

Utilization of Delphi method and analytic hierarchy process to conduct key factors of viral marketing to Taiwan's sports industry

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Abstract

To spread message and information rapidly, the pattern of viral spreading could be considered as an efficient way to become a model to marketing campaigns which is also called viral marketing. Especially on social websites, the message could transfer faster than traditional word-of-mouth. Meanwhile, the market value of the sport industry grows yearly in most countries and sport marketing campaigners are also trying to use this method as their marketing strategies, such as Nike, Under Armour and North American professional sports. In this study, we tried to know the critical success factors to Taiwan's sports industry to increase their marketing performance. Thus, we use the Delphi method and the analytic hierarchy process to identify the key factors and the weight of the key factors to know how to make marketing strategies more efficient. In the result, we found that it is crucial to design the content cautiously and one should use a social framework to drive messages of marketing campaign strategies to Taiwan's sports industry.

Keywords: share rate, key success factor, spread viral messages

1. Introduction

Sports have different meanings for different people in many ways. For example, Sports can be a kind of leisure activity, a market for investment, and a way to make sportspeople reach great achievements as well. The most important aspect is that sports rouse the passion of spectators and sportspeople. Moreover, the entertainment aspect of sports enriches our lives, turning billions of fans across the world into sports viewers or participants. Fans use radio, television, and the Internet to follow the latest news every day. Those are the reason that the sports industry becomes a global industry today. In the white paper on sports policy (2013)

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which was published by the Taiwan Sports Administration, Ministry of Education (2013b) mentioned that the revenue of the sports industry in the United States reached 435 billion USD and the growth rate is 100% when compared to the value in 1986. Further, the sports industry's market size in the European Union (EU) also reached 407 billion EUR, accounting for 3.7% of the overall gross domestic product (GDP). It could imply the importance of the sports industry in various countries in the world.

In Taiwan, Su (2004) stated that as the leisure time of people got increased and more opportunity for people to participate in and watch sports was provided. Meanwhile, with the development of technologies, life qualities have been upgraded, and people paid more attention to their physical and mental health. These reasons mentioned above could be a trigger for people to increase their willingness to exercise. Moreover, the Taiwan Sports Administration, Ministry of Education (2013a) published a sports city survey which showed that the percentage of people who were involved in sports increased from 75.9% in 2006 to 82.1% in 2013. Besides, the percentage of the population that exercised regularly increased from 20.2% in 2007 to 31.3% in 2013. These figures indicate that in recent years, the number of people who participate in sports and do exercise regularly is increasing in the following years. Relevantly, the development of the sports industry in a country could be related to social development. Thus, the whole sports industry takes an important part in economic development of a country.

In the sports industry, regardless of whether products are physical or virtual, core or related, the priority is to increase the profit. Based on this target, the industry needs to be aware of the customers' requirements. To reach the goal, both of profit-oriented organizations and non-profit organizations focused on marketing and required appropriate marketing strategies. Wang, Lin and Huang (2009) showed that in recent years, many enterprises and organizations were highly dependent on marketing of their services. Furthermore, Kotler and Armstrong (2011) defined marketing as a process by which companies create value for customers and build strong customer relationships to capture value from customers in return. Sports marketing, in particular, refers to the process of designing and implementing activities for the production, pricing, promotion, and distribution of a sport or a sports product to satisfy the needs or desires of consumers and to achieve the company's objectives (Pitts and Stotlar, 2007). To increase the performance of marketing strategies, with the development of internet technology, the pattern of viral marketing could provide a model to marketing campaigns in sports territory. Moreover, to know the successful indexes of the model, in this study, the Delphi method and the analytic hierarchy process (AHP) will be used to figure out what kinds of indexes are essential to sport marketing campaigns.

2. Viral marketing

With rapid developments in Internet technology and the increasing popularity of mobile phones, consumers can use the Internet to learn about products and buy them any time. Companies can use the Internet to save their promotional or personnel costs because they do not require a lot of space or manpower to sell or promote their products. In other words, using the Internet to precede the marketing campaign can help companies develop their market from a city to the entire country and even worldwide quite easily. In short, the Internet provides an opportunity for lowering marketing cost.

According to eMarketer (2019), there were near 3 billion people who expected to use social websites or applications, such as Facebook, YouTube and Twitter. In addition, Pew Research Center (2018) pointed out the social network usage of US population who use Facebook was 68%, and YouTube was 73%. In fact, people obtain information in several ways because they use the Internet not only to get information but also to share with or connect to one another. With more time being spent on online activity, the Internet closes

the distance between people, which changes the way of life and habits of people. According to Taiwan Network Information (TWNIC), in 2012, the population using the Internet reached nearly 160 million, and over 63% of these users used 'community website(s)'. Among these websites, Facebook was the most highly used social networking site in Taiwan compared to other social websites. Facebook officially announced that there are 14 million active users each month and 10 million active users daily (Ho, 2013). Thus, we can predict that a higher rate of Internet usage will lead to a higher rate of sharing (share rate) information.

Kaplan and Haelein (2011) considered the viral marketing should be a result of classic WOM which grows exponentially. An increasing number of enterprises are using community social websites for their marketing campaigns. The traditional word-of-mouth (WOM) has become electronic word-of-mouth (eWOM). These messages are rapidly shared on the Internet like a virus to influence numerous people and spread rapidly. Thus, viral marketing was usually considered as the same as eWOM. However, viral marketing was not a new phenomenon because the free e-mail provider Hotmail used the first viral marketing strategy by including a promotional message in every single e-mail. Currently, some messages can be presented in multiple ways and on multiple platforms, such as images and videos. Especially through the Internet, these advertising messages could have more possibilities to attract a huge number of people to watch and share. It could also widely increase the popularity of the marketing message by promoting the brand or product awareness. Thus, the core value of viral marketing is to lift the brands, products, or services to get eyeballs (Wang, 2007; Chang, 2008; Hsueh, 2012).

