

Executive Summary

How Perceived Security Risk Influences Acceptance of Virtual Shopping Walls

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Virtual shopping walls are innovative digital stores that can be placed in highly frequented areas of public transport, such as bus or subway stations. These walls resemble shelves of a stationary supermarket and allow convenient shopping with the smartphone combined with home delivery. While popular in Asia, Western countries have sparsely adopted virtual shopping walls.

The goal of the present research is to shed light on what drives widespread use of this underused store concept. Complementing traditional models of technology acceptance that focus on perceived ease of use and perceived usefulness of the new technology, this work examines the impact of perceived security risk with special emphasis on its moderating effect on the perceived usefulness-behavioral intention relationship. Because shoppers have to scan QR codes and pay with their mobile devices, perceptions of the associated risks may hamper acceptance of virtual shopping walls.

Survey data of 215 eligible responses provide strong support for our theorizing. Specifically, we find that the intention to use virtual shopping walls is driven by perceived ease of use and perceived usefulness, while perceived security risk acts like a barrier to acceptance. The negative effect of high perceived security risk, however, is mitigated by high perceived usefulness. The finding that the indirect effect of perceived ease of use on intention to use virtual shopping walls through perceived usefulness is moderated by perceived security risk is a novel, important addition to extant literature on technology acceptance. The underlying psychological process is as follows: If perceived security risk is low, perceived ease of use has a significant indirect effect on intention to use through perceived usefulness that is further amplified when security risk is high.

The evidence that high perceived usefulness of virtual shopping walls can almost fully compensate for increased risk perceptions provides important insights for providers of virtual shopping walls. While intention to use virtual shopping walls is highest if perceived usefulness is high and perceived security risk is low, the combination of high perceived security risk and high perceived usefulness yields almost the same behavioral intention. If perceived security risk is high but perceived usefulness is low, intention to use virtual shopping walls is particularly low. The power of perceived usefulness to compensate for risk perceptions offers alternative ways for marketing communication. For example, it may be more effective to invest practical efforts to enhance consumers' perceived usefulness of virtual shopping walls rather than to reduce their risk perception.