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Predicting future trends of media elements in hotel marketing by using Change Propensity Analysis

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ABSTRACT

The purpose of this study is to examine a moderating effect of demographic factors on the relationship between the importance of media elements and their propensity of utilization. Change propensity analysis (CPA) is utilized to examine the current use and predict future trends of media elements in media marketing activities of hotel companies. A survey is conducted with a focus on domestic media users with a previous experience of acquiring domestic and international hotel information through media. The results indicate that certain demographic factors moderate the relationship of certain media elements. In addition, the results of CPA demonstrate which media elements have high importance as well as utilization and which ones have not. For instance, emoticons are found to be the least effective media element used in media marketing. Future trends of media elements in media marketing activities of hotel companies are evaluated using CPA and suggest a number of activities that will emerge. Finally, implications and suggestions for the future research are discussed based on the results.

1. Introduction

Decision-making behavior of individual, group, and organization is affected by various factors such as information technologies, decision support systems, (Power and Wren, 2011), destination image (Singh et al., 2017) and information acquired thorough media (Oh and Cho, 2016). Media refers to various communication channels through which information, data, or message is transmitted. In particular, media expanded from traditional media such as television, radio, newspapers, and other print publications to mass media, later to digital media, and eventually to social media.

The Internet provided companies with numerous advantages such as cost reduction, revenue growth, marketing research, database development, and customer retention (Chiou et al., 2010). Hospitality industry, characterized as customer-oriented and information intensive has been taking a full advantage of the Internet for decades (Wu et al., 2013; Schmidt et al., 2008). For instance, in the 1990s hospitality companies could become pioneers in their industry by merely having a website for their marketing strategy (Li et al., 2015). Nevertheless, since nowadays most of the hospitality companies utilize various media channels including the Internet having a website is no longer an option. It is worth noting that although more and more organizations are increasingly adopting e-business models not all of them are able to achieve sustainable competitive advantage (Li et al., 2015; Simanjuntak and Musyifah, 2016). For instance, after comparing the performance of the websites between South Korean and the US upscale hotels Lee and Morrison (2010) report that most of the upscale hotels in both countries are not effectively implementing marketing activities in their websites. Similarly, Schmidt et al. (2008) suggest that not all hotels are able to integrate effectively the Internet into their strategic marketing objectives.

The way in which information is created, shared, and disseminated among the users is changing dramatically and the information exchange used to be privilege of the few is now available and accessible to the masses in the form of social media networks (Della et al., 2008). According to Kaplan and Haenlein (2010), social media is a group of Internet-based applications, where user-generated content can be shared, exchanged, and rated (Evans, 2008). An advantage offered by social media is that it allows customers to share various sorts of information and experiences via two-way many-to-many communication system (Daugherty and Hoffman, 2014). Hence, nowadays travelers and hotel customers can engage in two-way communication with the service-provider by sharing their experiences and feedback through various social media platforms such as Tripadvisor, Facebook, YouTube, and Travelocity (Israeli et al., 2017).

Existence and rapid appearance of various media channels forces hospitality companies to implement diverse marketing strategies that

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can enable companies to utilize these media channels more effectively. Unfortunately, some hotel companies merely adopt "me-too" approach by duplicating successful websites (Li et al., 2015) without a sound marketing strategy and proper understanding of media elements of a major importance. This can be the reason behind the failure in acquiring competitive advantage by such companies. Given the limited resources available, most hotels must make strategic decisions to prioritize resource allocation for establishing media marketing strategy, which implements most efficient elements of media for exchange and dissemination of information among its users. In order to adopt the most efficient media marketing strategy hotel companies must know which elements of media have greater influence on customers' decision-making process. To do so it is necessary to reveal which media elements are considered to have high importance and utilization by hotel customers depending on various demographic factors. Identifying distinct media elements enables hotel companies to facilitate exchange of information and address individual needs of their customers through application of the most important elements in their marketing activities.

Research on the importance of media elements and their impact on the propensity of utilization is; however, very limited. To the best of our knowledge, currently there is no study, which examined the moderating effect of demographic factors on the importance of media elements and their impact on propensity of their utilization in the context of hospitality. Thus, this research attempts to fill this void in the literature. With this in mind, the purpose of this study is threefold:

1 to identify currently used media elements in information exchange and hospitality marketing activities;
2 to examine moderating effect of demographic factors on the importance of the media elements and their utilization; and
3 to foresee the future potential of each of the media elements used in the marketing activities of hotel companies based on change propensity analysis (CPA) proposed by Wang et al., (2006).

2. Literature review

2.1. Media elements

Media is one of the most common communication channels that play a significant role in the formation of sympathy, psychological processes, and decision-making (Oh and Cho, 2016). It can appear in forms of various media elements such as images and text that help to promote consumption through maximizing the effect of advertisement (Shin, 2007). Text is one of the media elements utilized by hospitality companies in marketing activities. Mainly the text can be categorized into three different types: pictograms, ideograms, and phonograms (Kim, 2004). Specifically, pictograms appear in the form of drawings that convey a message (Kim, 2004); ideograms refer to graphic symbols with a meaning (e.g. Chinese characters); and lastly, phonograms are written characters which represent a sound (e.g. English, French, and Korean alphabets) (Han et al., 2014; Yang, 2010). Numbers represent counting orders, size, and quantity of objects and usually used to represent various rankings, prices, and representativeness (Kim, 2008). They can be categorized into: Mesopotamian numbers, Egyptian numbers, Greek numbers, Arabic numbers, Roman numbers, and Chinese numbers.

