When personalization hangs out with customer loyalty: a bibliometric analysis

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Abstract

The present study aims to investigate through a bibliometric literature analysis what themes connect personalization to customer loyalty in literature.

Methodologically, the study was conducted by doing a bibliometric analysis of the literature on personalization and customer loyalty analyzing the contributions published from January 2003 to August 2023.

The analysis revealed that there is a strong connection between the topics; in particular, the analysis showed that sales, customer satisfaction and customer retention are topics that are well linked with personalization and customer loyalty.

From a managerial perspective, the results highlight that personalization has a positive impact on the perceived value of the customer and contributes to customer loyalty. This means that if marketers offer personalized products/services, they will be rewarded with increased customer loyalty.

Future developments of the present study may be to delve into the paper through a systematic literature review and study deeper this topics' connection.

Keywords: Personalization, Customer loyalty, Customer satisfaction, Customization, Bibliometric analysis

Introduction and objectives

Digital transformation, the proliferation of business-customer touch points, data access, and the ability to develop in-depth knowledge of market needs are changing the way businesses and individuals interact. As consumers' purchase paths and decision-making processes have become increasingly complex (Riegger et al., 2021), companies are looking for effective ways to communicate and provide memorable shopping experiences, through the delivery of personalized value propositions to the needs expressed by the individual.

In recent years, both scholars (Papazoglou et al., 2020; Chandra et al., 2022) and consulting firms (Deloitte, 2021; Accenture, 2021) have shown increasing interest in personalization.

Personalizing means defining the offer based on customers' specific demands, getting significantly closer to their dream product (Simonson, 2005). To do this, it's necessary to use a customer's information to deliver a targeted solution (Nunes and Kambil, 2001) adapted to his/her needs (Coner, 2003).

There is consensus in the literature that, by meeting specific customer requirements, personalized offerings satisfy the customer and also impact the customer's fidelization (Bolton et al., 2000).

Establishing customer satisfaction (CS) and customer loyalty (CL) are among the main goals of companies to ensure competitiveness (Khan et al., 2022).

Several studies have investigated the relationship between personalization and CL by examining the effect of service personalization on loyalty, and have identified personalization as an antecedent of CS and CL (Liang et al., 2009; Coelho and Henseler, 2012).The literature on this relationship is very broad and fragmented in terms of theories, models, and constructs used to conceptualize, operationalize, and apply personalization to have loyal customers in very different industries.

A literature analysis aimed at systematizing and synthesizing the studies conducted to date is therefore essential to provide researchers with a view of the topic in its entirety.

The aim of the present study is therefore to offer a comprehensive survey of the existing literature, focusing on the personalization of products/services and CL, by performing a bibliometric analysis. This particular method of analysis offers researchers the opportunity to discern prevailing trends within a specific field of enquiry, thus providing insights that can guide subsequent scholarly research (Gau et al., 2019).

In the light of the above, this bibliometric study seeks to answer the following questions:

- How does this field evolve?
- In which subject area are the papers classified?

- What countries show more significant contributions in this field?
- What are the most frequently used keywords?
- What are the connections between the different topics?

Conceptual background

Personalization

The literature agrees that personalization is a strategic tool for differentiating products and services especially in markets where competitive pressure is highest and attracting and retaining customers is complex (Ho, 2006).

Personalization is defined as offering the right product and service to the right customer at the right time and the right place (Sunikka and Bragge, 2012). Personalization involves defining the offer according to the specific needs of customers, meaningfully approximating their ideal offer (Pine, 1993; Simonson, 2005).

Personalization methods have evolved over time. The earliest form of personalization that companies proposed to the market was mass customization (MC), a term first used by Davis (1987), who argued that, through flexible production systems, it was possible to produce personalized goods and services at reasonable prices.

In MC, the consumer has the opportunity to choose the product that best represents him/her, but only within the scope of variants resulting from the assembly of elementary modules.

One of MC's limits is the proposition of a very wide variety of products, but still pre-coded and defined by the firm's production model (Costabile et al., 2005).

Many studies (Arora et al., 2008; Cavdar Aksoy et al., 2021) differentiate personalization from customization which differ at the conceptual level. "Personalization" is a "firm-initiated" concept, while "customization" is a "customer-initiated" concept (Chandra et al., 2022). In this case, the first one is a process where the company intervenes in the variables of the marketing mix to satisfy consumer preferences; the second one starts with the consumer, who actively proposes interventions in the marketing mix to meet his/her needs (Montgomery and Smith, 2009).

