Hyper-Personalization as a Customer Relationship Management Tool in a SMART Organization

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Abstract

Purpose: The article subject concerns the research problem of the role of hyper-personalization in the evolution of the company's relationship with customers. The article aims to identify the potential of hyper-personalization as a CRM tool in a smart organization and find research gaps and areas for further research.

Design/methodology/approach: The paper is based on a critical literature review within the field of management and marketing theory and represents the relational approach. The literature review was made as an exploratory study.

Findings: Based on the results of that theoretical research and utilizing a relational approach, the article presents the Customer Relationship Management during the technology evolution The theoretical findings indicate a research gap: using hyper-personalization and digital technology for achieving the Customer Relationship Management aims is a highly topical issue and still little penetrated by researchers.

Research limitations/implications: The findings and conclusions contained in the article require another step in the scientific process, namely empirical verification.

Originality/value: A value of this paper is the fact that it shows the contemporary research directions for the Customer Relationship Management concept in the digital and smart world and combines these with the theoretical and practical frameworks as well.

Keywords: hyper-personalization, CRM, smart organization.

JEL: M3, M39, O33

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Hiperpersonalizacja jako narzędzie zarządzania relacjami z klientem w organizacji SMART

Streszczenie

Cel: tematyka artykułu dotyczy problemu badawczego, jakim jest rola hiperpersonalizacji w ewolucji relacji przedsiębiorstwa z klientami. Celem artykułu jest zidentyfikowanie potencjału hiperpersonalizacji jako narzędzia CRM w organizacji smart oraz określenie luk badawczych i obszarów dalszych badań.
Metodologia: artykuł opiera się na krytycznym przeglądzie literatury z zakresu teorii zarządzania oraz marketingu i reprezentuje podejście relacyjne. Przegląd literatury został wykonany jako badanie eksploracyjne.
Wyniki: na podstawie badań teoretycznych i wykorzystanego podejścia relacyjnego w artykule przedstawiono zarządzanie relacjami z klientem na tle ewolucji technologicznej. Wyniki rozpoznań teoretycznych wskazują na lukę badawczą polegającą na tym, że wykorzystanie hiperpersonalizacji i technologii cyfrowej do realizacji celów zarządzania relacjami z klientem jest to bardzo aktualny temat i wciąż mało penetrowany przez badaczy.
Ograniczenia/implikacje badawcze: zawarte w artykule ustalenia i wnioski wymagają kolejnego kroku w procesie naukowym, jakim jest przeprowadzenie weryfikacji empirycznej.
Oryginalność/wartość: wartością tego artykułu jest ukazanie współczesnych kierunków badawczych w ramach koncepcji zarządzania relacjami z klientem w cyfrowym i inteligentnym świecie oraz połączenie ich z ramami teoretycznymi i praktycznymi.

Słowa kluczowe: hiperpersonalizacja, CRM, organizacja smart.

1. Introduction

The Industry 4.0 Revolution that is taking place nowadays means that we now live in a data-driven world (Adamik & Sikora-Fernandez, 2021). Understanding these data is crucial for any enterprise on the market to correctly identify the context of the relationship with the client and manage their experience. Most companies spend a lot of time and effort trying to obtain data on their customers' user preferences in order to create personal profiles that could help them better understand their buying behavior (Erevelles et al., 2016). With the sharp increase in the number of points and the means of contact with customers, these data grow exponentially in volume and complexity (Arya et al., 2019; Lay, 2018).

The too high complexity of sales processes or simplified personalization based on broad customer segments that could have operated 2–3 years ago does not work today. And if a firm cannot follow short-term customer decisions or influence the sales, then it suffers enormous losses. The answer to these challenges is hyper-personalization of marketing and customer relations. This phenomenon was the primary motivation to take up the article's topic.

Hyper-personalized marketing takes into consideration consumers' very different needs and preferences and creates significant, effective communication that sparks connections and influences customer behavior (Bloom, 2019; Hart, 2016; Lay, 2018). Using the Customer Relationship

Management (CRM) concept and tools, marketers can create a bridge between technology and needs, giving consumers the power to choose how to engage in and respond to communications, which ultimately builds better relationships and drives marketing and sales results of the organization.

