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Original Research

To What Extent Has The Growth Of E-Commerce Transformed The Role Of Physical Retail Stores In Germany?

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Abstract

This research investigates how the growth of e-commerce has transformed the role of physical retail stores in Germany. It combines German retail data, academic literature, direct observation and a case study of the Main-Taunus-Zentrum near Frankfurt am Main. The research considers both the growing importance of online shopping and the reasons why consumers continue to use physical stores. By bringing those different perspectives together, the study explores how the relationship between online and physical retail has changed and developed and what this change means for physical retail spaces and business owners. The findings indicate that the growth of e-commerce is changing the role of physical retail rather than simply displacing it. This research therefore contributes to existing literature while combining findings from previous studies with wider German retail data and a case study of the Main-Taunus-Zentrum. The findings also have wider implications for the society, as changes in physical retail can affect the shopping centers and the way people use those spaces.

1. Introduction

For decades, the physical retail store was the center of the shopping experience. Consumers travelled to stores to discover products, compare alternatives and make purchases.

However, today a customer can complete the same transaction within seconds from a smartphone in their living room. In Germany, the value of goods sold through e-commerce has increased from approximately 4.4€ billion in 2004 to 92.3 € billion in 2025, representing more than a twenty-fold increase in just two decades ("Online Monitor – German Retail Federation (HDE)" 2026; Peretzke 2020). E-commerce now accounts for approximately 13.5% of total German retail sales with online retail expected to reach 96.3€ billion in 2026 ("Online Monitor – German Retail Federation (HDE)" 2026). This means that almost one in every seven euros spent in German retail is now spent online. The rapid expansion of e-commerce has therefore fundamentally changed not only where consumers shop, but also what they expect from physical retail stores. For business owners, this creates a critical question: "If consumers no longer need to visit a store to purchase a product, what purpose does a physical store serve?"

This change has become increasingly urgent for businesses. Online platforms offer convenience, extensive product choice and the ability to compare prices before making a purchase, placing pressure on businesses whose traditional advantages were based largely on physical accessibility and immediate product availability. Research by IFH Köln and 1WorldSync, based on more than 1,000 German consumers, showed how closely online and physical shopping have become connected ("Catch me if you

can – wie der stationäre Handel seine Kunden einfangen kann" 2017). Consumers increasingly research products online before purchasing them in a physical store, while smartphones are also used inside of stores to compare prices and access additional product information. E-commerce has therefore already entered the competitive environment of physical retailers.

In 2026, the HDE expects online retail sales in Germany to grow by approximately 4.3%, compared with only 1.6% growth in stationary retail ("Online Monitor – German Retail Federation (HDE)" 2026). Yet it would be misleading to conclude that the rise of e-commerce has caused physical retail to become obsolete. Physical stores provide experiences that online shopping cannot fully reproduce, including the ability to see and test products, receive personal assistance and combine shopping with social or leisure activities. German consumer research demonstrates that these functions continue to matter. For example, an IFH Köln study has found that 78% of consumers expect products to be immediately available in physical stores, while around 70% of consumers expect the sales staff to be better informed than themselves ("Online Monitor – German Retail Federation (HDE)" 2026). Physical retail therefore continues to provide important types of customer value, even as the traditional purpose of the store is being challenged.

Rather than disappearing, physical stores may be changing their function from places where transactions primarily occur towards spaces which are designed to create experiences. One important part of this transformation is omnichannel shopping, which means that a retailer's physical and online channels are integrated so that customers can move between them as part of one connected shopping experience (Hübner, Wollenburg and Holzapfel 2016). For example, a German consumer might discover a product online and therefore visit a store to examine it in person, purchase it through the retailer's website and later return it to the physical store. Therefore, the store can remain economically valuable even when the final transaction does not take place there.

This distinction is particularly important because the continued success of physical retail creates an apparent contrast. For example, the Main-Taunus-Zentrum (MTZ) in Sulzbach, near Frankfurt am Main has attracted approximately 7.8 million visitors in 2024. It has around 170 shops, approximately 124,000 m^2 of leasable space and has an occupancy rate of approximately 99% ("Deutsche EuroShop AG" n.d.). "If German consumers can increasingly purchase products from home, why are millions of people still choosing to visit a large physical shopping center?"

