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Empirical study on influence mechanism of employees' creative behave in microblogging marketing

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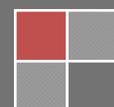
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ABSTRACT

Microblogging has become an important online marketing tool for companies. The marketing performance in microblogging platform depends greatly on the employees' creative behave. In this paper, we aim to explore the influence factors of employees' creative behave in microblogging marketing. Considering the social cognition and motivation theory, we propose a theoretical model to verify the influence mechanism of employees' creative behave by introducing two intermediary variables such as creative self-efficacy and intrinsic motivation. Structural equation model is employed to test the theoretical hypotheses by using the data from sample survey. The empirical results indicate that team support not only directly affects employees' creative behavior, but also indirectly affect employees' creative behavior via creative self-efficacy and the intrinsic motivation, task complexity indirectly affect employees' creative behavior via creative self-efficacy. Meanwhile, creative self-efficacy also directly affects intrinsic motivation. The research conclusion reveals the internal mechanism of improving the employees' creativity, and has theoretical guidance and practical significance for promoting the microblogging marketing performance.

KEYWORDS

Enterprise microblogging; Microblogging marketing; Creative behave; Affectingmechanism.



INTRODUCTION

In recent years, the employees' creative behavior has become a hotspot in research of organizational behavior. With the rapid development of social network marketing, Microblogging marketing gets more and more attention in the industry. The innovation behavior of employee has an important influence in promoting the marketing effect. There are great changes in work environment, the nature and requirements of the job in microblogging marketing, comparing with the traditional marketing, so it is necessary to combine the characteristics of employees in the new economy era to discuss how to stimulate the creative behavior in microblogging marketing.

As the typical knowledge-type employees, microblogging marketers have rich knowledge, strong working ability and independent thinking ability, and pay great attention to the support and respect from team members, which is bound to affect the employee's innovation^[1]. In addition, more challenging tasks can arouse their enthusiasm for work^[2]. Therefore, task complexity may be another important factor that inspires the employee's innovation behavior in microblogging marketing. In order to study the mechanism that team support and task complexity stimulate employee innovation, Shin and Zhou pointed out that the internal motivation partly play a mediating role between the team support and employee creativity^[3]. Other study suggested that innovation self-efficacy is the intermediary variable by which team support and task complexity influence knowledge-type employee creativity. Under the background of the microblogging marketing, an empirical analysis of mediation effect of intrinsic motivation and self-efficacy is lacking in employee innovation behavior. Based on the theory of social cognition and motivation, this paper takes microblogging marketing employee as the research object, and inspects the influence of team support and task complexity on employee innovative behavior by the empirical research method. Mean while, the intermediary effect of innovative self-efficacy and intrinsic motivation are further explored. Finally, some useful suggestions are put forward for the enterprise microblogging marketers to promote the employee's innovation behavior.

LITERATURE REVIEW AND THEORETICAL ASSUMPTIONS

Innovative behavior

Innovative behavior is defined as all individual actions directed at the generation, introduction and or application of beneficial novelty at any organization level. Such beneficial novelty might include the development and application of new product ideas or technologies, changes in administrative procedures aimed at improving work relations intended to significantly enhance their efficiency and effectiveness^[4]. The principle dimensions of innovative behavior include five factors: opportunity exploration, generativity, formative investigation, championing and application. Huang and Lu inspected five factors and found that individual innovative behavior can be divided into two stages: the behavior of generating innovative idea and the implementation of innovative idea behavior^[5,6].

In the Chinese context, employee's innovation behavior in microblogging marketing is defined as all actions that generate innovative idea or action plan and try to put them into practice for the purpose of enhancing communication effect in the process of spreading the marketing information. On the one hand, marketers should explore actively the rule of the information dissemination, analyze the influence factor of promoting diffusion, and then produce marketing idea or action plans in order to expand the spread of marketing information. On the other hand, employee should continuously optimize the content and style of microblogs, actively strengthen interaction with microblogging fans in order to implement the innovation idea. Eventually, the competitive advantage of marketing can be increased by enhancing the employees' innovation behavior.