The article subject concerns the research problem of the role of hyper-personalization in the evolution of the company's relationship with customers. The article aims to identify the potential of hyper personalization as a CRM tool in a smart organization and find research gaps and areas for further research. It is interesting today how a "smart state" can also be implemented in the marketing decisions of enterprises. It is a highly topical issue and still little penetrated by researchers. This contemporary topic in digitalization in management fields will provide valuable insight for understanding today's smart business organizations operating in a global, dynamic, and complex environment.

This article is structured in the following way: after the introduction, the first section provides an overview of literature sources on the Customer Relationship Management concept using the technology evolution perspective. The second section presents an extensive overview of the substantive literature exploring the scope of personalization and hyper- personalization, looking for the scientific and practical potential. The following section presents hyper-personalization in CRM as a challenge for the SMART organization. The final section of the paper covers the conclusion, implications, theoretical contribution, and future research directions.

The study helps indicate the research areas and future digital technology adoption studies in smart organizations for marketing researchers. It will also be helpful for practitioners, as understanding this hyper-personalization as CRM tool is essential to design and implement digital reality in customer relations.

2. Customer Relationship Management Concept – The Technology Evolution Perspective

In today's competitive business environment, a firm's success increasingly hinges on the ability to operate Customer Relationship Management (CRM) that enables the development and implementation of more efficient and effective customer-focused strategies. CRM combines technology, people, and processes to understand and manage the company's and its customers' relationships. The purpose is to maximize profits to achieve an optimal balance between customer satisfaction and company investment (Nur et al., 2019). Based on this belief, many companies have made an enormous investment in CRM technology to update CRM efficiently (Chang et al., 2010). In the past, CRM was viewed by researchers and practitioners primarily as an investment in software technology. Indeed, CRM technology

has been often equated with CRM as a concept (Reinartz et al., 2004). CRM applications help to assess customer loyalty and measurable profitability such as repetitive spending, how much money is spent and for how long (Chen & Popovich, 2003). However, more recent approaches have depicted CRM as a more expansive and holistic approach to developing sound and productive relationships with customers, while CRM technology, one of the major components of CRM, has been defined as the information technology that is deployed for the specific purpose of managing customer relationships (Chen & Popovich, 2003). In this context, CRM technology use equates to the degree to which firms use supporting information technology to manage customer relationships effectively (Reinartz et al., 2004). Specifically, CRM technology enables firms to formulate more appropriate marketing strategies and to execute specific marketing actions more efficiently and quickly by offering superior front-line support and access to integrated customer data (Chen & Popovich, 2003).

A critical step of technology evolution in CRM was to transfer to e-CRM. Electronic Customer Relationship Management (e-CRM) is a collection of processes, concepts and tools that allow an organization to maximize its e-business applications (Mahdavi et al., 2008). The purpose of e-CRM is not only to bring about changes in the area of marketing, but also to improve the company's efficiency in managing customers, then to improve customer service, safeguard precious customers, and to help provide organizations with analytic capabilities (Fjermestad & Romano, 2003). e-CRM helps reduce the expense, make business practices more efficient and generate competitive profits (Harrigan et al., 2009). Then, another purpose is always to make a system available for better customer service and to provide assistance for analytical skills within a company (Nur et al., 2019). The various opportunities offered by e-CRM, including interactive and improvised customer relationships, managing customers' touchpoints, personalization options, or even more, are powerful ways to gain competitive advantages (Fjermestad & Romano, 2003). e-CRM has been applied electronically using the internet, web browsers, and other electronic media (such as e-mail, call centers, and others). Computer technologies, including data warehouses, customer profiles, and decision support, are all applicable in e-CRM (Nur et al., 2019).

Currently, another noticeable step in adapting technology to CRM is digital CRM. Companies are redesigning their businesses using digital transformation to meet all the touchpoints of customer contact on digital platforms (Kalia & Paul, 2020). Digital transformations bring innovations and dividends to firms (Bresciani et al., 2018; Galindo-Martín et al., 2019). The digital path is uncertain, and a high level of risk is involved in bridging the gap between traditional approaches and digital solutions (Arya et al., 2019; Lay, 2018). Digital clienteling provides a unified resource of customer information on their preferences, behavior, and past purchases (Jain et al.,

2021). Technology helps capture large volumes of structured, unstructured, behavioral and transactional data generated by customers (Erevelles et al., 2016). All these elements are essential to managing relationships with customers.

