«THE INFLUENCE OF INSTORE MUSIC ON SALES AT THE STATIONARY POINT OF SALE»

Creating a pleasant and feel-good atmosphere (e.g., through suitable background music and lighting) is becoming an increasingly important strategic tool for retailers. In times of saturated markets, diverse offers, countless competing companies, and a strong online trade, it is more important than ever for retailers to differentiate themselves at the stationary point of sale (PoS). Thus, for decades, researchers have studied the effects of the atmospheric element music on customer behavior directly in sales situations at the stationary PoS: Thus, a wide variety of scientific studies have investigated how music affects affective and cognitive consumer reactions (e.g., emotions, perception of time, satisfaction with the shopping experience) and direct behavior (e.g., time spent in the store, impulse purchase, product decision). Most of these studies were able to confirm a positive effect of music on customer behavior at the PoS. It is therefore not surprising that music is today a loyal companion at almost every purchase in the supermarket, a restaurant visit or a visit of the favorite cafe. In addition to creating a coherent atmosphere that invites customers to browse, retailers want to reach another goal with music: they want to stimulate (impulse) purchases to increase sales. But does music really have a positive effect on sales? Can music literally open the customers' wallets? Answering these questions is the focus of this scientific paper. The goal is to provide a well-founded overview of scientifically relevant studies that specifically address the question «Can music increase sales at the stationary PoS?».

1. Introduction

«Can music influence customers?», this is one of the central questions many researchers have addressed in the research field of consumer behavior and atmospherics (North, Shilcock and Hargreaves, 2003). Today there is still a great fascination with music as an influencing medium – both in science and in practice. Statements like «music is the world language» or the «best way to communicate» reflect the communicative character of music (Tauchnitz, 1989). Like hardly any other art, music can express, portray and trigger emotions.

Music is ubiquitous, it is an important component in many situations of our daily lives. Who does not know a situation like this: A song on the radio is suddenly reminding us of something personal, a certain situation, a person or simply a feeling. But music does not only accompany us in our private lives, but it is also used as a strategic tool in marketing and advertising (Moser, 2002): Nowadays

background music is played while we are making our daily purchases in the supermarket, it is played while we are getting our hair done at the hairdresser, or while we are having a nice dinner in our favorite restaurant (Rarreck, 1989). In this context, music mainly has an activating function: The customer should get stimulated, should get into a better mood, and should thus buy more (Moser, 2002). In addition to a short-term change in behavior (e.g., an impulse purchase), retailers also hope to be able to permanently shape customers' attitudes into a positive direction in the long term (e.g., positive attitudes toward the retailer could be translated into loyalty in the long term), because it is assumed that attitudes determine behavior (Stroebe, Jonas and Hewstone, 2003). A question that arises is why music is suitable as an influencing medium at all? Rarreck (1989) provides an explanation: «Humans are practically at the mercy of hearing. Acoustic stimuli cannot be avoided, which makes music in particular a very effective means of influencing customers» (Rarreck, 1989).

The goal of this literature work is to provide a scientific state-of-the-art overview of relevant studies that have investigated a connection between music and sales at the stationary PoS. Therefore, different relevant scientific studies are analyzed, and their results are discussed. In the context of this work, the following questions will be answered:

- Can music have a positive influence on the buying behavior of customers at the stationary PoS?
- Could an increase in sales be recorded in the analyzed scientific studies?

This literature work consists of two parts: The first part is a theory part, which is intended to provide the reader with an introduction and important insights about the topic «music». At the beginning, a basic knowledge about music at the PoS is given to the reader. The second part deals with the question to which extent music can influence the buying behavior of consumers - and lead to an increase in sales.

In this context, studies are presented that have addressed this specific question. The following databases were searched as part of the literature search: *EBSCOhost (EBSCO Business Source Complete), Emerald, ABI/Inform, Science Direct, Google Scholar, JSTOR, and Econis*. This scientific literature review concludes with a conclusion and implications for practice.

2. Music at the PoS

In times of sensory overload, retailers must define new ways to communicate with their customers (Scheier and Held, 2018). Due to an increasing competition on the market and even stronger online retailing, stationary retailers must find new ways to interact with their customers and - more important - to bring them physically into their store. Many retailers constantly improve their in-store design and use atmospheric strategies to create an optimal shopping experience for their customers (Bacon 2014; Biswas, Land and Szocs, 2018). One important goal of in-store marketing (also called PoS marketing) is to find measures to influence customers directly at the stationary point of sale and activate them to make (unplanned) purchases. Thus, the importance of in-store marketing has grown

over the past few years: In-store marketing includes various measures (tactics and ideas) that support retailers to influence their customers. In addition to the use of light, colors, interior design and fragrances, there are other ways to give the customer a final impulse before or in a purchase decision (Swoboda, 2003). Here, music in particular plays a very significant and prominent role, as it has been confirmed in many studies as a positive influencing medium.