Generally, viral marketing has become a mainstream marketing instrument used by multinational firms in various industries, including the sports industry in recent years. Some famous and popular brands used viral marketing strategies as well, which included Nike, Unilever, and Volkswagen. They noticed the importance of viral marketing because of the 'nods' like close friends had reliability and attention for those users (Bampo et al., 2008; Phelps et al., 2004). For instance, in response to the football fever during the 2014 FIFA World Cup, Nike released animated short films depicting its sponsored players; these films (such as 'The Risk') have attracted 700 million viewers so far.

As the saying goes, 'where people go, business follows.' The successful use of the characteristics of viral marketing would help the brands, products, and services to get more exposure to increase sales. However, several challenges need to be overcome. According to Godin (2000), in viral marketing, the products or ideas of companies are spread through interpersonal networks with infectiousness and persistence, like virus spreading path includes complex and continuous process. Therefore, if a viral message were not strong enough, it would reduce the infectiousness because people will not spend their time on a message they are not concerned with and interested in. In other words, when the share rate is falling, the effect of viral marketing stops immediately.

To the consequence of viral marketing, there is no limitation for this strategy because all objects could have a possibility to earn exposure through it. If a viral marketing campaign would successfully trigger the fever of trends, these marketing messages may influence more people. According to Lee (2011), the key point of viral marketing depends on receivers who have the will to share. Phelps et al. (2004) indicated that not many people have the motivation, attitude, and execution when they are required to spread viral messages. The research has realized the significance of the message content (Lans et al., 2010). Due to the convenience and development of Internet technology, sports services and sports products are using the Internet as part of their mainstream marketing campaign. Viral marketing strategies provide new companies and enterprises the advantage of lower cost for marketing new objects, such as products, service, and brands.

In this study, we aim to identify the key factors driving the success of viral marketing in the Taiwanese sports industry. We explore the following questions to investigate the key factors and understand the indexes for using viral marketing strategies in the context of Taiwan's sports industry.

1. What are the key factors driving the success of viral marketing applications in Taiwan's sports industry?
2. What is the weight of use (index weight) of viral marketing strategies that is critical for success in Taiwan's sports industry?

3. Method

In this study, we use the Delphi technique and the analytic hierarchy process (AHP) to investigate the viral marketing strategies used in Taiwan's sports industry. First, we review the extant literature to collect and induct the factors of sharing. Subsequently, we use the Delphi technique to build the key factor indexes and conduct the analysis using the AHP of the performances of each index weight to understand the weight distribution.

The extant literature was reviewed for an objective analysis of historical data. After the data were collected, tested, and analyzed, the extant literature was used to understand the results and conclusions obtained in the past and to explain or predict social development (Yeh, 2001). In this study, we review and collate the findings of the following prior studies: Botha and Reyneke (2013), Eckler and Bolls (2011), Ho and Dempsey (2010), Lee (2011), Nguyen and Le (2013), Mills (2012), Phelps et al. (2004), Sudarević, Vlahović and Šurjanović (2013), and Yang et al. (2010). This is the first step in building the key factor indexes for the viral marketing applications of Taiwan's sports industry.

3.1 Delphi process

In 1960, the Rand Corporation developed a long-term forecasting technology, which was mainly used for investigating consensus in expert opinion. The implementation of this method relies on the professional experience, intuition, and value judgements of experts. The expert opinion goes through two rounds of expert advice, and the opinion is aggregated for each round of expert advice. The information collected from each expert is then sent to other experts who analyze and judge this opinion; they may propose a new argument or opinion based on the expert advice until their responses gradually converge (Hsu and Sandford, 2007).

Round 1. In the first round, we generalized key factor indexes that were applied to the viral marketing campaign in Taiwan's sports industry from the literature that we reviewed, and we invited nine experts from industrial circles, government officials of the ministry of sports (Taiwan), and scholars to assist with the Delphi process. After receiving participants' responses, we converted the collected information into a well-structured questionnaire.

Round 2. In the second round, each Delphi respondent received a second questionnaire and was asked to review the questionnaire items summarized from the information provided in the first round.

After cross-comparing the experts' opinions, we generalized the formal key factor indexes of the use of viral marketing campaigns in Taiwan's sports industry.

3.2 Analytic hierarchy process

After the indexes were built, we used the method proposed by Saaty (1990) to develop a hierarchical method for the analysis of complex, unstructured problems, where the decisions must be systematic. This method allows the two experts to select between the two factors by rating them on a 1–9 scale of relative importance. By quantifying judgement, the various indicators of the key factors of weight and weight

performance priorities were revealed. So, we generalized the results of the Delphi technique, then created a questionnaire of the weights of the key factor indexes of the use of viral marketing campaigns in Taiwan's sports industry. The experts had to consider the relative weight of combined theory and practice; therefore, the respondents faced a certain degree of difficulty and had to pay attention to its logical relationship.

According to Dalkey (1969), when the number of members in the expert group is over ten, the result will have high reliability and low bias. However, Delbecq, Van de Ven and Gustafson (1975) suggested the number of experts in a Delphi expert group could be 5 to 10 when the level of heterogeneity within experts was high. Thus, in this study, we invited nine experts from 3 sport-related fields, namely the sports industry, government, and academia in Taiwan. The experts are listed below and included three government officials, four sports management and marketing scholars, and two managers from the sports industry who were involved in Internet marketing.

