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Master's Dissertation 2015

Building Initial Trust between Users and Technologies for High Technology Product Adoption

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SUMMARY OF MASTER'S DISSERTATION

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Title

Building Initial Trust between Users and Technologies
for High Technology Product Adoption

Abstract

Today is the era of innovation. Nowadays, various high technologies have been developed and they are driving emergence of many innovative products day by day. However, even though they have great potentials for solving formidable problems we are facing, their diffusion is still difficult. One obstacle is building user's trust in those innovative products because users tend to have suspicion and anxiety toward the future outcome and experience those products will deliver due to their "new-to-the-world" nature. This research attempts to this challenging issue.

Much previous research on trust focuses on human-human relationships, so studying trust in users-technologies relationships is still insufficient. Furthermore, there is a gap between the theory on how trust is built and the strategy about how we build trust. In order to bridge the theory and the practical strategy, this study aims to develop the new comprehensive method for designing trust building strategies for users and high-tech products relationships.

Firstly, we examine predefinitions of trust crossing multiple academic domains. Also, anxiety, doubt, suspicion and other related concepts of negative side of trust are investigated. Concepts of anxiety and doubt are discovered. How the negative of trust depreciates trust is further explored. Applying these concepts and mechanisms into several cased of high-tech innovations, High-Tech Product Trustworthiness Matrix (HTPTM) is developed, which describes eight constitutes of trustworthiness in high-tech products. Next, we investigate the mechanism and natures of trust building and trust evolution. In addition, communication theories are also explored. Based on characteristics of trust building, trust dynamics, trust transfer and quality requirements of communication for enhancing trustworthiness of high-tech products, we develop Trust Building Patterns Hierarchy (TBPH), which is the hierarchical fundamental structure of any trust building strategies. Finally, the original trust building method in users and high-tech products relationships using HTPTM and TBPH is proposed. This method enables us to explore and design strategic options for trust building in high-tech products comprehensively and systematically. By conducting case studies and interviews with practitioners, effectiveness of the proposed method is confirmed. The contribution of the study is to firstly propose the comprehensive method for designing trust building strategies by providing essential viewpoints of building trust in high-tech products, which can be applicable to high-tech products in broad domains.

Key Word(5 words)

Trust, Trust Building, High Technology, Communication, Innovation Adoption