



## **Persuasive Communication: A Comparison of Major Attitude- Behaviour Theories in a Social Media Context**

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### **Abstract**

**Purpose/Aim/Objectives/Significance** – Attitude-behaviour theories can contribute to predicting and understanding influences on consumer behaviour. This study aims to compare five major attitude-behaviour theories in the social psychology field. Theory of Planned Behaviour (TPB), Elaboration Likelihood Model (ELM), Heuristic-Systematic Model (HSM), Cognitive Dissonance Theory and Social Judgment Theory are empirically dissected and compared in a systematic manner, after which criticism and compliments of these theories are observed and evaluated. During recent years, social media has grown to become an important marketing tool for companies. The objective of the study is to critically discuss and examine relevant theories or models for persuasive communication in a social media context. The significance of the study is to identify the trend of applying attitude-behaviour theories to manifesting practical marketing implications.

**Literature/methodology/approach** – Comparing five major attitude-behaviour theories is the main body of the literature review. The authors conducted a systematic review and comparison of Theory of Planned Behaviour, Elaboration Likelihood Model, Heuristic-Systematic Model, Cognitive Dissonance Theory and Social Judgment Theory. The study evaluated the published articles that applied these theories in the social media context from leading academic databases. A comparison of these theories with contrasting views was depicted in tables and figures.

**Findings** – This study found that there were an increasing number of studies applying ELM in this new social media context. It has also shown that past research studies had incorporated persuasive communication with the social media perspective. The authors found that ELM is the most appropriate model for persuasive communication after a systematic comparison with the other four theories. This study filled the extant literature of ELM study in a social media perspective and guides researchers with in-depth and comprehensive understanding for future attitude-behaviour studies.

**Implications** – This study sheds light on new areas of ELM study and can assist researchers to map out current and future studies in social media context with the help of comparison and analysis of major attitude-behaviour theories. Marketers are provided with critical trend of applying ELM in their social media marketing campaigns.

**Keywords:** TPB, ELM, HSM, Cognitive dissonance theory, Social judgment theory, Social media.

## **1. Introduction**

Social media, as the new form of Web 2.0 technology, has sparked the 21<sup>st</sup> century's communication explosion. Far more than traditional television, radio and printed paper, this social media has dramatically changed our way of living, communicating and socializing. With a cascade of messages, social media users engage and exchange information through numerous channels designated by social media, such as blogs, microblogging (Twitter), social network sites (Facebook) and video sharing sites (YouTube). It is fairly important for marketers to realize that social media marketing has posed a great deal of potentials for successful marketing campaigns.

Research studies have tested and examined factors in determining consumer behaviours (Cummings & Venkatesan, 1975), processing information cues (Mandrik, 1996), factors in influencing online banking behaviour (Yousafzai et al., 2010) and the impact of past behaviour (Sommer, 2011) and so on. Several attitude-behaviour theories have been employed to test the validity of applying these theories in predicting consumer attitudes and behaviours, such as theory of planned behaviour (TPB), cognitive dissonance theory (CDT), heuristic-systematic model (HSM) and elaboration likelihood model (ELM). It is seemingly reasonable to suggest that these theories are sufficient in conducting researches to understand consumers' attitudes and behaviours. However, apparently, some studies already proved that limited explanatory power in predicting behaviours (Armitage & Conner, 2001) and behaviour change (Sharma, 2007). In addition, little research studies has been conducted to discuss contributions and limitations of these theories.

This study aims to compare five major attitude-behaviour theories in the social psychology field. CDT, SJT, HSM, ELM and TPB are empirically dissected and compared in a systematic manner, after which criticisms and contributions of these theories are observed and evaluated. The study also aims to critically discuss and examine relevant theories or models for persuasive communication in a social media context. The significance of the study is the identification of the trend of applying attitude-behaviour theories to manifesting practical marketing implications.

## **2. Comparison of CDT, SJT, HSM, ELM and TPB**

### **2.1. Cognitive Dissonance Theory (CDT)**

Cognitive dissonance theory was developed by social psychologist Leon Festinger in 1950s. Festinger (1957) argued that humans feel and experience incongruence between beliefs and behaviours (Festinger, 1957). The tension caused by the inconsistency is resolved by changing beliefs or behaviours, thereby affecting a change. In particular, dissonance is produced by recognizing the inconsistency (Festinger, 1957). The degree of dissonance varies with the degree of incongruence between the beliefs and behaviours. Humans are motivated to alter beliefs or behaviours in order to reduce external distressing drive. The theory continued to discuss three basic ways to resolve dissonance: changing beliefs, actions or perception of action (Festinger, 1957).