Furthermore, sound is another media element used in marketing and sound marketing activities by hotel companies. Sound marketing refers to a type of marketing that focuses on interactions with customers by creating acoustically appealing factors through use of appealing sounds that match with the company's strategy and the customer (Kim, 2011). Sound can be divided into a pure tone consisting of a single frequency and a complex tone created through a combination of two or more pure tones. Moreover, images are yet another element of media. All images can be divided into three categories: images of people, images of plants and animals, and other images (Kim, 1997). Video comprises advantages of the image and the text; thus, it is a very efficient media element when it comes to communicating the message. Videos can be classified into illustration videos, actual image videos, typo videos, animations, and dynamic image videos (Choi, 2012; Lee, 2002). Moreover, another commonly used media element is a symbol that represents an idea, object, and coveys a certain meaning (Kim, 2016). Finally, emoticons have become yet another element of media used for communication among the users (Jung and Kim, 2016) and their use is rapidly increasingly due to the development of social media (Bae, 2016).

2.2. Media-based marketing activities

Hotel companies can take advantage of their websites to disseminate e-information, to interact and form long-term customer relationship through e-communication, and to fulfil orders online through e-transaction (Merono-Cerdan and Soto-Acosta, 2007; Li et al., 2015). According to the statistical information offered by Statistic Brain (2017) 65.4% of online booking came from brand websites (e.g. www.marriott.com), whereas 19.5% came from merchant websites (e.g. Expedia/Hotels.com, Travelocity), 11.3% from opaque websites (e.g. Priceline), and 3.7% from retail websites (e.g. HRS, Bookings). The success of the commercial website depends on integrative application of four components: (1) *provision* of up-to-date and accurate information; (2) effective and constant *communication* with consumers; (3) reliable and seamless electronic *transaction*; and finally, (4) appropriate and sustainable *relationship* building programs (Wang and Russo, 2007).

Active application of media to obtain reliable information about quality of service or a product is becoming a trend for travelers and hotel customers (Kim, 2012). More specifically, approximately 81% find other users' reviews important and 49% will not book a hotel without reviews (Statistic Brain, 2017). Traveler reviews contain various information about the service, room, facilities, and food of the visited hotel and recommendations for the future visitors. Moreover, active users of social media share their own experiences with general public via text, pictures, and videos through various social media platforms such as Tripadvisor and Facebook (Israeli et al., 2017). Chu and Kim (2011) suggest that social media changed customers from being passive observers to being active participants who create user-generated content (UGC) in order to communicate electronic word-of-mouth (eWOM). When it comes to customer-decision making process, such as purchase intention, customers' eWOM in UGC is certainly one of the most important influential factors (Israeli et al., 2017). Undoubtedly customers rely on UGC to make purchase decisions including purchasing flight tickets, booking hotel rooms (Stringam et al., 2010), or dining at the restaurants (Lu et al., 2010). Moreover, past studies show that promotions, events shared and advertised through SNS were a key component that promoted satisfaction of customers and purchase of the product (Ji et al., 2013). Hence, major domestic and international hotel brands have started to put more emphasis on social media as a channel for e-communication and dissemination of e-information.

Aforementioned review of the literature suggests that media-based marketing activities play a major role in the success of a hotel company in highly competitive hospitality and tourism industry. Yet there is still a lack of studies in hospitality and tourism literature that analyze what media elements are used in hospitality marketing activities. The question which demographic factors affect the relationship between the importance and propensity of utilization of what media elements remains unanswered. Moreover, it is necessary to foresee which potential elements of media will be utilized in the future hotel marketing activities. Therefore, we strive to address this gap by applying change propensity analysis (CPA) proposed by Wang et al., (2006) to understand the importance and utilization of each media element; and provide industry practitioners with useful information that can help to establish most efficient media-based marketing strategy in the future.

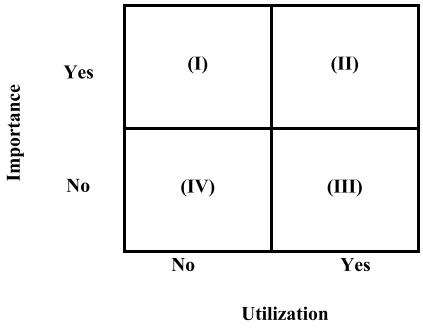

Fig. 1. Change propensity analysis matrix.

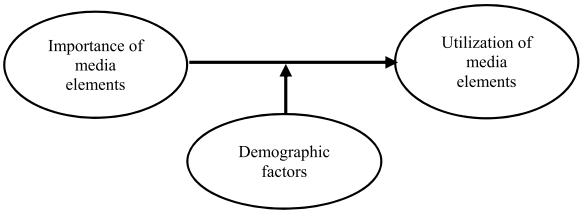

Fig. 2. Research Model.