2.1 Definition: Music at the PoS

In retailing, music is a component of the so-called «atmospherics», i.e., atmosphere-creating elements such as light, scent, room design and temperature (Bruhn, Oerter and Rösing, 1994). Music can have different characteristics at the PoS: Normally, it is played quietly as background music (also called «ambient» music), but there has been an increasing trend in recent years to play music in the foreground- and thus louder than recommended (Johnson, 2016; Biswas, Land and Szocs, 2018). However, since quiet background music is still the standard at the stationary PoS, it is defined in a next step: Background music is classified in the division of «functional» music. Functional music is music that is used to create certain effects in a specific situation without the conscious engagement with the music (Vanecek, 1991).

Music at the PoS is usually unobtrusive with the goal to create a relaxed and pleasant mood. In contrast, loud foreground music demands the listener's attention. According to Kah (2018), background music has the following characteristics:

- Like elevator music, background music is composed of repetitive elements such as simple melodies and recurring harmonies
- Overall, the style is not very intrusive and rather subtle
- The rhythm is slow and soothing at the same time
- The music should fit the setting and should evoke a specific mood with the customers (e.g., happiness)

And although there exist a variety of studies that confirm the positive effects of music on customer behavior at the stationary PoS, music is still too often used intuitively, according to chance and personal preferences (Rarreck, 1989; Michel, Baumann and Gayer, 2017). The often-arbitrary selection of music «according to the gut feeling» is surprising, because various studies have proven that music can not only have a positive, but - in individual cases - also a negative effect on consumer behavior. To minimize the negative aspects and maximize the positive ones, the targeted use of music should become increasingly relevant and should no longer be left to chance (Kusatz, 2007; Michel, Baumann and Gayer, 2017). One way to use music strategically is, for example, to use professional in-store radio providers (also called «PoS radio,» «shopping radio» or «store radio»). In-store radio is a medium for broadcasting music, moderation, news, and advertising within retail outlets at the PoS (Hömberg, Hohlfeld and Schnellhardt, 1998). One question arises: What exactly do retailers hope to gain from the use of background music? This question will be clarified in the next chapter.

2.2 Goals of Music at the PoS

Music fulfills a variety of functions at the stationary PoS. For example, it can be used as a tension reliever, as a trigger or amplifier of emotions, or as an attention-catcher (Walewski, 2000 p. 12). «[...] music in supermarkets is designed to make shopping more enjoyable» (Smith and Curnow, 1966). In psychology and medicine, it has been proven many times that music can cause vegetative and psychological changes in humans (Rarreck, 1989). The nature and intensity of these changes is indeed depending on the vegetative responsiveness of the individual, on his/her emotional and cognitive responsiveness, and on his/her general attitude towards music (Vanecek, 1991). Under certain circumstances, therefore, it is very likely to influence consumers with music. In summary, the goals of retail can be defined as follows: using music, retailers hope to achieve both short-term behavioral effects (e.g., better mood) and a longer time spent in stores, which in turn should lead to more (impulse) purchases. As long-term effects, higher customer satisfaction and loyalty are targeted (Hömberg, Hohlfeld and Schnellhardt, 1998).

2.3 What should be considered when using music at the PoS?

It could be so easy: Spotify on, select a nice playlist, and suddenly all customers buy more – but unfortunately it doesn't look like this. When using music, there are a few factors that should be considered: Music should always fit the situation, respectively the setting, in which it is played (Michel, Baumann and Gayer, 2017). Because even if background music is predominantly assessed as a positive medium, there are also situations in which exactly the opposite is the case and music is perceived as disturbing or inappropriate by customers. In the following section, this is explained using the example of musical volume.

In the last decades many scientific studies have tried to make the effects of background music more «tangible»: They analyzed which volume, which genre, which tempo, etc. is «optimal» to influence the customers behavior positively at the PoS. Interestingly, most studies confirm that there is no such thing as an «optimal», there is no «one fits all approach». Thus, they emphasize that for every single retailer it is important to figure out which kind of music, in which tempo and volume is the best for their own store (Michel, Baumann and Gayer, 2017). Even though an optimum has not been found so far, certain trends can be identified. If we look at, for example, at the volume of music at the PoS many studies agree: «background music should not be played too loud, because today's already noise and stress-ridden people are exposed to a further stressor through the inescapable music sprinkling» (Vanecek, 1991). If music is too loud at the PoS, this could lead to negative side-effects: one possible consequence may be that the customer gets disrupted or nerved, which usually leads to unintended outcomes such as purchase abandonment (Milliman, 1982; Kroeber-Riel and Weinberg, 2003). Authors who come to this conclusion recommend keeping the volume of the music just above the awareness threshold, i.e., it should not become too prominent so that it dominates during the purchase.