The most up-to-date technology in CRM is today's Artificial Intelligence (AI). Recommendations driven by artificial intelligence are pervasive in today's marketplace. Ten years ago, Amazon introduced its innovative item-based collaborative filtering algorithm, which generates recommendations by scanning through a person's past purchased or rated items and pairing them to similar items. Since then, more and more companies have been leveraging advances in AI, machine learning, and natural language processing capabilities to provide relevant and in-the-moment recommendations (for example, Netflix and Spotify use AI and deep learning to monitor a user's choices and provide recommendations of movies or music; beauty brands use AI to make recommendations about skincare, haircare, and makeup; real estate services have replaced human real estate agents with chatbots powered by AI) (Longoni & Cian, 2022). AI-driven recommendations are also pervading the public sector (for example, the New York City Department of Social Services uses AI to give citizens suggestions about disability benefits, food assistance, and health insurance) (Longoni & Cian, 2022).

Rapid development and adoption of AI, machine learning, and natural language processing applications challenge managers and policymakers to harness these transformative technologies as CRM tools.

3. Personalization vs. Hyper-Personalization – The Scientific and Practical Potential Recognition

Personalization is a comprehensive concept that covers various aspects of marketing. It is mainly focused on executing personalized marketing strategies and methods to create various benefits for the customer. These include better products, better service, and more communication (Patnaik, 2022). Although marketing literature often uses the terms "personalization" and "customization" interchangeably, these two concepts are quite different (Miceli et al., 2007; Sunikka & Bragge, 2012). Personalization refers to the interaction of customer and supplier inputs during the manufacturing process, such as when a customer puts their initials on a purchased Vuitton handbag or a Gucci customer selects finite options to add to a tote (Rosenbaum et al., 2017). By contrast, customization refers to consumers' ability to modify and, thus, to individually create a supplier's products or services depending on their individual desires (Da Silveira et al., 2001). In the customer goods domain, customization allows a customer to filter a set of objects or choices provided by an organization (e.g., upgrades

during new home construction), while personalization results in a supplier creating a specific good or service for a customer (e.g., a personalized yacht) (Rosenbaum et al., 2021).

Technology also provides personalized in-store experience, ease of integration, unified data, and channel engagement (Bloom, 2019) to help companies have better customer response and retention. It provides a unique customer experience based on personalized information by using a real-time data approach (Hart, 2016; Lay, 2018). It is essential to structure and re-structure the customer shopping experience in a hyper-personalized way.

Hyper-personalization appears to be the next step in connecting customers and suppliers, encompassing customization and personalization options. The interaction between customers and organizations during the manufacturing process is no longer based only on customers' informational inputs but also on their providing suppliers with new information for use in the product manufacturing process (Rosenbaum et al., 2017). Practice experiences show that this hyper-relevant approach of organizations focuses on understanding customers' needs in a given circumstance and the evolving context in which they make their purchase decisions. Technologies such as predictive analytics, artificial intelligence (AI), and machine learning, delivered via tools such as digital assistants, are all contributing to this shift to hyper-relevance and making it possible for companies to achieve new levels of insights (according to a report from Accenture Strategy) (www.destinationCRM.com). Additionally, digital advances can deliver new services and touchpoints that respond to customers' changing circumstances and evolve in real time. Hyper-relevance is "becoming more proactive; it's becoming deeper and richer in the insights and the offers," says Kevin Quiring, managing director at Accenture Strategy. The report cites Tesla as an example of this: As Hurricane Irma approached South Florida, a Tesla owner from an evacuation zone contacted the company and expressed concern that the 200-mile range of his Tesla battery might not be enough for him to reach safety. Tesla responded by granting him and other Tesla owners in the area temporary access to more battery power, giving them an additional 30 to 40 miles of driving range. Then companies have to rethink data. Companies need to gather more personal data; traditional data collected from website visits, social media posts, or previous purchasing histories are no longer sufficient. Instead, they should go after more personal information, such as real-time health data transmitted via wearable biometric devices (Del Rowe, 2018).

