by identifying the motives of the target market. The way the prospective learners perceive ODL institutions' advertisement is different from the consumer products and service advertisements. Some prefer reminder advertising messages while others consider persuasive messages as a better choice. In fact, the prospective learners are the ones who decide which types of messages that will influence them to enrol in a particular programme.

In the case of OUM, the management of the university has perceived that marketing is an effective technique in raising awareness of its 40 academic programmes. Until now, the existing marketing strategy has managed to bring in 26,000 active learners in the system but the numbers are fluctuating every year. However, the management believed that there must be a strong mechanism in the aspects of market segmentation and promotional strategy in the effort to sustain a more consistent and satisfactory figure.

Based on the existing literatures, is it true that substantiality and accessibility are effective market segmentation? Or is it right to claim that reminder and persuasive type of messages are preferred by the prospective ODL learners? Therefore, it is timely to identify the prospective learners' preferred types of advertisement messages and a more effective way to segment the market which in the end brings more students to the business. Information obtained from this study may provide a better and more useful understanding about the future marketing strategies for ODL institutions.

Research Objectives

Based on the background of the study, the researchers have identified three objectives to be achieved. The objectives are as follows:

- RO1: To assess the effect of substantiality, accessibility, reminder and persuasive type of messages in marketing communication programmes towards the sustainability of ODL institutions.
- RO2: To examine the most effective market segmentation criteria to be focused by the ODL institutions in their marketing communication programmes to ensure the sustainability of ODL institutions.
- RO3: To examine the most preferred type of messages to be adopted by the ODL institutions in their marketing communication programmes to ensure the sustainability of ODL institutions.



Literature Review

Sustainability of ODL Education

The increasing need of individuals to have access to higher education is of profound importance to achieve sustainability of ODL institutions in the future. Higher education has its own responsibility to promote the knowledge-based population that will bring the socio-economic mobility, hence uplift the society. The number of higher education institution engaged in sustainable development elements such as technology-enabled teaching and learning, technology-based research, engagement with the market segment and developing more ODL programmes is increasing every year (Husaini & Jusoh, 2017). Therefore, several indicators have been developed to provide a clear view on the current overall progress towards sustainability (Lozano et al., 2013).

Providing opportunities of education to as many people as possible is among the ultimate focus of the higher educational provider to remain sustainable. Open Distance Learning (ODL) is a viable platform for education and lifelong learning opportunities that are relevant for working individuals and the mass society for nation development. With that channel, many people will have greater opportunity to improve their employability and income. Therefore, it is very important for the higher educational institutions to play a prominent role to monitor and assess at least three aspects in evaluating its ODL sustainability: the quality of the programme, understanding the market segment, and creative marketing communication (Parsons & Shelton, 2019; Salvioni et al., 2017).

The number of learners enrolled in the system becomes the factor to be emphasised in an effort for the ODL programmes to be made easily available and reachable to all walks of life. As mentioned earlier, accessibility of the prospective learners to the programme marketing communication is also an important aspect to focus on in order to integrate sustainability in all actions of the ODL institutions. Existing literatures have found that the ability to sustain in a business has become an important factor to increase the market share of ODL institutions upon democratising the education for many people (Goni et al., 2017; Roos & Guenther, 2020; Shrivastava, 2020).

Understanding Effective Market Segmentation for ODL Institutions

Market segmentation is about knowing your customers, giving them exactly what they want or may want, building strong affiliations with channel affiliates and co-marketing partners and communicating via highly targeted promotional media such as event sponsorship, interactive web sites, personalised emails, trade magazines (Lamb et al., 2011). In other words, it is a technical way of truly understanding the customer.

ODL institutions require a different approach when segmenting their prospective learners. The university market has been characterised by three main segments namely, matured students, high school leavers and recently, international students in which each segment would consider different factors when choosing the university (Constantinides & Stagno, 2011). Nevertheless, these three main segments although typical to a university, the feasibility of marketing segmentation should mean something and must indicate the relevance of the programmes being marketed (Angulo et al., 2010). A number of authors have suggested four requirements for effective segmentation such as substantiality, identifiability and measurability, accessibility and responsiveness (Lamb et al., 2011). These four parameters will be explained further in the following sections.