In subsequent studies, more sophisticated approaches to product personalization emerge, which also involve greater customer involvement. The most advanced forms of personalization are affirmed thanks to the diffusion of flexible production and digital communication technologies, capable of expanding the variety potential offered by companies and the opportunities for interaction with customers (Wind and Rangaswamy, 2001). Digital and virtual communication systems have granted greater interaction with customers, allowing for better knowledge of their needs and customer motivations, as well as the possibility of substantially involving them in the processes of defining the offer (Bendapudi and Leone, 2003).

From the perspective of production systems technology, the spread of flexible manufacturing, based on the modularization of elementary product components, has made it possible to personalize offerings by combining individual modules within flexible, made-to-order production processes.

Flexible production systems allow to respond appropriately to the variety of products demanded by the market while meeting production efficiency objectives (Da Silveira et al., 2001).

Customer loyalty

Loyal customers are such because they are characterized by a positive attitude toward a company or brand, this was confirmed in the study conducted by Yi and Jeon (2003) who analyzed the effects that CL has on the perceived value of the product or service; this is defined also as cognitive loyalty (Iasevoli, 2004). This attitude impacts in repeated repurchase behavior and reduced customer sensitivity to price and competitor offers (Anderson and Srinivasan, 2003), and this is defined as behavioral loyalty.

From companies' perspective, CL is one of the main goals to ensure long-term success because of its contribution to achieving competitive advantages and sustainable financial results (Grönroos, 2009).

The literature agrees that loyal customers generate numerous benefits and are more profitable than new customers because they spend more with the company and have lower service costs (Richard and Zhang, 2012).

Effects of personalization on customer loyalty

According to literature, personalization contributes to CL because it is the building of a direct relationship with each single customer to identify and satisfy each customer's need (Bolton et al., 2000; Riecken, 2000).

The personalization of the offer represents a fundamental strategy for consolidating and developing customer relationships and loyalty and has both direct and mediated effects on CL because it contributes to CS and customer trust (Bock et al., 2016).

Several studies have identified personalization as an antecedent of CS and CL in different industries. Investigating the banking sector, Carvajal et al. (2011) found that the perceived quality and personalization of the service, and good complaint handling, positively influence CS and consequently their loyalty. Intentions related ones are the most important variable at the basis of CL. Suggesting to friends or family members to become clients of one's bank or buying additional products and services at the same bank, are examples of such variables.

With reference to e-commerce, Srinivasan et al. (2002) recognized personalization as an antecedent of e-loyalty. By focusing on customers' real goals, personalization also creates the perception of a larger choice; it can also be a signal of high quality and ensure a better customer-product match. Finally, a personalized site allows a more efficient use by individuals. Consumers might feel forced to use simplistic decision rules to handle a large product selection and narrow down a too high number of alternatives.

Liang et al. (2009) analyzed personalization implemented by e-tailers through personalized services. The theory proposed by the authors considers how both emotional and economic factors affect the usefulness customers perceive from providing personalized services: economic factors are measured by perceived reduction in transaction costs, emotional ones are referred to as the perceived care. The effect of this latter on the perceived usefulness of e-services is stronger than the reduction in transaction costs, though both factors play a role.

Method

This article derives from a broader study investigating which themes link personalization to loyalty in the literature.

A quantitative approach based on bibliometric analysis was adopted to analyze the extant literature that discusses both the topics of personalization and loyalty. This method has seen a wide increase in adoption during the last few years (Gutiérrez-Salcedo et al., 2018). The bibliometric analysis permits sorting out systematic and orderly literature already existing on the research topic. The analysis consists of a map with a spatial representation of the keywords, countries, or research strands related to each other (Cobo et al., 2012). To develop the analysis, extant papers have been gathered from Scopus online database; instead, for the bibliometric analysis, it has been used VOSviewer software. Scopus was used as a tool for information gathering as it has been described as a "huge multidisciplinary database with citations and abstracts from peer-reviewed journal literature, trade journals, books, patent records, and conference publications... It is the largest abstract and citation database" (Joshi, 2016), and it cover many topics, especially social sciences. Upon meticulous examination of the pertinent literature, it was conjectured that the key terms "personalization," "customization," "loyalty," and "customer loyalty" were most germane to the research endeavor. Consequently, for the preliminary study, it was resolved to confine the exploration exclusively to the Scopus database. Observing that certain articles also delved into domains such as Engineering and Finance, a decision was made to refine the research focus further by delving deeply into the following reference areas: Business, Management and Accounting, Computer Science, and Social Sciences. Therefore the final query was as follows: KEY ("personalization" OR

"customization" AND "loyalty" OR "customer loyalty"). The selection of the documents took place on August 28th, 2023. The period analyzed has been 2003-2023 and the articles searched were only written in English. The year 2003 has been chosen since in that year was written the paper by Yi and Jeon's and since that year more and more authors have started to address the issue of loyalty. The search conducted identified 67 total publications. Given the nature of this study bibliometric, subsequent to the analysis of titles and abstracts of the papers, we undertook a comprehensive examination of all 67 articles identified within the database.

