



VR in customer-centered marketing: Purpose-driven design

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KEYWORDS

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Customer journey

Abstract Despite the annual growth of the virtual reality (VR) market, many businesses—especially small and medium-sized ones—have been slow to adopt VR in their marketing. As many forms of VR exist, it is important to understand how they can be used to achieve specific marketing objectives. Unfortunately, minimal guidance related to VR production for marketing purposes exists. To address this, our article proposes guidelines for strategically deploying VR marketing in customer-centered businesses. This research also builds on extant VR marketing literature to consider VR marketing objectives for each stage of the consumer journey and offers concrete recommendations for selecting and designing appropriate VR applications. The proposed guidelines are further exemplified by two small-scale cases from the Scottish tourism industry.

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1. Embracing VR

Virtual reality (VR) is an immersive technology that submerges users into a virtual environment (Berg & Vance, 2016; Guttentag, 2010). On a continuum from reality to virtuality, VR represents technology that completely replaces real with virtual and takes the user to a different place and time. This is in contrast to *augmented reality* (AR) in which virtual elements are merely “overlaid on top of the actual world” (Farshid et al., 2018, p. 658), or *mixed reality* (MR) in which virtuality

and reality are merged (Flavián et al., 2019; Scholz & Smith, 2016). Industry investments in VR are growing annually, further propelled by the COVID-19 pandemic. By some estimates, the global VR market reached \$15.81 billion in 2020, and the VR market value will continue to grow at an annual rate of approximately 30% (MarketLine, 2021). However, many businesses appear to be slow adopters of VR marketing. While 75% of *Forbes* 500 companies developed and used some form of mixed reality, only 35% of small and medium-sized businesses had plans to adopt VR or AR (Capers, 2020; Korolov, 2015).

Managers’ hesitancy to embrace VR might be fueled by stories of ineffective investments in

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advanced technology and profits that failed to materialize (Boa-Ventura & Zagalo, 2010). Skeptics suggest VR is a fad or gimmick that will become less popular once the novelty wears off (Kain, 2016; Roose, 2020). However, proponents of VR marketing highlight possible application scenarios (e.g., test drives or VR tours; Hayden, 2020) and showcase success stories (e.g., Audi's VR experience that increased car sales by nearly 70% or Lowe's Holoroom; Andreychenko, 2020; Wardle, 2019). While inspirational, these anecdotes fail to provide specific strategic guidance that would enable businesses to determine the suitability of VR marketing. Investing in VR technology bears a substantial risk in that it could be quickly shelved if not strategically conceived. For customer-centered businesses, one argument in support of VR marketing is that modern consumers are "addicted to technology" (Lieberman, 2018). VR is undoubtedly trendy among millennials and Gen Z (Filter, 2017), yet investing in this technology requires strong motivation to utilize a strategic marketing approach. VR is touted for its storytelling potential and ability to create a fun, memorable experience (Brown, 2018; McGinnis, 2017; Munjal, 2020; Stefanuk, 2020). Still, tying a company's marketing objectives to VR requires a clear roadmap.

Unfortunately for businesses that embrace VR, clear guidance regarding VR deployment for marketing purposes is lacking. Prior research that addresses VR production as an industry is limited and nonspecific to marketing (e.g., De Regt et al., 2020). Some research discusses guidelines for VR filmmaking and considers viewer experience in creative art applications, which would not necessarily align with marketing objectives (e.g., Dooley, 2017). In the absence of VR marketing guidelines, calls for VR marketing will likely remain unanswered (e.g., Carrozzino & Bergamasco, 2010). Berman and Pollack (2021) introduced such guidelines for marketers wishing to utilize AR. The process determines how AR can help achieve marketing objectives, considers products and targets of AR initiatives, selects and designs AR applications, and evaluates and measures the outcomes. In this vein, we propose that strategic deployment of VR marketing similarly establishes marketing objectives. These objectives—as well as products and targets—must also inform the selection and design of VR applications. Once VR marketing initiatives are launched, they must be continuously evaluated to inform future strategic decisions.

