

AI in International Marketing: How Digital Service Firms Standardize and Adapt Marketing Across Borders

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Abstract

This study explores how digital service firms apply Artificial Intelligence (AI) in their international marketing efforts. Specifically, we examine how these firms use mechanical, thinking, and feeling AI to standardize, adapt, and personalize their international marketing to international customers. Based on a qualitative multiple-case study, including five Finnish digital service firms, we find that mechanical AI helps different marketing processes related to standardization of marketing mix elements. Thinking AI, commonly used together with mechanical AI, is applied to facilitate the adaptation of product, promotion, and pricing strategies for foreign markets and customers. Feeling AI is applied to personalize the marketing offer based on individual customer needs. Based on these findings, we suggest three propositions that advance research on this topic, and which indicate how each type of AI relates to different stages of the marketing process and various marketing mix elements. This study contributes to research and practice in international marketing by offering a detailed view of how digital service firms apply AI in their global marketing efforts.

Keywords: Artificial Intelligence (AI), Digital Service Firms, International Marketing, Standardization, Adaptation, Personalization

1. Introduction

Artificial intelligence (AI) is playing an increasingly important role in firms' daily operations. While it is commonly used to handle routine marketing tasks, AI is being gradually applied to more complex marketing activities such as estimating market potential

in specific countries, developing new types of services, and even deepening network relationships with existing customers (Huang & Rust, 2021a, 2021b; Kumar et al., 2024). Such changes significantly impact the way firms manage their marketing efforts (Huang & Rust, 2021a, 2021b). Furthermore, firms may gain competitive advantage from successfully integrating AI tools into their marketing practices. However, despite the growing attention that AI is gaining in the marketing field (Kopalle et al., 2022; Mariani et al., 2022; Ratten et al., 2024), there is still limited research on how its tools can be effectively integrated to marketing in general, and specifically into international marketing practices.

International marketing can be conceptualized as the set of elements firms perform, such as planning, promotion, pricing, and distribution, to serve customers in international markets (Cateora et al., 2020; Cavusgil et al., 1993). To carry out these effectively, firms must choose between or combine different approaches, including standardization, adaptation, or personalization (Jain, 1989; Varadarajan, 2010), depending largely on the nature of the product or service they develop to meet international customers' needs (Hoch et al., 2000; Theodosiou & Leonidou, 2003). Although AI can be used to perform or facilitate many international marketing efforts, we know relatively little about how AI is applied when firms standardize and/or adapt their marketing in different markets. Filling this research gap is important especially in the context of digital service firms, as the nature of their services can vary significantly (Kasiri et al., 2017; Yoo et al., 2010, 2012) and hence have several impacts on the marketing approach to choose.

Accordingly, this study focuses on the following research question: How do digital service firms use AI for their international marketing endeavors? Specifically, we examine how these firms apply different types of AI, namely mechanical, thinking, and feeling, when they standardize, adapt, or personalize their international marketing mix elements for customers in different markets. To address the research

aims, we applied a qualitative multiple-case study method (Yin, 2009) involving five digital service firms. In total, we conducted nine interviews with managers responsible for the firms' marketing efforts.

This study aims to contribute to academic literature by explaining how AI can be integrated to different international marketing strategies of digital service firms and how these ventures can make use of it to succeed in global markets. Lastly, the study further examines how AI can transform marketing practices through its various applications, hence it introduces new practical and empirical approaches, which differ from traditional ones, and that consequently warrant further academic attention.

2. Literature Review

In this section, we review the literature on standardization, adaptation, and personalization, as these strategies are needed to address different challenges in international marketing. Standardization ensures efficiency and global service consistency (Gabrielsson et al., 2012; Levitt, 1983), whereas adaptation is needed to respond to cultural, regulatory, and other market differences (Okazaki et al., 2007; Schmid & Kotulla, 2011). Personalization enables building stronger customer relationship through tailored experiences (Arora et al., 2011). Altogether, these strategies provide a comprehensive approach to supporting cost-effectiveness, local relevance, and individual engagement for international growth.

Thereafter, we present our conceptualization of AI usage in international marketing, as AI is an increasingly important part of these strategies. For instance, AI can provide global efficiency through automated campaign management, facilitate adaptation by providing real-time market insight and meeting local requirements, and can enhance personalization with predictive analytics (Davenport et al., 2019; Mustak et al., 2021). That is, AI can help firms achieve consistency, local responsiveness, and individual engagement in international marketing. However, the role of AI in different marketing strategies remains ambiguous.