Overview of publications

To outline the link between personalization and loyalty, it is important to analyze the data from the extant literature quantitative. Table 1 represents the total number of articles (67), the total keywords related (439) and the number of different countries of origin of the articles (34).

Number of articles	Number of keywords	Countries of origin
67	439	34

Table 1: Quantitative analysis

It is interesting to analyze the evolution of the topic. As shown in figure 1, the phenomenon was already studied in the first years of 2000s then it had a first development in 2012 and it had an exponential growth since 2019. The year 2022 despite the development of the theme, saw few publications. As the year 2023 is not over yet, but with one third of the year still to go, we can estimate that the phenomenon will be as developed as in 2021, if not even hopefully more.

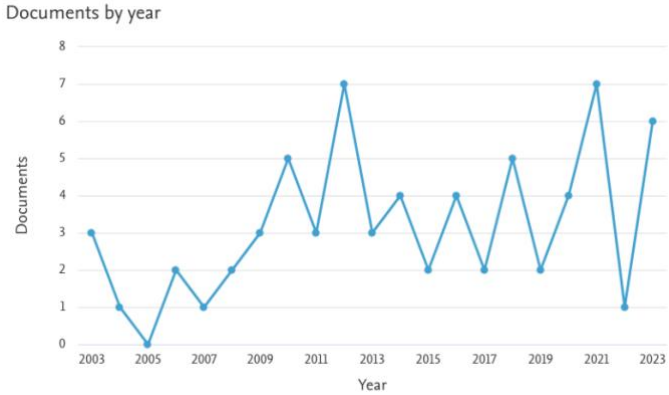

Figure 1: Documents by year

Considering the analysis of the topics, we have decided to do an overview of subject areas that Scopus create, that is outlined in figure 2. It is possible to note that most papers are in the area of Business, Management and Accounting, where 29.3% of documents were written. Then, in the area of Computer Science, 17.1% of articles were written while in Economics, Econometrics and Finance, an area equally interesting for the debate of the topics, 9.8% of documents were written. And lastly, Social Sciences with 9.8 % of documents. Other minor categories are found, but those are considered less interesting for the aim of the present paper.

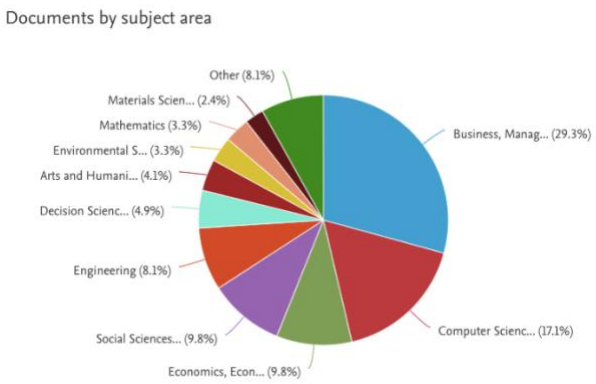

Figure 2: Documents by subject area

Talking of the countries where the first authors of the analyzed papers come from, we can see that in the US there are many authors interested in the subject, in fact 23 papers have been written in the last 20 years. Following with a smaller number of articles we see China with 7 publications, UK with 6 articles and followed by Taiwan with 5 published articles and Australia, Malaysia and South Korea with 4 publications.

In table 2, there are the five most cited articles. The most cited are "The service revolution and the transformation of marketing science" with 294 citations and "Integration of standardization and customization: Impact on service quality, customer satisfaction, and loyalty" with 235 citations. With 204 citations, there is the article Coelho and Henseler. Following, there are the articles "The effectiveness of customized promotions in online and offline stores" with 177 citations and "Customization, immersion satisfaction, and online gamer loyalty" with 164 citations. Of these five most cited articles, all are focused of both personalization and loyalty.