Experts List

Name	Affiliation	Position	Specialization
Y. L., Wu	School Physical Education Division, SA, MOE	Section Director	Government Representative
Y., Hsu	Sport Management of Aletheia University	Associate Professor	Sport Marketing
C. L., Chang	Department of Physical Education of National Taiwan Normal University	Associate Professor	Sport Management
C. M., Chang	Department of Physical Education, Health & Recreation	Professor	Sport Management
Y. C., Chen	Planning Division, SA, MOE	Officer	Government Representative
Y. C., Cheng	Da Village	Community Manager	Sport Marketing company
C. H., Hsiao	Leisure and Sports Management of National Taipei University	Professor	Sport Marketing
J. C., Su	Department of Sports, Tainan City Government	Director	Government Representative
S. Tan	The Index	Vice Director of Business	Internet Marketing Company

The experts and scholars were asked to evaluate the questionnaire items using paired comparison evaluation in criteria. The main objective was for the experts to determine the value of the individual items based on a number of factors that determine the levels with judgement in pairwise comparison. Since there were several factors, it was difficult for them to make a clear decision. Hence, a consistency test is required (Lin, 2001).

Therefore, we use the Experts Choice 2000 to analyze the AHP result and conduct the weight analysis and consistency test (consistency ratio (CR) ≤ 0.1), which are designed to determine the relative importance of the professional competence index and calculate the performance of each index weight to measure the consistency in the results.

4. Result

4.1 Indexes

After the opinions of all the experts were generalized, we collect four perspectives with 26 characteristics of viral marketing, namely the source, content, spread pipeline and the spread motivation. The dimensions of contents are listed below.

Table 1. The perspectives and indexes of a viral marketing campaign in the sports industry.

Perspectives	Indexes
1. Source	1-1 From family group
	1-2 From friends or colleagues
	1-3 From the celebrity
	1-4 From government institutions
	1-5 From the private evaluation mechanism (e.g. SGS)
	1-6 From marketing staff
	1-7 From the network in the anonymous or not users
2. Content	2-1 Can transfer the newest message
	2-2 Can satisfy the needs
	2-3 Can deliver the free or discount message
	2-4 Can trigger the sympathy
	2-5 Can transfer urgency messages (limited time or quantity)
	2-6 Can trigger the identity
3. Spread Pipeline	3-1 Internet Forum
	3-2 Facebook
	3-3 YouTube
	3-4 Mobile message application (e.g. LINE)
4. Spread Motivation	4-1 Feel interesting
	4-2 Can help each other
	4-3 Show self-features
	4-4 Can satisfy a sense of accomplishment
	4-5 Can keep in touch with each one
	4-6 Can pass the time
	4-7 Can share information with each other
	4-8 Can increase common topics
	4-9 Assent the message

4.2 Weight analysis of AHP

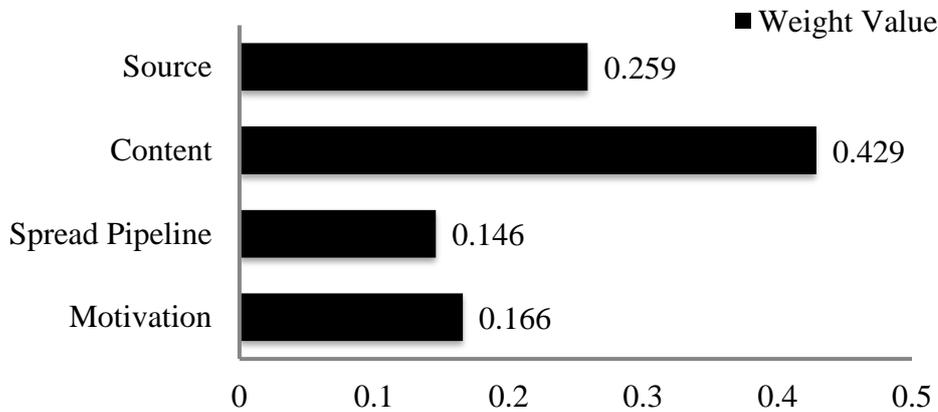
After a comprehensive literature survey and the use of the Delphi method, the key indicators of the viral marketing tactics of the sports industry were established. Subsequently, the AHP was used to calculate the hierarchical concept and feature vectors obtained in this study for consistency in the experts' opinions and weight values. Continually, we conduct analysis among all the perspectives and among the indexes in each perspective. The results are presented in three parts: the weight analysis of each perspective; the weight

analysis of the indexes in each perspective; and the weight analysis of the indexes crossed against all the perspectives.

4.2.1 Weight analysis of perspectives

The analysis results are shown in Figure 1. We analyzed the four perspectives (*Source*, *Content*, *Spread Pipeline*, and *Spread Motivation*), and the consistency ratio (CR) = 0.05 passed the consistency test (CR ≤ 0.1). The sequences of the weight in each perspective are: *Content*: 0.429; *Source*: 0.259; *Motivation*: 0.166; *Spread Pipeline*: 0.146.

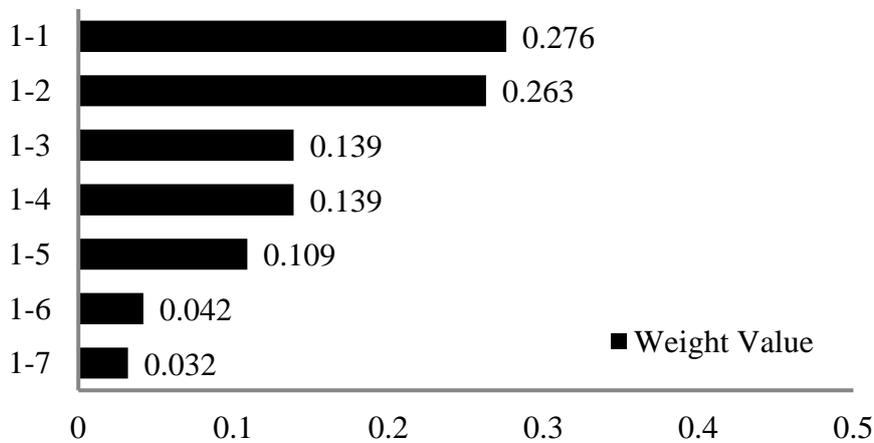
Figure 1. The weight value of each perspective