3. Methodology

3.1. Instrument development

To achieve the objectives of the study, we adopt the method of CPA (Wang et al., 2006) a dynamic benchmarking technique, which can be used to understand current status and gain insights into future development. Wang et al., (2006) propose that CPA can be used to estimate the general likelihood of future growth or decline based on a two-dimensional matrix defined by: propensity and relative popularity. Propensity is a function of the current level of use and the perceived importance/usefulness of existing and potential marketing media-elements. In other words, CPA can be applied to gain an insight into a current situation of marketing activities and predict what kind of changes will occur in the near future (Wang et al., 2003). As shown in Fig. 1, Quadrant I represents a situation in which a hospitality company does not use certain media elements, yet perceives them to be important to its marketing efforts. In Quadrant II, all featured media elements are perceived to be important, in addition applied by the hospitality company. Quadrant III represents media elements that are used, however considered unimportant. Finally, quadrant IV represents elements of media that the hospitality company does not use nor does it perceive them to be important.

We can expect that the future applications of media elements used in marketing activities of the hotel company will remain the same if the elements are in either of Quadrant II and IV. The hotel company will continue using media elements in Quadrant II, since these elements are believed to be important or useful. On the other hand, the hotel company will not adopt media elements in Quadrant IV because they are not perceived to be important or useful. In addition, it is argued that the future change in the usage of media elements in marketing activities will likely take place in case of the two scenarios of Quadrant I and III. More specifically, if $N(I) > N(III)$, the usage of media elements will grow; however, if $N(I) < N(III)$, the usage of the media elements will decline. Finally, it is not expected to have any noteworthy change if $N(I) = N(III)$.

The propensity index (PI) value for each media element used in hotel marketing activities is acquired by using the following equation:

Table 1
Demographic characteristics.

Type	Contents	Frequency	%	Type	Contents	Frequency	%
Gender	Male	164	46.7	Income	1 Mil. - 2 Mil. KRW	122	34.8
	Female	187	53.3		2 Mil. - 3 Mil. KRW	103	29.3
	Total	351	100		3 Mil. - 4 Mil. KRW	75	21.4
Age	20 – 25 years	61	17.4		4 Mil. - 5 Mil. KRW	18	5.1
	26 – 30 years	99	28.2		+ 5 Mil. KRW	24	6.8
	31 – 35 years	132	37.6		None	9	2.6
	36 – 40 years	32	9.1		Total	351	100
	41 – 45 years	16	4.6	Average number of hotel visits (per month)	1	92	26.2
	46 – 50 years	11	3.1		2	82	23.4
	Total	351	100		3	51	14.5
Occupation	Student	25	7.1		4	27	7.7
	Management / Office	122	34.8		5	46	13.1
	Specialized jobs	63	17.9		6	10	2.8
	Sales / Service	105	29.9		7	5	1.4
	Technical / Manufact.	6	1.7		8	4	1.1
	Housewife	2	0.6		10	16	4.6
	Self-employed	9	2.6		12	5	1.4
	Unemployed / etc.	19	5.4		15	3	0.9
	Total	351	100		20	7	2
Marital status	Single	252	71.8		30	2	0.6
	Married	99	28.2		50	1	0.3
	Total	351	100		Total	351	100
Number of family members	1	69	19.7	Main purpose of visit	Travel	226	64.4
	2	38	10.8		Rest	71	20.2
	3	95	27.1		Business	36	10.3
	4	104	29.6		Dining	18	5.1
	5+	18	5.1		Total	351	100
	None	27	7.7	Locations of the most recently visited hotels	Korea	117	33.3
	Total	351	100		Japan	54	15.4
Level of education	High school graduate	18	5.1		China	34	9.7
	College diploma	72	20.5		Southeast Asia	90	25.6
	University degree	226	64.4		Europe	37	10.5
	Master's / Ph.D.	35	10		The Americas	19	5.4
	Total	351	100		Total	351	100

Table 2
Moderating effect of demographic variables on the importance and utilization of media elements.