2.1 Standardization

In marketing literature, standardization refers to specific competitive marketing actions in which a firm harmonizes its marketing strategies across several countries (Varadarajan, 2010). That is, a firm develops a strategy that is similarly applied to different country markets. Typically, standardization is considered for the entire marketing program and would thus include product, channels, promotion (Schilke et al., 2009), and

pricing (Lages, 2008). For firms operating in international markets, standardization may bring significant benefits due to cost savings stemming from scale economies and administrative ease (Levitt, 1983; Schilke et al., 2009). Standardization also decreases complexities related to the marketing mix elements across different countries, media channels, and product variations (Rashkova et al., 2024). However, standardizing requires a contingency decision that acknowledges the firm's international strategy, market knowledge, and global market conditions (Gabrielsson et al., 2012).

Possibilities for standardization depend largely on the nature of the product or service and uniformity of the target customers (Jain, 1989). For instance, in the context of digital services, product offering can vary significantly, from standardized services (one size fits all) to very specific, personalized services for individual customers (Cusumano & Yoffie, 1999; Kasiri et al., 2017; Messerschmitt and Szyperski 2003). Accordingly, a firm's marketing approach is largely based on its service offering. If a firm targets markets where customer groups are rather homogenous, standardized marketing mix approach is commonly applied (Hoch et al., 2000) due to the cost benefits and simplicity. Because standardized marketing approach is general and involve less human interaction or face-to-face contacts with customers (cf. Cornish, 1996), we believe they would be more easily handled by AI. However, it is also important to note that a firm's international marketing focus may shift over time from a more standardized marketing approach to a more adaptative one, or vice versa (cf. Ojala et al., 2023).

2.2 Adaptation

Despite its advantages, the standardization of digital services is not always possible, or economically viable. This is because factors such as customers' needs, requirements, tastes, standards, and regulations can vary significantly across different countries and cultures (Jain, 1989). In such cases, firms adopt more customized approaches as a form of adaptation. That is, adaptation to individual country markets may be required due to differences across countries, which can involve industrial practices, laws and regulations, cultural, and other market requirements (Calantone et al., 2006). Adapting can increase costs, as firms have to be more aware of these differences and adjust their services and marketing accordingly (Cornish, 1996). However, adaptation also offers benefits, such as improved service quality that might, in turn, lead to higher customer satisfaction and increased trust in the service provider (Coelho & Henseler, 2012). Hence, the firm needs to determine an optimal approach and balance it to meet

market requirements, which typically entail some adaptation of the elements of the marketing program (Gabrielsson et al., 2012).

Digital services are relatively easy to adapt to different markets compared to other types of services or products, given their characteristics such as malleability (see Yoo et al., 2012). That is, the modularity of the digital services enables different configurations, making them more suitable for specific customer groups (Henfridsson et al., 2009; Hoch et al., 2000; Ulrich, 1995). Furthermore, the characteristics of digital artifacts enable digital service firms to reprogram the digital artifacts that they develop (Kallinikos et al., 2010, 2013; Ojala et al., 2023; Yoo et al., 2010). However, when firms adapt their digital services for different markets, they must also adjust their marketing approach accordingly. This might bring challenges, as marketing professionals need to remain constantly aware of several factors that might impact on customers' willingness or ability to use the services, such as environmental conditions and customer preferences (Jain, 1989). These factors may also change over time, and firms must adjust their marketing approach accordingly (Sarin et al., 2012).

2.3 Personalization

Personalization is “the action of designing or producing something that meets someone's individual requirement” (Oxford Dictionary). This concept is close to customization, which is typically used in connection with the adaptation of products or services for the customer. Both concepts refer to a process in which the uniqueness of each customer is considered by using insights from their personal and behavioral data to tailor products/services and interact through various marketing methods, providing a superior experience (Chandra et al., 2022).

In digital services, personalization addresses customers' specific demands for the service (Cusumano, 2004). In business-to-business (B2B) markets, these services are typically designed in close cooperation with the customer to meet their specific requirements (Laplante et al., 2022). When digital service providers personalize their B2B marketing mix elements, there is a need for targeted communication (De Jong et al., 2021), which requires an in-depth understanding of each customer's expectations (Feng et al., 2020).

2.4 Conceptualizing AI in International Marketing

The use of AI in international marketing has received relatively limited attention (Menziez et al.,

2024) particularly regarding how AI changes different international marketing strategies. From a practical perspective, AI-driven changes in international marketing can be categorized according to different marketing strategies. For standardization, AI enables automated translations, virtual assistants, and chatbots that serve customers globally (Luo et al., 2021; Uysal et al., 2022).

This increases efficiency and ensures a consistent global brand experience. For adaptation, AI can be applied to predict customer behavior and generate market insights (Mustak et al., 2021). This helps firms adjust their offerings for different cultural and regulatory environments and enhances their responsiveness to adjust different market contexts. For personalization, AI can generate tailored recommendations based on large datasets (Lakshika et al., 2024), enabling better product and service personalization according to individual preferences at scale.