Substantiality of the Market and its Effect on the Sustainability of an ODL Institution

Substantiality refers to the segment that must be sufficiently large and profitable to be economically viable for an organisation (Kotler & Armstrong, 2018). It typifies that a segment should be the largest possible homogenous group worth going after with a tailored programme. A segment should also be large enough to warrant developing and maintaining a special marketing mix (Lamb et al., 2011). Substantiality is a common way to direct the value of segmenting opportunity and thus achieving the organisation's objective. Previous studies have found that substantiality needs to address the organisation's objectives clearly as this will eliminate the probability of designing ineffective and inefficient targeting through potential segmentation (Pires & Stanton, 2000). Additionally, the organisation's top management should be actively involved in the market segmentation process from the beginning. Previous studies have shown a positive and significant effect between substantiality and the sustainability of a business organisation (Donovan & Henley, 2012; Pires & Stanton, 2011). Hence, this study suggests the following hypothesis:

H1: There is a positive and significant relationship between substantiality of the market and the sustainability of ODL institutions.

Accessibility of the Market and its Effect on the Sustainability of an ODL Institution

Accessibility is the degree to which a segment can be effectively reached and served (Kotler & Armstrong, 2018). It largely rests upon the ability of an organisation to direct its marketing effort at a particular segment. Media coverage, distribution and the influence of behavioural factors, all requires evaluation. It is also important to choose a media mix that will reach the target segment both economically and efficiently. Similarly, the distribution network chosen must be effective in reaching sub-segment. The firm must be able to reach members of targeted segments with customised marketing mix (Lamb et al., 2011). The main concern in accessibility relates on the optimisation of the budget at hand and reaching out the differentiated and mass targeted audience. However, previous studies have shown a positive and significant relationship of accessibility and the sustainability of a business organisation (Angulo et al., 2010; Matz et al., 2017). Therefore, this study proposes the following hypothesis:

H2: There is a positive and significant relationship between accessibility of the market and the sustainability of ODL institutions.

Understanding Effective Advertising Messages for ODL Institutions

Advertising messages can be classified according to whether the aim is to persuade or remind the targeted audience about products or services. A right advertising message plays an important role in raising the consumers' awareness, building a favourable attitude, hence establishing long-term relationships.

Persuasive Advertising Message and its Effect on the Sustainability of an ODL Institution

Persuasive is the act of making a person do or believe something by giving him a good reason to do it. The objective of persuasive advertising message is to build the consumers' liking, conviction, and preference (Tutaj & van Reijmersdal, 2012). Persuasive advertising may also convince the consumers of a certain belief that leads to a particular behavioural action such as purchasing a product or service. Persuasive advertising uses various techniques to appeal to the logical and emotional sides of the decision-making process. Not



all consumers are strictly rational and purely emotional in their purchasing decisions. There is always room for both objective facts and creativity when it comes to influencing the consumers' beliefs and behaviour (Matz et al., 2017).

There are persuasive advertising messages that use comparative advertising as a strategy. The advertisement will make an explicit comparison of the attributes of close competitors (Shareef et al., 2019). Previous studies have found that the persuasive advertising message works best when it stimulates the consumers' cognitive and affective process especially when they try to understand the advertisement in a detailed and analytical mode (Fleck et al., 2012; Lu et al., 2019). In the meantime, some advertisers use the authority figure and emotional tactic to attract the attention of the targeted market segment. Previous studies have shown a positive relationship between the persuasive advertisements and consumers' perception on the sustainability of ODL institutions (Constantinides & Stagno, 2011; Fleck et al., 2012; Lu et al., 2019). Hence, in the context of this study, it can be hypothesised that:

H3: Persuasive advertising messages have a positive and significant relationship with the sustainability of ODL institution.

