

Figure 1: Arne Aksel pop-up (Aurthors own image)

THE FIVE SENSES IN RETAIL SPACES

Critical Paper

MODULE:

Critical Design Research (ADB616)

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Interior Design and Decorations

TABLE OF CONTENTS

1	INTRODUCTION	
	Cover page	0
	Table of Contents	····· 1
\Diamond	Introduction	2
	Aims and Objectives	3
2	LITERATURE REVIEW	
	Discovering what sense is considered the most influential to consumer behaviour	•
	Smell	4
	Sight	4
\Diamond	Sound Understanding the process of emotions and how this triggers the conses	5
	Understanding the process of emotions and how this triggers the senses Exploring the link between consumer behaviour and the success of a retail space	6
	and how valuable this is to the design process	7
3	METHODS	
	Study 1: Questionnaire	10
	Study 2: Focus Group	13
	Study 3: Case Study	15
4	RESULTS	
	Conclusion	17
	Proposed further development	18
	Bibliography	19

Introduction:

'The senses are the gateways to the Intelligence. There is nothing in the intelligence which did not first pass through the senses' - Aristotle

This critical paper discusses how the five senses can influence consumer behaviour. In this instance, influence is meaning a marked effect which is closely related to consumer behaviour and its link to sales. The concept of the five senses is based around sensory cues. A sensory cue is sensory stimuli that influence sensory systems, created by environmental stimuli. Unintentional sensory cues can affect consumer appreciation, behaviours, and purchase preferences (Viegas, Pinto and Agapito 2023).

This paper will first explore how the design of a retail space (mid-range fashion retailers) can create an atmosphere that affects the five senses. Some of these will be more influential to the retail world, this study will help to identify which ones these are. To help with the findings, an online questionnaire will be conducted which will help to get a sense of how the public feel in retail spaces. A focus group to target opinions from a consumer and asses the results. And finally, a case study, which will allow a comparison experiences between consumers. Consumers are spending substantially more online than before the coronavirus pandemic and thus the close of 'brick and mortar' stores. In May 2022, seasonally adjusted internet sales accounted for 26.6% of all official retail sales, compared with 19.7% in February 2020 (ONS. 2022). It is important for stores to not only attract customers back into their stores but make them want to return. It is intriguing to think about how store atmospherics can be manipulated to influence the 5 senses to bring retail shopping back.

BRAND POSITIONING

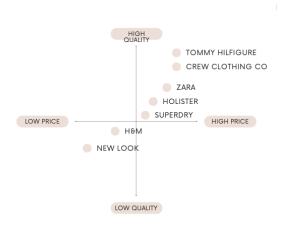


Figure 2: Brand Mapping based on the following spaces in this critical paper (Authors own image)

Aims and Objectives:

Aims:

The aim of this paper is to explore how atmospherics can be manipulated in a fashion retail space to influence a consumer's five senses. Another aim is to examine the link between the five senses and consumer behaviour and the affect this has on store engagement.

Objectives:

Secondary Objectives

- Understand how the five senses process through the body and the emotion this provokes.
- Explore the link between consumer behaviour and the success of a retail space and how valuable this is to the design process.
- Discover what sense is considered the most influential to consumer behaviour
- Finally, investigate studies and completed research.

Primary objectives

- Explore within a questionnaire, focus group and case study the relationship between a retail space and consumer behaviour, making sure to triangulate the methods.
- Visit retail spaces and assess personal experiences to study consumer behaviour.
- Finally, be able to bring together findings and gather conclusions.

Discovering what sense is considered the most influential to consumer behaviour

Smell

A notable finding from a discussion on sensory cues between Helmefalk and Hultén, where they say "non-visual cues are more powerful in increasing time spent and purchasing, as well as valence and arousal, than simply adding another visual cue to existing ones in the store environment" opens the debate as to which sense is considered the most influential to consumer behaviour. (Helmefalk and Hultén 2017, p66). Soars goes on to back this theory up by saying "smell is one of the most powerful influencers of all the senses because it allows the brain to be occupied with other thoughts". (Soars, 2019). Out of the 5 senses that are being investigated, a person's sense of smell is most closely related to emotions based on the brains olfactory system, and how that links smells to memories. A person's emotional response to something will affect their consumer behaviour, hence why companies have started to introduce signature scents into their stores. A study completed by Nike saw two identical shoes placed in two different, but identical rooms. The only difference being that one had a subtle sent of flowers. It was shown that 84% of the participants preferred the shoes in the scented room, even though they were at a higher price than the shoes in the other room. This is because the shoes in the scented room had a higher perceives value (Hulten 2020). The idea that such a subtle change can make such an impact on sales is very valuable to store design and continues the debate of which sense is more influential.