Media elements	Demographic variables	Moderating effect coefficient	Std. Error	P	Lower value	Upper value
Pictograms	Gender	−0.3640	0.1821	0.0464	−0.7221	−0.0058
Ideograms		−0.1475	0.1683	0.3814	−0.4785	0.1835
Phonograms		−0.2116	0.1536	0.1692	−0.5137	0.0905
Mesopotamian numbers		−0.2277	0.0605	0.0002	−0.3467	−0.1087
Egyptian numbers		0.0036	0.0894	0.9680	−0.1722	0.1794
Greek numbers		0.0400	0.0828	0.6294	−0.1229	0.2029
Arabic numbers		−0.2094	0.1214	0.0856	−0.4482	0.0295
Roman numbers		−0.1933	0.1554	0.2143	−0.4989	0.1123
Chinese numbers		−0.0673	0.0992	0.4978	−0.2625	0.1278
Pure tone		−0.1180	0.1230	0.3382	−0.3599	0.1240
Complex sounds		−0.0973	0.1286	0.4495	−0.3503	0.1556
Images of people		0.1457	0.1725	0.3990	−0.1936	0.4850
Image of animals / plants		0.0720	0.1471	0.6249	−0.2173	0.3613
Other images		−0.0592	0.1884	0.7538	−0.4298	0.3115
Illustration videos		0.0635	0.1673	0.7045	−0.2655	0.3925
Actual image videos		−0.1195	0.1934	0.5371	−0.4999	0.2609
Typo videos		0.0154	0.1508	0.9186	−0.2812	0.3120
Animations		−0.0035	0.1303	0.9788	−0.2598	0.2529
Dynamic image videos		0.0835	0.1610	0.6043	−0.2332	0.4003
Symbols		0.0001	0.1344	0.9992	−0.2643	0.2645
Emoticons		0.2738	0.1380	0.0481	0.0023	0.5452
Pictograms	Age	−0.0948	0.0770	0.2191	−0.2462	0.0566
Ideograms		−0.0369	0.0695	0.5964	−0.1736	0.1000
Phonograms		−0.0150	0.0661	0.8201	−0.1450	0.1149
Mesopotamian numbers		0.0061	0.0263	0.8153	−0.0456	0.0579
Egyptian numbers		0.0909	0.0342	0.0082	0.0237	0.1581
Greek numbers		0.0614	0.0307	0.0463	0.0010	0.1218
Arabic numbers		−0.0491	0.0433	0.0000	0.8450	0.9744
Roman numbers		−0.0286	0.0674	0.6716	−0.1612	0.1040
Chinese numbers		−0.0070	0.0439	0.8728	−0.0934	0.0793
Pure tone		0.0739	0.0523	0.1588	−0.0290	0.1768
Complex sounds		−0.0024	0.0565	0.9655	−0.1136	0.1087
Images of people		0.1655	0.0763	0.0308	0.0154	0.3157
Images of animals / plants		−0.0203	0.0626	0.7461	−0.1434	0.1028
Other images		−0.0225	0.0790	0.7759	−0.1778	0.1328
Illustration videos		−0.0004	0.0689	0.9951	−0.1360	0.1352
Actual image videos		0.1342	0.0759	0.0779	−0.0151	0.2836
Typo videos		0.0123	0.0618	0.8427	−0.1092	0.1338
Animations		0.0817	0.0538	0.1300	−0.0242	0.1876
Dynamic image videos		−0.0776	0.0736	0.2929	−0.2223	0.0672
Symbols		0.0418	0.0614	0.4958	−0.0789	0.1626
Emoticons		0.1062	0.0580	0.6810	−0.0079	0.2203
Pictograms	Level of education	−0.2465	0.1297	0.0582	−0.5016	0.0086
Ideograms		−0.0502	0.1172	0.6685	−0.2807	0.1803
Phonograms		−0.0820	0.1197	0.4939	−0.3175	0.1535
Mesopotamian numbers		0.1362	0.0531	0.0108	0.0317	0.2407
Egyptian numbers		0.1178	0.0627	0.0611	−0.0055	0.2410
Greek numbers		0.1078	0.0614	0.0801	−0.0130	0.2285
Arabic numbers		−0.0086	0.0878	0.9216	−0.1814	0.1641
Roman numbers		−0.0857	0.1123	0.4459	−0.3065	0.1352
Chinese numbers		−0.0202	0.0724	0.7807	−0.1625	0.1222
Pure tone		−0.0261	0.0932	0.7792	−0.2094	0.1571
Complex sounds		−0.0700	0.1000	0.4843	−0.2668	0.1267
Images of people		−0.1260	0.1232	0.3073	−0.3683	0.1163
Images of animals / plants		−0.0755	0.1008	0.4545	−0.2738	0.1228
Other images		−0.1660	0.1207	0.1699	−0.4034	0.0714
Illustration videos		0.0112	0.1190	0.9250	−0.2228	0.2452
Actual image videos		−0.1414	0.1373	0.3037	−0.4115	0.1286
Typo videos		−0.1225	0.1075	0.2553	−0.3338	0.0889
Animations		−0.2051	0.0966	0.0345	−0.3951	−0.0151
Dynamic image videos		−0.0876	0.1154	0.4482	−0.3146	0.1393
Symbols		0.0748	0.1023	0.4651	−0.1265	0.2761
Emoticons		0.0713	0.1062	0.5024	−0.1375	0.2801
Pictograms	Income	−0.0638	0.0723	0.3784	−0.2061	0.0785
Ideograms		−0.0945	0.0620	0.1282	−0.2163	0.0274
Phonograms		−0.0663	0.0600	0.2701	−0.1844	0.0518
Mesopotamian numbers		0.0937	0.0256	0.0003	0.0434	0.1440
Egyptian numbers		0.0194	0.0329	0.5563	−0.0453	0.0841
Greek numbers		0.0184	0.0296	0.5339	−0.0397	0.0765
Arabic numbers		−0.0491	0.0433	0.2575	−0.1343	0.0361
Roman numbers		0.0228	0.0566	0.6874	−0.0886	0.1342
Chinese numbers		0.0442	0.0366	0.2279	−0.0277	0.1161
Pure tone		0.0015	0.0467	0.9744	−0.0903	0.0933
Complex sounds		−0.0034	0.0484	0.9432	−0.0987	0.0918

(*continued on next page*)

Table 2 (*continued*)