Reminder Advertising Message and its Effect on the Sustainability of an ODL Institution

Fundamentally, this type of advertising message focuses on stimulating consumers' intention to re-purchase products or services (Kotler & Armstrong, 2018). Reminder advertising is used by primarily by established brands or in a follow-up to a more extensive advertising campaign in order to remind the consumer about the product or service, or to introduce new life or new theme into existing campaigns (Lamb et al., 2011).

Reminder advertising messages also serve to enhance the top-of-the-mind awareness of the brand and to reinforce the key messages of the brand value and the recent offerings. The strategy applied in this type of advertising is by mentioning the name of the product and testimonials of existing customers. The messages will be repeated many times to keep the targeted consumers' interested in, and aware of, a well-established product that is most likely at the maturity stage or the end of the product life cycle (Verma, 2009). Previous studies have shown a significant effect of the reminder advertisements and consumers' perception on the sustainability of a business organisation (Constantinides & Stagno, 2011; Fleck et al., 2012). Therefore, it can be hypothesised that:

H4: Reminder advertising messages have a positive and significant relationship with the sustainability of ODL institution.

Research Method

This research focuses on the analyses that are relevant to achieve the three objectives mentioned in the earlier part of this paper. Self-administered questionnaires were distributed to 350 prospective ODL learners in Malaysia. The convenience sampling technique was adopted as the method of collecting the data because this approach is convenient, accessible to the researchers, and require low budget. Data were collected from January to March 2021. A total of 314 valid responses were obtained for this study and the percentage of response is 89.71 percent.



The measured items were adapted and modified from past studies related to market segmentation, effective advertising messages, and institutional sustainability. The respondents' background comprises of age, gender, education level, and occupation. The measured items developed are based on the variables such as substantiality, accessibility, persuasive and reminder advertising messages for ODL institutions. Data obtained from the questionnaire were analysed using SPSS Version 22.0 to examine the respondents' profile and their perception on the market segmentation, effective advertising messages, and institutional sustainability. SMARTPLS was used to examine the target endogenous variable variance, inner model path coefficient sizes, outer model loadings, indicator reliability, internal consistency, convergent validity, discriminant validity, and the structural path significance in bootstrapping.

Findings

A thorough analysis was conducted to understand the prospective ODL learners' view on the effective market segmentation, advertising messages and sustainability. The results are as follows:

Table 1

Demographical Characteristics of the Respondents

Demographic Characteristics	Frequency	Percentage
Generational Cohort (n = 314)		
Below 25 years old (Gen Z)	74	23.57
26 – 40 years old (Gen Y)	104	33.12
41 – 55 years old (Gen X)	90	28.66
56 – 76 years old (Baby Boomers)	46	14.65
Educational Level (n = 314)		
LCE/SRP/PMR	18	5.73
MCE/SPM	38	12.10
HSC/STPM	23	7.32
Certificate	21	6.69
Diploma	38	12.10
Bachelor Degree	104	33.12
Masters	61	19.43
PhD	11	3.50
Occupation (n = 314)		
Private Sector	129	41.08
Public Sector	122	35.85
Self-Employed	63	20.06