4.2.2 Weight analysis of the indexes in each perspective

4.2.2.1 Result for the *source* perspective

Figure 2. The weight value of each index in the source perspective

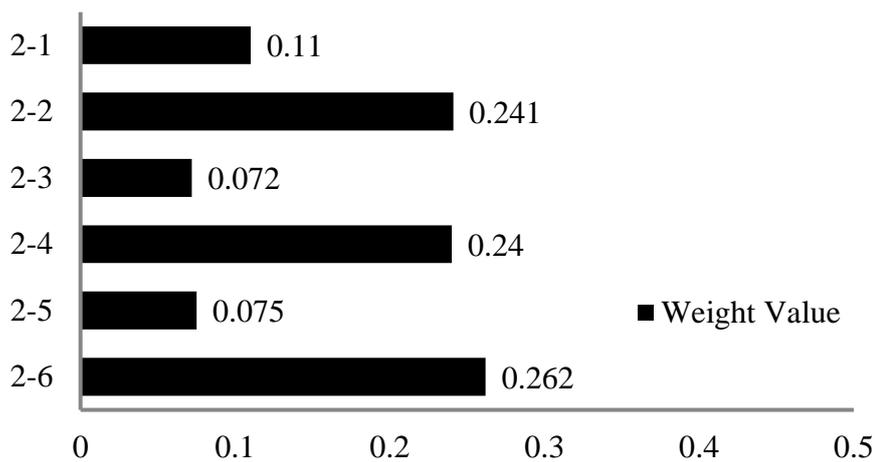


This perspective includes 7 indexes. The CR in this result is 0.08, which passes the consistency test ($CR \leq 0.1$). The sequences of the weight in each index are 1-1 'From family group' (.276), 1-2 'From friends or colleagues' (0.263), 1-3 'From a celebrity' (0.139), 1-4 'From government institutions' (0.139), 1-5 'From the private evaluation mechanism' (0.109), 1-6 'From marketing staff' (0.042), and 1-7 'From the network of anonymous users or non-users' (0.032). These results are presented in Figure 2.

4.2.2.2 Result for the *content* perspective

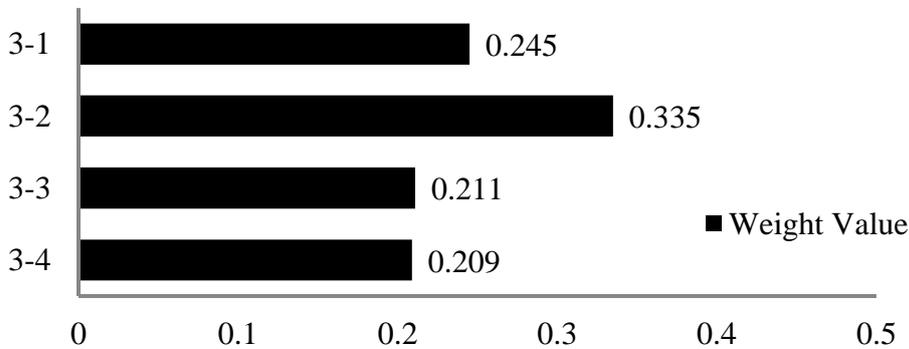
This perspective includes 6 indexes. The CR in this result is 0.04, which passes the consistency test ($CR \leq 0.1$). The sequences of the weight in each index are: 2-6 'Can trigger the identity' (0.262), 2-2 'Can satisfy the needs' (0.241), 2-4 'Can trigger sympathy' (0.240), 2-1 'Can transfer newest message' (0.110), 2-5 'Can transfer urgent messages (limited time or quantity)' (0.075), and 2-3 'Can deliver free or discounted messages'(0.072). These results are presented in Figure 3.

Figure 3. The weight value of each index in the content perspective



4.2.2.3 Result for the spread pipeline perspective

Figure 4. The weight value of each index in the spread pipeline perspective

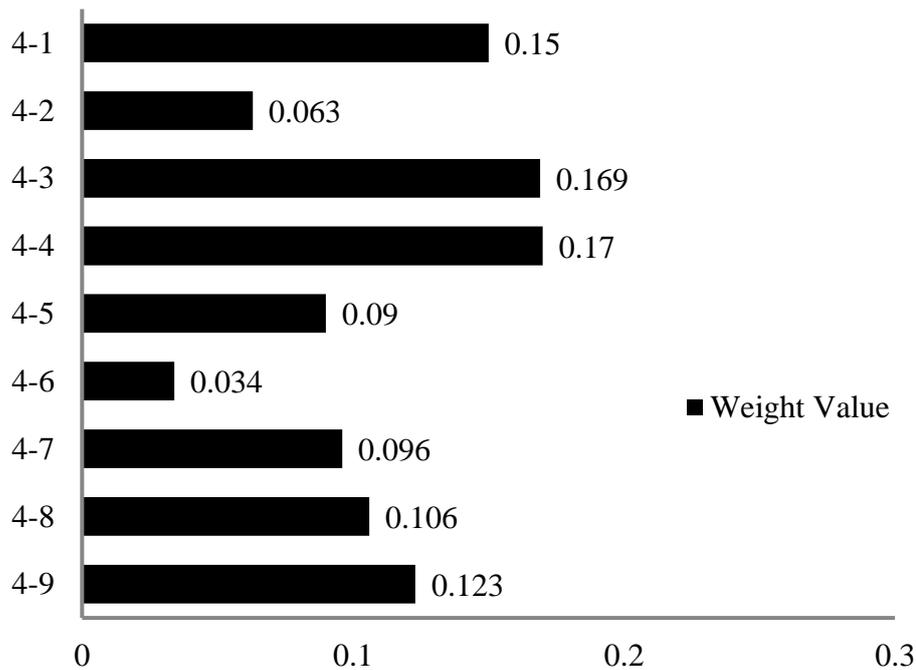


This perspective includes 4 indexes. The CR in this result is 0.05, which passes the consistency test ($CR \leq 0.1$). The sequences of the weight in each index are: 3-2 Facebook (0.335), 3-1 Internet forum (0.245), 3-3 YouTube (0.211), and 3-4 mobile message application (0.209). These results are presented in Figure 4.

