

Gouthier, Matthias; Nennstiel, Carina; Kern, Nora; Groß, Sebastian

## Article

# Easygoing Shopping – Customer Acceptance of the 'Just Walk Out' Technology in the German Retail Market

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# Marketing Review

## St.Gallen

Store of  
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Ein Interview mit Michael Berli

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Vom Kaufhaus zur Omnichannel-Experience

Der Anlass bestimmt das Format –  
Situative Mehrwerte digitaler In-Store-Anwendungen

Integration von XR-Anwendungen  
im physischen Store

Easygoing Shopping –  
Customer Acceptance of the 'Just Walk Out'  
Technology in the German Retail Market

Shake Hands with a Robot –  
Understanding Frontstage Employees' Adoption  
of Service Robots in Retailing

### Spektrum

Business-Rhetorik der Zukunft –  
Ein Interview mit Dr. Tatjana Lackner

Affordable Luxury Sport Cars in Germany –  
Investigating the Determinants of  
Customer Experience



# Easygoing Shopping

Customer Acceptance of the  
'Just Walk Out' Technology in the  
German Retail Market

Increasing competitive pressure forces brick-and-mortar stores to integrate new technologies such as 'Just Walk Out' technology. This article uses an empirical online study to analyze customers' acceptance of this technology in German retailing and identifies compatibility, performance expectancy, and privacy concerns as primary influencing factors.

Prof. Dr. Matthias Gouthier, Carina Nennstiel, Nora Kern, Sebastian Groß

Traditional retail has become increasingly digital due to sophisticated self-service technologies (SSTs) (Demoulin & Djelassi, 2016). Due to the steady increase in the use of smart devices, new forms of information technologies enable disruptive changes in the retail sector by making smartphones an ordering and payment platform for new business formats (Hagberg et al., 2016). Generally, retailers are under increasing pressure to adopt these new shopping alternatives (Johnson et al., 2021) as the e-commerce market continues to grow more dynamically and acts as an increasingly strong competitor (Chevalier, 2022). Especially since the COVID-19 pandemic, a tremendous shift toward online retailing has taken place (Jílková & Králová, 2021). Even traditional retail industries such as supermarkets, long spared from online competition, have felt an increase in online grocery shopping (Eriksson & Stenius, 2020). For brick-and-mortar retailers this development is increasing the pressure to implement technology-driven innovations to improve the offline customer experience (Abbu et al., 2021). Overall, SSTs and self-service checkouts (SSCs) are gaining in importance to enable customers to complete purchase processes independently of the availability of a service employee (Meuter et al., 2000; Sharma et al., 2021). This has positive effects on service quality and customer satisfaction (Sharma et al., 2021). SSCs, in particular, are transforming the retail market into so-called “cashier-less stores” where customers can complete the checkout process themselves, something that positively impacts perceived convenience, quality, and flexibility (Guo, 2020). A US-based survey shows that 47 percent of the customers use SSCs regularly (eMarketer, 2019). The global SSC market has reached a market size of US\$ 3.87 billion of revenue in 2022 and is expected to grow to US\$ 10.5 billion in 2030, with the largest revenue share of 55 percent attributed to supermarkets and hypermarkets (Grand View Research, 2022). Bingo Box was one of

the first providers of cashier-less stores in 2016 (Wu et al., 2019), followed by the first Amazon Go stores in 2018, which specifically applied the so-called ‘Just Walk Out’ technology (JWOT) (e.g., Liu et al., 2020). JWOT autonomously detects which products the customer takes off the shelf or puts back, thus enabling payment processing via the identified customer’s smartphone. Especially since the COVID-19 pandemic, the preference for contactless formats has increased (Díaz-Martín et al., 2021), so the question arises to what extent JWOT is a promising format for the future. As the success of such a new technology mainly depends on customer acceptance, this aspect has to be empirically investigated. Admittedly, studies focusing on SSTs and SSCs in retail have already been conducted (e.g., Wang, 2017; Park et al., 2020), but these studies show limitations concerning the research model and the market under consideration. To the best of the authors’ knowledge, no analysis of customer-specific factors influencing the acceptance of JWOT in the retail context has been carried out so far. Existing research strongly focuses on the outcomes of JWOT use and examines the corresponding effects (e.g., Cui et al., 2022). Customer-specific influencing factors (such as compatibility with the technology) regarding the acceptance of JWOT have so far been rather unexplored. Therefore, this study investigates customer acceptance of JWOT in the German retail market by answering the following research question: What are the main customer-specific factors influencing the acceptance of JWOT among German customers?