Team support

The mutual influence among team members determines the development of the organization. Team support is the cooperation, care and approval gained from the organization and individual, it reflects the relationships and coordination within the organization. Team support includes leader support and individual support. Leader support covers help and care given by leader, adoption and attention to the employees' suggestions and the approval of employee goals and values. Individual support only refers to the mutual help and cooperation between individuals. However, for the microblogging marketing, team support is that leader helps employees set goals and give supports; therefore the innovation support from leaders is bound to affect the creativity of knowledge-type employees^[1]. In addition, knowledge-type employees value greatly spiritual motivation, they will continuously present more new ideas about their jobs if their creative jobs were responded positively by leaders. It will greatly inspire employee creativity. Further, the creativity level of knowledge-type employees will become higher when leader is willing to discuss idea with them, strive to provide various kinds of information related to their work and resources, and actively improve the work performance and innovative working atmosphere^[7]. Thus, team support for the microblogging marketers has a very positive impact on innovation behavior. The following hypothesis is proposed:

H1: Team support is significant positive effect on creative behavior for microblogging marketing.

Task complexity

Another important factor that affects employee working motivation is the task complexity^[2]. Task complexity includes high degree of challenge, autonomy, significant importance and diversity, etc. First of all, the employees will usually demonstrate a higher level of innovation desire while they engage in the high complexity of work. For microblogging marketers, their work is mainly to deal with all kinds of uncertain problem. This task requires employees to creatively put forward a method to solve the problem. The more challenge work is, the more working enthusiasm can be inspired^[1]. Secondly, for knowledge-type workers, complicated work help to provide more flexible thinking space and the adventure opportunity. It will possibly bring creativity promotion^[8]. In addition, as complex tasks focus on the various aspects of job,

this global grasp of complex jobs can help workers to break the imprisonment of the original professional category, expand the field of vision, thus enhance employees' creativity^[9]. The following hypothesis is proposed:

H2: Task complexity has significant positive effect on the innovation behavior of microblogging marketers.

Creative self-efficacy and intrinsic motivation

Tierney and Farmer presented the concept of creative self-efficacy by combined self-efficacy and Amabile's theory of creativity^[8]. They defined creative self-efficacy as the belief one has the ability to produce creative outcomes. People often face some difficulties and challenges participating in innovative work, so they need a kind of inherent and sustained motivation to encourage themselves. Creative self-efficacy can provide individuals confronting challenges with strong belief. If employees have high creative self-efficacy, the intrinsic motivation will prompt him to choose challenging work^[10]. Self-efficacy always influences the intrinsic motivation of the individual by means of affecting individual effort.

For microblogging marketing, improving marketing performance is a challenging work, and this kind of challenging job can make employees have strong desire to finish their work. Bandura suggested that self-efficacy affects the performance of individual motivation^[11]. When people feel that they have the ability to finish the work, the work motivation will be higher. Therefore, the following hypothesis is proposed:

H3: Innovative self-efficacy can significantly affect the intrinsic motivation.

Mediating role

Creative self-efficacy is significantly positive correlation with the innovation behavior^[12]. In addition, the team support plays a decisive role in the formation of the creative self-efficacy^[8]. The active communications can make the employees fully affirmed their professional accomplishment and ability and then improve their confidence in completing creative task. In addition, the confidence and praise from other team members can enhance the employees' innovation self-efficacy. Finally, task complexity is helpful to determine well employees' own ability in participation innovative activities, and can inspire the potential of employees. So their high working ability leads to more confident participating in innovative activities and keep employees higher levels of self-efficacy^[13]. So we propose the following hypothesis:

4a: Creative self-efficacy will play the intermediary role between the team support and innovation behavior of the microblogging marketer.

4b: Creative self-efficacy will play the intermediary role between the task complexity innovation behavior of the microblogging marketer.

Intrinsic motivation is individual working desire^[14] inspired by the job features and interesting. In a team with good cooperative atmosphere, employees solve the problem at work by means of mutual help, mutual coordination and cooperation between members. So the effective team support can help every employee understand his work responsibilities, improve work efficiency and well complete their task. Their intrinsic motivation will be significantly enhanced. Challenging complex task can also stimulate innovation motivation. Therefore, task complexity will stimulate their intrinsic motivation for enterprise microblogging marketer. In addition, existing researches consider that intrinsic motivation has a decisive influence on innovative behavior and performance^[1,2,15]. Employees with strong intrinsic motivation will have more courageous enough to explore and adopt a new way to solve creatively the problem. Therefore, the following hypothesis is proposed:

5a: Intrinsic motivation will play an intermediary role between team support and innovation behavior of the microblogging marketer.

5b: Intrinsic motivation will play the intermediary role between task complexity and innovation behavior of the microblogging marketer.