But as so often in life it becomes apparent that there is not only «black and white», but several shades in between: In recent years, an increasing trend toward loud music at stationary PoS has emerged (Johnson, 2016; Biswas, Land and Szocs, 2018). For example, a New York Times reporter measured sound levels in various stores and restaurants and found that more than 33% of the establishments surveyed in New York City had noise levels so high that employees were required by law to wear hearing protection (Buckley, 2012). Similar trends have been observed in the fitness industry in the recent years: Gyms are playing their music much louder than in the past (Hallett, 2015). Loud music has also made its way into clothing stores: For example, Abercrombie & Fitch (A&F) stores play music at a volume of 85 to 90 dB-which is just below the legal limit for commercial establishments, meaning employees are allowed to work without hearing protection (Grinspan, 2012; Richards, 2012). To put this into perspective, a normal lawnmower has a noise level of about 90 dB (Richards, 2012). A&F very likely pursues strategic goals with the high volume of the music - namely to keep older customers away from their stores and to attract young customers with the loud music and activate their buying behavior (Paxman, 2011). Using the example of volume alone, the dilemma of the effect of music can be clearly demonstrated: Music has different effects - depending on the context and setting. To sum it up: There is no «music has to be like this to achieve positive effects,» but a «music should always be seen as part of the corporate strategy - and used individually.»

Regarding the usage of music, many researchers recommend that retailers should take care not to use the same music over a period of years. Variety is important, otherwise it can lead to habituation effects, which may lead to bored customers that change the retailer or do not buy any additional things (Rarreck, 1989). Yalch and Spangenberg (1990) therefore recommend a variation of the music. Thus, the background music played in the salesroom should change continuously throughout the year (Yalch and Spangenberg, 1990).

In summary, it can be stated that the use of background music should be thoroughly and, above all, strategically well thought out - and not be based on a «gut feeling» or a «personal preference». It is particularly important to use the right music, at the right volume, the right tempo, the right genre, for the right target group, for the right occasion, etc., to avoid undesirable consequences such as a negative influence on consumers and to maximize positive effects such as impulse purchases.

3. The connection between music and sales

Music has been the focus of research interest for many years. The field of background music is a well-researched one: numerous studies have already analyzed how music affects customers. And since music is so diverse, there are numerous studies that focus only on the loudness of the music, for example, while others focus only on the tempo or genre of the music (Garlin and Owen 2006; Turley and Milliman, 2000). The various effects of music on the consumer are also investigated, e.g., effects on emotions, on decision-making and purchasing behavior, or on time spent in the store.

A very good overview of the percentage distribution of background music variables studied over the years is provided by Garlin and Owen (2006) in their meta-study «Setting the tone with the tune: A meta-analytic review of the effects of background music in retail settings» The authors summarize that most of all studies (41%) to 2006 examined the relationship between music and affective variables (e.g., mood, arousal, emotions). Another 25% examine the relationship between music and financial returns (e.g., impulse purchases, quantities purchased, sales). Another 24% examine the relationship between music and attitudes or perceptions (e.g., loyalty, satisfaction, product ratings). 20% of the remaining studies examine the relationship between music and short-term effects (e.g., time spent in store, decision time), and 10% of the studies focus on behavioral changes (e.g., store choice, referrals). A similar percentage distribution is found when looking at studies from 2006 to present. In the context of this thesis, we will mainly focus on the studies that investigate the influence of background music on consumer buying behavior, respectively on sales.

3.1 Analysis of various studies that investigate the relationship between music and sales

One of the first studies that examines the effects of music on sales is the study «Arousal Hypothesis and the effects of Music on Purchasing Behavior» by Smith and Curnow from 1966. In their study, the authors addressed the question «Does the volume of music have an influence on (1) the time customers spend in the store and (2) on sales?» and assumed that the activity (arousal) of customers is stimulated at a certain level of musical volume (Smith and Curnow, 1966). To answer their research question, the authors observed 1100 customers in two different supermarkets over the course of a month and found that loud music leads to customers being more activated, but also spending less time in the shopping store. Interestingly, customers spent more money although they reduced their shopping time: on average, 2.6 cents more per customer per minute was spent (55.6 cents versus 53.0 cents) (Smith and Curnow, 1966). However, the authors clarified that the higher spending did not affect sales (total) (which remained constant) but was merely increased because consumers bought more in a shorter time.

Another exciting study which analyzed the relationship between music and sales is Milliman's (1982) famous study, «Using Background Music to Affect the Behavior of Supermarket Shoppers». Milliman (1982) analyzed whether the tempo of music at the PoS influenced the (1) pace of traffic flow in the store, (2) daily gross sales, and (3) number of customers who remember the music. The field experiment lasted nine weeks. A total of 216 customers of a supermarket participated in the study (Milliman, 1982). Milliman (1982) was able to confirm that slow music causes consumers to reduce their shopping speed, while fast background music causes shopping speed to increase. Daily sales were significantly higher with slow music ($16,740.23) than with fast music ($12,112.85). Milliman (1982) was thus able to report a sales increase of 38.2% per day on average. He was also able to show that in supermarkets it was even better to play no music (no-music-condition) than fast background music, i.e., sales were highest with slow music, lowest with fast music, and when no music was played, sales were in between (Milliman, 1982).

In his follow-up study, Milliman (1986) investigated whether the tempo of background music influenced (1) the amount of time customers spent in the restaurant, (2) the length of time spent eating, (3) the number of meals and drinks ordered, and thus sales. His survey took place in a restaurant and a total of 1392 customers were observed. Milliman was able to show that when background music was slow, customers spent more time in the restaurant (11 minutes longer on average), ate more slowly, and consumed more food and beverages, which resulted in sales increasing. However, while food sales increased only minimally - from $55.12 to $55.81 - Milliman saw a significant increase in beverage sales. Here, sales per customer increased by almost $10 from $21.62 to $30.47 (cf. Milliman, 1986) - customers drank an average of 3.04 drinks more when slow background music was playing.