4.2.2.4 Result for the *motivation* perspective

This perspective includes 9 indexes. The CR in this result is 0.05, which passes the consistency test ($CR \leq 0.1$). The sequences of the weight in each index are: 4-4 'Can satisfy a sense of accomplishment' (0.170), 4-3 'Shows self-features' (0.169), 4-1 'Feels interesting' (0.150), 4-9 'Agree with the message' (0.123), 4-8 'Can increase common topics' (0.106), 4-7 'Can share information with each other' (0.096), 4-5 'Can keep in touch with each other' (0.090), 4-2 'Can help each other' (0.063), and 4-6 'Can pass the time'(0.034). These results are presented in Figure 5.

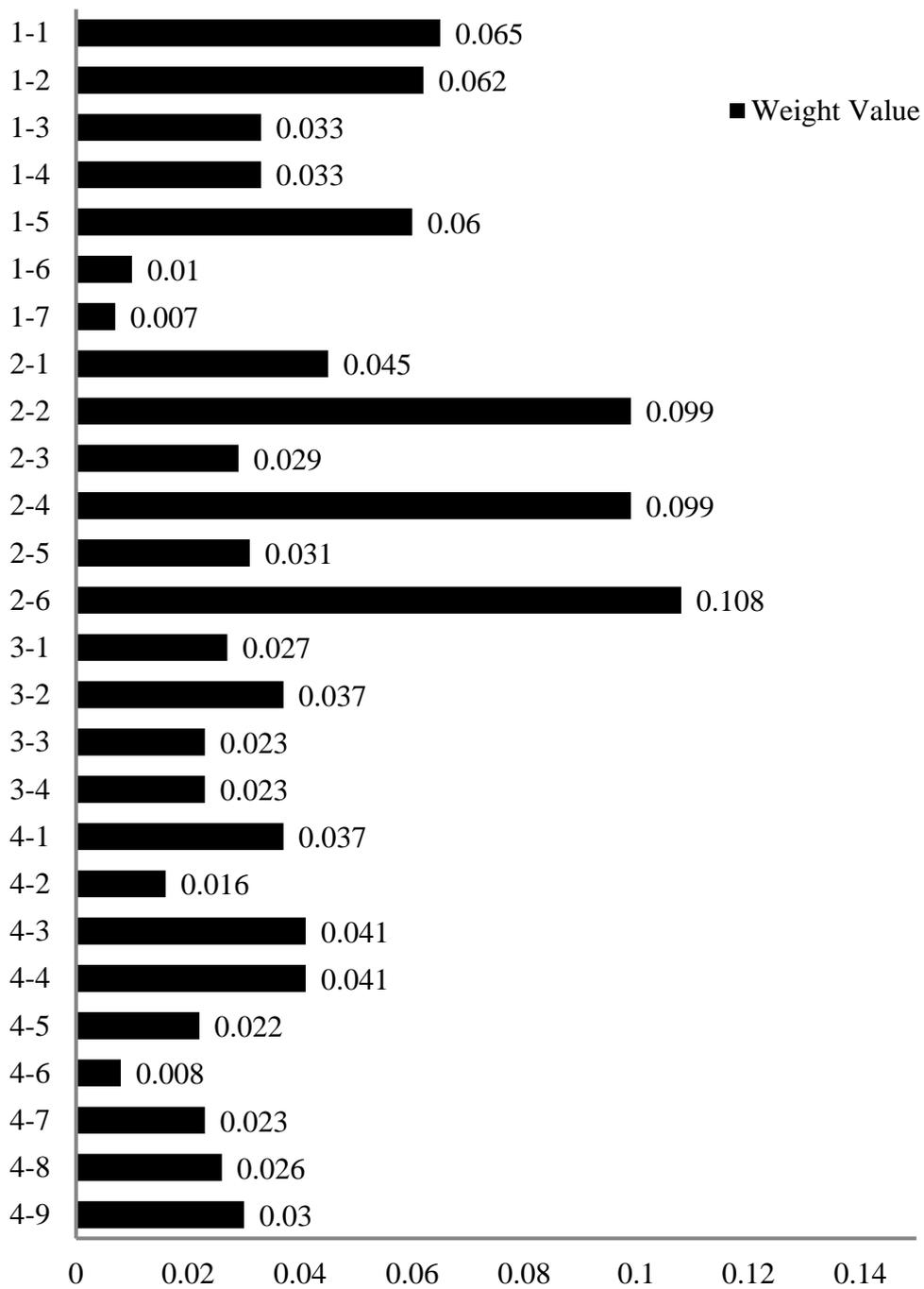
Figure 5. The weight value of each index in the motivation perspective



4.2.3 Weight analysis of the indexes crossed against all perspectives

Finally, we analyze the indexes crossed against all four perspectives. The results are presented in Figure 6. The CR in this result is 0.05, which passed the consistency test ($CR \leq 0.1$). The results show that the top 5 of the index are sequenced as 2-6 'Can trigger the identity' (0.108), 2-2 'Can satisfy the needs' (0.099), 2-4 'Can trigger sympathy' (0.099), 1-1 'From family group' (0.065), and 1-2 'From friends or colleagues' (0.062).

Figure 6. The weight value of the indexes crosses all perspective



5. Discussion

5.1 Content will be the first concern dimension

For all the experts in this study, the results show that in the viral marketing campaigns of the Taiwanese sports industry, the most important perspective is the content of the viral messages and the source of the viral messages comes second.

