

Factors identified that influence willingness to use new information technology

March 8 2013

(Phys.org) —People are more willing to use new technology when they perceive it to be high in relative advantage, low in complexity and ease of use, and high in "trialability," according to researchers.

The researchers, who included Michael D. Michalisin, professor of management and business program coordinator at Penn State Worthington Scranton, examined key determinants of an individual's <u>willingness</u> to use new technology prior to acquisition, in order to identify critical factors that influence their willingness to use new information technologies.

Cognitive barriers of individuals who are reluctant to use new information technology cost an organization millions of dollars, the researchers pointed out. A better understanding of those barriers could improve the efficiency and effectiveness of the firm, as well as the quality of resulting information underlying <u>management decisions</u>.

Despite the importance of understanding what determines the acceptance of new systems, and ultimately the success of their implementation, empirical investigation into this inquiry is still in the developmental stages.

The researchers specifically examined the extent to which perceptions of relative advantage, complexity and trialability of a new technology influence pre-adoptive attitudes, as well as what combination of these factors create the greatest individual willingness to use new technologies.



They recently published their findings in the *Journal of Strategic Innovation and* <u>Sustainability</u>.

Their findings indicated that individuals would be more willing to use new technology when they perceive it to be high in relative advantage, low in complexity (and therefore likely high in perceived ease of use) and high in trialability.

In addition, individuals may be more willing to use a new technology when complexity was low, regardless of its relative advantage. However, when complexity was high, the new technology had to offer some distinctive advantage to individuals before they were willing to use it.

The researchers reported that when complexity was high, individuals were more willing to use the new technology when trialability was high. However, when complexity was low, individuals were equally willing to use the technology whether trialability was high or low.

The implication is that when using <u>new technology</u> that is highly <u>complex</u>, it may be especially important to allow individuals the opportunity to try-out the technology before implementing it.

The analysis suggests that synthesizing perceived usefulness with relative advantage and perceived ease of use with complexity allows us to better understand the interplay between the Diffusion of Innovations theory and the Technology Acceptance Model theory as to the key factors influencing individual acceptance of new technologies before they are adopted by the firm.

This analysis helps managers better assess the likelihood of employees using new <u>information technology</u> prior to investing large sums of the firm's capital in such technologies. Otherwise the technology is not optimally utilized due to factors deemed unsavory by the end users of



the technology.

Tailoring IT demonstrations, training programs and other interventions that illustrate positive criteria can help users make better-informed <u>technology</u>-adoption decisions, which in turn can increase the success of implementing critical IT acquisitions.

Provided by Pennsylvania State University

Citation: Factors identified that influence willingness to use new information technology (2013, March 8) retrieved 21 May 2024 from <u>https://phys.org/news/2013-03-factors-willingness-technology.html</u>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.