## The ‘Just Walk Out’ Technology

Overall, JWOT is a technology that aims to replace retail stores’ traditional payment and checkout processes by providing cashier-less store concepts. Using intelligent sensor processes and tracking



**Prof. Dr. Matthias Gouthier**  
Professor of Marketing  
and Electronic Services  
and Director of the Center  
for Service Excellence  
at the University of  
Koblenz-Landau, Koblenz,  
Germany  
[gouthier@uni-koblenz.de](mailto:gouthier@uni-koblenz.de)  
[https://www.uni-koblenz-landau.de/  
de/koblenz/fb4/ifm/aggouthier](https://www.uni-koblenz-landau.de/de/koblenz/fb4/ifm/aggouthier)

**Carina Nennstiel**  
Research Assistant at  
the Chair of Marketing  
and Electronic Services  
at the University of  
Koblenz-Landau, Koblenz,  
Germany  
[cnennstiel@uni-koblenz.de](mailto:cnennstiel@uni-koblenz.de)

**Nora Kern**  
Research Assistant at  
the Chair of Marketing  
and Electronic Services  
at the University of  
Koblenz-Landau, Koblenz,  
Germany  
[noke@uni-koblenz.de](mailto:noke@uni-koblenz.de)

**Sebastian Groß**  
Master student at  
the Chair of Marketing  
and Electronic Services  
at the University of  
Koblenz-Landau, Koblenz,  
Germany  
[sgross91@uni-koblenz.de](mailto:sgross91@uni-koblenz.de)

by built-in technologies, JWOT enables customers to enter the store, take the products they want from the shelves and then leave the store without a traditional, people-based checkout process. This innovative store concept requires the customer to use a smart device (usually a smartphone) on which the app of the respective store is installed (Wankhede et al., 2018). During the shopping process, the smart device directly interacts with the store's inventory management system, which is equipped with wireless antennas, identifies the customers right after entering, and tracks them during the shopping process (Puerini et al., 2015). When a product is taken off the shelf or placed back, a pressure sensor or a special scale automatically detects a difference which is communicated to the inventory management system. When the customer finally leaves the store and passes through the transition area at the exit, the customer and the items are identified one last time before receiving a purchase notification on the smart device (Puerini et al., 2015). A significant advantage of this technology is that it eliminates waiting times at the cash desk and simplifies the process compared to scanning the items with a hand-held scanner. Time saving and

improved convenience result in higher customer satisfaction and cost savings for the company due to lower labor costs. However, since the technology is still in the trial phase, challenges such as high

For everyday transactions, customers want simple purchasing processes.

investment costs, the required adaptation to individual customer needs, and alignment with the specific retail concept (including scalability) should not be neglected (Martin et al., 2018; Schoegel & Lienhard, 2020).

## Technology Acceptance Research

Concerning the implementation of JWOT, the question of customer acceptance has to be critically analyzed. On the one hand, this innovative store concept has primarily been applied in selected lo-

cations only, mainly in the US and UK. On the other hand, the first test stores are currently being opened in Germany, e.g., REWE Pick&Go and Netto Pick&Go. Acceptance in this context can be understood as "the demonstrable willingness within a user group to employ information technology for the tasks it is designed to support" (Dillon & Morris, 1996, p. 5). Including attitudinal acceptance and behavioral acceptance, it covers the attitude towards using such technology and the actual behavior that is shown (Davis et al., 1989). Overall, behavioral intention can be summarized as "a person's subjective probability that he will perform some behavior" (Fishbein & Ajzen, 1975, p. 288). The construct has been used in various research models to measure the acceptance and adoption of information technologies and information systems (Ajzen & Fishbein, 1980), as described in the 'Technology Acceptance Model' (TAM) (Davis, 1989).

As a further development of TAM, the 'Unified Theory of Acceptance and Use of Technology' (UTAUT) adapted the two constructs of perceived usefulness as performance expectancy and perceived ease of use as effort expectancy (Venkatesh et al., 2003). These two customer-specific influencing factors are also relevant in the context of JWOT. Performance expectancy is defined as the degree "to which an individual believes that using the system will help him or her to attain gains in job performance" (Venkatesh et al., 2003, p. 447), e.g., to accomplish an efficient purchase process. Effort expectancy refers to the ease of use of the system (Venkatesh et al., 2003).