One explanation is that the role of the physical store is changing. Customers may visit a store to try products, receive personal advice or combine shopping with food and leisure. If a retailer's online and physical channels are connected, it allows customers to move between them during the same shopping journey. The effects of those changes also reach beyond individual retailers. They can influence shopping centers, commercial properties and employments. This matters, because retail remains the most important reason for visiting German city centers, while gastronomy is only the second most important. An IFH KÖLN study based on around 69,000 interviews across 107 German cities shows, that physical commercial areas continue to depend on a mix of retail, food and other activities ("Catch me if you can – wie der stationäre Handel seine Kunden einfangen kann" 2017). The financial stakes are significant. German online retail is already worth 92.3€ billion per year, while total retail sales are approaching 700€ billion ("Online Monitor – German Retail Federation (HDE)" 2026). Therefore, even a relatively small shift in consumers spending from physical stores to online channels can move billions of euros across the German retail market. For business owners, the question is not simply whether they should sell online. It is rather, whether their physical stores still offer enough value to give customers a reason to visit.

This research therefore investigates the question: "To what extent has the growth of e-commerce transformed the role of physical retail stores in Germany?". The paper argues that e-commerce has primarily transformed, rather than substituted physical retail stores in Germany. This research combines broader economic and consumer trends with a case study of the Main-Taunus-Zentrum in Sulzbach, near Frankfurt am Main. By examining the changes in its retail environment and consumer experience, this case study illustrates how physical stores can remain economically valuable, even when purchasing goods itself increasingly takes place online.

The significance of this research extends beyond only the German retail sector. For business owners, understanding this shift is a matter of strategic survival. The essential issue is therefore no longer whether e-commerce will affect physical retail, because it already has. The more important question is whether businesses will understand how the role of the physical store is changing and can adapt before their customers choose alternatives. For businesses, this is not only about keeping up with technology, but it is about protecting their sales, making effective use of their physical space and remaining relevant to consumers whose shopping habits have already changed.

Ultimately, this research examines not whether physical retail is dying but much more, what it must become in order to survive.

2. Methodology

This research combines a literature review, secondary research, direct observation and a case study of the MTZ to investigate how the growth of e-commerce has transformed physical retail in Germany. The literature review examines the existing research on customer behavior, omnichannel shopping and the relationship between online and physical retail in Germany. Secondary research is used to examine the growth of e-commerce in general, the changes in consumer behavior and the already changing role of physical stores. Additionally, German retail data is incorporated from sources such as HDE and IFH Köln and four academic studies are discussed in the literature review. These sources provide both quantitative data and explanations of how consumers are using online and physical retail.

The research also includes the Main-Taunus-Zentrum in Sulzbach as a case study. I have visited the MTZ from 10:00am to 6:00pm on the 17th of August. As I live nearby and have visited the center multiple times before, I was also able to draw on previous visits when identifying changes in its retail environment. During the observation, I walked through all publicly accessible areas of the center, including its main shopping areas, individual retail units and the Food Garden. The food court is officially called “Food Garden” according to the signs at the MTZ. A space was classified as a food or leisure area if it contained a food counter, restaurant seating, entertainment facilities or designed leisure activities. The MTZ was chosen because it represents an established shopping center rather than an unusually specialized or distinctive retail environment. Its relatively large size and conventional mix of shops and other commercial activities makes it a useful setting for examining broader changes in physical retail in Germany. Although the MTZ cannot be considered fully representative for all German shopping centers, studying a familiar retail environment may help identify changes that are relevant to other centers facing similar developments in e-commerce. After a direct observation of the center, the data was used to examine changes in the uses and types of retail spaces.