A viral marketing campaign is consumer-oriented. The strategies normally begin with the consumers' psychology; the aim is to create a story that can trigger the consumers' empathy. For example, Johnson, a sports equipment company in Taiwan (which was awarded the 360 Degree Brand Stewardship in 2013 Professional Achievement Awards), cooperated with Ogilvy & Mather Taipei and filmed a micro-movie named 'Run for Love' that was uploaded on YouTube. The content of this commercial that focused on running towards love appealed to the imagination of the consumers, who rapidly shared in on the Internet.

The Era Ogilvy group (2012) reported a case of the viral marketing campaigns created by Hi-Tec, a famous outdoor product brand in the U.K.; they used a new style and an interesting sport named 'Walking on Water' to convey that their Hi-Tec shoes are strong and waterproof. They further indicated that the Hi-Tec campaign showed viewers that the Hi-Tec brand encourages people to have fun, which will attract more viewers and lead to further sharing on the Internet. As mentioned earlier, a viral marketing campaign is like a virus; it needs an effective pipeline to be widely spread. Most importantly, the virus messages have to be very strong. In short, the content of viral messages needs to be accepted by consumers.

5.2 Source from family could make message spread more easily

In this research, we found that compared to the advertisers' marketing strategy, the messages communicated by word-of-mouth are more easily accepted by consumers and affect their decisions effectively. Gilly, Graham, Wolfinbarger and Yale (1998) indicated that the source of the messages (from a non-marketer or non-commercial entity) would have special influencing power. The strength of these sources' influence is usually greater than that of the enterprises' marketing methods (Huang and Chang, 2003).

Further, if the source of a message has strongly connected with consumers, i.e. if the message has affinity and intimacy, it will easily affect the consumers. However, the marketers should not ignore the weakly connected message sources because these message sources are usually plentiful compared to the strongly connect ones. Therefore, weakly connected messages will have more opportunities to convey more or better messages to Internet users (Kao, 2007). Therefore, marketers in Taiwan's sports industry must focus on the connection between consumers to ensure that their marketing messages are rapidly shared.

5.3 Triggering the identity of objects could increase the willingness to transfer

The content of a successful viral message is like a joke; no matter who says the joke, it will be fun, even if the speakers' delivery technique is not good at all. Although marketers focus on the message's delivery, they cannot ignore that the value of the message's content is more important because successful viral messages need a large number of consumers following to identify with and share the message. Reichstein and Bruschi (2019) collected important factors of contents which included emotions, images, and company's stands.

According to Chan (2013), in the content of viral messages, marketers use meaningful symbols to represent the combined value of products and resonance with the value that they want to trigger in the

consumers' mind in order for them to identify with the core of the story. Additionally, the emotion-shifted of celebrities is utilized consumers' identification to the celebrity to generate some emotion as the copy-act that will make the consumers connect with the celebrity further to transfer the emotion to products or brands. Berger and Milkman (2012) pointed out that positive emotions have a higher intention for consumers to share. The sports good company NIKE presented their core concept 'Just Do It' using their contract players to describe their own experiences on the court/field, ranging from frustration and sadness to happiness at overcoming the difficulty successfully. These kinds of messages will directly or indirectly influence consumers in identifying market messages.

5.4 Social websites could drive messages more efficiently

A pipeline of viral marketing could be a channel to communicate with consumers which is assigned to their social framework. According to TWNIC (2019), the usage of social websites was 79.2%, and Facebook occupied 98.9% of it. Wang (2008) pointed out that Facebook, which is linking people, combines the power of search, connect, and coherence. According to Chen (2013), the server company App Data chose the top five fan pages of technology brands that are the highest ranked on YouTube. The preference for YouTube is just below that for Facebook; moreover, the fans of YouTube constitute a third of the worldwide fan pages. All the users do on this fan page is sharing. If you are in, you will not miss any video that is getting hot.

Furthermore, the power of appeal and influence on BBS or Internet forums should not be ignored. The most famous BBS station in Taiwan is the PTT, which has the highest number of users. According to the Alexa (2013) survey, the Mobile01 website is one of the highly-rated websites in Taiwan. In addition, these channels could trigger different effects from the contents of ads to attract multiple users to spread and share. For instance, Heimbach and Hinz (2016) indicated awe-inspiring contents had better propaganda effect on Facebook than on Twitter or others. In general, marketers chose the right channel based on settled targets, and particular groups could be adapted easily by consumers and increase the outstanding performance of these marketing strategies.

5.5 Campaigner should care about the feeling of satisfaction for communicating targets

With the growth of technology, the use of mobile gadgets to surf the net is gaining popularity. People could share real-time information anytime anywhere, such as where you are going on holiday, what you are eating, or doing something funny. Therefore, marketers need to realize why consumers want to share. According to Phelps et al. (2004), few people know what the motivations, attitudes, and activities motivate users to spread such messages. Therefore, in order to understand viral marketing, one must realize what factors will push Internet users to transfer or share the marketers' message.

De Bruyn and Lilien (2008) indicated that when sharing messages, the sharer's and receiver's value will affect their will to share. Users share viral messages because of their individualism and altruism (Ho and Dempsey, 2010). In short, web users who share messages want to close the relationship or present their own values and features. Wang's (2012) study shows that Internet users have the intention to share information, which means that the users want to convey that they are different from one another.

Overall, in this perspective, the weight of each index is low. We deduce that this is because the motivation is more complex than in the other perspectives since the motivation includes many indexes. Given the vast reach of the Internet and the huge number of users, the best situation for marketers is to know everything about the consumers' psychology, which can influence their preference. However, it is usually difficult to do

so perfectly. Therefore, the viral marketing campaign must match the consumers' preferences to prove their willingness to share viral messages.