RESEARCH DESIGN

Data collection

Sina microblogging (<http://weibo.com>) is the best known microblogging service in China. This is one reason why we chose the marketers on this platform as the basis for our investigation. These marketers come from five types of enterprises such as catering services, cars, business services, electronic commerce and IT companies. For each type of enterprise, we choose 3-15 typical enterprises respectively in top 6 hot areas and invite the microblogging marketing team to participate in the survey. In order to improve the response rates, firstly we follow their microblogging so as to establish a good relationship with employees, and then invite them fill in the online questionnaire through the way of sending direct messages and emails. We have invited 257 marketers in 2 months and receive 173 effective questionnaires. The response rate achieves 67.3%.

Measurement

Scale development was largely based on a strong foundation of scale items from existing literature. The questionnaire includes 16 items. The latent variables were measured using a multiple-item measurement scale with seven-point Likert-type response formats. Respondents rated them from 1 ("completely disagree") to 7 ("completely agree"). In this research, we design the item of measuring task complexity based on Jehnc's literature^[16]. Team support measurement is modified in Chinese context by referencing the items from the literature^[17,18]. Measurement of Intrinsic motivation is based on Amabile^[19] and Randolph^[20] intrinsic motivation questionnaire. We improved the measurement scale by employing Tierney and Farmer's scale^[8] to measure innovation self-efficacy.

EMPIRICAL ANALYSIS

Descriptive statistics analysis

The average, standard deviation and correlation coefficient of variables are showed in TABLE 1. The results show that the team support and task complexity are respectively significantly positively related to (1) employee innovation

behavior, (2) innovation self-efficacy and (3) intrinsic motivation; Creative self-efficacy and intrinsic motivation are respectively significantly positive correlation with innovation behavior; and creative self-efficacy is significantly positive correlation with intrinsic motivation. This suggests that the correlation relationship between the variables in this research have preliminary supported.

TABLE 1 : Variable average value, standard deviation and correlation coefficient

Latent Variable	Average	Deviation	Team	Complexity	Creative Self-	Intrinsic
Team Support	4.33	0.57				
Complexity	3.70	0.72	0.34**			
Creative Self-	3.63	0.67	0.56**	0.56**		
Intrinsic Motivation	4.15	0.65	0.55**	0.34**	0.54**	
Innovative	3.83	0.62	0.63**	0.29**	0.69**	0.46**

Note: **: P<0.01.

Reliability and validity test

Cronbach's alpha coefficient was used to test reliability generally. Convergent validity of the measurement model was confirmed by confirmatory factor analysis(CFA). To verify the convergent validity of the model, firstly, we should test whether all items are significant correlation with their corresponding construct. Secondly, for an item, the average variance extracted(AVE) by the latent factor should be greater than 0.5^[21]. Lastly, all items of the same construct should be highly correlated. To measure such correlations, composite factor reliability (CFR) and Cronbach's alpha (α), are required to be greater than 0.7^[22]. If all these criteria (significant correlation, high AVE, high CFR, and α) are satisfied, the convergent validity of the items is said to be confirmed. TABLE 2 reports the fitting parameters of measurement model. The convergent validity for our sample was tested using statistical package LISREL v8.7. All criteria were satisfied.

TABLE 2 : The fitness of the measurement model

Fit index	χ^2	df	χ^2/df	GFI	AGFI	NFI	CFI	RMSEA
Criterion	-	-	<3	>0.9	>0.8	>0.9	>0.9	<0.08
Actual Value	224.66	94	2.39	0.92	0.87	0.97	0.98	0.065

Discriminant validity is also a quality indicator of reliability and validity of a measurement model. A method for confirming discriminant validity is to check that interconstruct correlation is less than the square root of AVE. We calculated the square root of AVE of five constructs, and the values are 0.83, 0.79, 0.82, 0.79 and 0.82 respectively. The correlation among constructs is reported in TABLE 1. Discriminant validity was confirmed in our sample.

TABLE 3 : Reliability and convergent validity of measurement model

Construct	Item	Standard load	T	AVE	CFR	α
Team Support	TS1	0.86	20.13	0.69	0.90	0.88
	TS2	0.82	12.45			
	TS3	0.84	21.72			
	TS4	0.79	16.46			
Complexity	TC1	0.77	16.63	0.62	0.83	0.81
	TC2	0.79	15.10			
	TC3	0.81	14.39			
Creative Self-efficacy	CSE1	0.81	16.44	0.68	0.86	0.85
	CSE2	0.84	17.86			
	CSE3	0.82	17.12			
Intrinsic Motivation	IM1	0.77	14.63	0.61	0.82	0.81
	IM2	0.74	15.74			
	IM3	0.83	18.72			
Innovative Behavior	CB1	0.76	17.56	0.66	0.85	0.83
	CB2	0.83	18.67			
	CB3	0.85	20.91			

Hypothesis test

In order to test above hypothesis, we tested the fitness of structure model and the influence among relevant variables using LISREL8.7. The indicators are as follows: $\chi^2/df=2.36$, less than the critical value of 3.0; GFI=0.93, IFI=0.96, CFI=0.97, greater than the critical level of 0.90; RMSEA=0.057, less than the critical value of 0.08. The indicators have reached the acceptable level. The hypothesis testing results of this study is shown in Figure 1.