The findings from the secondary research data, literature and the MTZ case study are compared with each other to determine whether e-commerce is replacing physical retail or just changing its role. A limitation is that the MTZ is only one of a large number of shopping centers in Germany and it therefore cannot represent all German retailers. However, combining the evidence with wider German data provides both a national perspective and a practical example of those changes in retail.

3. Literature review

To understand how the growth of e-commerce has changed the role of physical retail, I have first examined evidence found by existing research about online and offline shopping. The literatures provide different perspectives on this topic, including how retailers connect their online and physical channels, why consumers choose one channel over another, and whether online shopping can actually replace physical stores. Hübner, Wollenburg and Holzapfel examine the transition from multichannel to omnichannel retail and show how online and physical channels are becoming increasingly connected (Hübner, Wollenburg and Holzapfel 2016). Rather than treating them as separate ways of shopping, retailers can use both channels as part of the same customer journey. This idea is also reflected in Wieland’s research about furniture retail in Germany, which examines how consumers choose between different shopping

channels (Wieland 2023). His findings suggest that factors such as the type of product, accessibility and the availability of online and physical options can influence the decision making of customers. This indicates that consumers do not necessarily choose between online and physical shopping as two completely separate alternatives. While Hübner et al. and Wieland focus on how different channels can be connected and used, Zielke and Komor focus on why consumers choose online or offline channels. Their research shows that consumers may have different reasons for using each channel, depending on their needs and the type of purchase (Zielke and Komor 2025). This supports the idea that online and physical retail can offer different advantages rather than simply competing for the same purchase. Götz et al. develop this issue further by examining the substitutability between brick-and-mortar stores and e-commerce in Germany (Götz, Herold, Klotz and Schäfer 2025). Their findings suggest that the growth of e-commerce does not automatically lead to an equivalent loss of demand for the physical stores, this is particularly relevant to this research since it challenges the assumption that increasing online sales will simply result in the disappearance of physical retail.

Taken together, the literature suggests that the relationship between e-commerce and physical retail is more complex than only a simple shift from stores to online shopping. Existing research shows that consumers can move between channels, that the reasons for choosing each channel differ, and that physical stores are not always directly replaced by online alternatives. However, these studies mainly focus on specific aspects of consumer behavior, retail channels or individual sectors. This creates a research gap, as the broader implications of e-commerce for the role of physical retail in Germany remain less clearly understood when these perspectives are considered separately. Therefore, my research addresses this gap and builds on these findings by bringing them closer together with wider German retail data and a case study of the Main-Taunus-Zentrum. This allows the research to examine how the changes identified in the existing literature can be captured in a real physical retail environment in Germany.

4. Analysis

This analysis examines the extent to which the growth of e-commerce has transformed the role of physical retail stores in Germany. The central claim of this research is that e-commerce has primarily led to the transformation, rather than the substitution of physical retail stores in Germany. Online shopping offers consumers convenience, a wider product selection and the ability to compare prices easily. This would normally mean that physical stores can no longer rely solely on customers visiting them to purchase products. Instead, shopping centres increasingly need to offer additional reasons for people to visit, such as personal experiences, gastronomy and services that connect online and offline shopping.

To examine this claim in a real retail environment, I visited the Main-Taunus-Zentrum (MTZ) in Sulzbach, near Frankfurt am Main on the 17th of August 2026 from 10:00am to 06:00pm and documented my observations on paper. I have documented the types of people visiting the MTZ, such as families visiting the food court more and teenagers shopping in the mall. The MTZ first opened in 1964 and has considerably developed since then. It contains a wide range of retail, food and leisure activities and is also a frequently visited shopping destination rather than a small local shopping center. In 2024, it recorded approximately 7.8 million visitors, which makes it a relevant setting for examining how the role of physical retail is changing in practice. However, it should not be treated as a representation of every shopping center in Germany. The central question is therefore not simply whether shops have disappeared. Instead, it is whether the role and function of physical retail spaces have changed as more consumers purchase goods online. My observations from the MTZ suggest that physical retail is not simply being replaced by e-commerce. Instead, parts of the physical retail environment are adapting by offering consumers reasons to visit that go beyond just buying products.