As such, this article aims to provide a roadmap for customer-centered businesses wishing to

strategically embrace VR marketing. First, we provide a tool for establishing VR marketing objectives (Table 1). Second, we provide guidelines for matching marketing objectives with the selection and design of specific VR application features (Figures 1 and 2). In doing so, we also discuss product and target considerations relevant to each objective. The use of these guidelines is further illustrated by two mini cases detailing businesses in the Scottish tourism industry.

2. Marketing objectives and VR

The contemporary marketing approach requires attention to the full customer journey, including its pre and postpurchase stages (Lemon & Verhoef, 2016). After consumers (1) consider, (2) evaluate, and (3) buy, the circular nature of the relationship with the brand is captured by the so-called loyalty loop in which consumers (4) enjoy, (5) advocate, and (6) bond with the brand (Edelman, 2010; Edelman & Singer, 2015). Setting marketing objectives strategically often involves identifying and improving the stages that are most critical for the business (Berman & Pollack, 2021). For example, if a business is experiencing issues with the consideration stage (1) among its target customer segment, then it would set marketing communication objectives for raising brand awareness among the target audience. Conversely, if a business is facing problems with the enjoyment stage (4)—resulting in decreased customer satisfaction, lack of loyalty, and negative word-of-mouth (WOM)—then it would set objectives for improving the customer experience.

2.1. The six stages of the customer journey

Given the importance of digital touchpoints along the customer journey (Parise et al., 2016), VR marketing can play a key role in achieving strategic objectives. Thus, we propose that VR marketing efforts should be matched to the objectives associated with each of the six stages of the customer journey. Table 1 summarizes this approach, and Section 2.1. provides further details with support from extant VR marketing literature.

2.1.1. Consider

This stage of the customer journey is associated with marketing objectives related to brand awareness. For brands aiming to influence consumer consideration, VR represents a unique opportunity due to its attention-grabbing properties (Bender & Sung, 2021; Hollebeek et al., 2020). At

Table 1. VR along the customer journey

	Consider	Evaluate	Buy	Enjoy	Advocate	Bond
Strategic objectives	<ul style="list-style-type: none"> Build brand awareness Improve brand attitude 	<ul style="list-style-type: none"> Influence judgments of product attributes and quality 	<ul style="list-style-type: none"> Increase conversions 	<ul style="list-style-type: none"> Improve customer experience 	<ul style="list-style-type: none"> Facilitate positive WOM 	<ul style="list-style-type: none"> Strengthen brand relationship Build loyalty
VR applications	<ul style="list-style-type: none"> Attract attention Invoke positive emotions 	<ul style="list-style-type: none"> Reduce perceived risk and anxiety by representing reality 	<ul style="list-style-type: none"> Represent a shopping environment Increase purchase intentions and willingness to pay 	<ul style="list-style-type: none"> Enhance online or offline experiences 	<ul style="list-style-type: none"> Enhance electronic WOM 	<ul style="list-style-type: none"> Enhance brand storytelling Provide positive postpurchase experience

this stage of the customer journey, it is important to form a positive attitude toward the brand, and VR has been effective at invoking positive emotions, pleasure, and arousal (Daugherty et al., 2008; Herz & Rauschnabel, 2019; Park et al., 2018).

2.1.2. Evaluate

For many product categories, the ability to evaluate the product before purchasing is crucial. Marketing communication objectives associated with this stage of the consumer journey include influencing consumers’ judgment of product attributes and product quality. VR environments are highly suitable for consumers who wish to browse products or search for a specific item (Park & Kim, 2021), and VR is increasingly used in retail to solve mental and physical intangibility issues and reduce consumers’ perceived risk and anxiety (Lee & Oh, 2007; Mishra et al., 2021; Woosnam et al., 2020). Thanks to its ability to represent reality, VR is particularly suitable for enabling consumer evaluations (Gadalla et al., 2013; Kim et al., 2018).