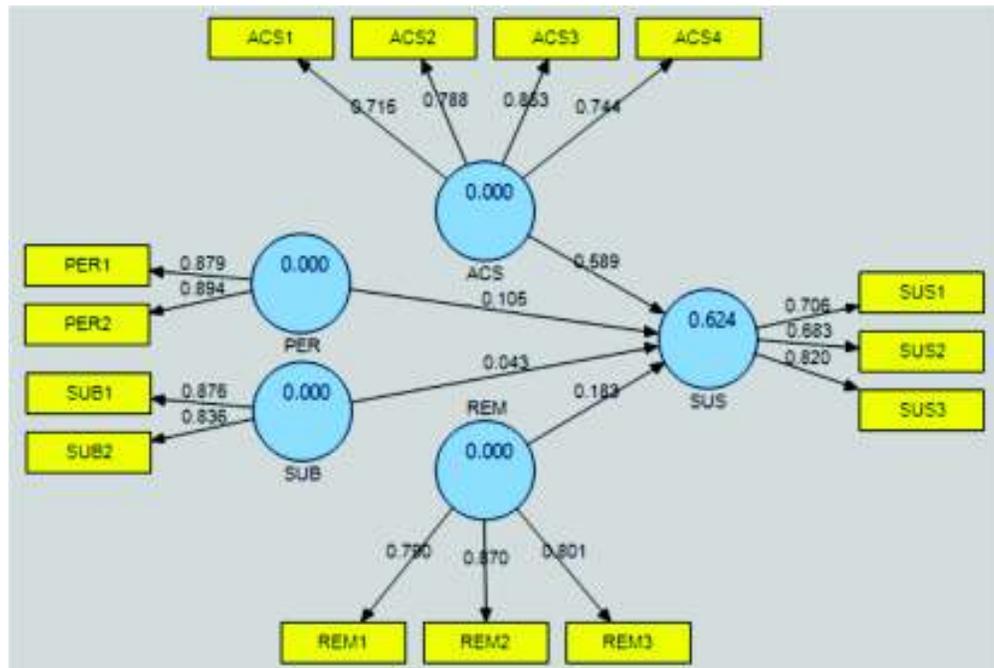
As can be seen in Table 1, the number of respondents who work in the public sector is as high as of those who work in the private sector. With the increasing number of civil servants in Malaysia, this statistic is common. Meanwhile, an easy access to education has made many people have an equal opportunity to obtain a higher degree. This research discovered a good trend where a total of 68.15 percent of the respondents have tertiary

education. The remaining 31.85 percent still have an opportunity to pursue their tertiary education through Open Distance Learning (ODL) based on the Accreditation of Prior Experiential Learning (APEL) admission.

Majority of the respondents are Gen Y between 41–55 years old (33.12 percent). For Open University Malaysia (OUM), it is notable that the high percentage of Gen X (41–55 years old) and Gen Z (Below 25 years old) offer a good opportunity for institutional sustainability.

Figure 1

SMARTPLS Reflective Model for the Effective Market Segmentation, Preferred Advertising Messages and Sustainability of ODL Institution



Note: ACS – Accessibility, PER – Persuasive, SUB – Substantiality, REM – Reminder, SUS – Sustainability

Figure 1 indicates that the coefficient of determination, R^2 is 0.624 for SUS endogenous latent variable. This means that the four latent variables (ACS, PER, SUB, and REM) moderately explain the variance in SUS (62.4%). The inner model path coefficient suggests that SUB has the strongest effect on ACS (0.589), followed by REM (0.183), and PER (0.105). However, the hypothesised path relationship between SUB and SUS is below than 0.1. The standardised path coefficients for ACS, PER, and REM are above than 0.1 and statistically significant. However, the standardised path coefficient for SUB is not statistically significant ($0.043 < 0.1$). Hence, it can be concluded that ACS, PER, and REM directly predict the SUS.

**Table 2***Results Summary for the Reflective Outer Model*

Latent Variable	Indicators	Outer Loadings	Indicator Loadings	Composite Reliability	AVE
ACS	ACS1	0.7155	0.5119	0.8583	0.6034
	ACS2	0.7880	0.6209		
	ACS3	0.8525	0.7268		
	ACS4	0.7442	0.5538		
PER	PER1	0.8785	0.7718	0.8798	0.7855
	PER2	0.8939	0.7991		
REM	REM1	0.7897	0.6236	0.8608	0.6738
	REM2	0.8698	0.7566		
	REM3	0.8007	0.6411		
SUB	SUB1	0.8763	0.7680	0.8462	0.7336
	SUB2	0.8361	0.7449		
SUS	SUS1	0.7065	0.4991	0.7819	0.5461
	SUS2	0.6828	0.4662		
	SUS3	0.8204	0.6731		

Table 2 indicates that all Composite Reliability are greater than 0.70. This means that the measured items have the Internal Reliability consistency. As for the Convergent Reliability, all Average Variance Extracted (AVE) are higher than 0.50 (Hair et al., 2014).

