

THE IMPACT OF VIRAL MARKETING STRATEGY VIA SOCIAL NETWORK SITES ON STUDENT'S IMAGE: A CASE STUDY AT PALESTINE TECHNICAL UNIVERSITY-KADOORIE

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ABSTRACT

The aim of this study was to investigate the relationship between viral marketing strategies via social network sites and student image at the Palestine Technical University - Kadoorie. This research adopted the perspective of students who had daily use of the university's portal and official website as well as social network sites, and developed and examined a model that could contribute to scholarly research on information systems and viral marketing. The quantitative method of data collection using a questionnaire survey was used in the current study. Structural equation modelling (SEM) through a partial least square (PLS) software was used for the data analysis. The results revealed that perceived supporting elements, perceived added value, and perceived cost reduction had a significant and positive effect on the student's image about universities. The most remarkable recommendation was to snowball the use of social network sites in viral marketing. The theoretical and practical implications of this were discussed.

Keywords: *Viral Marketing, Student Image, Social Network Sites, Perceived Added Value, Perceived Supporting Elements, Perceived Cost Reduction, Palestine*

1. INTRODUCTION

In current technological developments and the increasing usage of the Internet and social network sites in diffusing a message, belief or campaign are indisputable. Therefore, the use of social network sites as a fast and viable tool for brand promotions by executives and government campaigners is becoming an acceptable and evolving area of interest (1). Furthermore, the Internet is helping business organizations by enabling the creation of marketing materials for dissemination internationally at a low cost. Based on these notions, viral marketing is an innovative marketing strategy for reaching a large number of customers rapidly (2-4). Viral marketing parallels word-of-mouth (WOM) marketing activities, but in an Internet setting (2). Viral marketing is also famous as Internet (WOM) marketing as it stimulates individuals to share product information with their friends via social network sites (1). It mostly seeks to ensure that individuals are interested in sharing product information with their friends. Therefore, viral marketing is the diffusion

of information about a product and its acceptance over networks.

In an effective marketing strategy is important to entice, maintain and satisfy target customers (5). Thus, a product should be attractive enough to facilitate the diffusion of information to attain the primary purpose of viral marketing (6). Viral marketing has become a marketing tool that is being used increasingly by several organizations (7). As it is a new marketing trend, information and knowledge about it are still lacking. Therefore, there is a strong need for it to be identified in-depth (8, 9). Consequently, marketers should identify the strategies and factors that affect the acceptance of viral marketing by customers.

In the education context, universities are competing to recruit more students, mainly owing to marketization and globalization (10). There are three main customer groups for educational institutions, namely, alumni, current students, and future students (11). Usually, students are on the lookout for the newest and latest products, services,

and information. According to Aman and Hussin (12), higher educational institutions use social network sites as a tool for marketing. Consequently, universities should focus on creating content for their social network sites, websites, and portals to attract students and encourage them to share that information with their friends. In Palestine, increasing competition in the education sector is motivating universities to use novel types of communication to formulate student beliefs, images, and attitudes. With the intention of offering exclusive and notable student experiences, universities have been seeking ways to stimulate student involvement in the building and dissemination of their university experience (10). The more students are enrolled into a university, the more enhanced will be the reputation of that university (13, 14). Therefore, providing high-quality services through the university's website and portal can have a robust effect on the student's image.

Based on the abovementioned discussion, this research was aimed at examining the impact of viral marketing strategies via social network sites on the student's image toward universities and identifying the viral marketing strategy dimensions that affect the student's image at the Palestine Technical University-Kadoorie. Viral marketing is still new in Palestine, and the results of its examination and usage in the education sector are still unclear until now. Therefore, this study will provide insights on how viral marketing may impact the student's image in the public education sector in Palestine. Thus, the primary research question was formulated as follows: *Does a relationship exist between viral marketing strategies via social network sites and the student image at the Palestine Technical University-Kadoorie?*

The remaining sections are structured as follows: Section 2 presents the literature review; Section 3 reviews the theoretical foundation of the study; Section 4 presents the research model; Section 5 presents the research methodology, and describes the instrument development and data collection processes, and reports on the empirical results; while Sections 6 and 7 present the data analysis and results, and Section 8 explains the limitations of the study and recommendations for future work. Finally, the conclusion is given in Section 9.