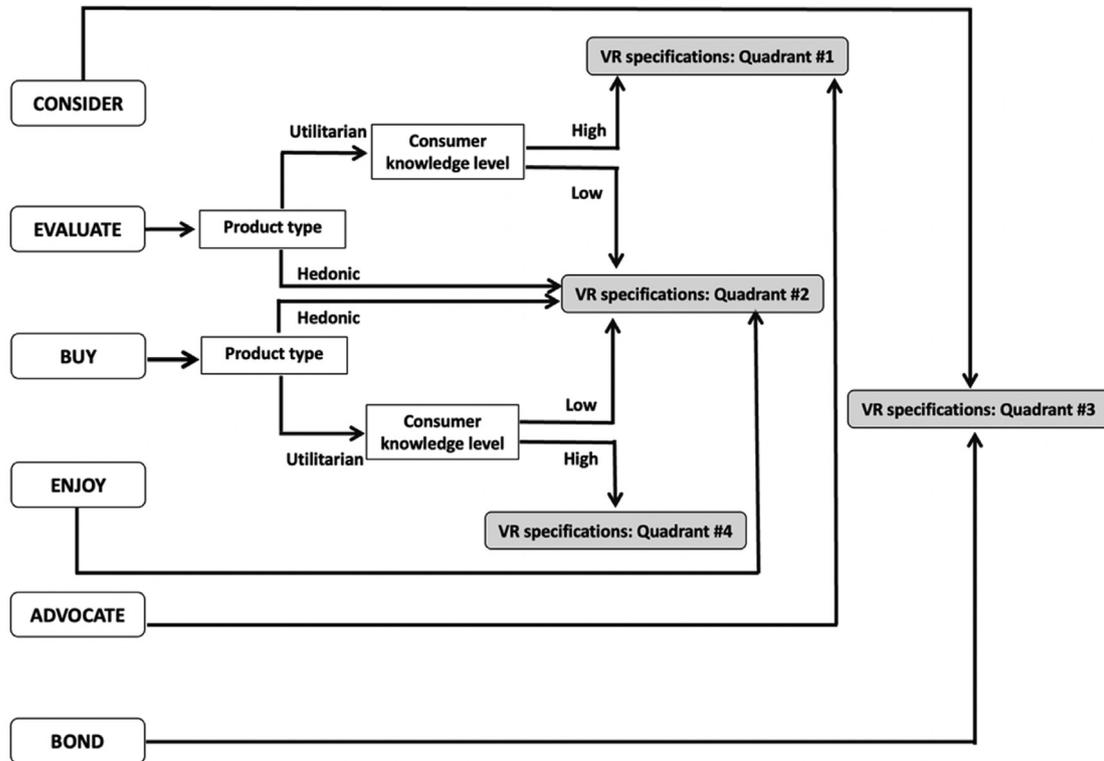
2.1.3. Buy

At this stage of the consumer journey, the key marketing objective is to increase conversions and consumers’ willingness to pay. VR can serve as an efficient representation of a shopping environment in a variety of contexts (e.g., Kwon et al., 2015; Park et al., 2018; Schnack et al., 2020). Dubbed v-shopping, purchasing items in VR has been successfully implemented by several consumer-centered brands. For example, Swarovski developed a VR mansion in which consumers could purchase their products using a Mastercard-integrated interface (Hayden, 2020). Importantly, VR shopping environments were shown to outperform non-VR digital environments. Specifically, enhanced VR elements such as consumer enjoyment, realism, sense of presence, and perceived control increase purchase intentions and willingness to pay while decreasing price sensitivity (Domina et al., 2012; Meißner et al., 2020; Papagiannidis et al., 2013; Park et al., 2018; Wen & Leung, 2021).

2.1.4. Enjoy

At this stage of the consumer journey, marketing objectives are geared toward improving the consumer experience. As more than merely a media channel, VR can provide a better experience than pictures or videos (Cummings & Bailenson, 2015; Guttentag, 2010; Mazursky & Vinitzky, 2005; Zeng et al., 2020). VR can be incorporated in an online setting, but a real-life experience can also be

Figure 1. Selecting VR specifications based on the objectives associated with consumer journey stages



enhanced by integrating it with VR. For example, a relaxing VR experience in a busy mall improved consumers' attitudes toward the mall, satisfaction, and loyalty intentions (Van Kerrebroeck et al., 2017). In addition, the use of VR at TechCrunch Disrupt and the NY Comic Con helped to create a unique consumer experience for fans of the HBO TV series *Westworld* (Campfire, 2016).