Hyper-personalization offers valuable opportunities that a marketer could capture by tailoring content that fits each customer's needs. Hyper-personalization can be defined as the process of creating personalized experiences for individual customers. It uses data and AI to create customized experiences targeted at their individual needs (Patnaik, 2022). As the literature indicates, the hyper-personalization assumption is to use

artificial intelligence on real-time data to calculate the individual probability of the next step in the customer's life cycle using the unique context resulting from their behavior. Even if the anticipated next step is the same for many customers, artificial intelligence algorithms will make the final message different for each customer in terms of content, timing, and arrival channel (Patnaik, 2022). For this article, an analysis of the literature on research on hyper-personalization was performed. Electronic text databases (EBSCO, EMERALD, SCOPUS) were used in the analysis. Only a dozen or so articles have been found, which means that despite the topic being very current, it is still little researched scientifically. Table 1 presents a few studies that consider keywords such as: *hyperpersonalization*, *hyperpersonalization and marketing*, *hyperpersonalization and CRM*.

Table 1

Hyper-Personalization – Scientific Research

Author(s)/ year	Title of study	Findings
P.S. Shukla, P.V. Nigam 2018	*E-shopping using mobile apps and the emerging consumer in the digital age of retail hyper-personalization: An insight*	With the rapid growth of smart devices, the development of mobile applications (apps) gradually become the focal point which enterprises pay attention to. Since the "mobile applications" have the characteristics of entertainment, functionality, information, socialization, and intellectual stimulation and so on, innovative marketing tools for marketing are gradually emerging.
G. Jain, S. Rakesh, M. K. Nabi 2018	*Hyper-personalization – fashion sustainability through digital clienteling*	This study aims to find the model fit to understand the consumer behavior in context to the hyper-personalization through digital clienteling by using structural equation modeling. The analysis postulated that customers considered hyper-personalization as perceived usefulness for customer, also helping customers get the information about the product on the web page.
M. Goyal 2019	*Artificial intelligence: A tool for hyper-personalization*	This paper is an attempt to see what Artificial Intelligence is and its applications in marketing throughout the whole customer cycle. Also to discover possible future applications of AI in different sectors that are yet to come and to know major challenges that are faced by this technology. AI has a great impact on the market and consumers. Some of the sectors that have been transformed due to the presence of AI are mentioned.

Table 1 – continued

Author(s)/ year	Title of study	Findings
G. Jain, J. Paul, A. Shrivastava 2021	*Hyper-personalization, co-creation, digital clienteling and transformation*	The study provides an understanding of the TBRA (technology-based reasoned action) model with co-creation as the mediating variable in the use of digital clienteling for hyper-personalization.
M. S. Rosenbaum, G. C. Ramirez, J. Campbell 2021	*The product is me: Hyper-personalized consumer goods as unconventional luxury*	This study explores hyper-personalized wellness products. The results reveal that consumers believe that hyper-personalized products are worth premium prices, regardless of their desire to own these products. Whether hyper-personalized products are truly more beneficial to consumer well-being than their mass-produced counterparts remains unknown.
H. M. Moyeenudin, G. Bindu, R. Anandan 2021	*Hyper-personalization of mobile applications for cloud kitchen operations*	Hyper-personalization of food (HPF) is a cutting-edge marvel in a contemporary situation around the globe with the influence of application program interface (API) in mobile applications, the customers of cloud kitchen could create their meals by choosing the ingredients and quantities using an online food delivery app according to their preferences for a nutritious and balanced diet, this builds a stronger relationship between the customer and connected cloud kitchens, and in future, this will contribute to regular business. This study aims to recognize the customer preferences in ordering food online with their feedback.
R. Bansal, N. Pruthi 2021	*Emerging technologies and digital customer engagement: Recent trends*	This paper discusses digital channels adopted by businesses for engaging customers and tries to identify and study recent trends regarding emerging technologies and digital customer engagement. The findings revealed that digital customer engagement is dynamic in nature and recent trends involve data-driven customer engagement through big data analysis, real-time artificial intelligence and customer engagement, usage of augmented reality to enhance customer experience, blockchain technology, and digital customer engagement, hyper-personalization, and customer engagement.