Table 3*Discriminant Validity*

Indicators	AVE	Square Root
ACS	0.6034	0.7768
PER	0.7855	0.8863
REM	0.6738	0.8209
SUB	0.7336	0.8565
SUS	0.5461	0.7390

Table 4

Fornell-Larcker Criterion Analysis for Discriminant Validity

	ACS	PER	REM	SUB	SUS
ACS	0.7768				
PER	0.4642	0.8863			
REM	0.5698	0.5155	0.8209		
SUB	0.4273	0.4151	0.3215	0.8565	
SUS	0.7203	0.4906	0.5863	0.3967	0.7390

Table 3 and 4 shows that the “square root” of AVE of each latent variable are greater than the correlations among the latent variables. This also indicates the measure of constructs are not highly related each other (Hair et al., 2014).

Table 5

Checking the Significance Level of the Inner Model Using Bootstrapping

Path	T-Statistics
ACS → SUS	8.0745
PER → SUS	2.6695
REM → SUS	3.9853
SUB → SUS	1.1116

Table 5 indicates that the ACS → SUS, PER → SUS, and REM → SUS T-Statistics are greater than 1.96. However, SUB → SUS T-Statistics is less than 1.96. Therefore, except SUB, all variables have shown an evidence of a significant relationship. This is consistent with the earlier assessment of the reflective PLS-SEM model.

Table 6

A Summary of the Hypothesis Testing

Hypothesis	Statement	Results
H1	There is a positive and significant relationship between substantiality of the market and the sustainability of ODL institutions.	Not Supported
H2	There is a positive and significant relationship between accessibility of the market and the sustainability of ODL institutions.	Supported
H3	Persuasive advertising messages have a positive and significant relationship with the sustainability of ODL institution.	Supported
H4	Reminder advertising messages have a positive and significant relationship with the sustainability of ODL institution.	Supported



Table 6 portrays the summary of the hypothesis testing. It was found that H2, H3, and H4 are supported while there is insufficient evidence to support H1. This is perhaps due to the reason that the prospective learners perceived that in order to be effective, the marketing communication must be able to reach the segment. Market that is too substantial will create problems associated with reachability. Therefore, an Integrated Marketing Communication must be properly planned to standardise the message across the media channels. The ODL institutions must ensure that the market segment must be effectively reached and served. In the meantime, effective advertising messages must be formulated to remind the market segment followed by persuading them to pursue their studies at ODL institution. The findings are consistent with the previous studies conducted by Angulo et al. (2010), Constantinides et al. (2011), and Fleck et al. (2012), Hence, all research objectives in this study are successfully achieved.

Conclusion

The growing concern about marketing communication strategies has made ODL institution to consider effective market segmentation and the right type of advertising messages to promote the university and its programmes to the right market. This is to ensure the sustainability of the business. The results of this study portray a unique perspective of the Malaysian prospective learners towards market segmentation strategies and advertising messages in the media channels. An empirical investigation has confirmed that the majority of prospective learners perceived that accessibility between ODL institution and the market segment is very important. In the meantime, ODL advertisements must incorporate the element of reminder and emotional connection to persuade the prospective learners in the future. This is in tandem with the research findings which also discovered that majority of the Malaysian people would love to appreciate the advertising messages that are consistent with their opinion and belief.

Acknowledgement

The research published was funded and supported by Open University Malaysia (OUM) through its Internal Research Grant (Code: OUM-IRF-2020-001). This enables us to conduct research for the benefits of OUM, a leading ODL institution in Malaysia. The authors would like to express our gratitude to the management of OUM for the financial assistance.