Media elements	Demographic variables	Moderating effect coefficient	Std. Error	P	Lower value	Upper value
Images of people		−0.0514	0.0657	0.4340	−0.1805	0.0777
Images of animals / plants		0.0061	0.0562	0.9138	−0.1045	0.1167
Other images		0.0358	0.0719	0.6192	−0.1057	0.1772
Illustration videos		0.0807	0.0644	0.2107	−0.0459	0.2074
Actual image videos		0.1099	0.0731	0.1339	−0.0340	0.2537
Typo videos		−0.0128	0.0550	0.8155	−0.1210	0.0953
Animations		−0.0080	0.0517	0.8769	−0.1097	0.0937
Dynamic image videos		−0.1476	0.0648	0.0234	−0.2751	−0.0201
Symbols		−0.0135	0.0522	0.7957	−0.1163	0.0892
Emoticons		−0.0240	0.0561	0.6690	−0.1343	0.0863

$$\text{Propensity Index (PI)} = \frac{N\,(\text{I})\ \text{media users} - N\,(\text{III})\ \text{media users}}{\text{Number of members considered}}$$

Theoretically, the value of PI can range from −1, whereby all the members use the medial elements yet think it is not important, suggesting that there will be a decrease in the future use of these elements, to +1, whereby none of the members uses the media elements yet think it is important.

Mean popularity (MP) is defined as the overall mean of the extent of use across all the media elements considered. It is calculated as followed:

$$\text{Mean popularity (MP)} = \frac{\sum \text{Current use level of each media element}}{\text{Number of media elements considered}}$$

Relative popularity (RV) can be calculated by subtracting the mean popularity (MP) from the popularity of each media element, then dividing it by MP. Specifically, it is calculated using the following equation:

$$\text{Relative popularity of each media element } i\ (\text{RP}_i) = \frac{\text{Current use level of each media element } i - \text{MP}}{\text{MP}}$$

Thus, RP value can vary from +1, where all hospitality companies use the media elements, to −1, where not even a single company uses the media elements. It is worth mentioning that CPA was used to predict future trends of the use of website marketing activities focusing on the future changes such as growth and decline in studies by Li et al., (2015) and Wang et al., (2006).

3.2. Research model and data collection

Nowadays, customers gain travel-related information from the Internet more than ever before (Pitta and Fowler, 2005); therefore, given the marketing power of consumer's communications, it is essential for the hotel companies to see through the eyes of consumers (Jeong and Jeon, 2008). Although customers can benefit from information acquired through the media, availability of too much information can impede customers' decision-making processes. Today, customers have to deal with too much information transmitted through various media elements. Hence, we strongly believe that there is a need for identifying which media elements are the most efficient in marketing activities of hotel companies. First, literature review was conducted to verify which media elements constitute media-based marketing. Second, we established a research model and hypotheses based on the previous hotel media-based marketing literature. Research model is presented in Fig. 2 and the hypotheses of the study are as follows:

Hypothesis 1. The importance of media elements will affect the utilization depending on the demographic characteristics.

Hypothesis 2. Change propensity index of media elements will vary depending on demographic characteristics.

The target population in this study was identified as Korean media users with a previous experience of obtaining domestic and international hotel information through various channels of media. Therefore, an onsite intercept survey was conducted for individual domestic media users by 7 well-trained students from the Department of Hotel and Tourism Management at a university in Seoul, Korea. To obtain a representative sample and collect data necessary for analysis, the survey was conducted at the entrance of five-star and four-star hotels located in Seoul, as well as at the departure gates of Incheon International Airport targeting domestic media users going through the gate.

After ensuring that the survey participants had enough time, the field researchers outlined the purpose of the research and invited the participants to participate in the survey. A self-administered questionnaire was distributed to those who agreed to participate in the survey. Since the weather was cold during the survey period, hand warmers were given to respondents who agreed to participate and completed the questionnaire. The field researchers contacted 500 domestic media users, 399 of whom participated in the survey from October 17th, 2016 to November 6th, 2016. The response rate was 79.8%. In the end, 351 questionnaires were coded for analysis after eliminating 48 questionnaires due to partial and inconsistent responses.

3.3. Analysis

To test the first hypothesis of the study indirect bootstrapping analysis (Hayes, 2012) was applied. In order to test the second hypothesis, the study employed CPA proposed by Wang et al. (2006).

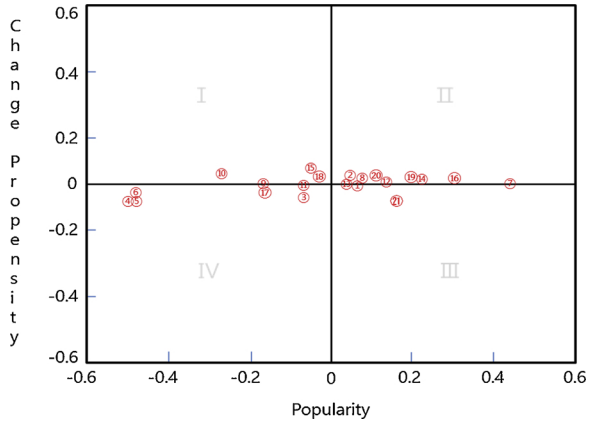

Fig. 3. Change propensity analysis of media elements.
① Pictograms ② Ideograms ③ Phonograms ④ Mesopotamian numbers ⑤ Egyptian numbers ⑥ Greek numbers ⑦ Arabic numbers ⑧ Roman numbers ⑨ Chinese numbers ⑩ Pure tone ⑪ Complex tone ⑫ Images of people ⑬ Images of plants and animals ⑭ Other images ⑮ Illustration videos ⑯ Actual image videos ⑰ Typo videos ⑱ Animation videos ⑲ Dynamic picture videos ⑳ Symbols ㉑ Emoticons.