Table 1 – continued

Author(s)/ year	Title of study	Findings
A. Akyüz, K. Mavnacıoğlu 2021	*Marketing and financial services in the age of artificial intelligence*	Artificial intelligence has become a game changer for marketers as it has for financial services providers. From the consumers' perspective, there comes a new kind of experience via hyper-personalization. Therefore, it is paramount to build a good understanding of AI in the marketing context and mention the fundamentals of AI usage in financial services as AI has been introduced as a significant competitive edge factor in financial marketing in recent years. This study aims to explore AI and marketing on a theoretical basis and aims to explain the issue with a holistic approach.
D. Desai 2022	*Hyper-personalization: An AI-enabled personalization for customer-centric marketing*	Personalization is widely used to attract and retain customers in online businesses addressing one-size-fits-all issues, but little is addressed to contextualize users' real-time needs. E-commerce website owners use these strategies for customer-centric marketing.
A. Micu, A. Capatina, D. S. Cristea, D. Munteanu 2022	*Assessing an on-site customer profiling and hyper-personalization system prototype based on a deep learning approach*	The authors propose an AI platform to create customer profiles during their physical presence in stores. The idea of the OSCPHPS prototype is to automatically detect and gather customer data directly from the store, essentially completing customer profiles containing gender, age, personality, emotions, and products they interacted with or bought, irrespective of where they are in the store. Each buying operation could generate an anonymous customer profile. Therefore, for every product sold, the system will track multiple customer-generated profiles of those who bought that product.

Source: This table is based on the literature.

As indicated in the table, the research on hyper-personalization focuses mainly on its use in product creation, new tools and technologies, such as AI or communication platforms, and digital channels. Therefore, there is a wide field of research activities in the area of checking the influence of hyper-personalization activities on building long-term relationships with customers and further competitive advantage. Companies are still confronted

by competitive pressures and seek to develop an analytical approach to big data to understand consumer behavior by using hyper-personalization techniques that are enabled by emerging deep learning technologies (Jain et al., 2021). However, the theory does not keep up with practice.

4. Hyper-Personalization in CRM as a Challenge for the SMART Organization

The Industry 4.0 Revolution that is taking place nowadays means that organizations face not only new opportunities but also challenges related to the identification of their role in creating a modern smart world (Adamik & Sikora-Fernandez, 2021). Within the European Commission's research program, "Information Society Technologies," the term "smart organization" was coined for organizations that are knowledge-driven, internet-worked and dynamically adaptive to new organizational forms and practices, learning as well as agile in their ability to create and exploit the opportunities offered (Putnik & Cunha, 2005). As per this definition, the term smart organization is merely a concept and a place that every organization wants to reach (Khan & Haleem, 2015).

The attribute of a "smart state" comes from the manner in which an organization develops and uses knowledge as an integrated resource that combines the expertise provided by human resources with the support offered by technology-based platforms (Calin et al., 2015). The concept of a smart organization is thus based on the usage and justification that lead to harnessing information-age tools and management practices within an organization in a specific way (Adamik & Sikora-Fernandez, 2021).

The article aims to identify the potential of hyper-personalization as a CRM tool because it is exciting today how a "smart state" can also be implemented in the marketing decisions of enterprises. It is a highly topical issue and still little penetrated by researchers. This is evidenced by the fact that the first special issue of the *Journal of Marketing* in 2022 was entitled: *New Technologies in Marketing.* The articles in this special issue examine a range of new marketing technologies that fall in the adoption cycle. In their comment, the editors observe that new technologies impact marketing in four broad, interconnected ways. Specifically, new technology (1) supports new forms of interaction among consumers and firms, (2) provides new types of data that enable new analytic methods, (3) creates marketing innovations, and (4) requires new strategic marketing frameworks (Hoffman et al., 2022).

What has received less attention in the literature is how new technologies give rise to innovations in marketing techniques, CRM tools, and strategies. In particular, there is a need for marketing scholars to develop theoretical paradigms of how marketers use technologies to build a competitive advantage. This trend includes the need to investigate how to use the

technology represented by hyper-personalization to manage relations with the client as a tool for building long-term relationships, and as a result, a competitive advantage.