## Structure of the Research Model

For the research model, the two core constructs of the UTAUT model, i.e., performance expectancy and effort expectancy, are used because of their relevance to achieving behavioral intention,

### Management Summary

This article focuses on the innovative retail concept of 'Just Walk Out' technology (JWOT), which is highly relevant in practice. Based on a quantitative online study, the authors investigate various factors influencing customer acceptance of JWOT in the German retail market. The results of the structural equation modeling provide concrete implications for practitioners on how to increase customers' acceptance of JWOT.

### Main Propositions

- 1 Retail companies can positively influence customer acceptance of JWOT.
- 2 The greatest impact is achieved by enhancing compatibility.
- 3 Secondly, performance expectancy positively affects the customers' intention to use JWOT.
- 4 Last but not least, privacy concerns have to be reduced.



the study's central endogenous variable. Because of the special features of this technology, i.e., functional-pragmatic value, costless and intuitive usability, the core idea is adopted and supplemented by customer-specific influential factors. At this point it should be noted that the UTAUT 2 model (Venkatesh et al., 2012), which is characterized by its three additional consumer-oriented constructs of hedonic motivation, price value, and habit, does not really fit in the context of JWOT. Therefore, more relevant customer-specific influencing factors proven in acceptance research (e.g., Wang, 2017; Gong et al., 2021) are added to the model. Previous research on SSTs and SSCs has shown that performance expectancy, i.e. perceived usefulness, has an enormous impact on behavioral intention (Blut et al., 2016; Cebeci et al., 2020; Jeon et al., 2020). Venkatesh et al. (2003) identify performance expectancy as the main influencing factor of an individual's intention to form a behavior. Therefore, the following hypothesis is derived:

*H1: The higher the performance expectancy of JWOT, the higher the intention to use this technology.*

Additionally, it is postulated that the performance expectancy of JWOTs is influenced by the relative advantage JWOT has over the currently used point-of-sale technologies. It is expected that the perceived relative advantage of JWOT positively affects the performance expectancy (Lee et al., 2011; Tongnamtiang & Leelasantitham, 2019). In accordance with this, Lee et al. (2011) found that a higher relative advantage in the use of information systems results in higher perceived usefulness. Assuming that the relative advantage influences the performance expectancy (Izuagbe et al., 2016), the following hypothesis is proposed:

*H2: The higher the relative advantage of the JWOT, the higher the performance expectancy of this technology.*

Based on the UTAUT model, it is expected that the effort expectancy also has a positive impact on behavioral intention since a new technology that is easy to use is more likely to be accepted by customers (Davis, 1989; Venkatesh et al., 2003). Accordingly, it is proposed:

*H3: The higher the effort expectancy of the JWOT, the higher the behavioral intention to use this technology.*

The willingness to use new SSTs in retail stores is also higher among customers who tend to have a higher level of self-efficacy (Oyedele & Simpson, 2007). It follows that expectations of effort are lower when users of information technologies believe they can handle them competently (Bailey et al., 2017; Cebeci et al., 2020). In the context of effort expectancy, it is therefore postulated:

*H4: The higher a customer's level of self-efficacy, the higher the effort expectancy of the JWOT.*

If retailers want to increase the adoption of JWOT, they should know the customer-specific influencing factors.

As indicated by the TAM (Davis et al., 1989), effort expectancy positively influences performance expectancy, as shown by several studies (Lin & Chang, 2011; Park et al., 2020; Tongnamtiang & Leelasantitham, 2019). Therefore, this hypothesis is also applied to the JWOT context and posed as the following hypothesis:

*H5: The higher the effort expectancy of the JWOT, the higher the performance expectancy of this technology.*

Since JWOT is a highly data-driven technology, it is hypothesized that privacy concerns negatively influence behavioral intention. As JWOT requires

the collection of data, customers might fear lacking data security and protection of their privacy. Those adverse effects of privacy concerns on customer acceptance have repeatedly been found in previous research (e.g., Bailey et al., 2017; Pizzi & Scarpi, 2020). It has already been shown that privacy concerns negatively affect usage intention (e.g., Schultz & Brüggemann, 2021; Rese et al., 2020; Vimalkumar et al., 2021). Accordingly, the following hypothesis is derived:

*H6: The higher the privacy concerns, the lower the behavioral intention to use JWOT.*