2. LITERATURE REVIEW

2.1 Viral Marketing and Educational Institutions

Technology has brought about a paradigm shift in the way products or services are marketed across the world. In the context of educational institutions, universities are engaged in the construction and promotion of brand knowledge in diverse ways, and have adopted related strategies to promote their reputation (15). According to Priilaid, Human (16), marketing plays an imperative role in the growth of brand knowledge. Universities have progressively used cross-marketing techniques, including brand management, to design effective strategies to stay ahead of the competition (17).

Social network sites are perfect platforms for viral marketing as they enable people to connect based on broad, specialized relationship links through virtual communities(18). Moreover, numerous studies have shown that social network sites that are used in viral marketing play an important role in encouraging customers (i.e. students) to accept new products or in affecting their attitudes (18-22). Viral marketing is described as a marketing approach or marketing phenomenon, whereby social network sites are used to energize people to share a marketing message with others (23).

Notably, university students are greatly influenced by the attractive utilization of viral marketing. Universities should give more consideration to orientating themselves to viral marketing as a popular communication tool for creating a positive image about their products and services among students through social network sites. Viral marketing can accelerate the dissemination of information that is more applicable to university students. A successful viral marketing strategy can help universities to strengthen the belief of students in the quality of their services, and is an essential source of image formulation. Consequently, the implementation of a well-identified viral marketing strategy can provide universities with a definite competitive edge.

2.2 Viral Marketing via Social Network Sites

The flexibility of social network sites plays a significant role in the diffusion of information, and the use of media in the form of videos and text messages have forced marketers to focus their

efforts on using them as a strategic marketing tool. Social network sites can offer a direct statistical measure of the number of marketing messages viewed by customers. Therefore, marketers are emphasizing the need to study the effects of viral marketing on customers.

An understanding of the mechanisms of viral marketing in social network sites can improve one's knowledge of the drivers of viral marketing, and provide valuable insights into advertising strategies over the Internet (24). Therefore, attractive advertising messages will motivate customers to convey these messages to their contacts in their social network sites (25). Viral advertising through social network sites has a convincing power to promote brands and products to target audiences. As the success of viral advertising campaigns is mostly contingent on the dispersal of the message by individuals to others, scholars have started to scrutinize which aspects may possibly stimulate consumers to share the content online (26). Thus, social network sites are increasingly becoming an influential setting for marketing (27).

Although viral marketing has been studied in the trade and services fields, limited studies have been conducted about it in the learning domain. Zernigah and Sohail (28) carried out a study aimed at understanding the factors that help to expand the acceptance and implementation of viral marketing by Pakistani customers. The study recommended that consideration be given to the customer's culture, confidence, viral message design and implementation, and modern media and message clarity in viral campaigns (28). A study conducted by Gholamzadeh and Jakobsson (29) showed that exposure to viral messages through e-mails or social media affects customers, and induces them to buy the advertised products (29). In another study, Lekhanya (30) recommended the use of viral marketing as a fast and low-cost promotional tool by establishing a company website on social network sites so as to reach targeted audiences in different networks throughout the world (30).

From the previous overview, the idea of viral marketing refers to the activity of using, encouraging, and motivating users to share information on companies and products with friends. Viral marketing uses different types of media, such as social network sites, to transfer information and messages about products and services to individuals and groups. Moreover, the viral concept can be connected to any positive or

negative activities to communicate or distribute information online as viruses, and the concept can be applicable to services that make extensive use of the Internet, such as in the hospitality and education sectors.

3 THEORETICAL FOUNDATION AND HYPOTHESES DEVELOPMENT

3.1 Perceived Supporting Elements

Over the last decade, the number of services provided to students through the Internet has been growing. Nevertheless, the introduction of the Internet has presented many challenges for marketers. Consequently, marketers have found more novel approaches to communicate efficiently with their target market, and viral marketing is one such approach (27). However, a good viral marketing strategy needs some essential elements in order to succeed, and the more elements that are implemented in the strategy, the more effective it will be (31). According to Hirvijärvi (31), these elements are give-away products and services, smooth delivery to others, expandable from small to very large, accomplishment incentives and conduct, taking advantage of other resources, and the use of current communication networks.

In the context of the education sector, the technological progression has augmented the implications of marketing for learning facilities (32). The competition is getting stronger in the universities market. Based on the supporting elements of viral marketing strategies (31), educational institutions should attractively promote their services in an effortless, free, visible and fun way. Furthermore, ingenious viral marketing plans take advantage of common human motivations. Hence, it will be easier to generate a right image and a positive reputation for the brands and activities of an institution. Therefore, it was hypothesized that:

H1: Perceived supporting elements have a positive impact on student image at the Palestine Technical University - Kadoorie.