2.1.5. Advocate

The marketing communication objective of facilitating positive WOM and consumer advocacy is beneficial for increasing awareness of the brand and is directly linked to consumer experience (Kostyk et al., 2021). VR enables a better consumer experience, which enhances consumer willingness to recommend the brand to others (Shen et al., 2020). This effect was linked with the sense of presence that consumers experience in VR. Further, the effect of positive electronic WOM is particularly powerful when coupled with VR (Zeng et al., 2020).

2.1.6. Bond

At this postpurchase stage of the consumer journey, brands have a unique opportunity to

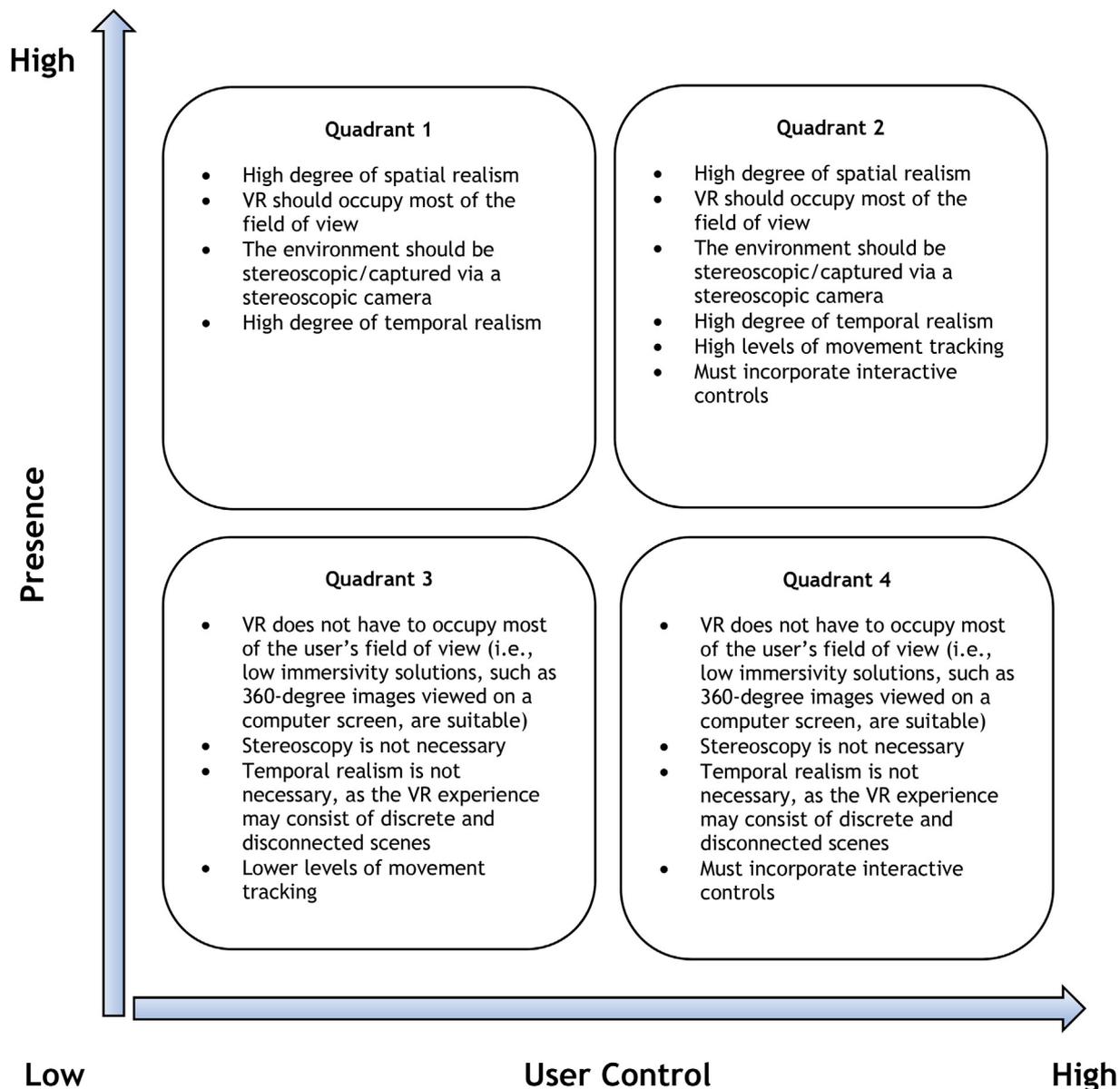
strengthen customer relationships and build loyalty. VR allows for effective brand storytelling and positioning (Dooley, 2017; Shin, 2018) and can play an important role in customer-brand bonding. As some consumers might be affected by postpayment dissonance, providing an emotionally positive and pleasurable experience via VR remedies the dissonance and produces higher satisfaction, higher repurchase intention, and lower complaint intention (Liao, 2017).

