

Retail Technologies Leading Resurgence for Small Independent Fashion Retailers:  
A Thematic Analysis Related to the TOE Framework

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*Introduction:* New technologies fascinate our imaginations and seem very promising for both fashion retailers and their customers (Poncin et al., 2017). However, the emphasis on the technological side of innovation can result in neglect in customers' connectedness and affirmative experiences to this technology. Furthermore, these types of new technologies are available for fashion retailers in the main markets, but not distributed well to the marginal markets, such as small independent fashion retailers that fall under the umbrella of small and medium-sized enterprises (SMEs). Ground-breaking technologies such as the interactive smart mirror and virtual reality became popular to increase positive customer experiences and purchase behaviors. However, what are small independent fashion retailers looking for in terms of retail technology? The purpose of this study is to understand small independent fashion retail owners' and employees' thoughts on retail technologies and their reactions to current available new technology. Also, we explore opportunities and challenges of these retailers to adopt new technologies.

*Literature Review:* Retailers are constantly looking for new ways to increase overall customer experience which leads to an increase in customer loyalty and retention, a major benefit to a retailer's bottom line (Foroudi et al., 2018). This is commonly sought after by retailers implementing entertainment aspects to indirectly boost customer satisfaction (Elmashhara & Soares, 2019). For example, virtual entertainment in the stores has become a way for retailers to customize the consumer's shopping experience in an effort to keep them in the store as long as possible (Jelev, 2017). While the implications of these new technologies are easily understood from a surface level, some serious benefits are often overlooked by people outside of industry. Within the fashion apparel industry, there are many evolving standards and tremendous competition. Fashion SMEs are usually seen at a disadvantage within this domain, however, there are still advantages this niche holds over their larger, more affluent competition (Gartenstein, 2019).

The Technology, Organization, and Environment (TOE) framework was originally developed by Tornatzky and Fleischer (1990). There are three aspects of the company's context that can affect the procedure and decision on what technological innovation should be adopted (Oliveira & Martins, 2011). These include organization (e.g., size and communication process), external task environments (e.g., industry characteristics and infrastructure), and technology (e.g., availability) (Setiowati et al., 2015). For example, consumer opinion (external environment),

firm's openness on communication (organization), and technological readiness (technology) can positively interact for a company to adopt the new technology. Thus, applying this TOE framework, this study explores retail technologies leading resurgence for small independent fashion retailers.

**Method:** This study used a qualitative research method of one-on-one, in-depth interviews. Open-ended interview questions were developed to understand what types of retail technologies are currently used by small fashion apparel retail owners and employees, and how they feel about new example technologies introduced in the market. Eleven interviews lasting from 45 to 90 minutes were conducted in the fashion market of Northwest Texas with owners and employees from five local independent fashion retailers (Table 1). Interviews were audio recorded, transcribed verbatim, and examined for themes. Interview questions include general retailing industry's thoughts on the technology and their reactions to current available new technologies that were already launched (e.g., interactive smart mirror and virtual reality), in addition to store and demographic information.

**Results:** First, we found that all the stores we interviewed were click-and-mortar stores, meaning they have presence both online and offline. They identified their e-commerce platforms and point-of-sales systems as retail technologies they are currently using (i.e.,

Table 1. Interviewee Information

Participant's Pseudonym	Role	Gender	Time with Company	Target Age	Target Gender
Meaghan	Stylist	Female	n/a	18-45	Female
Dior	Sales/Assistant Buyer	Female	n/a	15-40	Female
John	Owner/Buyer/Seller	Male	10 years	35-80	Female & Male
Adalee	Sales/Stylist	Female	10 months	15-90	Female & Male
Palmer	Owner	Female	2 years	20-80	Female
Oaklynn	Sales Associate	Female	6 months	16-70	Female
Haisley	Social Media Director	Female	8 months	14-27	Female
Keily	Owner	Female	14 years	15-28	Female
Novah	Sales Associate	Female	1 year	18-40	Female
Yara	Manager	Female	2.5 years	16-24	Female
Ensley	Owner/ Facilitator	Female	18 years	18-24	Female

Shopify, BigCommerce, and Square). From the qualitative interviews conducted, five major themes emerged (van Manen, 1990). The themes were identified as: 1) *Transparency and Consistency*, 2) *Integration of Technology*, 3) *Maximizing Personalization Experiences*, 4) *Connectedness to Social Platforms*, and 5) *Obscure Cost Fright*. The first theme, *Transparency and Consistency*, emerged from most of the interviewees after they saw examples of current available new technologies ("The challenge today in retail is that it's a very transparent world, and you've just got to operate more consistently with all technologies"). The second theme, *Integration of Technology*, was another common point of discussion and interviewees agreed that new technologies should be compatible and integrated with systems they are currently using ("If they could integrate the mirror with Shopify to upload the pictures of our products through there, that would make it ten times easier to integrate it into a boutique"). The third theme, *Maximizing Personalization Experiences* showed that the store owners look for personalization services ("Our business specifically is knowing what the customers have bought in the past, so that to deliver

things that coincide with their wardrobe, showing them something in the right size, and knowing what you have in their size”). Fourth, *Connectedness to Social Platforms*, it was agreed upon unanimously that social media is a large part of communication with consumers (“We were about to go out of business and social media became really big and then it completely turned around”). The last theme is *Obscure Cost Fright* as most of store owners worried about the unknown costs of new technologies, even though some of them don’t mind to invest up to \$50,000 for the new technology (“You have to weigh it, weigh that out to see if it would be a financially feasible thing”).

**Discussion and Implications:** Overall, we have found valuable information, both promising opinions and points of possible improvement, to the currently available new retail technologies. As described on the TOE framework, data from interviews indicated that small independent fashion retailers are more likely to determine their adoption to the new technology based on

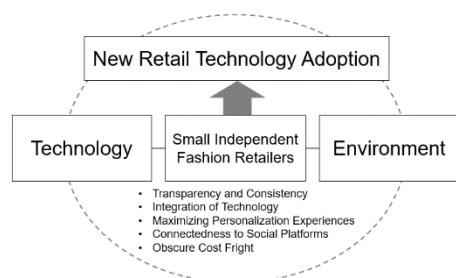


Figure 1. An Application of the TOE framework for Small Independent Fashion Retailers

external task environments and the technology’s compatibility and relative advantage to their business (Figure 2). Participants agree that new retail technologies, such as interactive smart mirrors and virtual reality, will be the next big technologies to take over retailing. However, these participants have also voiced concern about these technologies’ affordability and feasibility at this point in their lifecycle. Future research can include studying how the implementation of new retail technologies affect the business and customer satisfaction.

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