

THE ROLE OF MOA FRAMEWORK ON KNOWLEDGE SHARING AND TOURIST BEHAVIORAL INTENTION

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ABSTRACT

This study attempts to evaluate the significance of motivation, opportunity, ability (MOA model) on knowledge sharing, destination image and behavioral intention. The moderating role of openness to experience is also examined. Using online questionnaire survey, 262 valid responses were obtained. The results suggest that MOA significantly influence knowledge sharing. Knowledge sharing has a positive effect on destination image, and destination image has a positive relationship with behavioral intention. Moreover, openness to experience is regarded as a positive moderator that can strengthen the influence of MOA on knowledge sharing.

INTRODUCTION

The Internet has increased the opportunities available for information processing and customer-to-customer interactions. Many travel agencies in Taiwan set up their official websites or develop virtual travel communities to gain closer relationships with their customers or potential customers. However, the level by which customers are encouraged to participate in such communication activities and share knowledge in order to generate both image perception of a tourist destination and behavioral intention has rarely been addressed in the field of tourism management. Following MacInnis et al. (1991), this study attempts to integrate the concept of MOA model to destination marketing. This article developed its merits according to the following motivations. First, according to the study of Gruen et al. (2007), know-how exchange occurs when customers interact with each other. We employ the MOA model and examine the impacts of the three elements it contains on knowledge sharing at virtual travel communities.

Second, psychological variables such as self-efficacy, organizational commitment and perceived instrumentality, have been shown to have significant impacts on people's inclination to participate in knowledge sharing (Kalman, 1999). However, there has only been limited discussion on the influence of personality on knowledge sharing. McCrae and Costa (1997) argue that open individuals are highly motivated to actively seek out new and varied experiences, and enjoy hearing new ideas or are interested in learning (Mount & Barrick, 1995). Therefore, openness to experience may serve as a moderator to the relationships between MOA elements and knowledge sharing. Finally, destination image plays a critical role in the travelers' purchase related decision making (Chon, 1990). However, how efficient the knowledge sharing is in virtual communities with regards to forming an individual's own destination image and behavioral intention also requires further examination. Based on the above research motivation, the goals of this study are as follows: (1) to evaluate the influences of motivation, opportunity and ability (MOA) on knowledge sharing; (2) to test the influence of knowledge sharing on destination image; (3) to evaluate the relationship between the perception of destination image and behavioral intention; and (4) to examine the moderating role of openness to experience on the influences of MOA on knowledge sharing.

LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

The Motivation, Opportunity and Ability (MOA) Framework

This MOA framework reveals that an individual's actions are driven by three elements: motivation, opportunity and ability. Motivation is generally viewed as a force that pushes people toward certain goals (MacInnis & Jaworski, 1989). Human motives are multi-dimensional. Deci and Ryan (2000) consider motivation from both intrinsic and extrinsic perspectives. Sokolowski et al. (2000) combine the approach and avoidance components to measure three human motives: achievement, affiliation and power. With regard to this research, we employ the concept of motives used in Sokolowski et al.(2000), and refer motivation as a force that shapes an individual's desire or readiness to participate in virtual communities in order to exchange travel information. Opportunity reflects the extent to which a situation is conducive to achieving a desired outcome or a situation when there are no obstacles to attaining a desired outcome (MacInnis et al., 1991). Several situational factors that either support or obstruct a desired outcome are also considered, such as available time, attention paid, number of distractions, or number of repetitions (MacInnis & Jaworski, 1989). With regard to this research, opportunity is regarded as the condition that enables people from participating in virtual communities to exchange travel information. Ability indicates the individuals' skills, or proficiencies related to how to perform actions or to solve problems (Rothschild, 1999). Based on MOA theory, ability is the extent to which consumers have the necessary resources (e.g., knowledge, intelligence, money) to make an outcome happen (Wayne & MacInnis, 1997). This study views ability as a community member's skills that are required to engage in the sharing activities made possible by virtual communities.

Relationships between MOA and Knowledge Sharing

Knowledge resides within an individual and is represented in the human mind. Knowledge sharing is the activity dependent on the interaction and communication between individuals and business units. It also refers to the behavior when an individual distributes the knowledge they have acquired to others (Ryu et al., 2003). According to a previous descriptions of MOA framework, each of the MOA elements has been verified to be antecedents of the customer-to-customer know-how exchange in e-communities (Gruen et al., 2006), face-to-face networking behavior in professional meetings (Gruen et al., 2007), and knowledge-sharing among employees (Siemsen et al., 2008). This indicates that an individual's intention to share information is based on the contribution of all three MOA elements. Moreover, in a study of the three-way interaction effect among the MOA factors are essential to understand customer-to-customer exchange, but motivation is the dominant factor (Gruen et al., 2007). Therefore, an individual's motivation, opportunity and ability all play important roles in the level of knowledge sharing. Based on this literature review, the following hypotheses are developed: **H1:** MOA model has a positive effect on knowledge sharing. **H1a:** The tourist's motivation toward participating in e-communities has a positive effect on his/her knowledge sharing. **H1b:** The tourist's opportunity toward participating in e-communities s has a positive effect on his/her knowledge sharing. **H1c:** The tourist's ability toward participating in e-communities has a positive effect on his/her knowledge sharing.