A different approach was taken by Areni and Kim (1993) in their study «The influence of Background Music on Shopping Behavior. » The authors raised the question whether the genre of music (classical music vs. Top 40 music) can have an influence on (1) information seeking, (2) buying behavior, and (3) shopping time of consumers. Areni and Kim (1993) suggested that the use of classical background music - compared to other music genres - may increase the number of sales and time customers spend in a store (« and Kim, 1993). The survey took place in a wine cellar in a restaurant. Within a period of two months - the music genre was changed alternately during this time - the behavior of a total of 64 customers was observed. The result was impressive: Under the condition «classical music» and Kim (1993) report a positive effect on customer's sales volumes, i.e., sales volumes were higher when customers were exposed to classical music than to top 40 music. The authors explain this behavior as follows: «This suggests that wine purchasing, tasting and consumption are associated with higher socio-economic status and prestige [...]» (« and Kim, 1993). Regarding sales, the authors were able to show that this increased two and a half times with classical music, from 2.18$ to 7.43$. The customers did not take more bottles overall, but more expensive ones.

In their study «Effects of Store Music on Shopping Behavior» Yalch and Spangenberg (1990) investigated whether music in the background (soft) or in the foreground (loud) and the type of music (e.g., Top40 and easy listening) had an influence on the shopping behavior of consumers in a clothing store. In addition, the authors added a «no-music» condition to their study. Yalch and Spangenberg (1990) were able to report exciting results: Customers spend more time in the store and make more purchases when they like the music that is played. Another exciting finding was that consumers evaluated music in the foreground (louder than normal) as more positive than background music - even across all age groups. The authors explain that the slightly louder music - especially in combination with being liked - has a stimulating effect and can put customers in a good mood, which in turn leads them to spend more time and more money in the store (Yalch and Spangenberg, 1990).

In their follow-up study «Using Store Music For Retail Zoning: a Field Experiment» Yalch and Spangenberg (1993) divided an American clothing store into different areas (so-called zones) in which they played music - tailored to the respective target group (divided by age and gender). In the respective areas, they observed the behavior of the customers and interviewed them after their purchase. The goal was to understand the effect of volume in the different areas on (1) the time customers spent in

the store, (2) on the expenditures made, and (3) on the evaluation of the goods in the store. In terms of sales, the authors were able to report that customers bought more when music was played: 55% of customers bought something - while only 47% of customers bought when no music was played (see Yalch and Spangenberg, 1993). For the women's clothing department, the authors were able to show that soft music in the background (compared to loud foreground music) resulted in customers buying more (57% purchases with soft music vs. 26% purchases with loud music) and also that they spent almost 3x as much money with background music ($22.22 vs. $8.91). In the men's apparel department, the picture was similar, with the difference that men bought more when loud music was playing (76% purchases with loud music vs. 57% with soft music). In addition, sales almost doubled when loud music was played: $34.18 when loud music was played versus $18.13 when soft music was played (Yalch and Spangenberg, 1993). In addition, the authors were able to show that customers spent more time in the store when they felt comfortable with the music. The study by Yalch and Spangenberg (1993) clearly shows how differently music can affect customers and how important it is for retailers to use music analytically and not «out of a gut feeling».

In their extensive study, Herrington and Capella (1996) examined, among other things, the influence of the tempo and also the presence or absence of background music on (1) the time spent by customers in the store and (2) the purchase amount per customer. They nearly had the same research question as Milliman's (1982), but instead of examining daily gross sales volume, they examine individual spending per customer. Their study was conducted in a supermarket and 140 customers were interviewed. In contrast to Milliman (1982), Herrington and Capella (1996) found that tempo had no effect on time and sales, but the presence and absence of background music did. The authors were able to show that the purchase amount per customer averaged $25 more when music was present. When the music was absent the individual spending was $23.85, compared to $48.37 when background music was played in the store.

In their popular wine study «The influence of In-Store Music on Wine Selections» North, Hargreaves and McKendrick (1999) investigated whether stereotypical French and German music can influence the selection of certain French or German wine: they measured the number of purchase decisions for either a French wine or a German wine and assumed that French music would lead customers to buy French wine and vice versa. Therefore, they presented supermarket customers a selection of four German and four French wines. To make sure that customers had not a general preference for a special wine in general, they used a questionnaire with rating scales. The procedure of the study was the following: German or French music was played alternately each day. At the end of the study, they came to an interesting conclusion: on days when French music was played, more French wines were purchased; on days when German music was played, customers predominantly purchased German wines (North, Hargreaves and McKendrick, 1999). It is interesting to note that the customers were not able to explain their wine choice during the survey: «Indeed costumers may not have explained their wine choice in terms of the music simply because this did not seem to them like a rational explanation for their behavior» (North, Hargreaves and McKendrick, 1999). The results once again show that customers can subconsciously be influenced by music.