Article title	**Authors**	**Year**	**Source**	**Cited**
The service revolution and the transformation of marketing science	Rust and Huang	2014	Marketing science	294
Integration of standardization and customization: Impact on service quality, customer satisfaction, and loyalty	Kasiri, Cheng, Sambasivan, Sidin	2017	Journal of Retailing and Consumer Services	235
Creating customer loyalty through service customization	Coelho and Henseler	2012	European Journal of Marketing	204
The effectiveness of customized promotions in online and offline stores	Zhang and Wedel	2009	Journal of Marketing Research	177
Customization, immersion satisfaction, and online gamer loyalty	Teng	2010	Computers in Human Behavior	164

Table 2: The five most cited articles

Findings

Figure 3 shows the main clusters of the relationship between personalization and CL. To get to this bibliographic spatial map, the authors have decided to develop a co-occurrence map based on all keywords (439) and a minimum occurrence of at least 3 keywords, in order to make the analysis more circumscribed and to bring out those analyses that are treated together. With this combination just mentioned, of the 439 keywords, only 35 meet the threshold. In figure 3, each circle stands for a keyword from the dataset. In the chart, it is possible to note that if terms co-occur frequently, they are located close to each other; otherwise, if they are not connected, it means that they are co-occurring less. The circles' dimension relies upon papers' numbers that were found to contain that specific keyword. A significant number of keywords refer to "customization, "loyalty" and "sales". Keywords were divided into 4 clusters, represented by colors. As may be expected, the four most evident

keywords in terms of size are those used in the Scopus research (personalization, customization, loyalty, and CL). Evident, however, is that the two biggest keywords are personalization and CL, which makes us realize that among the 4 analyzed, these 2 are the most in-depth by the authors dealing with the relationship of the two topics.

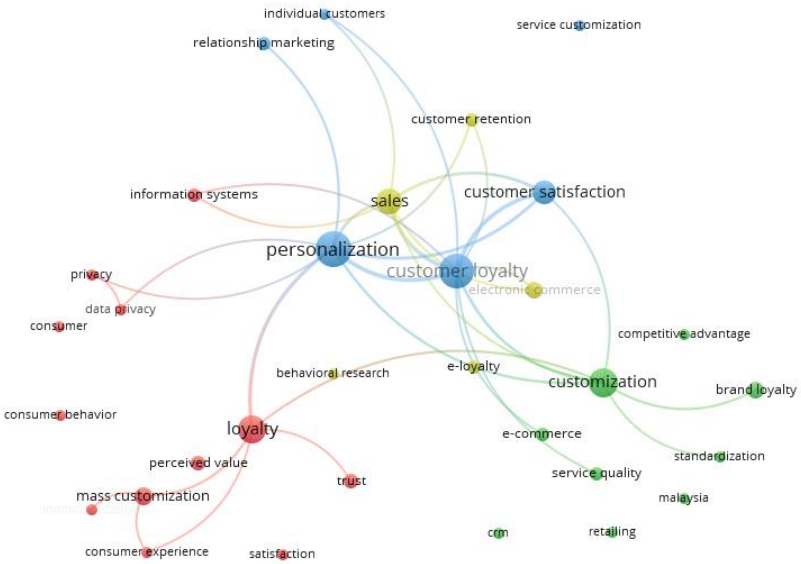

Figure 3: Keyword co-occurrence analysis

The four main clusters outlined from the previous analysis displayed in figure 3 are:

- The main cluster is the blue one and represents “Personalization”; this cluster shows that authors who deal with personalization usually treat it with CL, CS, relationship marketing and individual customers.
- The red one is the “Loyalty” cluster, and usually, authors write as well about trust, mass customization, perceived value and consumer experience.
- The green cluster concerns with “Customization” and is linked with brand loyalty, service quality and standardization.
- The yellow cluster represents “Sales” and is linked with customer retention and electronic commerce.

Thus, it can be inferred that the two themes (personalization and CL) are closely related and intertwined. The analysis shows that out of 4 clusters, the theme of CL is strongly present in 2, while personalization is present in one cluster. However, it can be seen that all other clusters are strongly connected to one or both themes, which explains how these topics are used and studied together.

From these analyses, we decided to study the 2 keywords of the paper in more detail. From the 2 figures below, it can be seen that if the rule is that the closer they are, the more keywords are used together, personalization is rather close to CL. Between the two, but closer to personalization is the keyword sales, so it would appear that the sales theme is very close to the two themes. That is, as much as authors deal with personalization and loyalty, they almost certainly also deal with sales. This is also shown by a higher line thickness. From this, we understand that “sales” is a topic that have the closest and densest proximity to personalization and CL. The topic of CS is also very present, it is in fact connected with CL, customization and personalization; is closer to CL. Customer retention is also connected with personalization and CL.
In more detail, it can be seen in figure 5 that from personalization there are strong links to: relationship marketing, sales, customer retention, CS, CL, customization, privacy, data privacy and loyalty.