1. Perceived Added Value

Viral marketing gives a product added value. A message that includes something of value is fed through users of particular social network sites, and preferably through networks, in an exponential fashion, much the same as the feeding of a virus in

a medical setting (33). In order to prompt the forwarding or sharing behaviour, the message must present some value to the receiver. Such a value, whether in the form of information, functionality, entertainment or emotions, must be clear (33). Additionally, a brand is a deliberately perceived equity when it delivers added value to a precise service or product (34). Therefore, the content of the message must be relevant and be of practical value to customers.

Brand equity is defined as the customer's intangible and subjective intangible assessment of a brand above and beyond its objectively perceived value (35). According to Keller (36), customer-based brand equity happens when the customer has a high level of awareness and understanding of the brand, and holds some sturdy, appropriate, and distinctive brand associations in his/her memory. A robust brand has a high level of customer consciousness and loyalty, and forms the foundation for the building of dependable and lucrative customer associations (37).

In the educational context, the achievement of brand equity elements can help to add value to students, thereby increasing the value of a university in terms of its reputation. A cumulative brand equity contributes to the creation of positive student image by increasing their trust in the services of the university. Likewise, brand equity increases the value of a university by improving the competence of marketing campaigns as the name of the brand is frequently mentioned, and this can be a competitive advantage in the education sector. Therefore, to effectively build positive student image, a university should provide students with high-quality services, which, in turn, will increase their loyalty to the products or services of the university. Therefore, it was hypothesized that:

H2: Perceived added value has a positive impact on student image at the Palestine Technical University - Kadoorie.

2. Perceived Cost Reduction

In The success of viral marketing lies partially with the relatively low cost of advertising. Also, viral marketing increases the speed at which new products and services are accepted (38). Since viral messages are usually delivered within social networks sites, viral marketing is a very effective means of reaching a large group of people with similar interests. Furthermore, as messages are

received from a known source, they have a higher chance of being opened (39) as they contain more credible and reliable information (27).

For viral marketing to be effective, it must be able to motivate customers to spread messages or advertisements to friends (40). Therefore, in the context of educational institutions, when students get a memorable and valuable service experience, they will create positive image of the services of the university. Also, there is a high expectation that students will adopt viral marketing since they are usually telling stories and spreading advertisements or messages about the university among their friends in a viral way through social network sites. Therefore, it was hypothesized that:

H3: Perceived cost reduction has a positive impact on student image at the Palestine Technical University - Kadoorie.

3. Student Image

In the preferences and loyalty of customers are essential for success in a competitive market environment. Having a loyal customer is a valuable advantage because the customer is the main element for the sustainability of a learning organization or corporation (41). Therefore, for customers/students to be satisfied, they must be cared for and served. In the context of the literature on learning, a perceived image is defined as all the perceptions and impersonations an individual feels towards a university. However, several aspects can contribute to the classification of a university's image, for example, substructures, individual relations, ecological aspects, academic features, teaching and research, education quality, and employment opportunities, among others (42).

Student images are mostly formed by essential marketing communication activities, mainly through the use of new orientations like viral marketing, beyond the importance of a traditional marketing mix. In the current study, the student image indicated their experiences of the services of the university articulated in terms of service quality, service reputation, and student care.

The first aspect of student image in this study was service quality. Living on the university campus was marked by the provision of many supplementary learning services, for example, managerial services, public library services, computer and research laboratory services, dining-

room and student housing services, among others (42). By upholding their learning services, educational institutions will be able to fulfil the hopes of students and maintain service quality in the education sector (43, 44). Remarkably, numerous studies have highlighted the impact of service quality on educational institutions (45-47). Therefore, educational institutions must provide students with the required products or services accompanied by continuing services.

The second aspect of the student's image in this study was the care of students. According to Masserini, Bini (42), educational institutions are obliged to meet high standards with regard to education quality, scientific research, and managerial facilities if they are to remain competitive. Consequently, educational institutions must care about the needs of students to gain their satisfaction, and this will create a positive student image.

The third aspect of student image in this study was service reputation. According to Barnett, Jermier (48), the reputation of a company is determined over time by the collective judgements of its stakeholders concerning the financial, social, and environmental impacts and activities of the firm. These judgments are associated with how stakeholders positively or negatively recognize the organization in comparison to its contenders, based on its history of consistent performance and effective communication (49). Therefore, the perception of students regarding the service reputation of a university may form the basis for a positive student image.

