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THE RELEVANCE OF INTIMACY WITH MY INTELLIGENT VIRTUAL ASSISTANT

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ABSTRACT

Artificial intelligence (AI) to machines with software and algorithm that can think and perform tasks like humans. AI can dynamically change various aspects of people's lives, both in business and in a personal context (Loureiro, Guerreiro, & Tussyadiah, 2021; Romero et al., 2021). This technology functions through automation and continuous learning, and the main characteristic that makes it so life-changing and extremely popular is its level of personalization (Kumar *et al.*, 2019). "AI seeks to simplify communication between humans and machines by means of natural language" (Pantano & Pizzi, 2020, p. 3).

AI-powered voice assistants, or Intelligent Virtual Assistants (IVA), such as Amazon Alexa, Apple Siri, Google Assistant and others, represent a very relevant subject to research, due to its growth in the most recent years. These smart devices are changing people's daily routine, by completing tasks for them, searching for information, making purchases online, through a simple voice command. In addition, their characteristics and features which make them so human-like, such as their voice, the natural language and the fact that they personalize the content taking into account the user's interests and behaviours (McLean & Osei-Frimpong, 2019), can encourage users to bond with them (Schweitzer *et al.*, 2019).

IVA, through machine learning, can better adapt and personalize throughout time, by learning the user's interests and preferences (Bishop, 2006). Therefore, these smart devices, due to their friend-like characteristics, encourage users to develop feelings like brand warmth and attachment. (Wu *et al.*, 2017). Consumers interact with them by having conversations and through commands and requests, leading to higher levels of engagement. An IVA, being an anthropomorphised product – with human-like characteristics - is not perceived as a static object, instead, users tend to like and value them more, and can even see them as a friend or a companion, being, consequently, more loyal. (Schweitzer *et al.*, 2019).

Fashion industry is discovering the potentialities of AI. Indeed, AI-enhanced fashion design and manufacturing and help to promote and sell fashion goods (Forbes, 2021). Fashion brands are interested in leverage conversational assistants through chatbots (Ashfaq et al., 2020) and voice assistant (Loureiro, Japutra, Molinillo, & Bilro, 2021) devices such as Amazon Alexa, Apple Siri, Google Home, and Microsoft Cortana. Using conversational interfaces, they can gather data by understanding consumers desires and trends, purchase patterns, and suggesting related items. Through the

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interaction, consumers can find the optimal fashion item and achieve satisfaction (Forbes, 2021).

The purpose of the present study is to analyse the relationship and interaction between humans and IVA, to better understand how humans connect and bond with these smart devices in a daily basis to take decisions, for instance fashion recommendation, for instance, when giving the weather of the day and stores to purchase fashion items. More specifically, if the attachment strength and intimacy between the user and the smart device influence the level of recommendation the use of IVA for other consumers.

The attachment strength depends on how strong the relationship is, it occurs when a person perceives the relationship as irreplaceable and is emotionally immersed (Thomson, 2006). “Intimacy refers to feelings of closeness, connectedness, and bondedness in loving relationships.” (Sternberg, 1997, p. 315). Customer loyalty refers to a long-term relationship between brand and customer. A preference for a specific brand and being loyal to it means not only choosing to (re)purchase a brand among similar brands, over a long period (McMullan & Gilmore, 2003) but also favourable attitudes such as positive word-of-mouth communication and recommendations (Kandampully & Suhartanto, 2003). We consider the component of willingness to recommend for the purpose of the current. A conceptual framework and hypotheses were developed to study the relationship and interaction between humans and IVA. We suggest that: H1: Attachment Strength exercises a positive impact on willingness to recommend; H2: Virtual Intimacy exercises a positive impact on willingness to recommend

For data collection, we recruited participants from the United States (US) via Amazon’s Mechanical Turk. Thus, a sample of 200 completed questionnaires was treated. The sample is well-balanced consider age and gender. In what concerns to construct reliability and validity (see Table 1), all are reliable, and the values of AVE indicate discriminant validity. The constructs also have discriminant validity, which was analyzed through the Fornell-Larcker Criterion and Heterotrait-Monotrait Ratio (HTMT) matrix.

Table 1. Construct Reliability and Validity

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Virtual Intimacy	0.969	0.978	0.973	0.821
Attachment Strength	0.919	0.934	0.943	0.804
Willingness to Recommend	0.898	0.905	0.929	0.767

Regarding the structured model, all hypotheses were supported. The results show that consumers create a relationship of connectedness with the smart device which operates as a personal assistant for them. The more the user is attached to the Intelligent virtual assistant, and the greater the willingness to recommend the IVA to others. Virtual intimacy also affects positively the willingness to recommend the IVA to others. The human-like characteristics make users look at IVA as social beings, hence, strong feelings occur, and a relationship is developed. These feelings of proximity and

attachment make users more satisfied with the experience and also more loyal, leading owners to recommend to others and consequently brand managers also benefit from learning more about human-IVA interaction. Fashion brand managers should be aware that attachment strength due to the interactions is even more important than the intimacy developed to in such interactions to activate in customers the desire to spread the word about the brands. These findings are also quite relevant theoretically, since it is the first time that such drivers are compared.

Table 2. Summary of studies conditions, hypotheses, and results

Direct effect	Beta	T Statistics (O/STDEV)	P Values	Bias Corrected Confidence Interval	
				Lower Bound	Upper Bound
Virtual Intimacy → Willingness to Recommend	0.231*	2.314	0.021	0.023	0.425
Attachment Strength → Willingness to Recommend	0.301**	2.965	0.003	0.079	0.504
	R ²	25.5%			
Model fit					
SRMR	0.055	Chi-Square	433.666	*p < 0.05	
d_ ULS	0.404	NFI	0.889	**p < 0.01	
d_ G	0.325				

Keywords: virtual intimacy; attachment strength; customer loyalty; fashion industry; willingness to recommend

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