In their article «The influence of Music Tempo and Musical Preference on Restaurant Patron's Behavior» Caldwell and Hibbert (2022) examined the effects of musical tempo and preference on the time spent and the expenditures in a Scottish restaurant. A total of 62 consumers were observed and the authors reported exciting results: with slower music that customers liked, they stayed an average of 15.03 minutes longer and consumed more: for food, customers spent an average of £2 more (£16.14 with fast music and £18.14 with slow music). For drinks, they also spent an average of £3.08 more (£06.04 with fast music and £09.12 with slow music). The authors explicitly point out that the music should be in harmony with the setting to increase sales.

In his study «The impact of pitch, volume and tempo on the atmospheric effects of music» Sullivan (2002) examined - among other things - customers spending under the condition's presence or absence of music in a restaurant. The study had powerful findings: When no music was played during the meals, customers consumed and spent less: £4.09 when no music was playing and £6.91 when music was playing. In addition, guests stayed an average of 16.25 minutes longer when music was playing.

In her paper «The Effects of Music on Perceived Atmosphere and Purchase Intentions in a Restaurant» Wilson (2003) examined the effects of musical genre (e.g., jazz, pop, classical) and absence of music on customers perceptions of restaurant atmosphere and purchase intentions. As part of the study, she was able to report exciting results: When no music was played in the restaurant, the 300 consumers spent an average of Aus$17.12 more. Wilson (2003) also tested different genres of music and was able to show that each genre, whether jazz, pop, classical, or easy listening resulted in higher spending than when no music was playing: The absence of music leads consumers to spend less. Excitingly, the spending varied by the different genres: for example, consumers spend Aus$19.67 on easy listening, Aus$20.20 on classical music, Aus$21.01 on pop music, and the most on jazz: Aus$21.82.

In their study «Person-Place Congruency: The Interactive Effects of Shopper Style and Atmospherics on Consumer Expenditures», Morrin and Chebat (2005) studied the effects of different atmospheric elements (background music and scent) on the expenditures (especially on impulse purchases) of 774 customers of a shopping center. The authors were able to show a strong effect of background music on impulse purchases: on average, customers spent $45.28 more when music was played ($51.61 without music and $96.89 with music). They also reported that customers spent slightly more when they were confronted with scent ($35.20 without scent and $46.50 with scent). The following result is interesting: when both atmospheric elements were combined (scent and music at the same time), customers spent comparatively less.

In 2009, Jacob et al. published their study «Love is in the Air: congruence between background music and goods in a florist», in which they investigated the effects of two different music genres (romantic music and pop music) and the absence of music on the purchasing behavior of 120 customers in a French flower shop. They reported that customers bought significantly more when romantic music was played in the background. They also showed that male customers spent on average about 10€

more when romantic music was played than when no music was played (36.27€ when romantic music was played, 30.29€ when pop music was played and 27.06€ when no music was played). Female customers showed a similar buying behavior, but the effect was less distinctive. When romantic music was played, female customers bought on average for about 6€ more than when no music was played (30.13€ when romantic music is played, 25.19€ with pop music and 24.09€ when no music was played). In sum it can be said that both music genres performed better than no music, thus the musical genre can have a significant impact on sales.

In their study «It is all in the mix: The interactive effects of music tempo and mode on in-store sales» Knöferle et al. (2012) examined the relationship between musical tempo and tone gender (major/minor) on sales in a large Swiss department store chain offering a wide range of premium products such as premium food, wine, clothing, household goods, and accessories. Like Milliman (1982, 1986), Knöferle et al. (2012) confirmed a positive effect of slow background music on sales, but they attribute the positive effects of slow music mainly to the musical mode: slow music in minor showed the most positive effects on sales. They explain the results by assuming that certain, harmonic combinations of tempo and mode are preferred over other combinations (Knöferle et al., 2012). While Milliman reported an average gross sales increase of 38.2% (for slow music), Knöferle et al. (2012) results showed that slow music in a minor key increased sale by 12%. The authors argue that their results are a probably more realistic estimate of the effect of music tempo on sales than those of Milliman (1982, 1986) because they took different external influences (such as weather) into account and used statistical methods that account for hierarchical structures and repeated measures of such data (Knöferle et al., 2012).

In their study «Impact of store environment on impulse buying behavior» Mohan, Sivakumaran and Sharma (2013) investigated the influence of the four atmospheric elements of the store environment (music, lighting, layout, and employees) on the impulse buying behavior of customers. For this purpose, the authors interviewed 1478 customers of an Indian supermarket and found that there was a significant correlation between the evaluation of the store ambience and impulse purchases - unfortunately, the authors do not provide specific sales figures in their study. As part of their study, the authors were able to show that customers who felt comfortable in the store (due to the nice atmosphere) made more (and above all unplanned) purchases on average.