After establishing VR marketing objectives, businesses must select and design VR applications. We propose that technical VR features should be informed by the strategic objectives, as well as product and target considerations. Section 3 details the associated guidelines.

3. Selecting VR features based on marketing objectives

VR solutions differ in their immersivity, field of view, user perspective, stereoscopy, and degrees of freedom, among other technical parameters (Cummings & Bailenson, 2015). These technical features, in turn, might have different effects on consumers and drive different consumer outcomes

Figure 2. VR production specifications



(e.g., Guttentag, 2010; Mazursky & Vinitzky, 2005; Teisl et al., 2018; Zeng et al., 2020). Technical specifications create different budget demands in VR production. Further, the most advanced VR hardware often comes with more cumbersome operation and calibration requirements (Cooper et al., 2018; Cummings & Bailenson, 2015; DeFanti et al., 2009). Coupled with budget constraints, producing the best VR for marketing purposes might not always be possible or necessary. Instead, it is important to understand which features should be used to maximize VR's efficiency in achieving specific marketing objectives.

Informed by a comprehensive review of VR marketing literature from 2002 to 2021, Figure 1 represents a decision tree in which VR features are selected based on the objectives within each customer journey stage, alongside product and target considerations. To aid marketers who make VR application decisions, VR features are organized into four quadrants that represent high and low user control over the VR environment, as well as high and low user presence (Figure 2). The latter is conceived as the user's subjective experience (i.e., feeling that the virtual environment is the real world constructed as an alternative to

reality; Berg & Vance, 2016; Dholakia & Reyes, 2013; Gilbert, 2016).

Technical features of VR typically influence users' sense of presence (Brown & Cairns, 2004; Cowan & Ketron, 2019). Specifically, such features include:

1. *Field of view*: the relative field of the total user's view in which VR visuals exist. They can vary from a head-mounted display (HMD) that fully encompasses the field of view, to experiencing VR on a computer or smartphone screen (Cummings & Bailenson, 2015).
2. *Stereoscopic (vs. monoscopic) visuals*: these portray the world as three-dimensional (vs. two-dimensional), similar to real-life human vision (Cummings & Bailenson, 2015).
3. *Spatial realism*: an experience that is achieved by placing VR users within a plausible space at a place and height where they could conceivably sit or stand (Harrison et al., 2011).
4. *Movement tracking*: this differs by degrees of freedom, in which 3 degrees of freedom indicate tracking all neck movements in a VR environment, while 6 degrees of freedom indicate tracking all positions of a body in space (Cummings & Bailenson, 2015).
5. *Temporal realism*: the implication that events within the VR environment take place in real-time, and there are no distracting lags or time lapses (Harrison et al., 2011).

The presence (or absence) of *interactive control features* that enable users to touch and interact with objects within VR (e.g., controllers, a mouse, a keyboard, or other types of controls) further impact the degree of user control.

3.1. Product and target

Product type and target consumers play an important role in the strategic deployment of new technology (Berman & Pollack, 2021). Prior literature distinguishes between utilitarian products which are consumed for their functional benefits, and hedonic products which are experience- and sensation-centered (Kim & Hall, 2019; Voss et al., 2003). For example, in the tourism and hospitality industry, consumers' assessment of destinations relies on authentic multisensory enjoyment, which enables consumers to experience a destination's interactive and entertaining environment

in an immersive way and contributes to their booking decisions (Flavián et al., 2019; Kim et al., 2018; Zeng et al., 2020). In this vein, a highly immersive VR experience positively impacts consumer evaluations of hedonic—but not utilitarian—products (Peukert et al., 2019). As such, when it comes to hedonic products, technology that provides a rich experience and engages the senses can be more impactful along the consumer journey (Mishra et al., 2021). Though, such rich and immersive technology might not be required for utilitarian products.