### **2.2. Social Judgment Theory (SJT)**

Formulated by Muzafer Sherif, Carolyn Sherif, and Carl Hovland in 1960s, social judgment theory suggested that understanding a person's attitude on subjects can provide a clue for us to approaching persuasive effort. The theory proposed that when people receive a message, they accept or reject the message based on their judgmental processes and effects (Sherif & Hovland, 1961). Specifically, people compare messages with their pre-existing attitudes and make evaluations about the message based on their anchors on this topic or messages. Hence, attitude change is considered as two-step process: firstly, people evaluate the position that advocated message anchored. Secondly, the attitude changes with the judgment.

### **2.3. Heuristic-Systematic Model (HSM)**

In social-cognitive literature, persuasion has been a major topic in studying attitude change. Earlier studies focused on conceptualizing contents and acceptance of persuasive messages (Hovland et al., 1953). Unlike these studies, heuristic-systematic model (HSM) identified variables that

influence people when they process persuasive information. Moreover, HSM suggested qualitatively different outcomes from information processing (Chaiken, 1980; Petty & Cacioppo, 1981).

## **2.4. Elaboration Likelihood Model (ELM)**

Created by Petty and Cacioppo in 1980s, ELM was developed to organize the past disagreements and conflicts in terms of variables and guide researchers on new directions in the persuasive communication theory (Petty & Cacioppo, 1986). ELM assumed that the variations of persuasive message produce the likelihood that message receivers will engage in elaboration of the information in the communication (O'Keefe, 2002). The model applies central route and peripheral route to illustrate individual attitude change. Within the central route, individuals make cognitive efforts, then evaluate the relative arguments and judge the persuasive messages. Within the peripheral route, individuals tend to use positive or negative cues to simply infer the advocated messages in the context of persuasion (Petty & Cacioppo, 1984; Cacioppo et al., 1985; Bhattacharjee & Sanford, 2006).

## **2.5. Theory of Planned Behaviour (TPB)**

As one of the most widely used attitude-behaviour theories, TPB was formulated and extended from theory of reasoned behaviour (TRA) by Fishbein and Ajzen in 1980s. The two theories differed in the addition of perceived behavioural control to TPB because TRA is constrained in predicting volitional behaviours (Ajzen, 1991; Armitage & Conner, 2001). TPB was intended to predict and understand motivational influences on behaviours. Attitude, subjective norm, behavioural intention, perceived behavioural control and behaviour are five main constructs in the model of TPB.

Below is the brief comparison of five major attitude-behaviour theories:

## **3. Method**

### **3.1. Search Strategy**

In writing this paper, the authors applied a systematic and organized approach to identify and classify articles of the literature. This study reviewed numerous journal articles downloaded from online databases and retrieved hard copies from school library. Nord and Nord (1995) argued that journals are more suitable for conducting research review as doctoral dissertations, master theses and textbooks may not represent the accurate and accepted source.

The academic databases the authors used were: Google scholar, academic search by EBSCO publishing, JSTOR, Mendeley, Scopus by Elsevier and Emerald. The key words the authors used for searching in these online databases were "Attitude-behaviour theories", "Cognitive Dissonance Theory", "Social Judgment Theory", "Heuristic-Systematic Model", "Elaboration Likelihood Model", "Theory of Planned Behaviour", "persuasive communication", "social media", "social media marketing" and a combination of these terms.

For the first part of comparison of five major theories, the authors included the papers that represented from the creation of theories until present. 2006-2013 was the search parameter for the second part of comparing five major theories in a social media context. The authors followed the beginning year (2006) of Facebook as a corporate network site in social media (Boyd & Ellison, 2007).

### **3.2. Exclusion Criteria**

The exclusion criteria were: 1. Articles published before 2006; 2. Conference proceedings; 3. Doctoral and master theses; 4. Duplicated articles.