More broadly, these applications can be understood within the holistic framework of Huang and Rush (2021a), which presents marketing research, strategy, and action as guiding steps for embedding AI into international marketing. Accordingly, AI can potentially extend into mechanical, thinking, and feeling-related tasks. Mechanical AI refers to “automating repetitive and routine tasks,” thinking AI to “processing data to arrive at new conclusions or decisions,” and feeling AI to “two-way interactions involving humans, and/or analyzing human feelings and emotions” (Ibid., p.31). In sum, we can conceptualize AI marketing decisions within a three-dimensional cube that consists of the marketing planning process phases (research, strategy, and action); the actual content of marketing mix elements: Product, channels, promotion, and pricing strategy (Lages, 2008; Schilke et al., 2009), and the degree of tailoring to a given country market, customer, or even person. We graphically display the interface of AI and International Marketing in a conceptual model depicted in Figure 1.

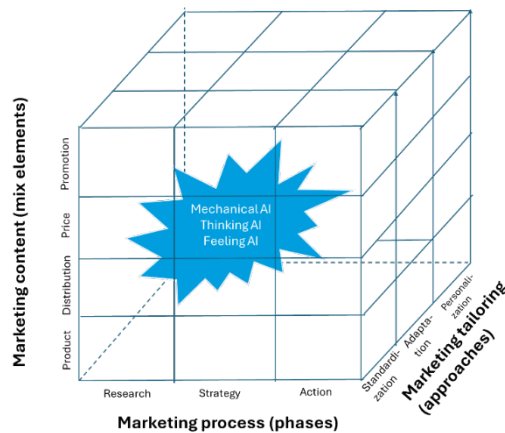


Figure 1. AI in International Marketing

Figure 1 depicts our conceptualization, which merges the marketing process phases, marketing mix, and marketing tailoring approaches. We suggest that Mechanical AI can be used mostly for standardization of marketing efforts, as it is designed to maximize efficiency and minimize variability (Huang & Rust, 2021b). In the context of this study, we define mechanical AI as tools designed for mass-produce international marketing efforts, deliver standardized marketing services for global customers, and perform standard, routine, and repetitive tasks (c.f., Huang & Rust, 2021a). Thinking AI is most prominent in adaptation activities, especially when there is a lot of customer data available and the problems are well understood (Huang & Rust, 2021b). Here, we conceptualize thinking AI as a tool that can be applied to design services tailored to different customer groups or even individual customer. This is particularly useful in the cases where customer requirements or preferences vary, or there are variations in standards or regulations across markets (cf. Jain, 1989). Feeling AI plays an important role in network development, especially in situations where two-way communication is needed to maintain customer relationships, satisfaction, and retention (Huang & Rust, 2021a). Feeling AI also helps to develop a more specific understanding of customer preferences, market competition, and enables an overall more personalized marketing (Huang & Rust, 2021b; Power, 2017). That is, digital service providers aiming to personalize their services to individual customers (Hoch et al., 2000; Moradi & Dass, 2022) can benefit significantly from feeling AI. Hence, in the context of this work, feeling AI is used to refer a tool that can be applied in digital service marketing when a firm seeks to develop a deeper understanding of individual customer requirements to increase customer engagement with the service. Furthermore, it can be argued that feeling AI can be deployed in those

personalization efforts undertaken by digital service providers together with their customers, aiming at the co-creation of value offerings and oftentimes present in B2B settings.

3. Methodology

To better understand the usage of AI in the international marketing efforts, we applied multiple-case study method (Eisenhardt, 1989; Yin, 2009). This method enabled us to form a detailed view of the different approaches used by firms to integrate and utilize AI in their daily marketing. The multiple-case study method was also a suitable approach because the use of AI in international marketing represents a rather new and unexplored phenomenon. This approach, in fact, presents various advantages when there are no well-established concepts or hypotheses that could be employed to study the given phenomenon (Swanborn, 2010).

For this study, we selected five small technology firms operating in the software industry (see Table 1). The main criteria to select the firms were: 1) to use AI for their international marketing efforts, and 2) to be relatively small (under 100 employees). This last parameter enabled better coverage of international marketing and usage of AI, as the small size of the firm made it easier to observe marketing-related processes. Further, marketing efforts were handled by a small group of individuals with deep knowledge of these activities. All the firms are based in Finland, that is a country with advanced software and high-technology industry. Although all the firms operated in the software industry, their customers and the market segment varied remarkable, bringing variation to the findings.

| Firm | Field of business | Interviewees | Time of the interviews | Duration of the interviews |
|--------|-------------------------------|--|------------------------------|----------------------------|
| Firm A | Software for banking industry | -COO -Marketing manager | August 2023 March 2025 | 60 min 35 min |
| Firm B | Learning games | -CTO -CPO | September 2023 March 2025 | 90 min 60 min |
| Firm C | Indoor positioning platform | -CEO -CEO | October 2024 March 2025 | 70 min 60 min |
| Firm D | Radio podcasting platform | -Sales director -Digital marketing specialist | September 2023 March 2025 | 65 min 60 min |

| | | | | |
|--------|----------------------|------|------------|--------|
| Firm E | Educational software | -COO | March 2025 | 75 min |
|--------|----------------------|------|------------|--------|

Table 1. Data collection.