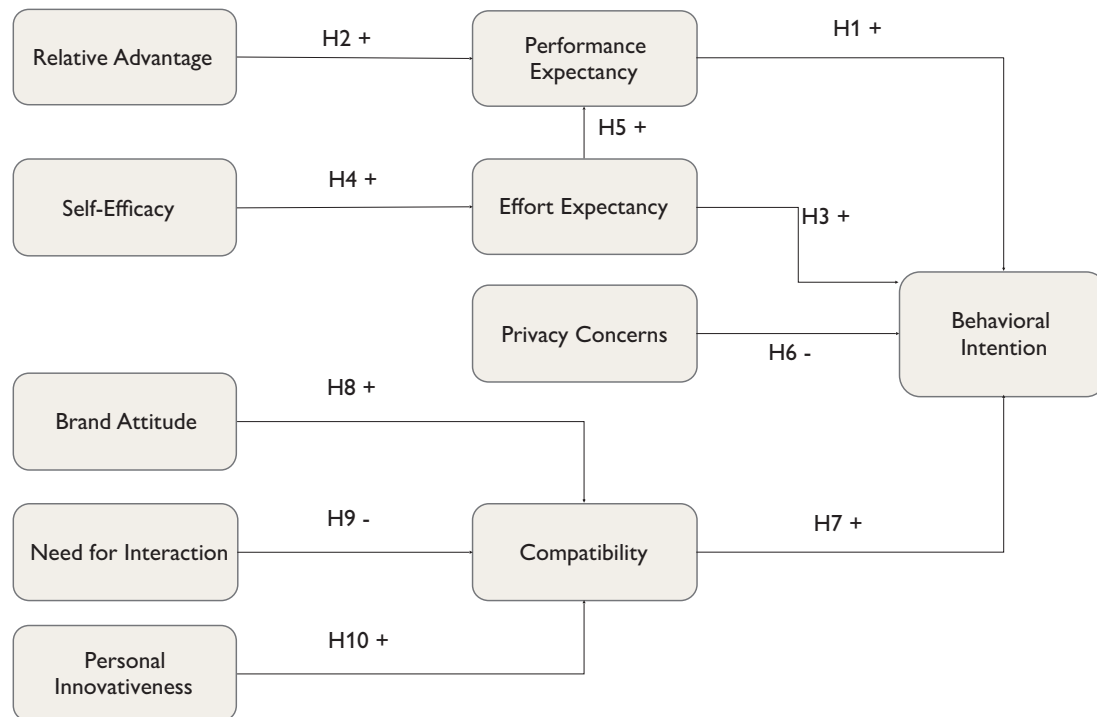
Additionally, it is hypothesized that the intention to use JWOT is positively affected by the technology's compatibility with one's lifestyle, values, and beliefs. It is expected that users can easily accept a technology if it is compatible with their lifestyle and they can rely on similar previous experiences (Rogers, 2003). Fazal-e-Hasan et al. (2021) identified perceived compatibility as the

most significant influence on usage intentions regarding smart retail technology. Thus, the following hypothesis is proposed:

*H7: The higher the compatibility with the JWOT, the higher the intention to use this technology.*

Lastly, the influence of brand attitude, need for interaction, and personal innovativeness on compatibility is investigated. Brand attitude reflects a customer's attitude toward the retailer and identifies either favor or disfavor for the brand. As an affective component, the construct has already been examined in the technology acceptance context

Figure 1: Research Model



Source: Own illustration.

and is considered an influencing factor (e.g., Pradhan et al., 2014). Need for interaction describes the extent to which the customer requires personal interaction (e.g., with a service representative) that might not be adequately satisfied via JWOT use. Concerning SSC, a significant influence of the need for interaction on acceptance has already been found by e.g. Wang (2017). Personal innovativeness refers to the extent to which an individual is generally receptive to new technologies or innovations and thus likely to show a greater willingness to use them. Junsawang et al. (2021) propose personal innovativeness as an essential determinant of user acceptance. Concerning the three influencing factors, the following hypotheses are derived:

*H8: The more favorable the brand attitude, the higher the compatibility with JWOT.*

*H9: The higher the customer's need for interaction, the lower the compatibility with JWOT.*

*H10: The higher the degree of personal innovativeness, the higher the compatibility with JWOT.*

Figure 1 provides an overview of the final research model.

