

## Chapter 22

# Collaborative Social Networks: Effect of User Motivation, Cognition, and Behavior on User Participation

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### **ABSTRACT**

*This article investigates the relationships between the motivation, cognition, and behavior of knowledge management. It analyzes university students preparing to share content on the Tamshui Humanities Knowledge Collaboration System (hereafter referred to as the Tamshui Wiki) to determine whether different participation motivation dimensions (community motivation and personal motivation) affected their knowledge management cognition and behavior. The stimulus–organism–response theory is adopted to assess the relationships between several intrinsic cognition (knowledge management and community reputation) and behavior (attention, interest, action, and share) dimensions. A total of 364 valid samples are collected. Correlation analysis and regression analysis are adopted for statistical calculation. Findings reveal that the participation willingness and community motivation of the students had a greater effect on their knowledge management cognition than personal motivation. Frequent users of Wikipedia were approving of knowledge collaboration and able to link cognition with behavior.*

### **1. INTRODUCTION**

Wikipedia contains vast amounts of user-generated content and comprehensive knowledge management structures (Parameswaran & Whinston, 2007). The platform aims to promote knowledge management through continuous user contribution (Koh et al. 2007; Farzan & Brusilovsky 2011; Butler 2001). User participation is voluntary. Researchers agree that participatory media or Wikipedia can build communities of knowledge as an intermediary to generate positive interactions between users and participatory media (Larson & Watson, 2011). In this process, the contents and the format of communication are critical (Barwise & Meehan, 2010; Wang, Jiao, Abrahams, Fan, & Zhang, 2013), for example, content co-creation and content involvement (Clark & Melancon, 2013; Goh, Heng, & Lin, 2013) or media envi-

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ronment (distinction of content, value delivery and opportunity development) and platform requirements (Larson & Watson, 2011; Khajeheian, Esmailkhoo, & Yousefikhah, 2012). Salamzadeh considered the co-working space and the short creation period for shortening of the learning curve by start-up accelerators (Salamzadeh & Markovic, 2018).

Regretfully, previous studies on knowledge management largely focused on evaluating management efficacy or validating user experiences (Parboteeah, Valacich, & Wells, 2009). To the authors' knowledge, no case studies have evaluated user cognition and behavior based on their participation motivations, and none have independently validated or discussed the knowledge management systems of educational institutions (Jiang, Chan, Tan, & Chua, 2010). Therefore, this study selected the Tamshui Humanities Knowledge Collaboration System (hereafter referred to as the "Tamshui Wiki") as the research sample and users' motivations for participating in knowledge management as the research variables in order to analyze users' pre-participation intrinsic cognition and behavioral responses. The findings of this study serve as a reference for improvement efforts of participatory media management. Several suggestions are also made concerning community and team recognition and contribution.

The Tamshui Wiki was established on 13th September 2013 to consolidate information on Tamshui, including local features, history, culture, customs, lifestyle, travel and tourism, and attractions. The system comprises four major segments, namely history, events, names, and records. The system was co-created by university students and local scholars. The purpose of the system is to motivate students in voluntarily participating in cultural and historical knowledge creation and to share and impart local knowledge. In this study, a questionnaire survey and statistical analysis were used for comprehensive validation and analysis of results. This was employed to investigate the relationships between the motivations, cognitions, and behaviors of Tamshui Wiki users. The study endeavored to determine users' motivations for participating in knowledge management prior to content creation and the possible effects of intrinsic cognition and overt behaviors on users' motivations. Findings indicated that students developed a high regard for knowledge and organization on the platform prior to participation, validating the feasibility of using Tamshui Wiki as a means to motivate students in participating in knowledge management.

This study wanted to solve three research problems. First, a group of university students with experience of knowledge collaboration was surveyed to examine their perceptions and behaviors concerning humanities knowledge collaboration system. In addition to analyzing their basic understanding of knowledge management, the study also validated the effects of participation motivation on user cognition. Second, although extant literature has undoubtedly expanded our understanding of user motivation (Nambisan & Baron, 2007), the study aimed to provide more concrete definitions and elucidate the demands and views of university students without knowledge management experience, thereby effectively improving educational institutions, highlighting the significance of humanities knowledge collaboration systems, and demonstrating improper operations (Kaysers & Eul, 2018). Third, an extensive evaluation of users' experiences with using knowledge management systems was performed to formulate approaches to reinforce their participatory willingness, help students effectively gain community recognition, and prompt them to willingly and actively participate in knowledge contribution (Kohler, Fueller, Matzler, & Stieger, 2011). The proposed framework can be effectively implemented into relevant educational institutions to maximize benefits by merging higher education and knowledge creation/management.

Section 2 briefly discusses participation motivation, knowledge management, community reputation, stimulus–organism–response (SOR) theory, and attention–interest–search–action–share (AISAS) theory. In Section 3, a number of hypotheses are proposed to evaluate the relationships between motivation, cognition, and behavior. Sections 4 and 5 explain the research procedures and perform data analysis.

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