We collected primary data for this study through face-to-face interviews conducted remotely by using Microsoft Teams software. This approach is increasingly recognized in qualitative research as it offers greater flexibility, cost savings, and a lower environmental impact compared to traditional in-person interviews (Lobe et al., 2020; Lo Iacono et al., 2016). Altogether, we interviewed nine people. This generated 2 interviews per company, and in the case where the second interview was not possible (Firm E), we refined unclear issues through email exchanges with the firm’s management. The first round of interviews was conducted in 2023 with general managers to gain a more comprehensive overview of the firms and their international endeavors (excluding Firm E). The second round, conducted in 2025, focused more in detail on the use of AI in their international marketing efforts and involved interviews with people directly involved and leading the firm’s marketing operations. This approach provided a sound understanding of the firms’ business models, target customers, and international operations before moving to the usage of AI.

We recorded all the interviews, which lasted from 30 to 75 minutes, and transcribed them verbatim. We gave interviewees the possibility to read and comment on the transcribes. In addition to these primary sources of data, we also gathered several types of secondary material, such as press releases, brochures, and presentations. We also actively followed the case firms’ websites and social media postings to gain more in-depth understanding of their operations. This secondary material was used to validate the interview data. If we noted conflicting information between secondary material and the interview data, we contacted the firm to clarify potential misunderstandings. The data is stored in a common database shared by the authors of this manuscript.

In the data analysis, we first reduced the data by synthesizing the transcripts and secondary data into a baseline narrative of each case firm (Eisenhardt 1989; Miles and Huberman 1994). Second, we coded the interview data based on following themes identified from the background literature: “standardization”, “adaptation”, and “personalization”. For instance, one interviewee noted “Because we are bilingual company, AI is used to translated both to Finnish and English, no matter which, so that helps us to recruit internationally and bring international talent into the company.” This statement was categorized under the theme of

“standardization,” as the firm aimed to standardize its communication to ensure consistency. Third, we applied the framework of content, process, and adaptation, introduced in the literature review, to code and locate AI usage across different international marketing dimensions.

4. Findings

4.1 AI and standardization of marketing processes and content generation

The case findings reveal that, in all the case firms, mechanical AI was used to standardize marketing communication with potential and existing customers as these standards, routines, and repetitive tasks were easy and fast handle by AI. The Interviewees felt that, as non-native English speakers, mechanical AI helped them to improve their communication in English through different marketing channels such as email, social media, blog posts, websites, and harmonize their messaging to the audience. The CPO of Firm B explained this as follows: *“In marketing messages or in marketing communication, we don't really create different messages for the Far East as opposed to, let's say North America.”* Another example of AI usage to standardize messaging was given by Digital Marketing Specialist of Firm D *“Last Christmas, I was thinking about sending out a Christmas newsletter, but then I realized that not everyone celebrates Christmas. So, I used AI to help make it more inclusive, since we have customers all over the world. The AI then gave me a more suitable text to use instead of Christmas-specific messaging.”* Firm A used mechanical AI-based video avatars to standardize their verbal communication when hosting webinars or creating videos in English. Firm B used AI to standardize their chatbot communication, ensuring that all responses aligned with the firm’s brand and other content.

To conclude, the case firms applied mechanical AI for standardization of marketing processes and content generation across foreign markets. However, the use of this type of AI is still mainly limited to specific elements of marketing mix, i.e., products’ characteristics and promotion. Mechanical AI was found to be useful within the entire marketing process, including research, strategy formulation, and action related to these marketing elements. Hence, we advance the following proposition:

Proposition 1. Mechanical AI facilitates the marketing process phases related to standardization of marketing mix elements (e.g. product, promotion) across countries.

4.2 AI and adaptation of marketing content

While mechanical AI was mainly used for standardizing English language content by all the firms, Firm B, C, and E also applied it to adapt various aspects of their marketing communication. For instance, Firm B used mechanical AI to translate their communication into some of the languages spoken in the foreign markets they operate, such as Indonesian and Spanish for their customers in Chile and Peru. Similarly, Firm E used mechanical AI to refine and adapt their messages for different audience groups as needed, while Firm C used mechanical AI to create tailored versions of marketing material for different digital platforms they operate.