Target consumers' product involvement and knowledge can further dictate the need for a rich, immersive virtual environment that facilitates realism and presence. In other words, when in VR, consumers are likely to process and learn information about products based on their prior experiences (Shin, 2018; Suh & Lee, 2005). Without prior knowledge, consumers process the information relatively slowly and rely more on cues to evaluate and make decisions (Bettman & Park, 1980; Park & Kim, 2008). Hence, those who have less prior knowledge of the products presented in VR might benefit most from a rich, realistic, and immersive presentation (Cowan & Ketron, 2019). On the other hand, when consumers have adequate knowledge of the product, information processing will be more efficient because of higher processing fluency (Hong & Sternthal, 2010). In addition, consumers with higher prior knowledge will have less demand for additional information (Cowan & Ketron, 2019). Therefore, rich and immersive VR designs might be unnecessary for those with high prior knowledge—potentially leading to negative effects (Cowan et al., 2021). VR features associated with each of the customer journey stages, as well as product and target considerations, are discussed throughout the rest of Section 3.

3.2. Consider

To raise brand awareness, it is generally preferred to reach a wider consumer audience. The levels that consumers adopt VR hardware and software thereby play a crucial role in VR marketing efforts at this stage. Luckily, VR does not need to be highly immersive to positively influence consumer attitudes (Pleyers & Poncin, 2020). In other words, high immersion systems (e.g., HMDs) are not necessary at this stage of the consumer journey. The high awareness objective mandates that VR experiences be designed in the most accessible way (e.g., 360-degree videos and images embedded on social media; McLean & Barhorst, 2021). While grasping

consumers' attention and building a positive brand attitude, these low immersion solutions overcome common barriers associated with VR technology.

3.2.1. Product and target considerations

As the targeted consumer audience at this stage is wide, the risk of simulator sickness in highly immersive VR systems is higher (Park et al., 2018). Still 360-degree images eliminate the possibility of simulator sickness and are appropriate for the fluctuating broadband speeds at which individual consumers might experience VR marketing content.

3.3. Evaluate

At this stage, it is important that VR accurately represents reality. High realism in VR is fueled by the sense of presence and works to recreate the actual place, product, or experience in the most authentic manner (Cooper et al., 2018; Dholakia & Reyes, 2013). In addition to the visual representation of products in all types of VR, further sensory elements can be incorporated to enable product evaluations. For example, at higher levels of user movement tracking, it is possible to effectively realize the sense of touch via VR experience (Alzayat & Lee, 2021). Interacting with the products using this simulated sense of touch can enhance the perception of product usefulness (Algharabat & Dennis, 2010).

3.3.1. Product and target considerations

Because movement tracking in VR environments comes at a higher price tag, it is important to recognize if it can achieve marketing objectives. Specifically, research suggests that extra sensory elements have the greatest impact on consumer responses to hedonic, rather than utilitarian products (Mishra et al., 2021). Further, touch simulation in VR environments is more suitable for products that are perceived as an extension of the body (e.g., tools) rather than a presentation of the body (e.g., clothes; Alzayat & Lee, 2021).

Lastly, the characteristics of the target consumer audience should also be considered. If consumers already possess rich brand knowledge—and are deeply involved—a highly immersive VR environment might not be necessary (Cowan et al., 2021; Cowan & Ketron, 2019). On the other hand, if target consumers have less brand knowledge and exhibit low levels of involvement, interactive and immersive VR might lead to better outcomes.

3.4. Buy

Certain features of VR environments have a strong impact on purchase intentions and purchase

behaviors. Specifically, higher enjoyment and engagement with VR, as well as higher perceived control of the experience, lead to heightened shopping intentions (Domina et al., 2012; Papagiannidis et al., 2013). In addition, immersive VR environments that evoke a high sense of presence lead to higher purchase intentions and lower price sensitivity (Meißner et al., 2020; Park et al., 2018; Wen & Leung, 2021).