Table 3
CP index of media elements (letters, numbers, and sounds) depending on demographic variables.

Demographic variables		PIC	IDE	PHO	MES	EG	GR	AR	RO	CH	PUR	COM
Gender	Male	−0.012	0.012	−0.055	−0.024	−0.030	−0.012	0.006	0.006	−0.006	0.037	0.012
	Female	0.011	0.032	−0.027	−0.027	−0.027	−0.011	0.011	0.021	0.016	0.016	−0.011
Age	20 - 25	0.016	−0.016	−0.033	0.000	0.016	−0.033	0.016	0.000	0.016	0.016	0.016
	26 - 30	0.020	−0.010	0.000	−0.051	−0.051	−0.081	0.000	0.040	0.000	0.020	0.010
	31 - 35	−0.015	0.045	−0.023	−0.030	−0.045	0.015	0.008	−0.008	0.008	0.015	−0.015
	36 - 40	−0.063	0.094	−0.094	0.000	0.000	0.125	0.031	−0.031	0.031	0.094	0.000
	41 - 45	0.000	0.063	−0.188	0.000	0.000	0.000	0.000	0.125	−0.063	0.063	0.000
	46 - 50	0.091	0.000	−0.273	0.000	0.000	0.000	0.000	0.091	0.000	0.000	0.000
Occupation	Student	−0.120	0.160	−0.200	0.000	−0.160	−0.040	0.000	0.040	0.040	0.120	0.000
	Manag/office	0.041	0.025	−0.008	−0.016	−0.041	−0.016	0.008	0.008	0.000	0.016	0.000
	Specialized	0.000	0.032	−0.048	0.000	0.048	0.000	0.000	−0.016	0.016	0.000	0.000
	Sales & service	0.029	−0.029	−0.019	−0.067	−0.038	−0.010	0.010	−0.010	0.019	0.010	0.010
	Tech / manuf.	0.000	0.000	−0.333	0.000	0.000	0.000	0.000	0.000	−0.333	0.500	1.333
	Housewife	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000
	Self-employed	−0.333	0.111	−0.111	0.000	0.000	0.000	0.000	0.222	0.000	0.000	0.000
	Unemployed / etc.	−0.105	0.053	0.000	0.000	0.000	0.000	0.053	0.105	−0.105	0.000	0.000
Marital status	Single	0.004	0.024	−0.028	−0.032	−0.032	−0.008	0.004	0.016	0.000	0.032	0.004
	Married	−0.010	0.020	−0.071	−0.010	−0.020	−0.020	0.020	0.010	0.020	0.010	−0.010
Number of family members	1	−0.029	0.043	−0.029	−0.058	0.014	0.000	0.000	0.043	0.014	0.058	0.043
	2	−0.105	−0.026	0.079	0.000	−0.053	0.000	0.026	−0.026	0.026	0.053	0.053
	3	0.000	0.011	0.000	−0.011	−0.011	−0.021	0.011	0.011	0.011	0.011	−0.021
	4	0.010	0.019	−0.038	−0.038	−0.048	−0.029	0.000	−0.010	−0.019	−0.010	−0.029
	5	0.111	−0.056	−0.222	0.000	−0.056	−0.056	0.056	0.167	−0.056	0.000	−0.056
	None	0.111	0.148	−0.259	0.000	−0.074	0.074	0.000	0.000	0.000	0.111	0.037
Level of education	High school	0.000	0.222	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.056	0.111
	College diploma	0.056	0.042	−0.014	−0.028	−0.028	−0.028	0.014	0.028	0.014	0.014	0.042
	University degree	−0.013	0.009	−0.053	−0.027	−0.053	−0.018	0.004	0.004	−0.004	0.018	−0.022
	Master's / PhD.	−0.029	−0.029	−0.029	−0.029	0.086	0.057	0.029	0.057	0.000	0.086	0.000
Income	1 Mil. - 2 Mil. KRW	0.016	0.008	−0.016	−0.057	0.000	−0.049	0.008	0.000	0.008	0.033	−0.025
	2 Mil. - 3 Mil. KRW	0.019	0.010	−0.039	−0.019	−0.029	−0.010	0.010	0.000	0.000	0.010	0.010
	3 Mil. - 4 Mil. KRW	0.000	0.040	−0.053	0.000	−0.040	0.013	0.013	0.027	0.000	0.053	0.040
	4 Mil. - 5 Mil. KRW	−0.278	0.056	−0.278	0.000	−0.222	0.000	0.000	0.111	0.000	0.056	0.000
	> 5 Mil. KRW	0.042	0.042	0.000	0.000	−0.042	0.000	0.000	0.042	−0.042	0.000	0.000
	None	0.000	0.111	0.111	0.000	0.000	0.222	0.000	0.000	0.000	−0.111	−0.111

Method of analysis and questionnaires of the study were based on the previous studies by Li et al., (2015) and Cobos et al., (2009). Media elements were illustrated in four quadrants based on their utilization and importance. Differences and effectiveness were examined as well. Additionally, the values were checked after calculations using CPA of media elements based on demographic factors.