New technologies have often been effectively deployed to improve firm-customer interactions by providing new marketing tools to build customer relations. The first one – the recommender system – is a computer program that uses its recommendations to help users make informed buying decisions based on their preferences, browsing history and buying patterns. Online product recommendations (OPRs) is a strategy that enables products to be dynamically populated with customer data such as browsing history and context. OPRs on any shopping site are examples of suggestions made on the basis of users' interests (Bathla, 2017). Many different techniques are used in these recommendation systems based on content, collaborative filtering, or trust-based recommendations (Nassar et al., 2020). This strategy provides a personalized shopping experience (Patnaik, 2022). This is of great importance in cross-selling and up-selling, which are recognized as CRM tools. A personalized recommendation system uses customer behavior to determine which items a customer might want to buy or avoid purchasing. These items that have been frequently viewed, considered, or purchased are compared with the one the customer is currently considering. It uses the users' past purchase history to suggest products that are relevant to their current situation, which is the basis for building customer satisfaction and loyalty. The field of artificial intelligence is concerned with creating smart machines that can perform various tasks autonomously (Patnaik, 2022). For example, AI is a powerful engine in replacing human representatives of the firm with machine agents, facilitating firm-consumer interactions via "word of machine" (Longoni & Cian, 2022). Anthropomorphized chatbots can influence consumer response in consumer-initiated service interactions (Crolic et al., 2022). In addition, avatars are increasingly used in firm-consumer interactions, where the extent of an avatar's form and behavioral realism is a major determinant of its effectiveness (Miao et al., 2022). This is a potential CRM tool.

Augmented reality (AR) is used in retailing to facilitate firm-consumer interactions, which, as a "try before you buy" technology, is especially effective when consumers are uncertain about products (Tan et al., 2022). Computer vision and facial recognition methods present new tools for marketers that can be used to enhance the effectiveness of livestream personal selling (Bharadwaj et al., 2022).

The essential task for CRM in reducing the lack of customers in a company is increasing the customer retention rate. The process that lasts a lifetime begins first through customer interaction. Products and services from the company are not only considered through customer retention but also handling methods on customers and the company's good intentions, which is the source of customer satisfaction (Nur et al., 2019).

A key element of hyper-personalization is the ability to apply analytical algorithms in real time. However, it turns out that the vast majority of companies encounter many problems in the application that performs real-time analytics. Thus, it is a limitation resulting from financial or competency issues. Solving this becomes a challenge for the smart organization.

The following required item is customer trust and sense of security. However, customers' trust and data security are becoming a massive challenge for every smart organization. According to Accenture's research, customers are no longer surprised by companies having this level of interest in their lives, with two-thirds of consumers willing to share personal information with companies. However, the firm has also found that customers will only release such information in exchange for some perceived value, and if that value exchange or trust based on it is lost, customers will leave (Del Rowe, 2018).

Trust is a central element in all customer relationships today, but it is delicate and needs to be built up over a series of interactions; at the same time, it can be lost in seconds, the report of Accenture found. For this reason, companies must constantly reassert their trustworthiness, keep their promises, and uphold their end of the value exchange agreement. Furthermore, the report says that leading companies are taking preventative measures by updating their data privacy and security practices, while regulatory agencies and governments worldwide are making moves to ensure that companies adhere to proper safeguards.

Rapid changes in the company environment are also becoming a challenge for a smart organization. For example, due to the coronavirus pandemic in the background and the widespread "lockdown" of society, the results of these studies are much more critical than before. This is mainly because most consumer interactions have moved to the digital space, where there is enormous competition; therefore, implementing the right time and right offer paradigm is now crucial.

5. Conclusions and Further Research

Business leaders know that the experiences their companies deliver must evolve with customer expectations, so they need to begin practicing hyper-personalization – the next evolution of personalization in CRM activity. Smart companies need to look beyond the traditional customer journey, identifying and prioritizing areas where hyper-relevance can deliver added value and quickly address the unexpected. Hyper-personalized marketing consider consumers' very different needs and preferences and creates highly meaningful, effective communication that sparks connections and influences behavior. This subject is not yet sufficiently penetrated as a research problem, which leaves a large field for future research. Hyper-personalization is a challenge for companies that want to maintain long-term relationships

with customers. It is also a new phenomenon for customers themselves, who may have concerns about such digitized contact that they do not understand. The directions of further research that become the basis for empirical verification answer the question: Will customers, as the target recipients of hyper-personalization activities, accept such a foreign interference with their privacy, and is the hyper-personalization the source for customers of building the loyalty for a long time. Finally, it seems justified and desirable to identify and study the potential impact of hyper-personalization on company efficiency and position in the market.

Funding

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