3.4.1. Product and target considerations

In pursuit of VR conversions, marketers might need to consider the product type. Highly immersive VR environments that create a strong sense of presence are more beneficial for hedonic products than utilitarian ones (Peukert et al., 2019). Further, consumers' level of involvement impacts the optimal modality of a rich VR experience. In other words, consumers with low involvement exhibit higher purchase intentions when VR offers a rich array of visual, audio, and contextual information. However, those with high involvement are not necessarily persuaded to make a purchase merely by the richness of VR features (Jin, 2009).

3.5. Enjoy

As on-site experiences are under the marketers' control, it is possible to use more advanced VR hardware. However, integrating VR into the on-site experience can exacerbate technology acceptance issues among the target consumer audience. It is critical to consider the level of innovativeness and novelty seeking in the target consumer audience (Domina et al., 2012; Tussyadiah et al., 2018). Further, certain VR features such as a heightened sense of presence and higher user control increase technology acceptance and intentions to try VR (Han et al., 2020). These features also generate a pleasurable state of flow in which consumers perceive that time passes quickly, thereby contributing to the overall enjoyment of the experience.

3.6. Advocate

VR experiences can amplify the quantity and quality of online consumer reviews (Zeng et al., 2020) and drive WOM. Specifically, a heightened sense of presence in VR was directly linked with intentions to recommend the product to others (Pizzi et al., 2020; Shen et al., 2020). Further, such experiences might impact WOM for hedonic products in particular due to their high visual and emotional appeal (Mishra et al., 2021).

3.7. Bond

If the marketers' objective is prolonged post-purchase engagement with the brand, it might be particularly effective if the digital experience has social features (Creevey et al., 2019; Dessart et al., 2015; Wu et al., 2018). As such, using low-immersivity VR such as 360-degree images and videos suitable for sharing in online communities might be preferable (McLean & Barhorst, 2021), and low immersivity solutions are suitable at this stage of the consumer journey.

To illustrate selecting VR features based on marketing objectives, we further discuss two brief examples that used the decision tree (Figure 1) to determine technical specifications for the VR application.

4. Mini-Case 1: Wanlockhead Lead Mining

The Museum of Lead Mining is a nonprofit organization situated in the heart of Scotland's highest village. It is dedicated to preserving the community's extensive mining history and social heritage. The museum offers a variety of programs to visitors, including underground mine tours, miners' cottages, the miner's library, gold panning activities, a gift shop, and a tearoom (Lead Mining Museum, 2022). Marketing data suggested that most visitors perceived the experience to be unique and worthwhile, with some indicating intentions to revisit. However, the volume of annual visits could be increased, with some of the target audience suggesting they had never heard of Wanlockhead Lead Mining. In 2020, the museum's leadership team launched a new marketing initiative and communication objective: increasing brand awareness by targeting the first (Consider) stage of the consumer journey.

At this stage, visitors are looking for destination information, and VR marketing can efficiently capture visitors' attention and increase brand awareness (Huang et al., 2015). In collaboration with an industry partner, our team adopted VR specifications in Quadrant 3 (see Figures 1 and 2). As low immersivity solutions were deemed appropriate based on the strategic priorities, non-stereoscopic 360-degree images were produced. The images were combined in a VR tour that enabled 3 degrees of freedom: the users' head movements were tracked and allowed to look up, down, and side to side. The tour consisted of discrete scenes and could be viewed on a range of devices, including those that do not dominate the

full field of view such as a smartphone or a computer screen. As a result, the 360-degree images were suitable for a social media campaign. Incorporated in the Facebook interface, the images allowed viewers to look around in a 360-degree, low immersivity environment.

These VR campaigns were effective. The first social media campaign ran for two weeks in 2020 and generated more than 18,000 post engagements and 1,575 link clicks. The engagement rate of the VR campaign was 12%, which significantly exceeded the average engagement rate of 0.13% in the services industry and 0.27% in all industries (Kazlauskas, 2022). Wanlockhead Lead Mining's Facebook following increased by 17% as a direct result of this awareness campaign, and a follow-up campaign in 2021 spurred further growth on Facebook. Following increased by 16.6%, expanding the pool of potential visitors who are aware of Wanlockhead Lead Mining.