References

- Angulo, F., Pergelova, A., & Rialp, J. (2010). A market segmentation approach for higher education based on rational and emotional factors. *Journal of Marketing for Higher Education*, 20(1), 1–17. <https://doi.org/10.1080/08841241003788029>
- Bao, W. (2020). COVID-19 and online teaching in higher education: A case study of Peking University. *Human Behavior and Emerging Technologies*, 2(2), 113–115. <https://doi.org/10.1002/hbe2.191>
- Blaschke, L. M. (2012). Heutagogy and lifelong learning: A review of heutagogical practice and self-determined learning | Blaschke | The International Review of Research in Open and Distance Learning. *The International Review of Research in Open and Distance Learning*, 13(1), 56–71.



- Constantinides, E., & Stagno, M. C. Z. (2011). Potential of the social media as instruments of higher education marketing: A segmentation study. *Journal of Marketing for Higher Education*, 21(1), 7–24. <https://doi.org/10.1080/08841241.2011.573593>
- Donovan, R., & Henley, N. (2012). Segmentation and targeting. In *Principles and Practice of Social Marketing* (pp. 252–281). <https://doi.org/10.1017/cbo9780511761751.011>
- Faridi, M. R., & Ouseph, S. N. (2014). New Directions and Challenges for ODL: Building Collaborative Business Approach. *European Scientific Journal*, 10(10), 217–223.
- Favale, T., Soro, F., Trevisan, M., Drago, I., & Mellia, M. (2020). Campus traffic and e-Learning during COVID-19 pandemic. *Computer Networks*, 176, 1–26. <https://doi.org/10.1016/j.comnet.2020.107290>
- Fleck, N., Korchia, M., & Le Roy, I. (2012). Celebrities in Advertising: Looking for Congruence or Likability? *Psychology and Marketing*, 29(9), 651–662. <https://doi.org/10.1002/mar.20551>
- Goni, F. A., Chofreh, A. G., Mukhtar, M., Sahran, S., Shukor, S. A., & Klemeš, J. J. (2017). Strategic alignment between sustainability and information systems: A case analysis in Malaysian public Higher Education Institutions. *Journal of Cleaner Production*, 168, 263–270. <https://doi.org/10.1016/j.jclepro.2017.09.021>
- Grover, R., Vriens, M., Dillon, W. R., & Mukherjee, S. (2011). A Guide to the Design and Execution of Segmentation Studies. In *The Handbook of Marketing Research* (pp. 523–546). <https://doi.org/10.4135/9781412973380.n25>
- Hair, J. F. J., Hult, G. T. M., Ringle, C., & Sarstedt, M. (2014). A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM). In *Long Range Planning* (Vol. 46, Issues 1–2). <https://doi.org/10.1016/j.lrp.2013.01.002>
- Husaini, M. Z., & Jusoh, A. (2017). The Review of Sustainability Model and Indicators for Higher Education Institutions in Malaysia. *International Journal of Academic Research in Business and Social Sciences*, 7(11), 1170–1182. <https://doi.org/10.6007/ijarbss/v7-111/3555>
- Kalman, Y. M. (2017). Open Educational Resources: Policy, Costs, and Transformation. *The International Review of Research in Open and Distributed Learning*, 18(3). <https://doi.org/10.19173/irrodl.v18i3.3108>
- Kotler, P., & Armstrong, G. (2018). Principles of Marketing. In *Pearson* (pp. 213–221).
- Lamb, C. W., Hair, J. H., & McDaniel, C. (2011). Chapter 8: Segmenting and Targeting Markets. In *Marketing*, 11e.
- Latchem, C. (2018). Mobile learning. In *SpringerBriefs in Open and Distance Education* (pp. 29–35). https://doi.org/10.1007/978-981-10-6741-9_4
- Lozano, R., Lukman, R., Lozano, F. J., Huisingsh, D., & Lambrechts, W. (2013). Declarations for sustainability in higher education: Becoming better leaders, through addressing the university system. *Journal of Cleaner Production*, 48, 10–21. <https://doi.org/10.1016/j.jclepro.2011.10.006>