Firms B, D, and E applied thinking AI to facilitate different international marketing processes and improve and accelerate their decision-making processes related to entering new foreign markets or targeting specific market segments. The primary goal was to improve their understanding of market-specific requirements and unique characteristics necessary to shape value offerings that would be adapted to each market and efficiently serve it. For example, Firm B used thinking AI to practice and formulate questions to ask their customers in order to get better understanding of what customers wanted from the service. The CPO of Firm B explained this as follows: *“When entering a new market, AI has made decision-making a bit easier by quickly providing an understanding of what the market requires, such as specific regulations or unique characteristics that need to be taken into consideration.”*

Firms B, D, and E applied thinking AI for idea generation and brainstorming related to market research and analysis activities. For instance, In the case of Firm E, thinking AI was used to synthesize insights from customers and their feedback, facilitating to identify the most prominent issues and potential solutions for different customers. In Firm D, thinking AI was applied for troubleshooting marketing-related tasks, as explained by their Digital Marketing Specialist *“A good example is when I need to make changes to our website that require some coding. I’m not a coder, so I just ask AI how to fix it.”*

In two cases, Firms B and E, thinking AI was applied to facilitate the formation of their pricing strategies in different markets. That is, they used AI to evaluate the price for their service and adapt it in different countries. The COO of Firm E explained this in the following manner: *“Pricing strategies are the kinds of models we can test with our customers. We are using AI as a sparring partner to help us refine pricing for specific segments or target markets. It also suggests alternative ideas and models that we can explore.”*

Firm E used thinking AI for customer segmentation and to identify potential competitors in different markets. For the segmentation, the firm initially developed ideas by discussing with their partners and different customers, as well as conducting pilot projects. Thereafter, they tested their ideas with AI to form even a deeper understanding of different customer segments. For potential competitors, AI was seen as a valuable tool for exploring potential competitors in different markets. The COO of Firm E highlighted this as follows: *“We have AI to generate, for example, country specific lists of potential competitors or organizations that target the same customer base, even if they don’t offer exactly the same type of solution.”* Firm E also used thinking AI to scout ideas for new distribution channels. However, none of the firms used AI to manage their distribution channels. The main reason was that the limited number of channels, which made them easy to manage without AI. As the CEO of Firm C explained *“We have a channel who integrates our software into their digital map service, and that package is sold through their channel. Since we have limited number of these channels, we don’t need to use AI for that.”*

To conclude, firms use both mechanical and thinking AI for the adaptation of product requirements, marketing communication, and pricing to specific countries and customer segments. They are used to facilitate marketing research, strategy formulation, and action process, as well as content creation related to these marketing mix elements. Hence, we suggest the following proposition:

Proposition 2. Mechanical and thinking AI facilitates the marketing process phases related to the adaptation of marketing mix elements (e.g., product, promotion, pricing) to foreign countries and customer segments.

4.3 AI and personalization of marketing activities

Firm B was the only one using feeling AI for tailoring its marketing through personalization. The firm provided educational services and needed to tailor its marketing to different types of customers, in the specific case families, across various markets. In these cases, the marketing had to be tailored to parents and their desires for their children’s future, whether they aimed at admissions to top universities or simply prioritizing a comfortable and secure childhood, etc. Feeling AI supported this by helping to personalize the marketing of educational games to reflect families’ specific hopes and expectations for how their children should be educated. Accordingly, the CPO of Firm B commented on this aspect as follows: *“We provide*

educational services for families, and parents value different thing depending on the market. Even though the core service is the same, it needs to be wrapped in different packaging. AI helps us verbalize these things and adapt these differences effectively.”

Overall, Firm B used feeling AI to facilitate one element within the action phase of the marketing process, that is the personalization of promotion. Hence, we suggest the following proposition:

Proposition 3. Feeling AI facilitates the action phase of the marketing process, in relation to the personalization of marketing mix elements (e.g. promotion) based on individual customer needs.

5. Discussion of Findings

The findings of the study reveal how mechanical, thinking, and feeling AI can be applied to different international marketing endeavors by digital service providers. With regards to mechanical and thinking AI, we noticed that they are applied throughout the entire marketing process, that is during the research, strategy, and action phases, whilst feeling AI was used only in relation to the action phase of the process. Looking at the marketing approaches and mix elements, mechanical AI is used mainly for the standardization of marketing in relation to marketing mix elements such as product’s requirements and communication. The findings also reveal that mechanical AI can support certain adaptation of marketing, especially when there is a need to tailored and customized communication for different foreign markets. Most adaptation, however, is handled using thinking AI, which eases firms’ decision-making by providing insights into target markets, customer segments, and pricing strategies. Furthermore, thinking AI supports market research, development of market entry strategies, and guides firms’ actions based on these insights. The findings also reveal that, in the context of digital services, feeling AI is not used for network development but is rather employed to generate more tailored, personalized marketing that considers the desires of individual user groups. Lastly, feeling AI was applied to personalize marketing approaches when firms wanted to further develop their services in tandem with customers’ needs.