The Effect of Knowledge Sharing on Destination Image

Knowledge sharing has emerged as a core process of knowledge management. Individuals whose experiences and existing knowledge are distinctive can create new knowledge by communicating and sharing important information and accumulated knowledge. The perceived image of a destination will be formed through the image projected by the destination and the individuals' own needs, motivations, prior knowledge, preferences and other personal characteristics. Similarly, Um and Crompton (1990) state, beliefs about the attributes of a destination are formed by individuals being exposed to external stimuli, but the nature of those beliefs will vary depending on the internal factors of the individuals. There are intermediate factors between the destination and receivers, sometimes modifying, enhancing, and diminishing the information cues being transmitted. These factors are items such as news articles, educational materials, movies and popular culture, and are known as autonomous image formation agents (Gartner, 1993). Accordingly, we suggest that knowledge sharing on certain destinations among virtual travel community members will also facilitate an individual's destination image formation. Thus, the second hypothesis is developed as follows: **H2:** Knowledge sharing has a positive influence on a tourist's perception of destination image.

The Effect of Destination Image on Behavioral Intention

Imagery influences the whole consumption experience (MacInnis & Price, 1987). Before purchase, vicarious consumption may take place through imagery, while it can add value and increase satisfaction during consumption. After consumption, imagery can have a reconstructive role in which a person relives the experience via memories and, in a travel context, with souvenirs of their vacation (Jenkins, 1999). A behavioral intention is a customer's decision about future activity and service provider (Hume et al., 2006). Destination image is one of the antecedent variables of satisfaction and future behavior, such as willingness to revisit and offer positive word-of-mouth statements to others (Bigne et al., 2001). Thus, the third hypothesis is proposed as follows: **H3**: Tourist image toward destination has a positive influence on his/her behavioral intention.

Moderating effect of Openness to Experience with regard to MOA and Knowledge Sharing

Openness to experience is associated with the Big Five personality model (Costa & McCrae, 1992) and it is linked to traits such as being broad-minded, imaginative, and original (McCrae, 1987). According to Cabrera et al. (2006), openness to experience reflects as an individual's curiosity and is a predictor of seeking other people's insights. People who have higher scores of openness have a greater tendency to get more involved in information seeking activities and to share their own experiences with others. Openness to experience may thus serve as a moderator that impacts the relationships between MOA and knowledge sharing. Consequently, the following hypothesis is proposed. **H4**: The level of openness to experience will moderate the influences of motivation, opportunity and ability on knowledge sharing.

RESEARCH DESIGN AND METHODOLOGY

Construct Measurement and Questionnaire Design

For the purpose of examining the hypotheses empirically, the following seven major constructs are operationalized in this study: (1) Motivation; (2) Opportunity; (3) Ability; (4) Knowledge sharing; (5) Openness to experience; (6) Destination image and (7) Behavioral intention. All the research variables were employed in their existing or slightly modified forms. First, to measure the construct of motivation, this study selected totally 12 questionnaire items from Sokolowski et al. (2000). Next, this study selected six items from Gruen et al. (2006) to measure the construct of opportunity and four items for the construct of ability. To measure respondent's knowledge sharing, three questionnaire items were adopted from the study of Hsu et al. (2007). To measure the openness to experience, six questionnaire items were adopted from Mount and Barrick (1995). Based on the studies of MacKay and Fesenmaier (2000), and Chen and Hsu (2000), seven items were used to measure the construct of destination image. Finally, to measure the respondent's behavioral intention, this study selected five items from the study of Ozdemir and Hewett (2010). Seven-point Likert scales were all developed. A scale purification process was conducted following Churchill (2002).

Sampling and Data Collection

The target population is virtual travel community members who are at least 18 years of age or older and have travel experiences. The respondents were selected through convenient sampling. After asking for the permission from the site administrators and related persons, the link of survey questionnaire was posted onto the discussion forums of travel websites in Taiwan. Data were collected over a three month period from the beginning of November, 2009 to the end of February, 2010, including one pilot test and one final survey. For the final survey, a total of 275 questionnaires were collected, with 13 invalid responses, giving 262 usable ones. The characteristics of respondents were gathered. Approximately 63% of the respondents were male. Approximately 58% of the respondents were between 21 and 30 years old. More than 91% of the respondents had an educational background with a college degree or above. Around 70% of the respondents had monthly incomes of less than NT\$ 50, 000 (US\$1=33NT\$).