4. RESEARCH MODEL

Even though social network sites are a crucial tool for any business organization, it is also important that they be employed by educational institutions. Several individuals might not relate marketing to schools and universities. However, educational institutions must understand that they need a plan to increase their enrolment and raise income. Although educational institutions work differently from companies, they both have similar fundamental values when it comes to providing products or services (50). The daily lives of people are genuinely affected by the dissemination of information and social influence of social network sites. Studies have shown that the people who are the most active on social network sites are the millennials, and this generation also has the lowest

trust in traditional advertising. Advertisements on social network sites have gained better results than on traditional media (51). Therefore, a novel way to initiate discussions between universities and their external as well as internal environment is to use viral marketing (27, 52). Viral marketing delivers numerous benefits for marketing organizations, e.g. fast transfer of advertising and promotional messages to a great number of people at a lower cost than traditional channels of marketing. The reason for this is that users of social network sites exchange advertising messages among themselves, thereby contributing to the rapid spread and increased impact of the messages (53). However, based on the literature, no research, as yet, has focused its attention on the impact of viral marketing via social network sites on the student image in Palestine through the integration of the perceived supporting elements, perceived added value, and perceived cost reduction in viral marketing strategies. Based on these aspects, this study derived the theories that formed the basis for the creation of the research model, and proposed to determine the impact of viral marketing strategies on the student's image at the Palestine Technical University - Kadoorie. Consequently, the development of a model that takes into account viral marketing strategies is essential in determining and exploring the impact of viral marketing on student image in controlled situations. The proposed model for the present study is depicted in Figure 1.

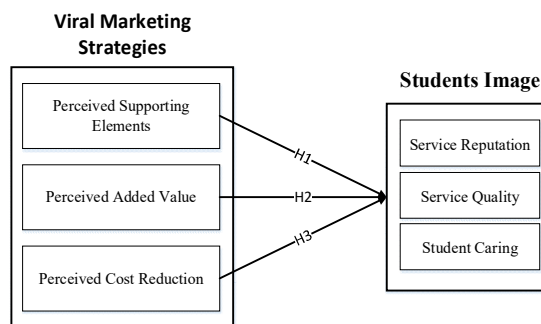


Figure 1: Research Model

5. METHODOLOGY

The aim of this study was to examine the relationship between viral marketing strategies via social network sites and student image. The quantitative method of data collection using a questionnaire survey was used in the present study. A total of 270 Palestinian students from seven

faculties at the Palestine Technical University - Kadoorie were selected to participate in the study using the stratified random sampling method. According to the structural equation modelling analysis, at least 100 samples were needed (54). Also, the smart PLS path modelling recommended that the sample should consist of at least 30 to 100 case (54, 55). Therefore, a sample size of 270 respondents was sufficient.

The survey used for collecting the data was adopted from previous studies on electronic marketing. It encompassed 30 items, which were amended to suit the aims of the study. The items used for measuring the perceived added value were adapted from Sweeney and Soutar (56), while the items for measuring the perceived supporting elements were adapted from Hirvijärvi (31), the items for measuring the perceived cost reduction were adapted from Zhuang and Lederer (57), and the items for measuring student image were adapted from (58, 59). The respondents were requested to choose their responses from a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). The survey was also translated into Arabic, the native language of the respondents. The survey questionnaire was manually distributed to 350 students at the Palestine Technical University - Kadoorie. However, only 270 completed questionnaires were used for the data analysis in this study. The data were analysed using the SEM approach by means of the Smart PLS 3 software.

6. DATA ANALYSIS AND RESULTS

6.1 Descriptive Statistics

The characteristics of the respondents and the descriptive statistics of the constructs are presented in Table 1 and Table 2, respectively. In Table 2, it can be seen that the range of the mean of the entire construct was from 3.17 to 3.59, with standard deviations ranging from 0.76 to 1.03. This showed a narrow spread of the values around the mean. Furthermore, the skewness ranged from -0.340 to -0.890, while the kurtosis ranged from -0.700 to 0.460. The rule of thumb for skewness and kurtosis, as established by Byrne (2013), for normally distributed data are ± 3 and ± 7 , respectively, and based on this recommendation, the data for this study were assumed to be suitable and normal for further analysis (60).