4. Results

Table 1 shows that there were 164 male (46.7%) and 187 female (53.3%) participants. The majority of people were 31 ~ 35 years old (37.6%), followed by 26 ~ 30 years old (28.2%), and 20 ~ 25 years old (17.4%). In terms of professions, 34.8% were office workers, 29.9% were involved in sales and service professions, and 17.9% had specialized jobs. Moreover, 71.8% were single and 28.2% were married. The majority of people (29.6%) had four family members, followed by three (27.1%), one (19.7%), and two (10.8%). Level of education: 18 were high school graduates (5.1%), 72 college graduates (20.5%), 226 had university degrees (64.4%), and 35 had their Master's or Ph.D. degree (10%).

In terms of earnings, the majority of people (34.8%) earned 1–2 million KRW, followed by (29.3%) 2–3 million KRW, and (21.4%) 3–4 million KRW per month. Additionally, the majority of people (26.2%) visited hotel once a month, followed by twice a month (23.4%). The main reason for visiting hotel was travel (64.4%). Most of the participants recently visited hotel located in Korea (33.3%). Hence, we can infer the increase of domestic travel from this result. Moreover, visits to South-East Asian hotels were second on the list (25.6%).

Indirect Bootstrapping analysis was applied to test Hypothesis 1 of the study. Table 2 shows the results that can be viewed as statistically significant when the number "0" is not included in the lower and upper limit values of moderating effect coefficient (Preacher and Hayes, 2004). Accordingly, when gender was included and tested for moderation it showed statistically significant effect on the importance and utilization of pictograms and Mesopotamian numbers, whereas it did not have any statistically significant influence on other media elements. When age was tested for effect of moderation, it exhibited statistically significant influence on the importance and utilization of media components such as Egyptian numbers, Greek numbers, Arabic numbers, and images of people. However, the age did not have any statistically significant influence on other media elements. Level of education had statistically significant influence on only one media element – animations. Finally, when income was tested for its moderating effect it had statistically significant influence on the importance and utilization of media elements such as Mesopotamian numbers and dynamic image videos. The results of the analysis prove that certain demographic variables have statistically significant influence on the relationship between the importance and utilization of each media element.

Results of the analysis for the Hypothesis 2 of the study are illustrated in Fig. 3. Quadrant I exhibits pure tone, Chinese numbers, complex sounds, illustration videos, and animations. Quadrant II depicts pictograms, ideograms, images of plants and animals, Roman numbers, symbols, images of people, dynamic image videos, other images, actual image videos, and Arabic numerals. Interestingly, Quadrant III includes only one media element - emoticons. Finally, Quadrant IV contains Mesopotamian numbers, Egyptian numbers, Greek numbers, typo videos, and phonograms.

Tables 3 and 4 show that change propensity (CP) index differs depending on the demographic variables.

5. Conclusions and implications

Hospitality marketers can identify, communicate and engage consumers at different stages of consumption through a variety of tools

Table 4
CP index of media elements (images, numbers, and sounds) depending on demographic variables.

Demographic variables		PPL	Ani / plnt.	Other	Ill.	Act	Typ	ANI.	DYN.	SYM	EMO
Sex	Male	0.006	0.006	0.030	0.098	0.012	−0.061	0.030	0.018	0.030	−0.049
	Female	0.032	0.005	−0.005	0.075	0.011	−0.048	0.011	0.016	0.016	−0.064
Age	20 – 25	−0.016	0.000	0.000	0.049	0.016	−0.098	0.000	0.033	0.016	−0.066
	26 - 30	0.030	0.010	−0.020	0.111	0.020	−0.091	0.000	0.020	0.051	−0.071
	31 - 35	0.008	−0.023	−0.023	0.061	−0.008	−0.015	0.008	0.015	0.000	−0.015
	36 - 40	0.063	0.000	0.094	0.188	−0.031	−0.031	0.094	0.000	0.063	−0.094
	41 – 45	0.125	0.188	0.250	0.063	0.125	−0.063	0.063	0.000	0.000	−0.250
	46 - 50	0.000	0.091	0.182	0.091	0.091	0.000	0.182	0.000	0.000	0.000
Occupation	Student	0.120	−0.040	0.000	0.160	−0.080	−0.160	0.040	0.040	0.200	−0.120
	Manag/office	0.016	−0.008	0.008	0.008	0.000	−0.041	0.008	0.008	0.000	−0.049
	Specialized	0.032	0.000	−0.032	0.063	0.048	0.000	−0.032	0.032	0.000	−0.111
	Sales and service	0.010	0.038	0.010	0.057	0.029	−0.095	0.076	−0.029	0.038	−0.019
	Technical / manufac.	−0.167	0.000	0.167	0.667	−0.167	0.000	0.167	0.000	−0.167	−0.333
	Housewife	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.000	0.000
	Self-employed	0.000	0.000	0.000	−0.333	0.000	0.000	−0.111	0.111	0.000	0.000
	Unemployed/ etc.	0.000	0.000	0.158	−0.053	0.053	0.000	−0.053	0.158	0.000	0.000
Marital status	Single	0.024	0.012	−0.012	0.075	0.024	−0.048	0.000	0.024	0.012	−0.052
	Married	0.010	−0.010	0.071	0.111	−0.020	−0.071	0.071	0.000	0.051	−0.071
Family member	1	0.014	−0.029	−0.029	0.029	−0.029	−0.087	0.058	−0.029	0.043	−0.087
	2	0.053	0.026	−0.026	0.184	−0.026	−0.079	0.053	−0.079	0.053	−0.079
	3	0.021	0.000	0.011	0.084	0.011	0.000	−0.021	0.021	0.000	−0.021
	4	0.000	0.010	0.029	0.077	0.038	−0.038	0.010	0.038	0.000	−0.048
	5	0.056	0.000	0.222	0.111	0.000	−0.222	0.056	0.111	0.111	−0.056
	None	0.037	0.074	−0.037	0.111	0.074	−0.074	0.037	0.111	0.037	−0.111
Level of education	High school	0.000	0.000	0.000	0.167	0.000	0.000	0.167	0.056	0.000	0.000
	College diploma	0.014	0.000	0.014	0.069	0.000	0.028	0.028	0.000	0.014	−0.042
	University degree	0.013	0.000	0.018	0.080	0.013	−0.088	0.013	0.022	0.035	−0.062
	Master's / PhD.	0.086	0.057	−0.029	0.114	0.029	−0.029	−0.029	0.000	−0.029	−0.086
Income	1 Mil. - 2 Mil. KRW	−0.016	0.000	0.025	0.098	−0.008	−0.057	0.000	0.008	0.025	−0.057
	2 Mil. - 3 Mil. KRW	0.010	0.029	0.019	0.058	−0.010	−0.010	0.010	0.019	0.049	−0.049
	3 Mil. - 4 Mil. KRW	0.013	0.027	0.013	0.080	0.040	−0.013	0.000	0.027	0.000	−0.027
	4 Mil. - 5 Mil. KRW	0.111	0.000	−0.167	0.111	0.167	−0.333	0.111	0.000	0.056	−0.056
	> 5 Mil. KRW	0.083	−0.042	0.083	0.000	0.000	−0.083	0.083	0.000	−0.042	−0.125
	None	0.333	−0.222	−0.111	0.444	0.000	−0.222	0.222	0.111	0.000	−0.222