RESULT AND DISCUSSION

Factor Analysis and Reliability

To verify the dimensionality and reliability of the constructs, the purification processes and criteria suggested by Hair et al. (2006) are adopted. The results show that factor loadings (0.757-0.973), item-to-total correlation (0.612-0.929) and Cronbach's alpha analysis (0.819-0.959) all fulfill the criteria. Moreover, this study used confirmatory factor analysis and found that the factor loading of each item was greater than 0.6 (see Table 1). All the composite reliability values for factors were higher than 0.7, which was considered a good reliability (Fornell & Larcker, 1981). In addition, Table 2 shows the results of discriminant validity analysis. Each of the variance-extracted estimates was greater than the corresponding inter-factor squared correlation estimates; this is considered discriminant validity satisfied (Fornell & Larcker, 1981).

Table 1: Confirmatory factor analysis

	CFA			
	No. of Items	Factor Loading	Variance Extracted	Composite Reliability
Motivation	4	0.644-0.951	0.768	0.929
Opportunity	2	0.825-0.841	0.806	0.893
Ability	3	0.658-0.884	0.692	0.869
Knowledge Sharing	3	0.832-0.847	0.813	0.929
Destination Image	4	0.889-0.915	0.871	0.971
Behavioral Intention	3	0.845-0.882	0.838	0.939

Table 2: Results of discriminant validity analysis

	MOT	OPP	ABI	KNS	DEI	BI
MOT	0.768	0.056	0.146	0.210	0.123	0.157
OPP	0.237	0.806	0.049	0.102	0.032	0.031
ABI	0.382	0.222	0.692	0.381	0.143	0.214
KNS	0.458	0.319	0.617	0.813	0.442	0.148
DEI	0.350	0.179	0.378	0.665	0.871	0.068
BI	0.396	0.177	0.463	0.385	0.261	0.838

Note: MOT = motivation; OPP = opportunity; ABI = ability; KNS = knowledge sharing;

DEI = destination image; BI = behavioral intention

— Correlation values above 0.135 is significant at $p < 0.05$;

— Diagonal values are AVE (average variance-extracted) scores;

— Values above diagonal values are squared correlation values

Hypothesis Testing -The Structural Equation Model

To evaluate the overall applicability of the research model, a structural equation model (SEM) was adopted using 262 respondents as the subjects. Following Hair et al. (2006), the criteria to evaluate the fitness of the model are as follows: Chi-square/df ≤ 3 , Goodness of Fit Index (GFI) ≥ 0.9 , Adjusted Goodness of Fit Index (AGFI) ≥ 0.9 , and Root Mean Square Error of Approximation (RMSEA) ≤ 0.08 . The value of the chi-square/df was 1.333, which meets the criterion. In addition, CFI=0.988, GFI=0.934, AGFI=0.907, RMSEA=0.036, which indicate that the model has moderate fit. In order to test the hypothesized relationships among the research constructs, this study examined the estimated coefficients, p -values, as well as the t -values of their corresponding paths. It is shown that tourists' motivation ($\beta=0.16$, $t=2.667$, $p=0.008$), opportunity ($\beta=0.16$, $t=2.809$, $p=0.005$) and ability ($\beta=0.67$, $t=8.080$, $p<0.000$) to participate in information exchange at a virtual travel community have a significant influence on knowledge sharing, respectively. The results confirm that all the elements of the MOA model have positive influences on knowledge sharing. Thus H1, H1a, H1b and H1c are all supported. In addition, the levels of tourists' knowledge sharing have significant positive effects on their perceptions of the destination image ($\beta=0.72$, $t=11.622$, $p=0.000$). This result supports H2. The levels of tourists' destination image about the certain place are positively associated with their behavioral intentions ($\beta=0.61$, $t=5.933$, $p=0.000$). Therefore, H3 is also supported.

The Moderating Role of Openness to Experience on Knowledge Sharing

To examine the moderating effect of openness to experience on members' knowledge sharing, this study also divides the respondents into four groups based on two levels of openness of experience and two levels of each MOA element. The differences among means for knowledge sharing among these four groups are evaluated. The results (Figure 1) indicate that tourists with higher levels of openness to experience tend to have higher influence of motivation (high motivation-high openness = 5.0778; high motivation-low openness = 4.7407; low motivation-

high openness = 4.1590; low motivation-low openness = 4.0047; $F=13.609$; $p<.0001$); tourists with higher levels of openness to experience tend to have higher influence of opportunity (high opportunity-high openness = 4.9052; high opportunity-low openness = 4.5260; low opportunity-high openness = 4.0901; low opportunity-low openness = 3.8296; $F=10.510$; $p<.0001$), and tourists with higher levels of openness to experience tend to have higher influence of ability (high ability-high openness = 5.2847; high ability-low openness = 4.7391; low ability-high openness = 4.0545; low ability-low openness = 3.6000; $F=36.842$; $p<.0001$) with regard to participation in the community and knowledge sharing. Openness to experience tends to serve as an essential moderator that can accelerate the positive influences of MOA elements on their knowledge sharing, and H4 is thus supported.