### **3.3. Study approach**

This study employed a coding process by marking the year and field of each article collected. A brief summary of each article was recorded for classifying the contributions and criticisms of five theories. The authors attempted to review and analyse the application of five theories studies in the social media environment. The authors placed emphasis on following aspects: 1. Studies of CDT, SJT, HSM, ELM and TPB conducted in the social media context, 2. Trends of these social media studies, 3. Applications and fields of these social media studies.

**Table-1.** Brief comparison of five major attitude-behaviour theories

Theories	Postulates	Contributions	Criticisms
Cognitive Dissonance Theory (Festinger,1957)	<ul style="list-style-type: none"> <li>• dissonance between belief and behaviour</li> <li>• changing beliefs, actions or perception of actions</li> </ul>	<ul style="list-style-type: none"> <li>• interpreting and predicting human behaviour</li> <li>• a framework for moral, legal and social values of the society</li> <li>• a stimulating force for scholars in the field of social psychology and beyond</li> <li>• theoretical and practical utility</li> </ul>	<ul style="list-style-type: none"> <li>• unable to accurately predict human behaviour</li> <li>• difficult to observe and measure dissonance</li> <li>• failing to provide a reliable method to assess the degree of dissonance</li> </ul>
Social Judgment Theory (Sherif & Hovland, 1961)	<ul style="list-style-type: none"> <li>• understanding a person's attitude on subjects</li> <li>• Ordered Alternatives questionnaire</li> <li>• latitude of acceptance, latitude of rejection, latitude of noncommitment</li> <li>• ego-involvement</li> <li>• assimilation and contrast effect</li> </ul>	<ul style="list-style-type: none"> <li>• uncovered principles of human judgments</li> <li>• a theoretical framework for understanding attitude and behaviour</li> </ul>	<ul style="list-style-type: none"> <li>• weaker evidence in assimilation and contrast effects</li> <li>• unable to measure correlations of ego-involvement variables</li> <li>• confounding outcomes caused by ego-involvement and other variables</li> </ul>
Heuristic-Systematic Model (Chaiken, 1980)	<ul style="list-style-type: none"> <li>• identifying variables that influence attitude</li> <li>• systematic and heuristic processing persuasive messages</li> <li>• the sufficiency principle</li> <li>• systematic and heuristic modes may co-occur</li> <li>• additivity, bias, and attenuation hypothesis</li> <li>• accuracy, defense, and impression motivation</li> </ul>	<ul style="list-style-type: none"> <li>• a dual-process model with two different modes</li> <li>• invaluable insights for identifying the interaction between processing variables and external factors in the persuasion context</li> <li>• linking persuasion research with social-cognitive advances</li> </ul>	<ul style="list-style-type: none"> <li>• heuristic cues as only one part of overall peripheral cues</li> <li>• a single route-Unimodel is parsimonious</li> <li>• message arguments and heuristic cues should be the same evidences</li> </ul>
Elaboration Likelihood Model (Petty & Cacioppo , 1984)	<ul style="list-style-type: none"> <li>• human tend to hold valid attitudes</li> <li>• central and peripheral route processing in persuasion context</li> <li>• elaboration continuum</li> <li>• multiple-roles of variables</li> <li>• objective and bias processing</li> <li>• trade-off between the impact of elaboration and peripheral route process on attitudes</li> <li>• qualitatively different outcomes of the attitudes</li> </ul>	<ul style="list-style-type: none"> <li>• one of the most dominant, influential and useful framework for conceptualizing attitude change in the persuasion domain</li> <li>• empirical results and insightful understandings on information processing</li> <li>• supports in the field of social psychology and marketing literature</li> <li>• a great deal of experiments on advertising messages</li> <li>• adjusting the model continually in decades</li> </ul>	<ul style="list-style-type: none"> <li>• unable to accurately explain how people process information</li> <li>• a single route-Unimodel is parsimonious</li> <li>• message arguments and heuristic cues should be the same evidences</li> <li>• unable to state what strong and weak arguments are</li> <li>• an unfalsifiable model</li> </ul>
Theory of Planned Behaviour (Ajzen, 1985)	<ul style="list-style-type: none"> <li>• predicting and understanding motivational influences on behaviours</li> <li>• behavioural intention, attitude, subjective norms, perceived behavioural control and behaviour</li> <li>• past behaviour, belief salience, self-efficacy, moral norms, self-identity, affect</li> </ul>	<ul style="list-style-type: none"> <li>• explanatory power in predicting intention and behaviour</li> <li>• measuring the correlations of predictors</li> <li>• a useful framework in predicting and understanding a wide range of behaviours</li> <li>• extensively applied in the field of public health, political science, transportation, public relations, advertising and so on</li> </ul>	<ul style="list-style-type: none"> <li>• unable to explain certain variances and behavioural change</li> <li>• unable to elaborate the exact form of significant relations among predictors</li> <li>• weak predicting power between behavioural intention and actual behaviour</li> <li>• emotional, environmental and cultural factors were not included</li> <li>• arguments on falsifiability, empirical operations, and instruments of questionnaires of TPB</li> </ul>