These findings contribute to the existing literature dealing with the use of AI in marketing by offering new insights into the roles of mechanical, thinking, and feeling AI in service marketing within international endeavors (Huang & Rust, 2021a, 2021b). The findings and respective propositions have been illustrated in Figure 2. It indicates that while the various stages in the marketing process dimension are all covered with respect to some marketing mix elements, the dispersal is not equal. The content dimension reveals

that AI is used for product and promotion standardization (Proposition 1) and for the adaption of these two mix elements, among pricing, based on the country and customer segment requirements (Proposition 2), but not for distribution. When looking at the adaptation dimension, the country level and customer segment adaptation are the focus, while lesser adaptation takes place at the individual level, i.e., personalization. It seems personalization is mostly used with regards to promotion at the action phase, i.e. implementation of actual promotion. It seems that the applications mostly utilize mechanical and thinking aspects of AI, but also to some extent feeling AI.

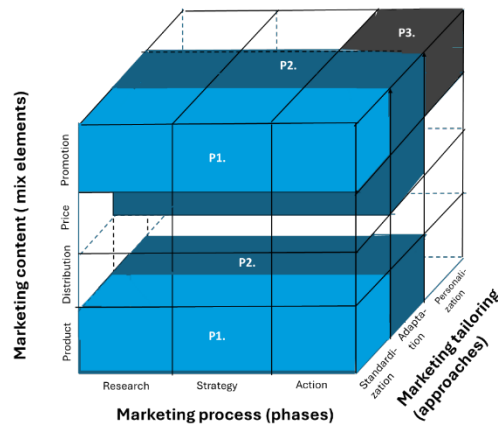


Figure 2. Theoretical propositions related to the use of AI in international marketing

6. Conclusions

AI is increasingly used in everyday marketing practice, and this trend is reflected in current research in marketing (Huang & Rust, 2021a, 2021b; Kumar et al., 2024). Despite these relevant works, we still lack relevant knowledge of AI applications for the international marketing activities of digital service firms. This is an important gap to be filled given that service firms’ value offerings have a multifaceted nature which can vary significantly (Kasiri et al., 2017; Yoo et al., 2010, 2012) especially considering foreign market operations, demanding firms increasing attention towards the correct marketing strategy to select. Our multiple-case study research contributed to research combining AI and marketing (Huang & Rust, 2021a, 2021b) in that it revealed that digital service firms heavily use mechanical, thinking and feeling AI in their daily marketing mix elements, processes and tailoring efforts. Specifically, we found that apart from feeling AI that is used mainly for the action part of the marketing process, mechanical and thinking AI were used throughout the three phases of the marketing process. Mechanical AI is typically preferred by digital service

firms for standardizing marketing elements such as product promotion and communication across different markets. Whilst, when having to implement adaptation as a marketing approach to enter or better align with foreign countries and customers, both mechanical and thinking AI were used by these firms especially in relation to price and promotion marketing mix elements. The findings reveal that feeling AI was still at infancy of usage in digital service firms and is mostly used in B2B environments, where the personalization of services is key to the value co-creation strategy that these service firms aim to build customer loyalty.

Altogether, our findings suggest that mechanical, thinking, and feeling AI align with different international marketing strategies. Mechanical AI tends to support standardization whereas more advanced forms of AI are commonly applied in adaptation and personalization. This suggests that as marketing tasks become more complex, firms rely on increasingly sophisticated AI models to manage them. Furthermore, our results indicate that firms are increasingly conducting international marketing activities in-house by using AI, rather than outsourcing them to professional service providers such as marketing agencies or language service providers. AI thus appears to be reducing the future demand for such external services.

It is evident that with the rise of large language models (LLMs), external service providers—such as marketing agencies, marketing technology providers, and marketing content providers—must reinvent their business models. This reinvention may focus on shifting from production to strategic advisory roles, integrating more specialized AI tools into their offerings, leveraging data and analytics for personalization, adopting a consultative approach to guide clients in AI adoption, and ensuring ethical and transparent use of AI technologies.

Because we believe this to be a new research area, we implemented qualitative methods, which are rich in analytical generalizability, but limit the statistical replication of our results. Further, our dataset was relatively limited. Hence, not only we encourage future research clarifying the aspects of this paper, but also we encourage future studies exploring this research domain through quantitative approaches, which could provide context-specific findings. Furthermore, the firms studied here were pursued either glocal or global strategies. It would be beneficial to compare their actions with those firms that operate only locally.