The measurement instrument was checked for internal consistency using Cronbach's alpha,

and the result of the assessment showed that all the constructs obtained Cronbach's alpha values of more than 0.60, indicating their high internal consistency (61). These values showed that there was good correlation between the responses of the group of items used to measure the study constructs (62).

7. MODEL ANALYSIS

The partial least squares version 3 (PLS3) was used during the model verification to analyse the data. There are two stages in structural equation modelling using PLS. These are the measurement model assessment and the structural model assessment (63). During the measurement model assessment stage, the constructs are examined for reliability and validity, while structural model assessment focuses on the verification of the model hypotheses.

7.1 Measurement Model Result

Hair Jr, Hult (63) indicated that the verification of the survey for the measurement model is an aspect of the PLS technique. This technique is frequently carried out based on formative and reflective constructs. The goodness of measures is mostly verified using two main criteria - reliability and validity. Reliability tests the consistency of an instrument by measuring a specific aspect that it intends to measure, while validity implies testing the efficiency of a given instrument in measuring a specific concept that it was designed to measure (64). A three-element procedure was followed in this study to assess the measurement model, namely, the indicator items of reliability, convergent validity, and discriminant validity. As per Hair Jr, Hult (63), the minimum acceptable level of item loading must be > 0.60 ; however, for this study, the minimum acceptable item loading level was 0.60.

As depicted in Figure. 2, 30 reflective indicators were used to test the measurement model, and two items (SE6 and RC3) were found to have a factor loading of 0.643 and 0.612, respectively. Based on the recommendations of Hair, Ringle (65) and Henseler, Ringle (66), any item with a factor loading value in the range of 0.40 to 0.70 should be excluded as far as its exclusion will improve the composite reliability (CR) result above the recommended threshold value. Hence, the removal of the indicators in this study was done by performing a PLS algorithm test. It has been stated

that the verification of the survey for a measurement model is an aspect of the PLS procedure. This process is often performed based on formative and reflective constructs.

The average variance extracted (AVE) was used as the basis to test the convergent validity of each construct shown in Table 3. Convergent validity is the measure of the extent of the positive correlation between a measure and the other measures of the same construct (63). This study adopted 0.5 as the minimum acceptable AVE value, as suggested earlier by Hair Jr, Hult (63). The results proved that “Service Reputation” gave the highest AVE value (0.739), while “Added Value” gave the lowest AVE value (0.500). These were all acceptable values with regard to their convergent validity.

The discriminant validity was assessed using the Fornell-Larcker criterion and the Heterotrait-Monotrait Ratio (HTMT) criterion, as presented in Table 4 (67, 68). According to the table, a higher square root of the AVE was obtained compared to the construct correlation, thereby suggesting the establishment of the discriminant validity. This further strengthened the result of the HTMT assessment, where the discriminant validity was established by the HTMT 0.90 criterion. Generally, the results suggested adequate convergent and discriminant validities of the model.

The results indicated that all the model dimensions were valid measures in terms of their statistical significance and parameter estimates. The results generally indicated that the model had adequate empirical support for its reliability, and convergent and discriminant validities.

7.2 Evaluation of the Structural Model

In this study, the structural model (also called the inner model), portrayed the correlation between the examined constructs. Therefore, the evaluation of the structural model would indicate the relationship between the research hypotheses and their effects on the studied constructs. In this regard, the path coefficient (β) criterion was used to test the postulated hypotheses in this study. The range of the standardized values for the path coefficient was between -1 and +1, with values closer to +1 implying a strong relationship between every two constructs, and vice versa (63). When assessing the significance level of a relationship using the path coefficient value, the t-value is

usually higher than a specific critical value, thereby indicating a significant coefficient at a given error probability. For instance, a t-value > 1.96 indicates a significance level at $p < 0.05$.

Table 5 shows that the results obtained from the research hypotheses tests were all acceptable. Specifically, H1, which proposed a significant influence of ‘Perceived Supporting Elements’ on the student perception, was supported by the results ($\beta = 0.506$, $t=10.124$, $p < 0.01$). The hypothesis, H2, which assumed that ‘Perceived Added Value’ had a positive influence on student image, was accepted ($\beta = 0.235$, $t = 4.682$, $p < 0.01$). For H3, the significant influence of ‘Perceived Cost Reduction’ on student image was also supported by the results ($\beta = 0.225$, $t=4.449$, $p < 0.01$). In this study, the coefficient of determination (R^2) was also used to test the research hypotheses. As per Mitchell and Jolley (69), R^2 values in the range of 0.01 - 0.09 are said to be low, while those in the range of 0.09 - 0.25 are moderate; and those in the range of 0.25 - 1 are high. Figure 2 shows the results of the R^2 values calculated in this study, where the R^2 value of student perception was 0.643, indicating that 64.3% of the variances in the perception were explained by the three dimensions - perceived supporting elements, perceived added value, and perceived cost reduction.