4.1 Evidence 1: The food court and the former Karstadt space

One of the most relevant observations at the MTZ was the large food court (figure 1-3) in a space that was previously occupied by Karstadt (figure 4), a traditional department store. The space has not simply disappeared from the retail environment, instead its function has changed. The former Karstadt store

closed in 2020 and was subsequently demolished. According to Deutsche EuroShop, the aim was to expand the center's gastronomic offering, encourage longer visits and attract more visitors ("Deutsche EuroShop AG Annual Report E" 2024). Karstadt represented traditional retail, where the main purpose was to sell a wide range of products. The food court uses the same commercial space for a different purpose: eating, socializing and spending time at the shopping center. This change could also be understood in the context of growing e-commerce. As consumers can increasingly purchase products online, physical shopping centres face greater pressure to offer experiences that cannot be easily replicated digitally. Additionally it also includes small play areas for children (figure 6-7), allowing families to spend more time in the shopping center. This supports the claim of transformation rather than substitution. If e-commerce was simply substituting physical retail, the closure of a large department store could be interpreted as evidence that online shopping is replacing physical stores. Instead, the space continues to attract consumers but it provides a different type of purpose.

A food court and children's play areas offer something that an online retailer cannot provide: a physical experience. This matters because the main advantage of online shopping is convenience, because consumers can purchase products without travelling to a physical store. The children's play areas are particularly relevant because they can also make the physical shopping environment more attractive to families. Parents have a reason to visit and remain at the center without the original purpose of purchasing physical products. Food and social experiences provide huge advantages. Consumers may visit the MTZ to eat, meet friends or spend time there even when they were not planning to purchase a retail product. This suggests that the role of the shopping center is expanding. It is no longer only a place consumers go to to purchase goods but it can also be a place where consumers spend time and have experiences. The key point is therefore not that food and leisure facilities were created because of e-commerce, but that they offer the type of value online shopping cannot replace.

4.2 Evidence 2: Limited click-and-collect

Click-and-collect is a good example of how online and physical retail can work together. Customers order a product online and then collect it from a physical store. If physical stores were mainly adapting by becoming extensions of e-commerce, we might expect click-and-collect to be a major part of the shopping experience. Therefore, the limited use of this service at the MTZ is interesting because it shows that physical retail is not simply becoming an extension of online shopping. If the main response to the growth of e-commerce was to connect physical stores more with online shopping, we might expect click-and-collect to be much more common. Instead, the MTZ seems to place more importance on other reasons for visiting the shopping center. The MTZ has added multiple food trucks independent from the food garden and directly placed in the shopping area (figure 8-10) which attracted families with kids from my observation. Customers can still visit stores to see products in person, but they can also go there to eat, meet friends or spend time in the center. This means that the physical location still has an important role, even when the actual purchase can also happen online. This is especially important because e-commerce has changed the reasons why customers might visit a physical store. In the past, customers often had to go to a shop because there was no other way to buy the product. Today, they can often order the same product from home. Physical stores therefore must provide customers with other reasons to visit them.

Click-and-collect could be one way to do this because customers still have to visit the store to collect their order. However, the limited presence of this service at the MTZ suggests that physical retail does not only have to compete with online shopping by copying its services. It can also compete by offering experiences that online shopping cannot provide. Therefore, this supports the main claim that e-commerce is transforming physical retail rather than completely replacing it. The role of physical stores is changing. It is becoming less important as a place where customers make a purchase and more important as a place where customers can have a wider experience. At the same time, the limited presence of click-and-collect does not prove that only e-commerce caused the changes at the MTZ. There may be other reasons why some stores do not offer click-and-collect, such as their business strategy or technical systems.

4.3 Other Explanations

Although the findings suggest that e-commerce has contributed to the transformation of physical retail, other explanations need to be considered. One possible explanation is that physical retail is declining simply because consumers are no longer interested in visiting shopping centers. However, the MTZ's approximately 7.8 million visitors in 2024 and its occupancy rate of around 99% challenge this assumption ("Deutsche EuroShop AG" n.d.). These figures suggest that physical retail continues to attract customers despite the growth of online shopping. Therefore, the changes observed at the MTZ are more likely to reflect a transformation of its role than a complete loss of consumer demand.