## Empirical Study

An online study was conducted, with a total of 218 valid responses from participants living in Germany. The survey was distributed via the university network and other online portals (e.g., social networks). To provide an incentive to participate, a voluntary lottery was initiated in which the participants

could win one of three Amazon vouchers. Overall, more women than men participated in the study (62.4 percent). In the context of stationary retail, this overrepresentation of women is often observed (e.g., Pawlik, 2021), so the gender distribution is considered representative for the study. The average age of the participants is comparatively low, at 31 years. However, this age group represents the target group of business models like Amazon Go.

As the technology is still largely unknown in Germany, a short introductory explanation was given at the beginning of the survey briefly explaining JWOT without addressing any technical features. Additionally, a short YouTube video of Amazon Go was embedded to deepen the participants' understanding of JWOT by explaining

the essential features before starting the questionnaire. Existing validated measurement scales were used for operationalizing the latent variables illustrated in the research model. All items are outlined in Table 1. The items were measured on a seven-point Likert scale ranging from 1 = 'strongly disagree' to 7 = 'strongly agree'.

## Results and Discussion

To analyze the collected data and test the hypotheses, partial least squares structural equation modeling (PLS-SEM) was applied using SmartPLS 3, applying the PLS algorithm and nonparametric bootstrapping (with 5,000 replications).

The following applies not only to experiential shopping, but also to SSC: Shopping must fit the customer's lifestyle.

First, the quality of the measurement model was evaluated by verifying all required quality criteria (Hair et al., 2014). The indicator reliability could be ensured as all standardized loadings exceeded the threshold of 0.7 (Hair et al., 2014). Furthermore, the composite reliability of all constructs was greater than 0.7, indicating internal consistency. Convergent validity could be confirmed as the average variance extracted (AVE) exceeded 0.5 in all cases (Fornell & Larcker, 1981). To assess discriminant validity, the Fornell-Larcker criterion was used, confirming the research model's discriminant validity (Fornell & Larcker, 1981). The results of the model fit analysis are outlined in detail in Table 2.

Table 1: Operationalization of Measured Constructs

| Construct  | Items for Measurement   |
|--|---|
| Behavioral Intention<br><i>Venkatesh et al. (2003, p. 460)</i>             | <ul style="list-style-type: none"> <li>• If I had the opportunity to use the 'Just Walk Out' technology, I would have the intention to use it.</li> <li>• I think it would be beneficial for me to use the 'Just Walk Out' technology if it would be available to me.</li> <li>• If I had the opportunity to use the 'Just Walk Out' technology, I would really use it.</li> </ul>  |
| Brand Attitude<br><i>Spears &amp; Singh (2004, p. 60)</i>                  | <ul style="list-style-type: none"> <li>• I like the Amazon brand.</li> <li>• I admire the Amazon brand.</li> <li>• I find the Amazon brand likable.</li> </ul>  |
| Compatibility<br><i>Moore &amp; Benbasat (1991, p. 216)</i>                | <ul style="list-style-type: none"> <li>• The use of 'Just Walk Out' technology is compatible with my lifestyle.</li> <li>• The use of 'Just Walk Out' technology is fully compatible with my needs.</li> <li>• 'Just Walk Out' technology is a good fit for the way I want to do my shopping.</li> </ul>  |
| Effort Expectancy<br><i>Venkatesh et al. (2003, p. 460)</i>                | <ul style="list-style-type: none"> <li>• The way the 'Just Walk Out' technology works is clear and understandable to me.</li> <li>• I think that using the 'Just Walk Out' technology is easy for me.</li> <li>• I think it would be easy for me to learn how to use the 'Just Walk Out' technology.</li> </ul>   |
| Need for Interaction<br><i>Dabholkar (1996, p. 40)</i>                     | <ul style="list-style-type: none"> <li>• The personal contact with the cashier makes shopping pleasant for me.</li> <li>• I like the interaction with the cashier while shopping.</li> <li>• Personal attention from cashiers is important to me.</li> </ul>  |
| Performance Expectancy<br><i>Venkatesh et al. (2003, p. 460)</i>           | <ul style="list-style-type: none"> <li>• I think that the 'Just Walk Out' technology could be useful.</li> <li>• I think that using the 'Just Walk Out' technology can speed up the purchasing process.</li> <li>• I think that the use of 'Just Walk Out' technology could be effective.</li> <li>• I think that the use of 'Just Walk Out' technology can improve the purchasing process.</li> </ul>  |
| Personal Innovativeness<br><i>Agarwal &amp; Prasad (1998, pp. 209–210)</i> | <ul style="list-style-type: none"> <li>• I find it exciting to be the first to buy a high-tech product.</li> <li>• Being the first to buy new technological equipment is very important to me.</li> <li>• I want to own the latest technological products.</li> <li>• It is fun for me to buy new high-tech products before most of the other people know they exist.</li> </ul>  |
| Privacy Concerns<br><i>Chen (2008, p. 39)</i>                              | <ul style="list-style-type: none"> <li>• I am concerned about the amount of personal information I will be required to provide when using the 'Just Walk Out' technology.</li> <li>• I do not believe that my personal information that is stored in the databases used for the 'Just Walk Out' technology will be protected.</li> <li>• I do not believe that my personal information provided to use for the 'Just Walk Out' will only be used for the purposes I have authorized.</li> <li>• I believe that the use of the 'Just Walk Out' technology compromises my privacy.</li> </ul> |
| Relative Advantage<br><i>Moore &amp; Benbasat (1991, p. 216)</i>           | <ul style="list-style-type: none"> <li>• Overall, I think the use of 'Just Walk Out' technology is more beneficial than the traditional purchasing process.</li> <li>• In my opinion, 'Just Walk Out' technology is generally the best way to shop.</li> <li>• The 'Just Walk Out' technology is an improvement on the traditional shopping process.</li> </ul>   |
| Self-Efficacy<br><i>Venkatesh et al. (2003, p. 460)</i>                    | <ul style="list-style-type: none"> <li>• I think I could use the 'Just Walk Out' technology when there is no one to tell me what to do.</li> <li>• I think I could use the 'Just Walk Out' technology if I had limited assistive technology to help me.</li> <li>• I think I could use the 'Just Walk Out' technology even if I have never used such technology before.</li> </ul>  |