8. DISCUSSION

This study explains the impact of viral marketing strategies via social network sites on the student image at the Palestine Technical University - Kadoorie. It explains the impact of viral marketing strategies via social network sites using the strategy dimensions of perceived supporting elements, perceived added value, and perceived cost reduction as independent variables in addition to student image based on a literature review. All the hypothesized viral marketing strategy dimensions in the model were supported.

The results of the impact of the viral marketing strategy dimensions via social network sites on student image revealed that the perceived supporting elements (H1) had a significant effect on student image of university services ($\beta = 0.506$, $t=10.124$, $p < 0.01$). Therefore, universities should present their products and services in an entertaining, attractive, effortless, free, visible and

fun way. The results on perceived supporting elements were consistent with the study by Zernigah and Sohail (28), which found that the acceptance of viral marketing messages by consumers can be increased by incorporating elements of entertainment.

Similarly, perceived added value (H2) was identified as a significant viral marketing dimension that was associated with student image of university services ($\beta = 0.235$, $t = 4.682$, $p < 0.01$). According to Severi and Ling (70), organizations with high brand equity attain a greater competitive advantage and enjoy opportunities for successful extensions, resilience against competitors and promotional pressures, and the creation of barriers against competitive entries. Therefore, students will have a greater perception of added value and will place more trust in the services and products of that university than of their competitors, thereby enhancing the loyalty and satisfaction of students. Therefore, a perceived added value will create a positive student perception towards the services or products of a university compared to those of other competitors in the education sector. The results were consistent with the study by (71), who found that viral marketing strategies have a significant impact on customer decisions.

The perceived cost reduction (H3) dimension significantly affected student image of university services ($\beta = 0.225$, $t = 4.449$, $p < 0.01$). This result highlighted the importance of providing students with low-cost or free services through social network sites to create a positive image of the university. Thus, a high perception of cost reduction will lead to a higher positive student image of the university. This result was in line with the prior findings of Lekhanya (30), who recommended the use of viral marketing as a fast and low-cost promotional tool.

9. THEORETICAL AND PRACTICAL IMPLICATIONS

The theoretical contributions are the specific implications of the findings for the existing theory in relation to the dimensions of viral marketing strategies and student image of the services of a university. In this study, a theoretical model was proposed to study the impact of viral marketing strategy dimensions on the student image regarding university services, consequently, giving rise to three theoretical implications. Firstly, to

examine the impact of the viral marketing strategy dimensions on student image, the study used perceived supporting elements, perceived added value, and perceived cost reduction, in addition to student image based on a literature review. Secondly, until now, no research has focused on the impact of viral marketing strategies via social network sites on the student image in Palestine by means of a combination of perceived supporting elements, perceived added value, and perceived cost reduction as the dimensions of viral marketing strategies based on the literature. This study addressed this issue by deriving the theories that formed the basis for the creation of the research model, and proposing to determine the impact of viral marketing strategies on the student image at the Palestine Technical University - Kadoorie. Thirdly, the viral marketing strategy dimensions of the model developed in this study can add to the existing literature on viral marketing.

The results of this study raise necessary implications for educational institutions in developing countries, especially in Palestine, that intend to use viral marketing as a marketing tool. The main objective of this study was to develop a model to study the impact of viral marketing strategy dimensions on the image of students in developing countries, and this objective was achieved. There are essential managerial implications of the findings of this study for system developers, educational institutions and policymakers in attempting to develop university websites and portals. They have to take into consideration the needs of students and how these needs can be satisfied. By doing so, the students will have a positive image about the university, and hence, they will spread the message about the university to their friends through social network sites.

In the survey used in this study, it was agreed that viral marketing strategy dimensions (perceived supporting elements, perceived added value, and perceived cost reduction), as derived from the literature review, have a significant influence on student image. However, there has been no research to examine the impact of viral marketing strategy dimensions in Palestine. The results of this study should, therefore, support viral marketing strategy policymakers and officials when taking a stand on strategies to facilitate the effective use of viral marketing.