In their large-scale meta-study «Calibrating 30 Years of Experimental Research: A Meta-Analysis of the Atmospheric Effects of Music, Scent, and Color», Rosch, Correia Loureiro and Breitsohl (2017) summarized the effects of music, scent, and color at the stationary PoS on the customer variables «pleasure», «satisfaction», and the «behavioral intentions» based on 66 studies from the last 30 years. In the context of this study, the effect of music on sales is not exclusively considered, but there is a relevant core finding: The authors confirm the effect of a well-designed environment (a coherent combination of music, scent, and colors) on the positive stimulation of customers' senses, which, in turn, can generate higher sales figures (Rosch, Correia Loureiro and Breitsohl, 2017). In addition, the authors confirm in their meta-study that the presence of music (compared to the absence of music)

has a positive influence on the enjoyment, satisfaction, and behavioral intentions of customers (Rosch, Correia Loureiro and Breitsohl, 2017).

In a recent study from 2018 with the title «Sounds like a healthy retail atmospheric strategy: Effects of ambient music and background noise on food sales» Biswas, Land, and Szocs examined the effects of volume on product selection. In this large-scale study, the authors explored the question of what impact loud or soft background music has on healthy or unhealthy food purchases. In a pilot study, two field experiments, and five laboratory studies, the authors were able to show that low volume (compared to loud music) encourages customers to purchase more healthy foods due to induced relaxation (Biswas, Land and Szocs, 2018). In contrast, the authors were also able to show that loud music tends to increase the level of arousal, which in turn leads to unhealthy food choices.

In summary it can be confirmed that music can have an impact - in some cases also a significant impact - on sales. And although music is the best-researched atmospheric variable to date (Turley and Milliman, 2000), many questions are still open in 2022. However, the literature is unambiguous that the use of music should be individually designed for the respective setting, the respective target group, the respective goal of the retailer (e.g., customers should stay longer in the store or should quickly give up their seats in, for example, a fast-food chain) (Michel, Baumann and Gayer, 2017). In addition, music should always be in harmony with the overall store atmosphere (e.g., spatial layout and design, lighting, scent, employees) in order to generate the best possible output (Babin and Attaway, 2000; Michel, Baumann and Gayer, 2017). Music should therefore be considered, evaluated, and used in combination with the whole environment.

3.2 The different studies in an overview

Authors and year of publication	Content of the study	Results	Could an increase in sales be shown?
Smith and Curnow (1966) «Arousal Hypothesis and the effects of Music on Purchasing Behavior»	Does the volume of music have an impact on (1) the amount of time customers spend in the store and (2) sales?	Loud music causes customers to spend less time in the store but buy more in the short time.	Yes, customers spent an average of 2.6 cents more per customer per minute (55.6 cents versus 53.0 cents).
Milliman (1982) «Using Background Music to Affect the Behavior of Supermarket Shoppers»	Does the tempo of the music at the POS affect the (1) pace of traffic flow in the store, (2) daily gross sales, and (3) number of customers who remember the music?	Consumers reduce their shopping speed when slow music is played, while fast music causes them to increase their shopping speed. Daily sales are significantly higher with slow than with fast music.	Yes, the daily turnover was $12,112.85 in the supermarket for fast music, while it was about 38.2% higher for slow music, at $16,740.23.
Milliman (1986) «The influence of Background Music on the behavior of Restaurant Patrons»	Does the tempo of the music have an impact on (1) the time customers spend in the restaurant, (2) the speed of the meal, (3) the number of meals and drinks ordered and (4) the sales?	With slower music, customers spend more time in the restaurant, eat slowly, and buy more food and drinks, which leads to an increase in sales.	Yes, customers consumed an average of three more drinks, which is reflected in a revenue increase of about $10 per guest, from $21.62 to $30.47.
Yalch (1990) «Effects of Store Music on Shopping Behavior»	Does foreground vs. background music, the type of music and the liking of the type of music have an impact on (1) the time customers spend in the restaurant and (2) unplanned purchases?	Customers shop more and spend more time in the shop if they like the music. Customers also indicated that they liked the louder music more than the soft background music.	Yes, customers are making more unplanned purchases, but no specific sales figures are given in the study.
«Areni and Kim (1993) «The influence of Background Music on the behavior of Restaurant Patrons»	Can the musical genre (classical vs. top 40 music) have an influence on (1) information seeking, (2) purchasing behavior and (3) consumer behavior?	Classical music increased sales two and a half times more compared to Top 40 charts. The customers did not take more bottles (of wine), but more expensive ones. However, music has no influence on the length of stay in the restaurant.	Yes, customers were buying more expensive wines, which was reflected in the turnover, which increased 2.5 times from $2.18 to $7.43 per customer.

