

To Evaluate or Not to Evaluate?

A Two-Process Model of Innovation Adoption Decision Making

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ABSTRACT

Using information processing theory (IPT) as the theoretical lens and incorporating various literatures following the IPT lens (e.g., dual-threshold in signal detection), this article develops a two-process model of innovation adoption decision making, accounting for the possibility for potential adopters (at different levels) to make adoption decisions (adopt, do not adopt) with or without an intensive evaluation of the innovation. Specifically, this article proposes that there is an attention process prior to the extensively investigated intensive evaluation process; potential adopters may make adoption decisions (adopt, do not adopt) at the end of the attention process or defer making decisions until after an intensive evaluation is conducted. The impacts of innovation attributes on various influence targets (i.e., relative advantage belief strength, adoption threshold and rejection threshold) during the less examined attention process are also discussed. This article may contribute to the innovation adoption literature and provide practical implications for innovation proponents/detractors regarding how to craft sensegiving messages influencing potential adopters' decision making.

KEYWORDS

Attention, Belief Strength, Dual-Threshold, Information Processing, Innovation Adoption, Innovation Attribute, Intensive Evaluation, Relative Advantage, Sensegiving, Sensemaking

INTRODUCTION

Innovation adoption at different levels has received extensive research attention (e.g., Rogers, 1962; Venkatesh, Morris, Davis & Davis, 2003). In this paper, "potential adopters" is used to describe adoption decision makers at the levels of individual (Brancheau & Wetherbe, 1990), organizational unit (Cool, Dierickx & Szulanski, 1997), and organization (Cooper & Zmud, 1990). Several influential models (e.g., TAM, UTAUT) have been proposed to explain potential adopters' adoption decision making process. Despite the extensive attention paid to adoption decision making process, some questions still remain. A phenomenon that needs deeper understanding is that sometimes potential adopters make adoption decisions (adopt or do not adopt) without conducting an intensive evaluation of the innovation (while other times defer decision making until an intensive evaluation is conducted).

This phenomenon occurs at different levels. For example, at the individual level, research on herd behaviors suggest that individuals may imitate others' adoption behaviors without conducting an intensive evaluation of the innovation (e.g., Sun, 2013); at the organizational level, the literature

DOI: 10.4018/JDM.2018040103

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on innovation bandwagon suggests that organizations may adopt innovations, especially those fashionable ones, following a “me too” rationale without doing an intensive evaluation (e.g., Swanson & Ramiller, 2004). Apart from adopting an innovation without conducting an intensive evaluation, potential adopters (at different levels) may also reject an innovation without conducting an intensive evaluation. Take the story of British Navy fighting against scurvy as an example. Despite some convincing evidence regarding the effectiveness of oranges to prevent scurvy, authorities at British Navy decided to neglect this innovation (for more than a century) without doing an intensive evaluation, partly because the person who claimed the effectiveness of oranges for curing scurvy was not a naval medicine expert. Similarly, the literature on innovation bandwagon suggests that organizations may also reject an innovation following a “me too” rationale (e.g., Abrahamson, 1991).

Traditional models (e.g., TAM, UTAUT) proposed to explain potential adopters’ adoption decision making largely assume that adoption decisions are made after an intensive evaluation of the innovation. This assumption is problematic, especially nowadays, for several reasons. First, undertaking an intensive evaluation for each candidate innovation is not feasible. The number of innovations that come out and could be considered as a candidate for adoption is increasing quickly. Compared to the large number of candidate innovations, potential adopters’ cognitive resources required for an intensive evaluation become scarce (e.g., Davenport & Beck, 2001; Ocasio, 2011)—Just like what Herbert Simon argued decades ago, “...in an information-rich world, the wealth of information means a dearth of something else: a scarcity of whatever it is that information consumes...Hence a wealth of information creates a poverty of attention and a need to allocate that attention efficiently among the overabundance of information sources that might consume it” (Simon 1971, pp. 40–41). As a result, it is impossible for potential adopters to undertake an intensive evaluation for each candidate innovation. Second, potential adopters are sometimes “forced” to make adoption decisions without an intensive evaluation. This could happen when innovations are really complicated and hence beyond potential adopters’ evaluation capabilities. In this case, potential adopters often make decisions following a “me too” rationale because they “prefer the chance of being wrong with everybody else to the risk of providing a deviant forecast that turns out to be the only incorrect guess” (Anderson & Holt, 1997, p. 848). This could also happen because of the power of social influence, which has been consistently found to affect potential adopters’ decisions (e.g., Swanson & Ramiller, 2004; Rogers, 1962). Third, in some cases, it is actually wise to skip an intensive evaluation. When the innovation is obviously promising, skipping an intensive evaluation allows individuals to act quickly and obtain first-move advantage (e.g., Sambamurthy & Zmud, 2014); when the innovation is obviously unpromising, conducting an intensive evaluation, according to the attention economy argument (e.g., Davenport & Beck, 2001), is simply a waste of scarce resource.

Due to the problematic assumption discussed above, traditional models are inadequate in explaining why and how potential adopters sometimes make adoption decisions without undertaking an intensive evaluation. For example, UTAUT (Venkatesh et al., 2003) argued that performance expectancy (i.e., the degree to which individuals believe that using the innovation will help attain gains in job performance, e.g., usefulness) and effort expectancy (i.e., the degree of ease associated with the use of the innovation, e.g., ease of use) of an innovation affect adoption decisions. However, how do potential adopters form performance and effort expectancies before conducting an intensive evaluation and how such expectancies (if somehow formed without an intensive evaluation) affect their adoption decisions can’t be well explained.

Additionally, it is unclear whether potential adopters are more likely to skip an intensive evaluation for certain innovations than others. Innovations are anything but homogeneous, with systematic differences affecting individuals’ assessments of benefits and costs of the innovation. Scholars interested in innovation adoption have made considerable progress in identifying and understanding the variety of innovation attributes influencing adoption outcomes (e.g., Al-Natour & Benbasat, 2009; Venkatesh, et al., 2003). However, prior research focused on the influence of innovation attributes during the intensive evaluation process (and post-adoption behaviors). As a

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