10. LIMITATIONS OF THE STUDY AND FUTURE RESEARCH

Despite the numerous contributions of the present study from both a theoretical and practical perspective, some limitations still exist, and these must be addressed. Firstly, the model used in this study included three viral marketing strategy dimensions (perceived supporting elements, perceived added value, and perceived cost reduction), as derived from the literature. However, the number of viral marketing dimensions remains one of the limitations of this study, because there are other viral marketing strategy dimensions that may have an impact on student image. Secondly, the study sample comprised students of the Palestine Technical University - Kadoorie. This sample may not adequately represent all the educational institutions in Palestine. Therefore, this result should not be generalized to the whole country in future studies. Thirdly, the scope of the present study was within the realm of the Palestine Technical University - Kadoorie; hence, other educational institutions should be considered in future studies. Fourthly, this study cannot be generalized to all developing nations as most of the other developing nations may not share the demographic features of Palestine. Therefore, further studies should be conducted in different countries to endorse and reinforce the results of this study.

11. CONCLUSION

The main aim of this research was to examine the impact of viral marketing strategies via social network sites on student image of universities, which has been largely ignored in the literature, and to propose a viral marketing strategy model for studying the research objective and answer the primary research question of this study to examine the existence of a relationship between viral marketing strategies via social network sites and the student image at the Palestine Technical University-Kadoorie.

The results revealed a positive and significant relationship between perceived supporting elements, perceived added value, perceived cost reduction and student image. Based on these results, the impact of these dimensions should be considered by educational institutions and policymakers when attempting to use viral marketing as a marketing strategy for their universities. In addition, although the analysis

supports the proposed hypotheses, further research is necessary to examine other viral marketing strategy dimensions that may possibly have an impact on the students' image.

Finally, the proposed model is a coherent model that can be used in future empirical studies in the viral marketing field. The model can also be extended in different directions. The model proposed in this research can guide further studies about effective viral marketing strategies that may create a positive student image of universities in developing countries such as Palestine.

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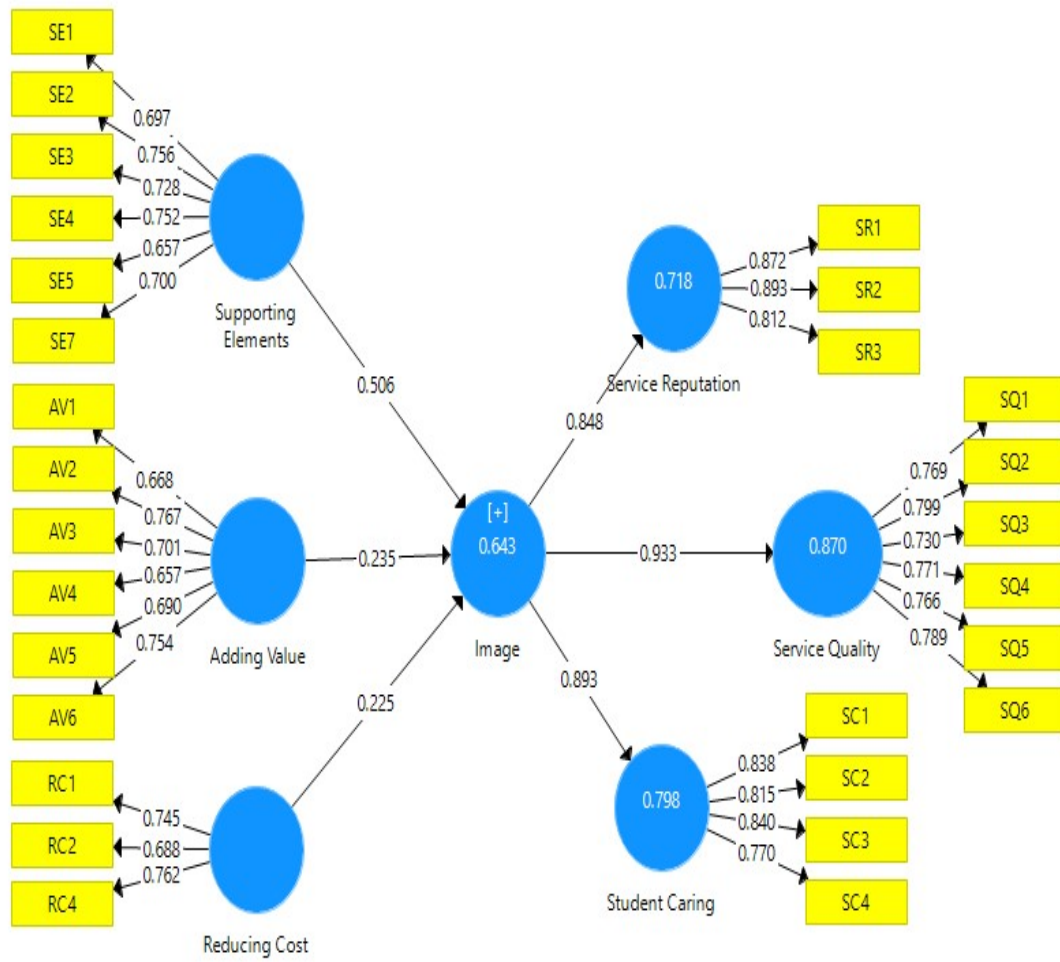