Authors and year of publication	Content of the study	Results	Could an increase in sales be shown?
Yalch and Spangenberg (1993) «Using Store Music For Retail Zoning: a Field Experiment»	Does the volume of the music (in the different areas of a clothing shop) have an impact on (1) the amount of time customers spend in the shop, (2) sales, and (3) the evaluation of the goods in the shop?	For the women's clothing department, the authors were able to show that soft background music (compared to loud foreground music) led to customers buying more. In the men's clothing department, the picture was similar, with the difference that men bought more when loud foreground music was playing.	Yes, in the women's clothing department customers spent 3x more ($22.22 with soft music versus $8.91 with loud music). In the men's clothing department, sales doubled ($34.18 with loud music versus $18.13 with soft music).
Herrington and Capella (1996) «Effects of music in service environments: a field study»	Can the tempo and presence/absence of music have an impact on (1) the time customers spend in the supermarket and on (2) the purchase amount per customer?	The tempo of the music has no influence on the time spent in the supermarket, nor on sales. The presence of music has a positive effect on customer behavior. Customers also spent more time and more money if they liked the music.	Yes, customers bought more when music was played, which was reflected in the turnover: this increased by $25, from $23.85 to $48.37.
North, Hargreaves and McKendrick (1999) «The influence on In-Store Music on Wine Selections»	Can stereotypical German or French music influence the decision to buy German or French wine?	Customers bought more French wine when French music was played and more German wine when German music was played.	The study did not investigate the sales figures, but clearly shows that music can influence the decision to buy a particular product.
Caldwell and Hibbert (2002) «The influence of Music Tempo and Musical Preference on Restaurant Patron's Behavior»	Does the tempo and preference of the music have an impact on (1) the time customers spend in a restaurant and on (2) the purchase amount per customer?	The tempo and preference of the music (i.e. whether customers like the music and consider it as appropriate for the setting) have a positive influence on the time spent in the shop and also on sales.	Yes, customers consumed more, which was reflected in the turnover: this increased by £2 for food and £3.08 for drinks.

Authors and year of publication	Content of the study	Results	Could an increase in sales be shown?
Sullivan (2002) «The impact of pitch, volume and tempo on the atmospheric effects of music»	Does the presence and absence of music have an impact on (1) the time customers spend in the restaurant and (2) the purchase amount per customer?	The presence of music has a positive effect on customer behavior, customers consumed more when music was playing in the background.	Yes, customers consumed more, which was reflected in sales, which increased by £2.85, from £4.09 to £6.91.
Wilson (2003) «The Effect of Music on Perceived Atmosphere and Purchase Intentions in a Restaurant»	Does the genre and absence of music have an impact on the amount customers spend in the restaurant?	The presence of music has a positive effect on customer behavior: customers consumed more when music was played in the background. It was also found that the different genres have different effects on spending: Jazz, for example, leads to the highest spending.	Yes, customers consumed more when background music was played. For easy listening music, consumers spent on average Aus$19.67, for classical music Aus$20.20, for pop music Aus$21.01 and for jazz the most: Aus$21.82. The least amount was spent when no music was played.
Morrin and Chebat (2005) «Person-Place Congruency The Interactive Effects of Shopper Style and Atmospherics on Consumer Expenditures»	Do the atmospheric elements music and scent have an influence on customers spending (especially impulse buying)?	The presence of music has a positive effect on impulse purchases: customers bought more when music was played in the background. The same was shown with the atmospheric variable scent: customers made more impulse purchases when they were confronted with scent. It is interesting that the joint use of music and scent led to fewer impulse purchases.	Yes, customers spent an average of $45.28 more (mostly impulse purchases) when background music was playing ($51.61 without music and $96.89 with music).
Jacob, Guéguen, Boulbry and Sami (2009) «Love is in the Air: congruence between background music and goods in a florist»	Does the musical genre (romantic music and pop music) and the absence of music influence the purchase behavior of customers in a flower shop?	Romantic music leads customers to buy more. Especially the male customers spent on average more with romantic music. It could also be shown that both music genres are	Yes, especially the male customers spent on average about 10€ more when romantic music was playing in the flower shop

Authors and year of publication	Content of the study	Results	Could an increase in sales be shown?
		better than playing no music.	(women spent about 6€ more in comparison).
Knöferle, Spangenberg, Herrmann and Landwehr (2012) «It is all in the mix: The interactive effects of music tempo and mode on in-store sales»	Does the volume and musical gender (major/minor) have an influence on sales in a department store chain?	Slow background music has a positive effect on sales, which the authors mainly attribute to the musical mode: Slow music in a minor key showed the most positive effects on sales.	Yes, customers bought more, which was reflected in the turnover - this increased by 12% with slow background music in a minor key.
Biswas, Land and Szocs (2013) «Impact of store environment on impulse buying behavior»	Do the four atmospheric elements of the shop environment (music, lighting, layout, and staff) have an influence on impulse buying?	There is a significant correlation between the evaluation of the store ambient and impulse purchases. Customers who felt comfortable in the shop (due to the nice atmosphere) made more (and unplanned) purchases.	Yes, customers are making more unplanned purchases, but no specific sales figures are given in the study.
Rosch, Correia Loureiro and Breitsohl (2017) «Calibrating 30 Years of Experimental Research: A Meta-Analysis of the Atmospheric Effects of Music, Scent, and Color»	What conclusions can be drawn about the effects of music, scent and color on the variables "pleasure", "satisfaction" and "behavioral intentions"? (Note: This is a meta-study that examines a total of 66 studies from the last 30 years.)	A well-designed environment (a coherent combination of music, scent and colors) can generate higher sales. The presence of music (compared to the absence of music) has a positive impact on customers' enjoyment, satisfaction, and behavioral intentions.	Yes, a positive effect on sales could be shown. However, no concrete sales figures are mentioned in the study.
Biswas, Land and Szocs (2018) «Sounds like a healthy retail atmospheric strategy: Effects of ambient music and background noise on food sales»	Does the volume of the music have an influence on the product choice (healthy vs. unhealthy food) of customers?	A low volume (compared to high or none) encourages the purchase of healthy food (reduction of stress through slow music). In	The study did not look at sales, but clearly shows that music can influence the decision to buy a particular product.