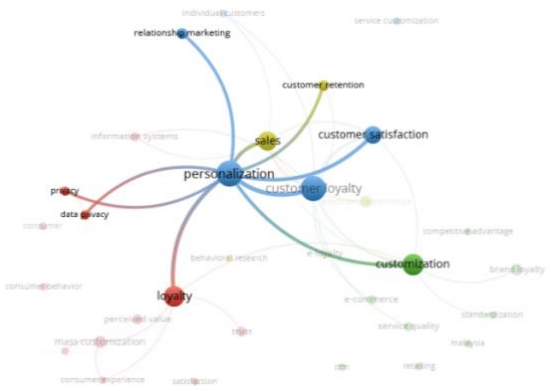

Figure 5: Co-occurrence analysis (zoom on personalization)

As for CL in figure 6, it is linked with personalization, information systems, individual consumers, customer retention, CS, electronic commerce, customisation, e-commerce and service quality.

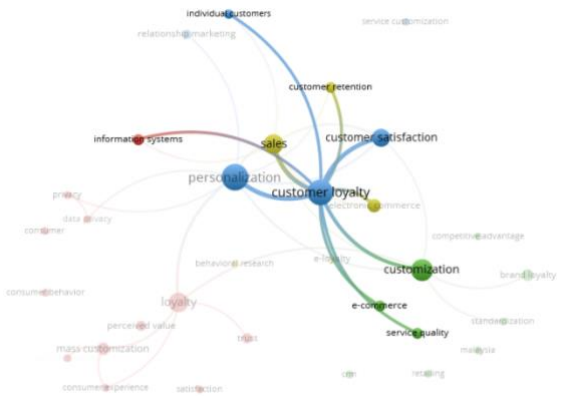

Figure 6: Co-occurrence analysis (zoom on CL)

Discussions and final conclusion

From this analysis it can be seen that the subject has been developing more and more in recent years as stated also by scholars and consulting firms (Papazoglou et al., 2020; Deloitte, 2021; Accenture, 2021; Chandra et al., 2022), that in the US the authors are the most interested in the subject and that Business, Management and Accounting is the area of most interest. An analysis of the keywords shows that there is a strong connection between personalization, customization, loyalty and CL, confirming Bock et al. (2016) theories. It can also be seen that the sales theme is highly correlated with personalization and CL. Also evident is the importance of CS which is linked with CL, customization and personalization.

It therefore appears that when personalization and CL are treated together, the keyword with the greatest importance is sales and then CS followed by customer retention. This result and the relationship with sales, confirms Richard and Zhang (2012) who stated that loyal customers generate numerous benefits and are more profitable than new customers because they spend more with the company and have lower service costs.

In conclusion, it is possible to understand that personalization and CL are very linked topics. Through the 4 clusters, it's possible to understand that sales is the keyword most linked to personalization and CL, followed by CS and customer retention. The preliminary literature analysis shows that personalization is an important strategy for achieving competitive advantage that involves learning,

matching and delivering products and services to customers; CL instead, is one of the main objectives of a company to guarantee competitiveness. This shows us that these two topics are developing more and more as time goes on and that more and more authors are interested in writing about them. Specifically, in addition to the correlation between the topics, we could see that the keywords sales, CS and customer retention are also correlated.

Theoretical and managerial implications

This study provides empirical evidence that supports the importance of personalization and CL. In our perspective, the fields are developing very fast.

The studies conducted so far have focused on personalization and CL but through our analysis we had the possibility to discover the importance of other correlated topics like sales, customer retention and CS.

As for managerial implications, this manuscript suggests that managers and entrepreneurs should provide new efforts in integrating personalization in their strategies to attract more customers also to retain them.

In particular, the personalization of services/products requires marketing managers to invest in an in-depth knowledge of the consumers, who must play an active role in the dialogue with the company, interacting to express their preferences and obtain an offer that reflects their desires. To this end, digital tools providing data and analytics could be used to engage the consumers in the personalization process, creating a customer experience tailored to each individual.

Such a strategic approach is poised to enhance CS, subsequently leading to an increase in CL, thereby fostering a more robust consumer-company relationship.

Limitations and further research

Some limitations emerge from this study. First of all, it only relies on bibliometric data, not gathering insights from firms and encompassing their perspectives to develop new theoretical and managerial implications. Moreover, even though Scopus is considered one of the most suitable and reliable publication databases for most researchers, some other relevant papers might not be included - or included in other databases – and might have been overlooked. We think it might be interesting for future research on the subject, to deepen the analysis. In fact, it would be interesting to read all 67 papers in depth and do a systematic literature review and then go into more detail identifying the various important aspects of related issues.

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