Another possible explanation is that the redevelopment of the former Karstadt space into the Food Garden was simply part of the shopping center's own development strategy, rather than a response to e-commerce. Deutsche EuroShop explains that the Food Garden was intended to expand the center's gastronomic offering and encourage visitors to stay longer ("Deutsche EuroShop AG Annual Report E" 2024). This supports the idea that the redevelopment was a strategic decision. However, it does not necessarily contradict the influence of e-commerce. As online shopping makes it easier to purchase products without visiting a store, shopping centers have stronger incentives to offer additional experiences, such as restaurants and social spaces. The development is therefore consistent with the transformation of physical retail in response to online competition, even though a direct causal link cannot be established.

Finally, the increasing importance of gastronomy and leisure may also reflect wider changes in consumer preferences, rather than being caused by e-commerce alone. People may increasingly visit shopping centres to socialise, eat or spend their free time. This explanation cannot be ruled out completely. However, it does not explain why physical retailers increasingly need to distinguish the in-store experience from the convenience of online shopping. E-commerce may therefore not be the only reason for these changes, but it provides an important explanation for why physical retail is increasingly focusing on experiences and services beyond the actual purchase of products. The alternative explanations do not disprove the influence of e-commerce. Instead, they show that the transformation of physical retail is influenced by several factors. The available evidence supports the argument that e-commerce is an important contributor, although its exact influence cannot be separated completely from wider changes in consumer behaviour and business strategies.



Figure 1. MTZ now with the food garden.



Figure 2. MTZ now with the food garden.



Figure 3. MTZ now with the food garden.



Figure 4. MTZ before the food garden.



Figure 5. MTZ before the food garden.



Figure 6. Children playground in the food garden.



Figure 7. Children playground in the food garden.



Figure 8. Multiple food trucks in the MTZ (not where the food garden is located).



Figure 9. Multiple food trucks in the MTZ (not where the food garden is located).



Figure 10. Multiple food trucks in the MTZ (not where the food garden is located).

5. Conclusion

This research has shown that the growth of e-commerce has in fact changed physical retail in Germany in several important ways. The main change is not simply a shift from stores to online websites, but a change in what physical stores are actually used for and how they fit into the overall shopping process. The literature reviews show that consumers do not always choose between online and physical shopping in the same way. Different factors influence their decisions, including convenience and the opportunity to see or experience a product in person. The researches by Hübner, Wollenburg and Holzapfel and Wieland also show the increasing connection between online and physical channels. Additionally, this

is supported by Zielke and Komor, while Götz et al. show that the growth of e-commerce does not automatically mean that physical stores lose all of their demand (Götz, Herold, Klotz and Schäfer 2025; Hübner, Wollenburg and Holzapfel 2016; Wieland 2023; Zielke and Komor 2025).

The German data and the MTZ case study demonstrate how this can be seen in real life and in practice. Although online retail has already reached 92.3€ billion, the MTZ still attracted approximately 7.8 million visitors in 2024 and had an occupancy rate of around 99%. This suggests that consumers still have reasons to visit physical retail spaces. At the same time, the changes observed at the MTZ show that these spaces are not necessarily being used in exactly the same way as in the past. The findings therefore suggest that one important effect of e-commerce is a shift in the functions and experiences offered by physical retail environment. Stores increasingly need to offer something different than simply selling a product, such as personal interaction, services, food and leisure. Online shopping can provide convenience and choice, while physical stores can provide things that are harder or not possible to experience online.

Therefore, e-commerce has had a substantial impact on physical retail in Germany, but its effect is better described as a transformation rather than a replacement. Even though physical retail remains relevant, businesses can no longer assume that customers will visit a store simply because they need to buy something. The role of the physical store has become closely connected to the wider customer experience and to the online part of the shopping journey.

Conflict of Interest

The author declares no conflict of interest related to this work.

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