

RESEARCH SUMMARY

Just Walk Out? Exploring the Challenges of Ambient Intelligence for Customer Experience, Effort and Memorability 2020

Research Aim

This research aimed to understand customer perceptions of a just-walk-out grocery experience facilitated by ambient intelligence. Additionally, with increasingly frictionless experiences becoming the 'desired' norm in retail, this research aimed to understand how subsequent reduction in customer effort (by the removal of the checkout) influenced memorability of the experience overall for the customer.

Background

- The retail industry has undergone successive and rapid change, largely attributed to the creation of frictionless experiences by embracing and implementing various in-store technologies
- However, the introduction of the *Amazon Go* store in 2018, which leveraged ambient intelligence to deliver a just-walk-out experience for the customer, heralded a significant milestone in achieving the ultimate frictionless experience by completely removing the physical checkout in a convenience store setting
- Ambient intelligence involves the orchestration of multiple embedded devices within a physical environment to anticipate customer needs.
- With grocery stores set to adopt this just-walk-out experience within the decade, understanding variation in customer perception of the just-walk-out experience has established a new sense of urgency.
- Moreover as retail environments are becoming frictionless, achieved through the incorporation of in-store technologies, practitioners are realising the reduced level of customer effort is also reducing the memorability of the customer experience and impacting future purchasing behaviour.

Literature and Theory

Gentile's (2007) Customer Experience Framework: aims to represent every element of the customer experience and comprises of 6 dimensions.

- *Cognitive*: Mental processes (thinking)
- *Emotional*: Moods, feelings and emotions
- *Lifestyle*: Affirmation of one's belief/values
- *Sensorial*: Sight, sound, touch, smell, taste
- *Pragmatic*: Practical act of doing something
- *Relational*: Social context/relationships

Bakker and Demerouti's (2007) Job-Demand Resources Model: aims to provide foundation in exploration of customer effort in light of scarce pre-existing customer effort frameworks and consists of two components.

- *Job-demand*: Physical, social, or organisational aspects of a job that requires sustained physical/psychological effort
- *Job-resource*: Physical, social, or organisational resources that meet job demands or goals

Wei's (2019) Psychological Factors of a Memorable Experience Framework: aims to represent every factor of a memorable experience and comprises of 6 factors.

- *Hedonism*: The pursuit of pleasure
- *Novelty*: Changing, new, or unexpected experiences
- *Involvement*: An individual's interest and subsequent affective response to an activity
- *Social Interaction*: The desire to seek social connections
- *Serendipity*: Perceived positive memorable feeling from a surprising event
- *Meaningfulness*: Perceived importance to one's intrinsic values



Method

This research was investigated from a constructivist perspective, utilising an exploratory approach to inform a qualitative research design. The research design utilised in-depth semi-structured interviews, informed by the development of an interview guide, with several visual tools and stimuli developed to aid the researcher in explaining just-walk-out technology with the participant.

Such visual tools and stimuli included the use of a virtual simulation of the just-walk-out grocery experience, developed by the researcher, of which the participants completed during the interview to provide informed responses in light of this nascent topic. This virtual simulation depicted the *Amazon Go* store experience that was transposed to a grocery store context. Additional tools included customer value shopping persona cards, retail technology flash cards, and customer journey maps.

A sample size of 30 participants was interviewed, recruited via a two-phase emergent convenience sampling strategy. The resulting data was analysed using NVivo software, via first cycle and second cycle coding methods.

Contributions and Implications

Theoretical contributions:

1. The customer experience reflects the value derived from the shopping purpose
2. Altering the customer experience creates a ripple effect across the remaining components
3. Effort cannot be created nor destroyed
4. Desire for memorability is a paradox

Managerial contributions:

1. Just-walk-out technology should be introduced through phased implementation
2. In-store elements should be designed to facilitate human interaction
3. In-store touchpoints should be designed in an open system
4. Memorability should be built through human capital

Findings

How does a customer perceive an ambient intelligent grocery experience?

- Customer perception of an ambient intelligent grocery experience is subjective, and heavily dependent on the values held by the customer.
- Customers who value efficiency in their grocery experiences perceived the just-walk-out technology positively, as it aligns to their ideal experience through a reduction in pragmatic and relational components
- Customers who value altruistic experiences perceived just-walk-out technology negatively as it inhibited their ability to engage with others, impacting their emotional journey.

How does customer effort relate to experience memorability in a frictionless grocery environment?

- Due to the low customer effort, while the experience would initially be memorable due to the novelty of just-walk-out technology, this memorability would fade over time due to continued use in daily life.
- While there was a reduction in the physical effort of logistically processing through a traditional checkout (as the physical checkout was removed), memorability was ultimately reduced due to the lack of human interaction in the frictionless grocery experience