Source: Own illustration.



Table 2: Overview of Quality Measures

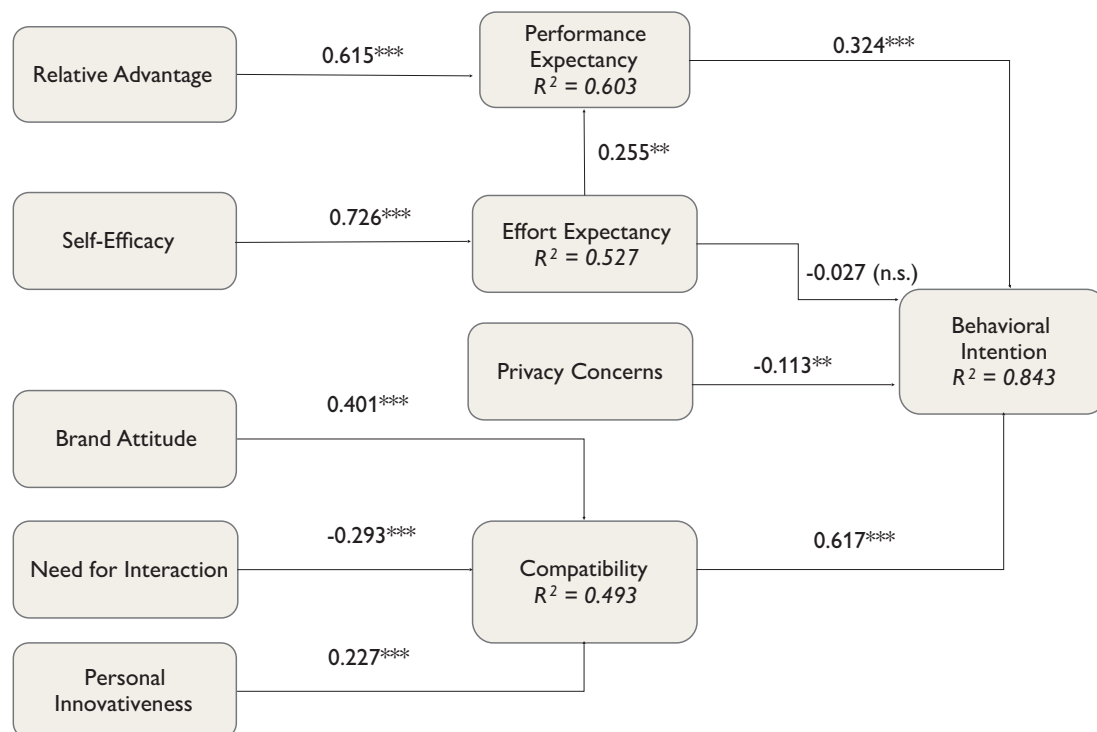
| Quality Measures of the Measurement Model |                                  |
|---|----------------------------------|
| <i>Construct Reliability and Validity</i> |                                  |
| Cronbach's Alpha                          | between 0.803 and 0.971          |
| Composite Reliability                     | between 0.883 and 0.981          |
| <i>Convergence Validity</i>               |                                  |
| AVE                                       | between 0.717 and 0.944          |
| Indicator Reliability                     | between 0.730 and 0.973          |
| <i>Discriminant Validity</i>              |                                  |
| HTMT values                               | between 0.209 and 0.921          |
| Fornell-Larcker-Criterion                 | all values meet the requirements |
| <i>Model Fit</i>                          |                                  |
| SRMR                                      | 0.118                            |
| NFI                                       | 0.805                            |