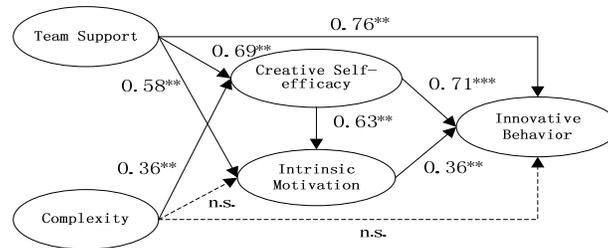


Figure 1 : Structural equation model: standardized solution; * Coefficients are significant at the 0.1 level. Coefficients are significant at the 0.05 level; *** Coefficients are significant at the 0.01 level.(n.s.) Coefficients are nonsignificant.**

Figure 1 shows the results corresponding to Hypotheses 1-5. The hypotheses H1 and H3 were confirmed at the 0.05 level, but Hypothesis 7 was not supported, which confirmed that team support had significant positive impact on innovation behavior, and creative self-efficacy had the positive effect on intrinsic motivation.

The positive effect of both team support and task complexity on innovation self-efficacy was confirmed, and the positive effect of innovation self-efficacy on innovation behavior was also confirmed. In addition, the positive effect of team support on intrinsic motivation was confirmed, and the positive effect of intrinsic motivation on innovation behavior was also confirmed, but the influence of task complexity on intrinsic motivation was not significant. Above analyses showed that hypothesis H4a, H4b and H5a were supported, but no support for hypothesis H5b, which confirmed that innovation self-efficacy had intermediary effect of team support and task complexity on innovation behavior; meanwhile, intrinsic motivation played the intermediary role on the relationship between team support and innovation behavior.

MANAGERIAL IMPLICATION

In this paper, we studied the influencing mechanism of innovation behavior in microblogging marketing. The findings of this study offer some alternatives that may increase marketing performance by promoting employee creativity. First, team support has significant positive effect on innovation behavior, which provides a new perspective for managers to motivate employees' innovation behavior. Managers should motivate employees to promote their innovation potential by enhancing team cohesion and collaborative innovation behavior, so that the organization's innovation ability can be improved. Second, team support has a significant positive effect on both innovative self-efficacy and intrinsic motivation, while creative self-efficacy and intrinsic motivation have a significant positive influence on employee's innovative behavior. Therefore, managers should not only pay attention to the effective support from the team members, but also improve continuously creative self-efficacy and intrinsic motivation by a variety of ways such as praise and encouragement. Third, the creative self-efficacy has a mediating role in the relationship between task complexity and employee innovative behavior. Therefore, managers should strengthen management by objectives, arrange appropriately the complex task to increase the innovation of self-efficacy of employees, and constantly motivate employees to enhance spirit of innovation and innovative behavior.

CONCLUSIONS

As the importance of marketing innovation behavior is increasing, more researches are needed in order to understand the determinants of improving employee's innovation ability. The present research addresses the issue by providing a framework (the integration of social cognition and motivation theory) that effectively explores the factors of enhancing consumer creativeness in microblogging marketing. This research gets the following three conclusions. (1) Team support has direct significant positive influence on innovation behavior, which shows the mutual support within marketing team can help to promote employees' innovative behavior. (2) Innovation self-efficacy has significant positive effect on intrinsic motivation. (3) Team support has indirect effect on innovation behavior through innovative self-efficacy and intrinsic motivation, besides the direct significant positive effect; in addition, task complexity has indirect effects on innovation behavior via innovation self-efficacy, although there is no direct effect.

There are still some limitations in this study. First, the measurement scale in this research is developed mostly based on foreign literature, its relevance to Chinese environmental remains to be further tested. Second, this research included only

two personal attributes---self-efficacy and intrinsic motivation, and other factors such as personality and cognitive style could influence innovation behavior. In further research, we will increase the representativeness and aptness of research sample.