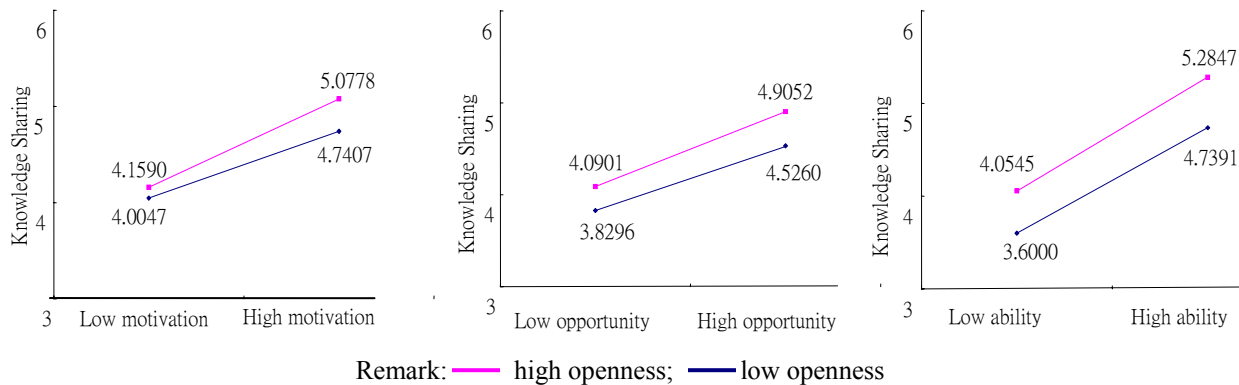


Figure 1: Moderating effect of openness to experience on motivation, opportunity and ability

CONCLUSIONS AND SUGGESTIONS

This study provided a rigorous analysis on how the concept of the motivation, opportunity and ability (MOA model) (MacInnis et al., 1991) can be linked with knowledge sharing, destination image and behavioral intention. The moderating role of openness to experience is also integrated into the model. Several conclusions can be drawn from the study. First, motivation, opportunity and ability (MOA) significantly influence knowledge sharing. This result verifies the concept that each of the MOA elements is a crucial antecedent of the know-how exchange in e-communities (Gruen et al., 2006). However, according to the study of Gruen et al. (2007), motivation is a dominant factor in driving know-how exchange, and our results are inconsistent with this, as we find that ability is more effective than motivation in driving knowledge sharing among members. The reason for this discrepancy might be “experience”. Specifically, the travel knowledge people share among members is normally related to their own travel experience or personal skills. Therefore, members’ competence and know-how about traveling is important. Second, knowledge sharing has a significant impact on destination image. This result is consistent with the argument of Um and Crompton (1990) that beliefs about the attributes of a destination are formed by individuals being exposed to internal and external stimuli. When people have more chances to share knowledge about a certain destination, they will learn more about it and form accordingly the image. Third, tourist’s perception of destination image has a

crucial influence on his/her behavioral intention, which supports the finding of Bigne et al. (2001). Destination image is one of the antecedent variables of satisfaction and future behavior, such as willingness to offer positive word-of-mouth statements to others. Finally, openness to experience has a positive moderating role on the relationship between MOA and knowledge sharing. Based on the results, we can conclude that when members have higher levels of openness to experience, they tend to perceive stronger influences of motivation, opportunity and ability for participation in the community on knowledge sharing among members.

Several managerial implications can be drawn from the conclusions. First, as MOA elements are important for the creation of knowledge sharing, managers or marketers in the field of destination management or travel industry could thus set up a discuss forum that encourages visitors to present their unique travel tips or special experiences so that they will feel they have abilities, know something other people do not and thus have more willingness to participate in sharing. Second, since knowledge sharing has significant impact on destination image, it is important to encourage knowledge sharing. Aside from the travel articles or news stories, managers or the marketers of travel companies could also encourage people to share their pictures and videos to enhance the destination image. Third, openness to experience is one of the variables that can moderate the influence of MOA on knowledge sharing. Open individuals tend to be more highly motivated to actively seek out new and varied experiences (McCrae & Costa, 1997). Thus, managers could design websites or community forums with active and plentiful contents to welcome more open people to join and share their knowledge and travel experience.

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