7. References

Arora, N., Dreze, X., Ghose, A., Hess, J. D., Iyengar, R., Jing, B., & Zhang, Z. J. (2008). Putting one-to-one marketing

- to work: Personalization, customization, and choice. *Marketing Letters*, 19(3), 305-321.
- Calantone, R. J., Kim, D., Schmidt, J. B., & Cavusgil, S. T. (2006). The influence of internal and external firm factors on international product adaptation strategy and export performance: A three-country comparison. *Journal of Business Research*, 59(2), 176-185.
- Cateora, P. R., Money, R. B., Gilly, M. C., & Graham, J. L. (2020). *International marketing*. McGraw-Hill.
- Cavusgil, S. T., Zou, S., & Naidu, G. M. (1993). Product and promotion adaptation in export ventures: an empirical investigation. *Journal of International Business Studies*, 24, 479-506.
- Chandra, S., Verma, S., Lim, W. M., Kumar, S., & Donthu, N. (2022). Personalization in personalized marketing: Trends and ways forward. *Psychology & Marketing*, 39(8), 1529-1562.
- Coelho, P. S., & Henseler, J. (2012). Creating customer loyalty through service customization. *European Journal of Marketing*, 46(3/4), 331-356.
- Cornish, S. L. (1996). Marketing software products: the importance of 'being there' and the implications for business service exports. *Environment and Planning A*, 28(9), 1661-1682.
- Cusumano, M. A. (2004). *The business of software: What every manager, programmer, and entrepreneur must know to thrive and survive in good times and bad*. Simon and Schuster.
- Cusumano, M. A., & Yoffie, D. B. (1999). Software development on Internet time. *Computer*, 32(10), 60-69.
- Davenport, T., Guha, A., Grewal, D., & Bressgott, T. (2020). How artificial intelligence will change the future of marketing. *Journal of the Academy of Marketing Science*, 48(1), 24-42.
- De Jong, A., De Ruyter, K., Keeling, D. I., Polyakova, A., & Ringberg, T. (2021). Key trends in business-to-business services marketing strategies: Developing a practice-based research agenda. *Industrial Marketing Management*, 93, 1-9.
- Eisenhardt, K. M. (1989). Making fast strategic decisions in high-velocity environments. *Academy of Management Journal*, 32(3), 543-576.
- Feng, X., Li, Y., Lin, X., & Ning, Y. (2020). Mobile targeting in industrial marketing: Connecting with the right businesses. *Industrial Marketing Management*, 86, 65-76.
- Gabrielsson, P., Gabrielsson, M., & Seppälä, T. (2012). Marketing strategies for foreign expansion of companies originating in small and open economies: The consequences of strategic fit and performance. *Journal of International Marketing*, 20(2), 25-48.
- Henfridsson, O., Mathiassen, L., Svahn, F. (2009). *Reconfiguring Modularity: Closing Capability Gaps in Digital Innovation*, Viktoria Institute, Sweden. *Sprouts: Working Papers on Information Systems*, 9(22).
- Hoch, D. J., Roeding, C., Lindner, S. K., & Purkert, G. (2000). *Secrets of software success*. Boston: Harvard Business School Press.
- Huang, M. H., & Rust, R. T. (2021a). Engaged to a robot? The role of AI in service. *Journal of Service Research*, 24(1), 30-41.