REFERENCES

- [1] C.E.Shalley, L.L.Gilson; What Leaders Need to Know: A Review of Social and Contextual Factors that can Foster or Hinder Creativity. *Leadership Quarterly*, **15**, 33-53 (2004).
- [2] G.R.Oldham, A.Cummings; Employee Creativity: Personal and Contextual Factors at Work. *Academy of Management Journal*, **39**, 607- 634 (1996).
- [3] S.Shin, J.Zhou; Transformational Leadership, Conservation, and Creativity: Evidence from Korea. *Academy of Management Journal*, **46**, 703-714 (2003).
- [4] F.R.Kleymen, C.T.Street; Toward a multi-dimensional measure of individual innovative behavior. *Journal of Intellectual Capital*, **3(2)**, 284-296 (2001).
- [5] Huang Zhi-Kai; Work motivation effect on individual innovation behavior research organization innovation climate perception, personal behavior and self perception and problem solving of the relationship between type of efficiency in the banking industry as the research object. Institute of sun yat-sen university (Taiwan) *Human Resource Management*, (2004).
- [6] Lu Xiao-Jun, Zhang Guo-Liang; The influence of work motivation for individual innovation behavior research. *Soft Science*, **21(6)**, 124-127 (2007).
- [7] J.Zhou; When the Presence of Creative Coworkers Related to Creativity: Role of Supervisory Close-monitoring, Developmental Feedback, and Creative Personality. *Journal of Applied Psychology*, **88(3)**, 416-422 (2003).
- [8] P.Tierney, S.M.Farmer; Creative Self-efficacy: Its Potential Antecedents and Relationship to Creative Performance. *Academy of Management Journal*, **45**, 1137-1148 (2002).
- [9] Hong Yan, Wang Duan-Xu; Leadership behavior and task how to inspire knowledge-type employee creativity, creative self-efficacy mediation role. *Soft Science*, **25(9)**, 81-85 (2011).
- [10] Chen Zhi-Xia, Wu Hao; Intrinsic motivation and its antecedent. *Advances in Psychological Science*, **16(1)**, 98-105 (2008).
- [11] Bandura A; Social foundations of thought and action: A social cognitive theory. Englewood Cliffs, NJ: Prentice-Hall (1986).
- [12] P.Tierney, S.M.Farmer; The Pygmalion Process and Employee Creativity. *Journal of Management*, **30**, 413- 432 (2004).
- [13] T.M.Amabile, E.A.Schatzel, G.B.Moneta; Leader Behaviors and the Work Environment for Creativity: Perceived, Leader Support. *Leadership Quarterly*, **15(1)**, 5-32 (2004).
- [14] Guo Gui-Mei, Duan Xing-Ming; Employee - Organization Relationship, intrinsic motivation and employee creativity an empirical study of Chinese Enterprises. *Management Review*, **20(3)**, 16-24 (2008).
- [15] T.M.Amabile, S.S.Gryskiewicz; Creativity in the R&D laboratory. Greensboro, NC: Center for Creative Leadership, (1987).
- [16] K.A.Jehn, G.B.Northcraft, M.A.Neake; Why differences make a difference: a field study of diversity, conflict, and performance in workgroups. *Administrative Science Quarterly*, **44(4)**, 741-763 (1999).
- [17] Liu Yun, Shi Jing-Tao; Based on the KEYS of organizational innovation climate scale development. *Industrial Engineering and Management*, **14**, 105-112 (2009).
- [18] Hawjeng Chiou, Yen-jenchen, Pi-Fang Lin; Development of Creative Organizational Climate Inventory and Validation Study. *Psychological Testing*, **56(1)**, 69-97 (2009).
- [19] T.M.Amabile, K.G.Hill, B.A.Hennessey, E.M.Tighe; The Work Preference Inventory: Assessing Intrinsic and Extrinsic Motivational Orientations. *Journal of Personality and Social Psychology*, **66**, 950- 967 (1994).
- [20] R.B.Cooper, B.Jayatilaka; Group Creativity: The Effects of Extrinsic, Intrinsic, and Obligation Motivations. *Creativity Research Journal*, **18 (2)**, 153-172 (2006).
- [21] C.Fornell, D.F.Larcker; Evaluating structural equation models with unobservable variables and measurement error: Algebra and statistics. *Journal of Marketing Research*, **18**, 382-388 (1981).
- [22] J.F.Hair, R.E.Anderson, R.L.Tatham, W.C.Black; *Multivariate Data Analysis with Reading* (4th ed.). Englewood Cliffs, NJ: Prentice Hall, (1995).