Source: Own illustration.

Second, the structural model was estimated, which shows that the model fits the data well. In our study, 84.3 percent of the variance of the behavioral intention to use JWOT could be explained by the four predictors performance expectancy, effort expectancy, privacy concerns, and compatibility. The influence of effort expectancy on behavioral intention could not be proven, indicating that it mainly depends on the other three factors. Thereby, compatibility is the strongest influencing factor ( $\beta = 0.617$ ;  $p < 0.001$ ). This means that the more the characteristics of the technology are associated with individual values, needs and lifestyle, the higher the intention to use it (Fazal-e-Hasan et al., 2021). Even though compatibility does not concern the characteristics of the technology but the inner values, characteristics, and needs of the cus-

tomers, it has the greatest impact on customers' behavioral intention. More specifically, the study explored the influence of brand attitude, need for interaction and personal innovativeness on compatibility. In total, 49.3 percent of compatibility can be explained by these influencing factors, all showing significant effects. Especially brand attitude positively influences compatibility ( $\beta = 0.401$ ;  $p < 0.001$ ), indicating that a brand's image indirectly affects behavioral intention. If customers have a positive attitude toward the brand (e.g., Amazon), JWOT is more likely to fit their existing values (Pradhan et al., 2014). A purchase motivation could also be expected if the customer has already had positive experiences with the brand. As hypothesized, the need for interaction has a significant negative effect on compatibility ( $\beta = -0.293$ ;

Figure 2: Results of the SEM Analysis



Source: Own illustration.

$p < 0.001$ ), confirming that customers who emphasize service interaction tend to be incompatible with JWOT. In contrast, if customers like to test innovative products and services at an early stage, it is more likely that JWOT will fit their lifestyle ( $\beta = 0.227$ ;  $p < 0.001$ ). Particularly in the case of a new retail format such as JWOT, the adaptation rate requires customers to have a certain degree of innovativeness since they do not yet have previous experience to fall back on.

Besides compatibility, performance expectancy also has a positive effect on the intention to use JWOT ( $\beta = 0.324$ ;  $p < 0.001$ ). Further, the present study found that if the technology has an advantage over the technology being replaced (relative advantage), it is perceived as more useful overall, resulting in higher performance expectancy ( $\beta = 0.615$ ;  $p < 0.001$ ). If customers believe that using JWOT is the best way to shop, they will also have a higher performance expectancy (Lee et al., 2011; Tongnamtiang & Leelasantitham, 2019). Moreover, customers for whom the functioning of JWOT is simple and understandable and who think they would have an effortless experience are more likely to find it helpful (Lin & Chang, 2011; Park et al., 2020). This could be confirmed by a positive effect of effort expectancy on performance expectancy ( $\beta = 0.255$ ;  $p < 0.01$ ). Together, relative advantage and effort expectancy make up 60.3 percent of performance expectancy's variance. Continuing, a customer's effort expectancy is lower if the customer is confident that he can perform the required actions and processes satisfactorily (self-efficacy) when using JWOT ( $\beta = 0.726$ ;  $p < 0.001$ ). The  $R^2$  value of effort expectancy ( $R^2 = 0.527$ ) indicates that self-efficacy explains the endogenous variable adequately. As it has been confirmed empirically, it is not so much an expectation but rather an individual perception of performance that constitutes usefulness (Weinberg et al., 2019). When customers demonstrate

confidence in their competencies, the technology is perceived as more user-friendly and is associated with less effort. Nevertheless, the present study could not verify a significant effect of effort expectancy on behavioral intention. This might be due to the fact that the customer does not have to exert any effort when using this technology. This is also demonstrated in the video, which portrays the technology as flawless. Additionally, it was found that people who are less concerned that the JWOT will misuse their data and are thus more willing to provide a variety of personal information (no privacy concerns) have a higher intention to use JWOT

Besides personal compatibility, usefulness is another highly important factor in JWOT acceptance.