Among the top 5 indexes crossed all the perspectives, the perspective of the content included three indexes, and the perspective of source included two indexes. The result matches the experts' opinion that the perspective of the message content is the most important. For marketers, the true challenge is not in making commercials for their own products; the challenge is in influencing the media or consumers to discuss their brand/product or to share the brand/product on their own. In other words, the marketing message should have enough influencing power and should be convincing.

The other perspectives and indexes are also necessary. There are various platforms on the Internet such as Internet forums, web societies, or web applications (apps); the users of these platforms will be happy to share or introduce some news, fun topics, or products. Thus, if marketers can strongly motivate Internet users to transfer their marketing message through various Internet platforms, they will immediately experience bigger benefits.

6. Conclusion

Integrating the results of this research, we can see all the opinions of experts. There are many cases of highly popular videos and online advertisements that are transferred by Internet users. This is why marketers must understand the motivations driving Internet users who are willing to transfer or share messages. Since these videos and advertisements go viral, many features such as creativity and transfer value concept need to be included. For instance, a South Korean singer PSY uploaded music video on YouTube, which attracted over 1000 million viewers. Similarly, the performance of sportspeople always touches people's hearts. According to the world baseball classic (WBC) in 2013, the Chinese Taipei baseball team's performance made the Taiwanese proud. After the game, the broadcasting company created a video montage of the highlights from every single game and uploaded it on YouTube; this video attracted thousands of viewers on YouTube.

Therefore, when Taiwan's sports industry applies viral marketing, the key indexes that determine these experts' opinion well should be included. Finally, marketers should exploit the various features of viral marketing and generate exposure for themselves more successfully.

In this research, limited by time and the workforce, we only focus on the sports industry and investigated the sports industry territory experts' opinion. Thus, whether it can be applied to the consuming public, needs a verification.

7. Suggestions

7.1 For the government

7.1.1 Package the message well and seek high exposure

Although many sports policies are publicly available on the official website, most people will not initiate the search if they do not need to do so. Therefore, the policies need to combine the interest factors and use the effective source and pipeline that can increase the spread of the message and gain high exposure.

7.1.2 Message supervisor

Recently, Taiwan Samsung Corporation hired blog and Internet forum writers to attack another brand for their own benefit, which seemed to be an illegal tactic. Such things do not stop on their own. Therefore, the government should build a supervisory mechanism to stop such illegal activities.

7.2 For Taiwan's sports industry and sports marketing companies

7.2.1 Using viral marketing to gain exposure in the international market

If Taiwan's sports industry can use viral marketing campaigns effectively, the industry will gain high exposure regardless of the policy, athletics, products, enterprises, and brands. This will not only improve the country's international exposure but also can help the sports industry to grow in various commercial activities.

7.2.2 Lower marketing cost

If marketers use multiple, creative techniques to package their marketing messages or can match the value of this society's story of sports and the stories of athletics working out hard, the combined multiple Internet tools available to transfer these messages will lower the cost and transfer the message directly to the intended consumers. It will push these consumers to transfer these messages again, leading to high exposure for these messages.

7.3 Future research

In this research, we use the Delphi technique to decide the perspectives and indexes to be included in the analysis. Further, we used the AHP to analyze the weight of the perspectives and each of the indexes. We suggest that future research can explore the industry by applying the viral marketing strategy for the practical application of in-depth interviews.

References

- Alexa (2013). *Mobile 01-Site Info from Alexa*. Retrieved from <http://www.alexa.com/siteinfo/mobile01.com>
- Bampo, M., Ewing, M. T., Mather, D. R., Stewart, D. and Wallace, M. (2008). The effects of the social structure of digital networks on viral marketing performance. *Information Systems Research*, 19(3), 273-290.
- Berger, J. and Milkman, K. L. (2012). What makes online content viral? *Journal of Marketing Research*, 49(2), 192-205.
- Botha, E. and Reyneke, M. (2013). To share or not share: the role of content and emotion in viral marketing. *Journal of Public Affairs*, 13(2), 160-171.
- Chan, S. T. (2013). *Information Strategies and Narrative Analysis of Online Viral Marketing Videos* (Unpublished doctoral dissertation). Tamkang University, New Taipei City.
- Chang, T. S. (2008). *The Impact of E-Marketing on the Consumer's Purchasing Intention.-the Moderating Effect of Product Knowledge, Self-Monitoring and Self-Confidence* (Unpublished doctoral dissertation). Ming Chuan University, Taipei, Taiwan.
- Chen, D. Y. (2013, February 19). *The Top 5 Brands of Technology Fan Pages in Facebook*. Business Next website, Retrieved from <http://www.bnext.com.tw/focus/view/cid/103/id/26413>