5. Mini-Case 2: Auchindrain Township

Auchindrain (2022) is the most complete, well-preserved Highland farm township in Scotland. Visitors can enter traditional family dwellings and animal enclosures and view many unique artifacts of the bygone era (e.g., a large weaving loom constructed from bits of driftwood; Secret Scotland, 2022). The visitor center also offers books, souvenirs, and local crafts.

Auchindrain Township provides tourists with an interactive site map presented on a tablet or a printed alternative. Due to weaker GPS signals in occasionally adverse weather conditions, the electronic site map does not always sufficiently bring the site to life. The leadership team aimed to improve the visitor experience and showcase the rich heritage of the Township. In 2021, their marketing objectives corresponded to the fourth (Enjoy) stage of the consumer journey, with appropriate VR specifications represented in Quadrant 2.

In collaboration with an industry partner, our team employed 360-degree stereoscopic cameras to capture images and videos. The cameras were carefully placed at locations where viewers could conceivably stand. Various collection items were placed within the interiors. As these items are typically not on display, this approach aimed to enrich the on-site visitor experience. Further, VR scenes included actors dressed in traditional outfits to create an illusion of the daily life in the Township. The actors engaged in various traditional activities, such as churning butter and

spinning wool, thereby ensuring temporal realism within each scene. In postproduction, an expert recorded audio of conversations in the Township's original Scottish Gaelic.

Recorded stereoscopic videos were uploaded on the Oculus Quest 2, an advanced head-mounted display (HMD), for subsequent use by site visitors to provide a VR experience that occupies most of the user's field of view, as proposed in Quadrant 2. Our team prepared informational posters depicting the setup and use of the HMDs to overcome consumer hesitancy. While Quadrant 2 recommends a high level of movement tracking (i.e., 6 degrees of freedom), budgetary constraints prevented the creation of this form of VR. However, interactivity was ensured by incorporating controls within the VR experience, which enabled participants to engage with information hotspots, as well as enter and leave Township buildings.

6. Research takeaways and opportunities for further study

VR marketing can be a powerful tool that enables businesses to realize their marketing and communication objectives (Cowan & Ketron, 2019; Munjal, 2020; Stefanuk, 2020). The slow adoption of VR marketing—especially by small and medium-sized businesses—leaves the suitability of VR for achieving strategic objectives to be determined (Capers, 2020). Amid calls for consumer-facing businesses to cooperate with VR production companies (e.g., Carrozzino & Bergamasco, 2010), a clear vision for developing VR marketing initiatives is necessary. Propelled by the growing popularity of VR technology, developers offer increasingly complex features for VR experiences, such as haptic feedback devices and olfactory masks (Cowan et al., 2020). This growth in complexity and price for technical features will require marketers to determine which technical configurations are critical for achieving their specific objectives.

Building on the stages of the consumer journey and associated objectives pursued by marketers, our research outlines a roadmap for developing VR marketing initiatives (Edelman & Singer, 2015). Specifically, marketers must first establish VR marketing objectives and select and design appropriate VR applications while keeping product and target considerations in mind. To highlight this process, we first summarized VR marketing research that includes possible VR marketing objectives for each of the customer journey stages (Table 1). Based on this, we proposed a decision

tree for matching each stage's objectives with VR features (see Figure 1). To aid decision-making, we organized VR features into four conceptual quadrants that represent different combinations of high and low user presence, as well as high and low user control in the VR environment (see Figure 2).

The use of these tools is further exemplified by two mini-cases from the Scottish tourism industry. VR marketing initiatives for both Wanlockhead Lead Mining and Auchindrain Township identified key strategic objectives and developed VR marketing applications based on appropriate features for the targeted stage of the customer journey. While the long-term effects of these projects remain to be seen, these examples illustrate the trade-offs between budgetary constraints and the quality of VR marketing efforts. These examples suggest that VR marketing is not always associated with high production costs, as it is contingent on a brand's specific marketing objectives.

The suggested perspective on VR marketing is admittedly consumer-centric and less suitable for B2B brands. As interest in VR marketing in B2B settings grows, future research can clarify strategic guidelines for developing VR experiences for institutional buyers (Boyd & Koles, 2019). Further, additional frameworks and resources are necessary to design suitable control and evaluation metrics for VR marketing initiatives (Swani et al., 2020).

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