4. Limitations and future research

If we look at the scientific studies that studied the impact of music and sales at the stationary PoS, there are also some limitations despite the various interesting results.

First: the relationship between background music and sales has been studied – but it has not been the focus of the scientific interest. Compared to other variables, that have been studied so far, the relationship between music and sales has received relatively little scientific attention. This is surprising, as sales is one of the most important metrics for retailers - and should therefore be of great interest. The focus of the published studies to date focused primarily on the analysis of music and its effect on various affective variables (e.g., mood, arousal, emotions). Only 25% of all studies analyze the connection between music and financial returns (e.g., impulse purchases, quantities purchased, turnover) – and only about 10% of all studies examined the direct connection between music and sales (Michel, Baumann and Gayer, 2017; Garlin and Owen, 2006).

Second: probably the greatest limitation in the field of studies on the effect of music on sales is that there are only a few studies that fully meet the scientific requirements: For example, many studies do not present usable statistics or have serious design problems that affect the results and thus the significance of these findings (Garlin and Owen, 2006). Mainly, these criticisms can be attributed to poor experimental designs, such as the lack of a control group (e.g., a no-music condition) or poor comparability of conditions in the field studies. In addition, many studies focused on the effects of music on affective variables or behavior and, with this approach, ignore possible moderation effects between music, emotions, and behavior. Future research could investigate whether there are potential moderators that strengthen or weaken the relationship between music and customer behavior (Michel, Baumann and Gayer, 2017).

Third: Looking at the development of the research about music in the last years, it can be stated that studies dealing with the topic of music at the stationary PoS have generally become rare - moreover, since 2013, there exists no study published in a highly ranked journal that examines the connection between music and sales. For future research, it is certainly exciting to design new studies (e.g., also replication studies) that examine the effects of music on sales, also considering current events, such as increased smartphone use, the trend towards online shopping, possibly still existing pandemic measures, new or unstudied music genres (e.g., hip-hop, electro, indie rock) or also new PoS settings such as pop-up stores, showrooms etc.

5. Conclusion and implications for practice

The goal of this paper was to contribute to answer the question whether music at the stationary PoS can have an influence on the buying behavior and thus on sales. The results of the studies presented on the connection between music and sales suggest that the presentation of music can indeed have a positive influence on the buying behavior of consumers. Should the conclusion of this paper be «music opens customers' wallets»? To be clear: This is not always the case, because it should be obvious that there is hardly a piece of music that can be guaranteed to cause the same

emotions and certain behaviors in every situation, at every PoS and in every customer. There are even studies that have found that - in rare cases – sometimes it is even better to play no music at all than to play music that is inappropriate for the setting and the target group (North and Hargreaves, 1996).

What can be concluded, however, is the following: music can increase sales if it is used consciously and individually adapted (Michel, Baumann and Gayer, 2017). Therefore, the question posed in the title of this paper, «catching customers with a beautiful sound?», can be confirmed, because it is not about using just any music at the PoS, but about selecting the right music for the individual PoS. And which music is the right one has to be found out for each retailer in their very individual setting.

Finally, let's look into the future: The relevance of music at the point of sale will probably increase even more, as in an environment with increasing competition and market saturation as well as decreasing opportunities for differentiation, every aspect that can be used to stand out from competitors should be exploited (Kroeber-Riel and Weinberg, 2003 and Johnson, 2016; Biswas, Land and Szocs, 2018). Retailers are therefore recommended to pay more attention to the impact of PoS marketing in the future to be able to directly influence the purchasing decisions of customers at the point of sale (Kroeber-Riel and Weinberg, 2003).

The goal of every stationary PoS in the future should be that shoppers who, for example, wanted to «just quickly run a few small, necessary groceries» end up with a fuller shopping bag than planned, or that shoppers who visit a restaurant order more (and more expensive) drinks during the meal than would have been necessary. And it is precisely in these moments - when the customer is already at the PoS - that the right music can be the «gamechanger» that encourages the customer to make unplanned purchases.

Future scientific studies could support the retail sector in this enormously important issue, e.g., by carrying out replication studies with a focus on current events and the latest scientific and statistical standards. In addition, an up-to-date study that examines the effect of music from for different PoS (e.g., retail, restaurant, bar) or from different perspectives (e.g., the retailer's perspective, the PoS perspective, the in-store music provider's perspective) would be an enormous help for the retail trade - which can develop rough ideas from the previous scientific studies but cannot derive concrete recommendations for action for the stationary PoS in 2022.

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