- Dalkey, N. C. (1969). *The Delphi Method: An Experimental Study of Group Opinion*. Ft. Belvoir: Defense Technical Information Center.
- De Bruyn, A. and Lilien, G. L. (2008). A multi-stage model of word-of-mouth influence through viral marketing. *International Journal of Research in Marketing*, 25 (3), 151-163.
- Delbecq, A. L., Van de Ven, A. H. and Gustafson, D. H. (1975). *Group Techniques for Program Planning: A guide to Nominal Group and Delphi Processes*. Scott, Foresman
- Eckler, P. and Bolls, P. (2011). Spreading the virus: emotional tone of viral advertising and its effect on forwarding intentions and attitudes. *Journal of Interactive Advertising*, 4(2), 1-11.
- eMarketer (2019). Q2 2019 social trends. *eMarketer*. Retrieved from www.emarketer.com/content/q2-2019-social-trends
- Gilly, M. C., Graham, J. L., Wolfinbarger, M. F. and Yale, L. J. (1998). A dyadic study of interpersonal information search. *Journal of the Academy of Marketing Science*, 25, 83 - 100.
- Godin, S. (2000). *Unleashing the Ideavirus*. Hachette Books, NY.
- Heimbach, I. and Hinz, O. (2016). The impact of content sentiment and emotionality on content virality. *International Journal of Research in Marketing*, 33(3), 695-701.
- Ho, J. Y. and Dempsey, M. (2010). Viral marketing: motivations to forward online content. *Journal of Business Research*, 63(9), 1000-1006.
- Ho, Y. W. (2013, August 19). Taiwanese crazy for Facebook is top in worldwide. *Chinatimes.com*, Retrieved from <https://tw.news.yahoo.com/%E5%8F%B0%E7%81%A3%E4%BA%BA%E7%98%8B%E8%87%89%E6%9B%B8-%E5%90%8D%E5%88%97%E5%89%8D%E8%8C%85-213000538.html>
- Hsu, C. C. and Sandford, B. A. (2007). The Delphi technique: making sense of consensus. *Practical Assessment, Research & Evaluation*, 12 (10), 1-7.
- Hsueh, T. C. (2012). *A Study on the Relationships among Viral Marketing, Perceived Risk and Purchase Intention* (Unpublished doctoral dissertation). Dayeh University, Changhua.
- Huang, L. S. and Chang, C. C. (2003). The effects of message source, positive or negative message, and market maven personality on the diffusion of Internet messages. *Electronic Commerce Studies*, 1(1), 25-40.
- Kao, W. C. (2007). *A Study of Factors Influencing the Intention to Transfer Internet Messages* (Unpublished doctoral dissertation). Chung Yuan University, Taoyuan.
- Kaplan, A. M. and Haenlein, M. (2011). Two hearts in three-quarter time: how to waltz the social media/viral marketing dance. *Business horizons*, 54(3), 253-263.
- Kotler, P., Armstrong, G. (2010). *Principles of marketing*. Harlow: Pearson.
- Lans, R. V., Bruggen, G. V., Eliashberg, J. and Wierenga, B. (2010). A viral branching model for predicting the spread of electronic word of mouth. *Marketing Science*, 29(2), 348-365.
- Lee, Y. W. (2011). *An Investigation into the Critical Factors in Viral Marketing* (Unpublished doctoral dissertation). National Cheng Kung University, Tainan, Taiwan.
- Lin, C. K. (2001). *Selecting and Evaluating Suitable Sites for Off-Street Parking in the Urban Area* (Unpublished doctoral dissertation). National Cheng Kung University, Tainan, Taiwan.
- Mills, A. J. (2012). Virality in social media: the SPIN framework. *Journal of Public Affairs*, 12(2), 162-169.

- Nguyen, T. and Le, T. (2013). *User Base Growth via Viral Marketing: the Contributory Factors* (Unpublished dissertation). Lahti University of Applied Sciences.
- Ogilvy Society Group (2012, June 8). *Ogilvy Asia Pacific Digital Forum – How to Realize your Dream of Viral Marketing*. Yahoo! Internet Marketing Forum, Retrieved from <https://marketing.tw.campaign.yahoo.net/emarketing/contentF4.php?main=A01&sub=B02&tri=&literary=516>
- Pew Research Center (2018) Social media use in 2018. Pew Research Center. Retrieved from www.perinternet.org/2018/03/01/social-media-use-in-2018
- Phelps, J. E., Lewis, R., Mobilio, L., Perry, D. and Raman, N. (2004). Viral marketing or electronic word-of-mouth advertising: examining consumer responses and motivations to pass along email. *Journal of Advertising Research*, 44(04), 333-348.
- Pitts, B. G. and Stotlar, D. K. (2007). *Fundamentals of Sport Marketing*. Morgantown, WV: Fitness Information Tech.
- Reichstein, T. and Bruschi, I. (2019). The decision-making process in viral marketing - a review and suggestions for further research. *Psychology & Marketing*, 36(11), 1062-1081.
- Saaty, T. L. (1990). *The Analytic Hierarchy Process: Planning, Priority Setting, Resource Allocation* (2nd ed.). NY: McGraw-Hill.
- Sports Administration, Ministry of Education (2013a). *The City Investigate of Sport, Taipei*.
- Sports Administration, Ministry of Education (2013b). *White Paper on Sport Policy, Taipei*.
- Su, W. S. (2004). Investigate the development of globalization and sport industry. *The University Physical Education & Sports*, 74, 164-170.
- Sudarević, T., Vlahović, B. and Šurjanović, I. (2013). The attitudes toward application of viral marketing in the food industry in Serbia. *Economics of Agriculture*, 60(2), 389-402.
- TWNIC (2019). *Taiwan Internet Report*. TWNIC. Retrieved from https://report.twNIC.tw/2019/assets/download/TWNIC_TaiwanInternetReport_2019_CH.pdf
- Wang, C. T., Lin, F. T. and Huang, Y. C. (2009). The developmental strategy of the Taiwan sport marketing industry. *Leisure Industry Research*, 7(3), 85-98.
- Wang, S. C. (2008, April). *The Gift and Challenge of the President Starbucks Coffee Corp. in 10th Anniversary*. Cheers Magazine.
- Wang, S. H. (2012). *Factors Affect Social Network Members to Forward Messages* (Unpublished doctoral dissertation). National Central University, Taoyuan, Taiwan.
- Wang, Y. N. (2007). *A Study on The Interactions and Interrelationships between Viral Marketing and Purchase Intention via Customer-Based Brand Equity* (Unpublished doctoral dissertation). National Taipei University, Taipei, Taiwan.
- Yang, J., Yao, C., Ma, W. and Chen, G. (2010). A study of the spreading scheme for viral marketing based on a complex network model. *Physica A: Statistical Mechanics and its Applications*, 389(4), 859-870.
- Yeh, K. T. (2001). The statement of the category and classification of sports industry. *Taiwan Society for Sport Management*, 1, 8-21