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Digital Technology Adoption

Digital technology may apply to the device, channel or process (Yoo et al., 2010). For example, a digital technology adoption might relate to a new device (i.e. a new digital phone); a new platform (i.e. the adoption of Web 2.0 over Web 1); a new channel (i.e. the adoption of Snap Chat over Facebook) or a new process (i.e. the process of sharing information using Cloud technology). In our daily lives we may be offered an array of digital innovations that we use for the first or second time; or we use so frequently that we barely notice. Equally, we may reject a digital technology as it no longer meets our needs or because we feel guilty about the amount time we 'waste' through its use.

Innovation is characterised as occurring in three stages of (1) invention, (2) innovation and (3) diffusion (Dosi, 1988). Invention is the formation of the new idea or process that may have economic value; innovation is where the invention is refined so it becomes usable; and diffusion is the spread of the innovation so that it is accepted, adopted and continually used (King et al., 1994). Not every innovation is successful, with the failure rate being estimated as being as high as 90% (Fisher, 2014). Digital marketers need to predict and understand user reactions to digital technology in order to plan marketing campaigns that encourage consumers to accept and adopt innovations. In this chapter we examine the process of digital technology adoption.

The innovation adoption process

There are five stages in the innovation adoption process (Figure 2.1) The first stage is becoming aware of the innovation, the second stage is acceptance where the individual mentally rehearses innovation use, the third stage may involve trialling the innovation and the fourth stage involves an adoption or rejection decision and in the final fifth stage either maintaining regularly patterns of use or discontinuing use. It is clear that adoption is not immediate but takes place over time. At each stage marketing has an important role to play in influencing the decision-making. Awareness and acceptance are shaped by marketing communications. Trial is influenced by promotional pricing strategies that “reward” the customer for any risks involved. Adoption depends on product availability and also product design. Finally continuance involves gathering and understanding customer insight in order to identify threats to discontinuance.

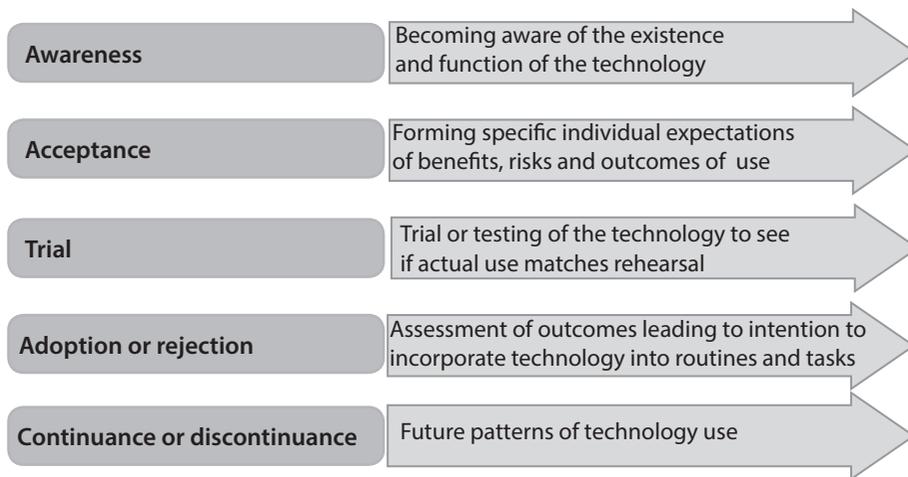


Figure 2.1: Innovation adoption process

Rogers (1995) proposes that a mandatory collective adoption decision will be more rapid than one that is individual and voluntary. It is common to consider whether adoption is voluntary, i.e. the individual chooses to use the innovation of their own free will, or whether it is mandatory. Mandatory and collective adoption are usually associated with the implementation of technology within the workspace. For example, insisting the employees manage their own holiday leave online compared to notifying their human resource department. The individual user adoption decision is usually voluntary.

Awareness

The role of innovation awareness was first proposed in the Diffusion of Innovation Theory (Rogers, 1995). At the awareness stage the individual becomes aware of the innovation's existence and gains some insight into how the technology works. Awareness can be gained either passively or actively. Passive awareness is gained through being in receipt of sales messages from reading marketing communications or meeting sales people. Active awareness is gained through the individual seeking for a solution to a problem they have identified. A key aspect in generating awareness is the individual's ability to observe others gaining advantage from an innovation which is considered a vicarious trial and thus facilitates rapid diffusion.

Rogers (1995) highlights that there is a complex relationship between innovation awareness and the formation of a need-state regarding that innovation. A need state is when a consumer's actual state differs from their ideal or desired state and may result in feelings of dissatisfaction and frustration which prompt action to resolve the difference (Solomon et al., 2011). In some situations a need state occurs and then the consumer will seek information about whether an innovation will provide a solution to a particular problem; in other situations knowledge of an innovation creates a need state.

For example, whilst most of us own a wristwatch, we might not all own a SMART watch such as the Apple watch, which connects to an iPhone to enable the use to answer calls, deliver notifications and run apps such as fitness and health trackers. Whilst some individuals might have already felt the need to combine various devices into one easy to access interface, others might have only experienced a need state when they viewed celebrities such as Kanye West, Beyonce and Anna Wintour, the editor of *Vogue* magazine, wearing their limited edition Apple watches (Price, 2015). Rogers (1995) argues that if an innovation has high observability then it will be adopted. In other words, if the results from using the innovation are easily observed and the benefits are easily communicated to others, then users will be more motivated to adopt. As we can see in the case of the Apple watch, one way for digital marketers to generate high observability is to use public relations tools such as celebrity endorsement, to draw attention to a particular digital innovation.