## 4. Findings

The systematic review and analysis of the literature showed that there were 36 research articles applying these five attitude-behaviour theories in the social media context. There is not any paper

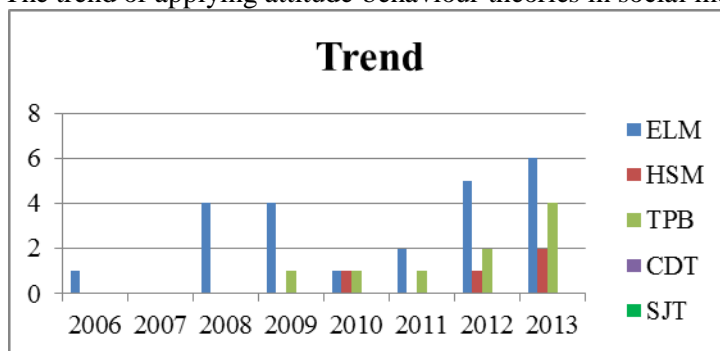
applying cognitive dissonance theory and social judgment theory in the social media context. The quantity of TPB and HSM studies in social media context is 9 and 4, respectively. ELM in social media context has 23 papers. These articles were then depicted in Table 2.

**Table-2.** Total articles found in social media context between 2006 and 2013

Theory/Quantity	Articles found	Articles found in social media context
Cognitive Dissonance Theory	7	0
Social Judgment Theory	3	0
Heuristic-Systematic Model	9	4
Elaboration Likelihood Model	73	23
Theory of Planned Behaviour	35	9

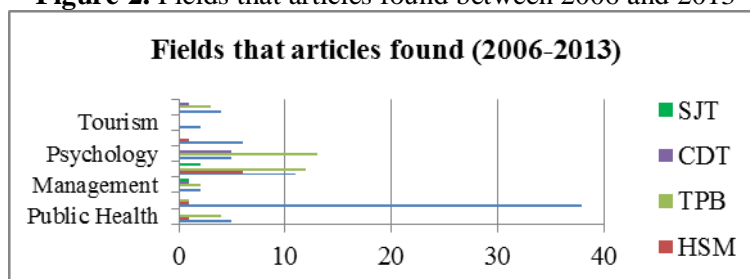
This study also found that there were a steadily increasing number of research articles applying ELM in the social media environment between 2006 and 2013 (Teng & Khong, 2013). Similarly, this study noticed that TPB studies in the social media context accumulated to 9 articles in 8 years. Comparatively, ELM study in social media context is the obvious upward trend in this study (Figure 1). For HSM studies in social media context, it is recognized as a rather sporadic occurrence in the trend.

**Figure-1.** The trend of applying attitude-behaviour theories in social media context



The authors continued to review and analyse the fields (Figure 2) that theories studies have been applied to between 2006 and 2013. The following academic fields of social science were identified: consumer behaviour, tourism, e-commerce, psychology, IT, communication, management, public health and marketing. 70% of CDT studies were in the field of psychology. Three articles of SJT studies used in the field of IT communication and management. 71% of TPB studies were conducted in the fields of psychology and IT communication. 67% of HSM studies were tested in the IT communication domain. There are 52% of ELM studies in the field of marketing. In total number of articles applied in marketing domain, 95% are ELM studies, 2.5% TPB studies and 2.5% HSM studies. It is significantly higher percentage of ELM than TPB and HSM studies.