- Huang, M. H., & Rust, R. T. (2021b). A strategic framework for artificial intelligence in marketing. *Journal of the academy of marketing science*, 49, 30-50.
- Jain, S. C. (1989). Standardization of international marketing strategy: some research hypotheses. *Journal of marketing*, 53(1), 70-79.
- Kallinikos, J., Aaltonen, A., & Marton, A. (2010). A theory of digital objects. *First Monday*, 16(6).
- Kallinikos, J., Aaltonen, A., & Marton, A. (2013). The Ambivalent Ontology of Digital Artifacts. *MIS Quarterly*, 37(2), 357-370.
- Kasiri, L. A., Cheng, K. T. G., Sambasivan, M., & Sidin, S. M. (2017). Integration of standardization and customization: Impact on service quality, customer satisfaction, and loyalty. *Journal of Retailing and Consumer Services*, 35, 91-97.
- Kopalle, P. K., Gangwar, M., Kaplan, A., Ramachandran, D., Reinartz, W., & Rindfleisch, A. (2022). Examining artificial intelligence (AI) technologies in marketing via a global lens: Current trends and future research opportunities. *International Journal of Research in Marketing*, 39(2), 522-540.
- Kumar, V., Ashraf, A. R., & Nadeem, W. (2024). AI-powered marketing: What, where, and how? *International Journal of Information Management*, 77, 102783.
- Lages, L. F., Jap, S. D., & Griffith, D. A. (2008). The role of past performance in export ventures: a short-term reactive approach. *Journal of International Business Studies*, 39(2), 304-325.
- Lakshika, V. G. P., Chaturanga, B. T. K., & Jayarathne, P. G. S. A. (2024). The evolving role of AI and ML in digital promotion: A systematic review and research agenda. *Journal of Marketing Analytics*, 1-20.
- Laplante, P. A., & Kassab, M. (2022). Requirements engineering for software and systems. Auerbach Publications.
- Levitt, Theodore (1983), *The Globalisation of Markets*. *Harvard Business Review*, 61 (3), 99-102.
- Lobe, B., Morgan, D., & Hoffman, K. A. (2020). Qualitative data collection in an era of social distancing. *International journal of qualitative methods*, 19, 1609406920937875.
- Lo Iacono, V., Symonds, P., & Brown, D. H. (2016). Skype as a tool for qualitative research interviews. *Sociological research online*, 21(2), 103-117.
- Luo, X., Qin, M. S., Fang, Z., & Qu, Z. (2021). Artificial intelligence coaches for sales agents: Caveats and solutions. *Journal of Marketing*, 85(2), 14-32.
- Mariani, M. M., Perez-Vega, R., & Wirtz, J. (2022). AI in marketing, consumer research and psychology: A systematic literature review and research agenda. *Psychology & Marketing*, 39(4), 755-776.
- Menzies, J., Sabert, B., Hassan, R., & Mensah, P. K. (2024). Artificial intelligence for international business: Its use, challenges, and suggestions for future research and practice. *Thunderbird International Business Review*, 66(2), 185-200.
- Messerschmitt, D.G., & Szyperski, C. (2003). *Software Ecosystem: Understanding an Indispensable Technology and Industry* (MIT Press: Cambridge, MA).
- Miles, M. B., & A. M. Huberman. (1994). *Qualitative Data Analysis: An Expanded Sourcebook*. CA: Sage.
- Moradi, M., & Dass, M. (2022). Applications of artificial intelligence in B2B marketing: Challenges and future directions. *Industrial Marketing Management*, 107, 300-314.
- Mustak, M., Salminen, J., Plé, L., & Wirtz, J. (2021). Artificial intelligence in marketing: Topic modeling, scientometric analysis, and research agenda. *Journal of Business Research*, 124, 389-404.
- Ojala, A., Fraccastoro, S., & Gabrielsson, M. (2023). Characteristics of digital artifacts in international endeavors of digital-based international new ventures. *Global Strategy Journal*, 13(4), 857-887
- Okazaki, S., Taylor, C. R., & Doh, J. P. (2007). Market convergence and advertising standardization in the European Union. *Journal of World Business*, 42(4), 384-400.
- Power, B. (2017). How Harley-Davidson used artificial intelligence to increase New York sales leads by 2,930%. *Harvard Business Review*, 30, 2017.
- Ratten, V., Hasan, R., Kumar, D., Bustard, J., Ojala, A., & Salamzadeh, Y. (2024). Learning from artificial intelligence researchers about international business implications. *Thunderbird International Business Review*, 66(2), 211-219.
- Rashkova, Y., Moi, L., Marku, E., & Cabiddu, F. (2024). Online integrated marketing communication strategies of international brands: standardization vs. adaptation approaches. *Journal of Marketing Communications*, 30(7), 810-833.
- Sarin, S., Challagalla, G., & Kohli, A. K. (2012). Implementing changes in marketing strategy: The role of perceived outcome-and process-oriented supervisory actions. *Journal of Marketing Research*, 49(4), 564-580.
- Schilke, O., Reimann, M., & Thomas, J. S. (2009). When does international marketing standardization matter to firm performance?. *Journal of International Marketing*, 17(4), 24-46.
- Schmid, S., & Kotulla, T. (2011). 50 years of research on international standardization and adaptation—From a systematic literature analysis to a theoretical framework. *International Business Review*, 20(5), 491-507.
- Swanborn, P. 2010. *Case Study Research: What, Why and How?* SAGE Publications Ltd.
- Theodosiou, M., & Leonidou, L. C. (2003). Standardization versus adaptation of international marketing strategy: an integrative assessment of the empirical research. *International business review*, 12(2), 141-171.
- Ulrich, K. (1995). The role of product architecture in the manufacturing firm. *Research policy*, 24(3), 419-440
- Uysal, E., Alavi, S., & Bezençon, V. (2022). Trojan horse or useful helper? A relationship perspective on artificial intelligence assistants with humanlike features. *Journal of the Academy of Marketing Science*, 50(6), 1153-1175.
- Varadarajan, R. (2010). Strategic marketing and marketing strategy: domain, definition, fundamental issues and foundational premises. *Journal of the academy of marketing science*, 38, 119-140.
- Yin, R. K. (2009). *Case study research: Design and methods*. Thousand Oaks, CA.

Yoo, Y., Boland Jr, R. J., Lyytinen, K., & Majchrzak, A. (2012). Organizing for innovation in the digitized world. *Organization science*, 23(5), 1398-1408.

Yoo, Y., Henfridsson, O., & Lyytinen, K. (2010). The New Organizing Logic of Digital Innovation: An Agenda for Information Systems Research. *Information Systems Research*, 21(4), 724–735.