Figure 2: Measurement Model

Table 1. Sample Characteristics

Sample Characteristics	Items	Frequency	Percent (%)
Gender	Male	102	37.8
	Female	168	62.2
Education	Diploma	66	24.4
	Bachelor	201	74.4
	Master	3	1.1
Level	First Year	26	9.6
	Second Year	58	21.5
	Third Year	46	17
	Fourth Year	129	47.8
	Fifth Year	10	3.7
Faculty	Diploma	96	35.6
	Engineering	93	34.4
	Agriculture	7	2.6
	Applied Science	12	4.4
	Business	45	16.7
	Literature	14	5.2
	Master	3	1.1

Table 2. Descriptive Statistics

Construct	SE	AV	RC	SR	SQ	SC
Items	7	6	4	3	6	4
Mean	3.380	3.340	3.590	3.140	3.220	3.170
S.D.	0.780	0.760	0.730	1.030	0.890	0.970
Skewness	-0.890	-0.520	-0.380	-0.340	-0.530	-0.510
Kurtosis	0.460	0.100	0.060	-0.700	-0.120	-0.490
Cronbach's alpha	0.830	0.790	0.630	0.820	0.860	0.830

Table 3. Reliability and Validity Results

Construct	Items	Factor Loading	AVE	CR	Cronbach's Alpha
Perceived Elements Supporting	SE1	0.697	0.512	0.863	0.810
	SE2	0.756			
	SE3	0.728			
	SE4	0.752			
	SE5	0.657			
	SE6	Deleted			
	SE7	0.700			
Perceived Value Added	AV1	0.668	0.500	0.857	0.799
	AV2	0.767			
	AV3	0.701			
	AV4	0.657			
	AV5	0.690			
	AV6	0.754			
Perceived Reduction Cost	RC1	0.745	0.536	0.776	0.750
	RC2	0.688			
	RC3	Deleted			
	RC4	0.762			
Service Reputation	SR1	0.872	0.739	0.894	0.822
	SR2	0.893			
	SR3	0.812			
Service Quality	SQ1	0.769	0.595	0.898	0.863
	SQ2	0.799			
	SQ3	0.730			
	SQ4	0.771			
	SQ5	0.766			
	SQ6	0.789			
Student Caring	SC1	0.838	0.666	0.889	0.833
	SC2	0.815			
	SC3	0.840			
	SC4	0.770			

Table 4. Fornell-Larcker Criterion and Heterotrait-Monotrait Ratio

	Perceived Added Value	Perceived Cost Reduction	Service Quality	Service Reputation	Student Caring	Perceived Supporting Element
Fornell-Larcker Criterion						
Perceived Added Value	0.707					
Perceived Cost Reduction	0.404	0.732				
Service Quality	0.591	0.513	0.771			
Service Reputation	0.547	0.458	0.689	0.860		
Student Caring	0.547	0.442	0.738	0.669	0.816	
Perceived Supporting Elements	0.601	0.417	0.686	0.642	0.657	0.716

Table 5. Hypotheses Testing

Hypothesis	Beta	T values	P Values	Results
Perceived supporting elements-> Image	0.506	10.124	0.01	Supported
Perceived Added value -> Image	0.235	4.682	0.01	Supported
Perceived Cost Reduction-> Image	0.225	4.449	0.01	Supported

Heterotrait-Monotrait Ratio

Perceived Added Value	-					
Perceived Cost Reduction	0.577	-				
Service Quality	0.709	0.721	-			
Service Reputation	0.674	0.652	0.817	-		
Student Caring	0.667	0.616	0.869	0.806	-	
Perceived Supporting Elements	0.736	0.595	0.810	0.777	0.789	-