offered by the Internet (Li et al., 2015). Nonetheless, it is not sufficient to merely build and maintain a website to address information needs of hotel customers. Therefore, it is imperative for hotel companies to examine the current importance and utilization of media elements and to foresee future development trends in marketing activities.

The study assesses current importance of various media elements and their impact on utilization propensity depending on moderating effect of various demographic factors. Specifically, results show that while gender moderates the importance and utilization of pictograms and Mesopotamian numbers, age influences Egyptian numbers, Greek numbers, Arabic numbers, and Images of people. Moreover, while level of education moderates animations, Mesopotamian numbers and dynamic image videos are moderated by the income. Hence, hotel companies must implement more sophisticated marketing functions (Shuai and Wu, 2011); and build relationship through bi-directional interactive communication (Wang and Russo, 2007) by utilizing certain media elements based on demographic characteristics of the customers.

The accurate foresight of the near future enables hotel companies to assure competitive advantage through making more sound decisions and taking new actions (Mazhenova et al., 2016). Furthermore, it can help hotels avoid wasting their limited resources by allocating them to utilize more effective media elements in the future. Based on the CPA, the study tried to project future development and changes of media elements. CPA results exhibit pure tone, Chinese numerals, complex sounds, illustration videos, and animations in Quadrant I. This shows that even though these media elements now have low utilization their utilization is predicted to increase in marketing activities in the near future. Pictograms, ideograms, images of plants and animals, Roman numerals, symbols, images of people, dynamic image, other images, actual image videos, and Arabic numbers are in Quadrant II. This suggests that these media elements will be continuously used in the future because they are currently perceived to be important and utilized by the hotel company. Since emoticons are in Quadrant III, they are considered as the least effective element of the media. Hence, the utilization of emoticons is predicted to diminish in the future marketing activities. Mesopotamian numbers, Egyptian numbers, Greek numbers, typo videos, and phonograms are in Quadrant IV. This means they have no actual influence in marketing promotion activities, as customers are not aware of them.

This study should be of interest to hospitality industry practitioners. The assessment of media elements used in marketing activities can help hotel managers understand their merits and shortcomings. This research shows that demographic factors such as gender, age, level of education, and income influence the importance and utilization of certain medial elements. Determining how customers with various demographic backgrounds respond to different media elements is required in order to attract more customers. Therefore, applying media elements according to certain demographic factors will lead to the establishment of more effective strategies. The results of the study shed light in discovering the changing trend in future media marketing. Thus, by understanding which media elements are likely to change and which are not hospitality companies are able to design efficient marketing strategies.

When compared to previous media marketing studies the study can be considered as a new type of research. Although previous studies used term “media” as a keyword, they focused only on very specific part of the media such as social media or mass media. On the other hand, this research has cross-referenced all of the media elements with their importance and utilization and provided practical information to hospitality industry practitioners. This separates the study from previous research and makes it unique.

In conclusion, this study used survey based only on domestic customers who had previous experience of using hotels in Korea and abroad. Hence, the results of the study must be applied with careful

considerations as the results might be biased against customers from other countries. Therefore, future research should include both Korean and non-Korean sample to understand how the importance and utilization of each media element differs depending on demographic factors. Authors strongly believe that this sort of research will contribute to the research field as well as understanding of media elements utilized in hospitality marketing strategy in the future.

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