( $\beta = -0.113$ ;  $p < 0.01$ ). It is not surprising, however, that some customers have privacy concerns about the technology, as it involves sensitive banking data (Kim & Kim, 2018; Malhotra et al., 2004; Nowak & Phelps, 1992). What is surprising is that this effect is comparatively small although JWOT collects more than just data provided by the customer, e.g., on individual purchasing behavior. The question at this point is whether this effect may be due to many customers being unaware of how the technology works. Privacy concerns might not have been considered in the present study, as these aspects were not presented transparently enough in the video used as a stimulus and are therefore concealed.

Finally,  $Q^2$  values of 0.784 (behavioral intention), 0.435 (compatibility), 0.362 (effort expectancy), and 0.461 (performance expectancy) for the endogenous variables indicate predictive relevance,

using the blindfolding procedure. Figure 2 illustrates the study results, showing path coefficients and the proportions of variances of the dependent variables.

## Implications

Based on the results, the following implications are derived:

- (1) To increase customer acceptance of JWOT, the main goal is to ensure customer compatibility with the technology by adapting it to customer needs and their overall lifestyle. Additionally, a positive brand image should be created and fostered to increase compatibility and thus behavioral intentions.
- (2) To mitigate the negative impact of the need for interaction, service personnel should still be present in the store to give advice if necessary.
- (3) Promotional activities should emphasize that the use of JWOT is very intuitive and that customers without a high affinity for technology can also benefit from a more pleasant shopping experience.

## Lessons Learned

- 1 From a practical point of view, it is essential to align the use of JWOT with customer needs and establish a positive brand image.
- 2 The benefits of the technology, such as avoiding waiting times or providing intuitive use, should be clearly communicated to the customer.
- 3 Service personnel should not be dispensed with entirely so as to be able to help customers if queries arise.

- (4) Since product expectancy, e.g., regarding the reliability and accuracy of JWOT, is essential for its adoption, stores have to assure the technologies' flawless functioning.
- (5) In general, the benefits of JWOT are convincing for most customers; only for technology-skeptical customers, further incentives should be offered to provide additional motivation to test JWOT.
- (6) Customers' perceived self-efficacy should be increased by making

them feel confident to use the new technology.

## Conclusion, Limitations, and Outlook

*"In today's era of volatility, there is no other way but to re-invent. The only sustainable advantage you can have over others is agility, that's it."* – Jeff Bezos (founder and former CEO of Amazon.com).

In fact, Amazon has succeeded in becoming a pioneer of a new digital retail

concept as they profit from selling the technology and its infrastructure. The company has identified the biggest disruptors of traditional shopping processes and replaced them with the most advanced technologies. A rapid expansion of Amazon Go stores in the US and the recent increase in the integration of JWOT into retail stores in the UK and first test markets in Germany illustrate the success Amazon hopes to achieve with its retail concept. However, the success of new technologies mainly depends on the customers' usage intentions and acceptance. The present

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research shows which influencing factors should be considered when introducing JWOT in a new market, taking the example of the German retail market. The results emphasize that the intention to use JWOT is significantly influenced by performance expectancy, privacy concerns, and especially compatibility. The main limitation of the present study is that an online survey was conducted which demonstrated JWOT with the help of a short video only. Participants were not able to actually experience the technology. Since the presented video shows the example of Amazon

JWOT is a highly promising store concept that we will hear a lot about in the future.

Go, the responses could also have been influenced by the brand's image. Furthermore, the results are limited to the German retail market and must be verified for other countries and cultures

in future research. As another avenue for future research, the results could be investigated more extensively with regard to different customer segments. Additionally, research could also focus on other factors such as monetary or non-monetary rewards, loyalty, and service incentives to investigate their effect on the intention to use JWOT. Considering the identified influencing factors, JWOT seems a promising advancement for the retail market, raising the in-store shopping experience to a new level. ■

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