- Lu, C. C., Wu, I. L., & Hsiao, W. H. (2019). Developing customer product loyalty through mobile advertising: Affective and cognitive perspectives. *International Journal of Information Management*, 47, 101–111. <https://doi.org/10.1016/j.ijinfomgt.2018.12.020>
- Matz, S. C., Kosinski, M., Nave, G., & Stillwell, D. J. (2017). Psychological targeting as an effective approach to digital mass persuasion. *Proceedings of the National Academy of Sciences of the United States of America*, 114(48), 12714–12719. <https://doi.org/10.1073/pnas.1710966114>
- Munira, T. A., & Fadzil, M. (2008). Key Success Factors for Cross-Border Education. *The 22nd AAOU Annual Conference: The New Development, New Trends and New Missions of Open and Distance Education in Asia and the World, China*.
- Oh, H. (2013). How do exclusivity perceptions of independent and interdependent consumers influence their desires for luxury products. In *Luxury Marketing: A Challenge for Theory and Practice*. https://doi.org/10.1007/978-3-8349-4399-6_8
- Park, Y. (2011). A pedagogical framework for mobile learning: Categorizing educational applications of mobile technologies into four types. *International Review of Research in Open and Distance Learning*, 12(2), 78–102. <https://doi.org/10.19173/irrodl.v12i2.791>
- Parsons, P., & Shelton, K. (2019). Organizational Sustainability in Online Higher Education: Reframing through the Viable System Model. *Online Journal of Distance Learning Administration*, 22(3).
- Pires, G., & Stanton, J. (2000). Marketing services to ethnic consumers in culturally diverse markets: issues and implications. *Journal of Services Marketing*, 14(7), 607–618. <https://doi.org/10.1108/08876040010352772>
- Pires, G., & Stanton, J. (2011). Revisiting the substantiality criterion: From ethnic marketing to market segmentation. *Journal of Business Research*, 64, 988–996. <https://doi.org/10.1016/j.jbusres.2010.11.022>
- QS Rankings. (2020). *How is COVID-19 Shaping the Higher Education Sector? The Impact of the Coronavirus on Global Higher Education*.
- Richter, T., & McPherson, M. (2012). Open educational resources: Education for the world? *Distance Education*, 33(2), 201–219. <https://doi.org/10.1080/01587919.2012.692068>
- Roos, N., & Guenther, E. (2020). Sustainability management control systems in higher education institutions from measurement to management. In *International Journal of Sustainability in Higher Education* (Vol. 21, Issue 1, pp. 144–160). <https://doi.org/10.1108/IJSHE-01-2019-0030>
- Salvioni, D. M., Franzoni, S., & Cassano, R. (2017). Sustainability in the higher education system: An opportunity to improve quality and image. *Sustainability (Switzerland)*, 9(6), 1–27. <https://doi.org/10.3390/su9060914>
- Shareef, M. A., Mukerji, B., Dwivedi, Y. K., Rana, N. P., & Islam, R. (2019). Social media marketing: Comparative effect of advertisement sources. *Journal of Retailing and Consumer Services*, 46(C), 58–69. <https://doi.org/10.1016/j.jretconser.2017.11.001>



- Shrivastava, A. (2020). Weaving sustainability in Indian higher education system. *Emerald Emerging Markets Case Studies*, 10(3), 1–14. <https://doi.org/10.1108/EEMCS-01-2020-0015>
- Tutaj, K., & van Reijmersdal, E. A. (2012). Effects of online advertising format and persuasion knowledge on audience reactions. *Journal of Marketing Communications*, 8(1), 5–18. <https://doi.org/10.1080/13527266.2011.620765>
- Verma, S. (2009). Impact of repetitive and contextual advertisements on consumer behavior: An exploratory study. *2009 International Association of Computer Science and Information Technology – Spring Conference, IACSIT-SC 2009*. <https://doi.org/10.1109/IACSIT-SC.2009.20>