**Figure-2.** Fields that articles found between 2006 and 2013



## 5. Discussion

### 5.1. TPB

This study showed that there were an increasing number of TPB studies in the social media context. It is fairly important to state that theory of planned behaviour is a widely used theory within

and beyond social psychology domain. Consistent with the earlier comparison results in the literature, TPB has been proven with strong explanatory power in predicting humans' behaviour in this study. It lends strength to that fact that TPB is a robust and flexible well-established theory. Recognized by the authors, 34% TPB studies were applied in the field of IT and communication. It is understandable because internet and related technology have dramatically changed the ways of communication. Scholars would place more interests and focus in this domain. In late 1980s, technology acceptance model (TAM) adapted from the framework of TRA and TPB, has inspired many studies in the IT and communication domain. Compounded with the formulation of TAM, the authors believe that there will be more TPB studies in this field under the situation of unavoidable Web 2.0 technology.

## **5.2. ELM**

It is enormously significant to show that ELM studies have been the trend in the persuasive communication. 73 out of 127 unduplicated published papers found were ELM studies. The authors believe that contemporary marketing has driven this information processing model to achieve fruitful goals because it is consistent with earlier results uncovered by the authors that ELM experiments mainly based on advertising messages. Thanks to the explosion of information and connectivity originated from IT, ELM studies have increased steadily, especially in the context of social media. In line with comparison results in the literature, ELM is the most extensively used and tested dual-process model in processing information in the persuasive communication. It is the upward trend among five major attitude-behaviour theories.

One of the major findings that the authors studied is the application of ELM in the field of marketing. Compared to other four theories, ELM is the most appropriate model to predict attitude and behaviour because it provides scholars and marketers with a conceptual framework for mapping out critical factors in affecting consumer behaviour. Hence, the authors believe that ELM has the most potential to predict consumer intentions and behaviours in the future studies of persuasive communication.

## **5.3. HSM, CDT and SJT**

Unlike ELM, heuristic cues in HSM were criticised as only one part of peripheral cues of ELM. Lacking in conceptualizing framework, HSM received less empirical supports from extant studies. CDT and SJT are two earliest basic attitude-behaviour theories in social psychology. It is fair to state that these two theories have constrains in their practical application due to the nature of broadness of cognitive psychology.

## **6. Limitations**

There were limitations to this systematic review of five major theories. It is not completely exhaustive in terms of searching articles from online databases and searching key words. The authors believe that articles published in non-English were excluded, yet these articles may provide with insightful views in the complexity of geographical and cultural background. Another limitation is the weak processing criteria used by the authors. Noticed by the authors, it is difficult to classify and categorise social media studies and disciplines of studies with limited resources. Other attitude-behaviour theories excluded in the study may be an unavoidable limitation to this study.

## **7. Theoretical and Practical Implications**

This study provided with in-depth insights on five major attitude-behaviour theories after the comparison of their contributions and criticisms. Scholars are encouraged and provoked to reflect and draw on relevant sources to create more insights that building on the development of social psychology. This study filled the extant literature of five theories in a social media perspective. The authors believe that this paper advanced the reviews of five theories by tabulating with trends and fields. This study delivered several guidelines: academicians are provided with usable theories in predicting attitude and behaviour in persuasive communication; they are given alternative theories in future social media studies; it is an efficient shortcut for scholars to apply attitude-behaviour theory in social media context with the help of this study.

This study has identified the trend of social media studies and motivated marketers to reconsider their social media marketing campaigns. ELM is the most applicable model in formulating and practicing marketing campaigns in the social media context. Moreover, marketers are guided with a practical framework included critical detailed factors and constructs in advertising messages.

## **8. Conclusion**

This study compared five major attitude-behaviour theories, cognitive dissonance theory, social judgment theory, heuristic-systematic model, elaboration likelihood model and theory of planned behaviour. A systematic review and analysis was conducted by comparing the contributions and criticisms of five theories. The authors critically discussed and examined relevant theories or models for persuasive communication in a social media context. The trend of applying attitude-behaviour theories was identified, that is, elaboration likelihood model is the most appropriate and applicable model in predicting attitude and behaviour in persuasive marketing communication. This study filled the extant literature of social media studies and provided marketers with practical implications. Limitations of the study are also included.

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