- The link between scent and perceived value will be tested in primary studies
- Also, the significance of olfactory memories

Sight

Contrasting to the notes above, Shukla argues that sight is one of the essential sensory factors that influence consumer behaviour as it plays a significant role in creating first impressions and judgments (Irani and Frankel 2020). However, sight can be further developed into colour psychology, and how this triggers an emotional response. Despite cooler colours being more favourable in retail design, research shows that warm colours tend to attract spontaneous purchasers, this is because it influences the perceived value of products. So warmer colours, such as red and yellow, are associated with a higher perceived value (Irani and Frankel 2020). There is no indefinite answer to which sense is the most influential, as it will vary based on the consumer and the environment. For example, it could be speculated that a customer in LUSH is likely to be overwhelmed by their sense of smell, but if that same customer when into LEGO, their sense of smell would unlikely be what influences them to make a purchase. This idea can be explored within a mid-range fashion retailer context to decipher which sense

should be studied more when discussing store design. Refining it to mid-range fashion retailers, visual ques would be considered more important as the customer wants to buy something that they like, but the atmosphere around them could make the item appear different.

Consider how the surrounding senses will behave when sight is taken away

Sound

Sound can contribute to a listeners positive or negative feelings, as exploited in the film industry. These provoked emotions in listeners are induced through the physical characteristics of the sound, i.e. how loud or sudden it is, as well as the fact that sound evokes associations and echoic memories. The auditory system is not only a main channel for emotion introduction, but is one of the main receptors for information about our surrounding (Hagmam, 1990). In an article exploring the link between music and mood, Bruner stressed the complexity of music and its effect on individual's moods (II 1990). He went on to provide a range of musical elements and the emotional response related to each. The three main structural elements are tempo (how fast or slow it is), pitch (including major / minor keys), and texture (meaning volume, instrumentation). 'People assign emotional meaning to music and experience active reactions. For example, fast music is considered happier than slow music' (II 1990). This is why most shoppers will experience higher tempo music while they are out spending, to keep the mood light and induce them to spend longer in the store. Kellaris and Kent went on to identify three basic musical properties, like those of Bruner, which are tempo (fast, moderate, slow), tonality (major, minor, atonal) and texture (classical, pop) (Kellaris and Kent 1993). This information suggests that the type of music played in a store is very influential to the way a consumer will react while browsing, further affected how long they stay in store.

 Consider that the music in store is constantly changing, altering how a consumer may behave at that given moment

The sense of taste and touch have been disregarded in this study as the research focuses into the three senses explained above. More intensive research can be developed within the group to further understand which sense is considered most influential. There has been strong evidence for each sense as to why they are the more influence than another, it seems as though that is because each sense taps into a different part of consumer behaviour while shopping. During the methodologies, tasks will be completed removing a sense to test how each one is affected by one another. This can explain how there is not one indefinite most influential sense, and how they may reflect off each other. In turn, this can show which sense is most important to be targeted first, as that has a roll-on effect for the following behaviour.

<u>Understanding the process of emotions and how this triggers the senses</u>

The research "the effects of music in a retail setting on real and perceived shopping times" conducted by Yalch & Spangenberg (1993) focuses on the impact of music dimensions on the difference between the actual and perceived times of consumers in a retail setting. Their research mainly uses Mehrabian PAD framework (Mehrabian, 1974) which stands for Pleasure, Arousal and Dominance. Together, three measures define the overall emotional state of a person, in the following case, the state of the consumer. Pleasure dimension measures how happy and how much the consumer is enjoying the shopping experience. Arousal measures how much the environment stimulates the consumer. Dominance is how submissive and influenced the person feels. Studies have demonstrated that pleasure mediates the link between arousal, dominance, and shopping behaviour, and exerts a positive influence on shopping behaviour (Ding and Lin 2012). One of the most important factors which fills the environment is music, and different types of music have its own aesthetic character and hence different effect on feelings and time perceptions of consumers. Yalch (1993) believed that retailers use a lot of atmospheric tools to modify the behaviour of the shoppers and used some interesting examples for the same. For example, in restaurants faster tempo and bright lightening is used in rush hour periods when there are long waiting lines whereas in the same restaurant's slower tempo music of the same type is played to make the customer sit for longer time. The same principles can be brought over to retail design, where they play slower tempo music to encourage customers to stay longer in the shop and browse around. This increases the chance of spontaneous purchases and therefore increases sales for the store. So, without realising, hearing has affected the way that consumers act in store.

Understanding how consumer behaviour stems from the five senses will help to further analyse the data collected by the methodologies. It also suggests that different participants in the study will process the information differently and thus give alter the results. This allows for depth within this research as it shows more possible outcomes and more areas to explore.

• It is important to collect data from a focus group between 6-8, this study included 6 participants (Acocella and Cataldi 2021). This allows for a range in results

Exploring the link between consumer behaviour and the success of a retail space and how valuable this is to the design process

'Stevens (1980) stated retailers have claimed that they have influenced customer's buying behaviour by manipulating store atmospheric via layout, colour, lighting and music' (Helmefalk and Hultén 2017). An exploration into how a consumer's senses can cause effect on retail behaviour will increase sales for the store. This point was proven further by the input of Kotler, McGoldrick and Greenland, where they said, 'Store environmental "atmospherics" were explored for their influence on consumers' attitudes and behaviour' (Kotler, 1974, McGoldrick and Greenland, 1994, Ahnetal 2006). Consumers kept unaware of the alteration that goes into store design for a stronger impact on their cues. Figure 3 shows: customers Perception towards Retail Shoppability attributes. 162 people were asked for their perception on the attributes of retail shoppability, and this shows an even spread of what they felt most effected by. To some extent, this shows a successful atmosphere as they were not aware of the

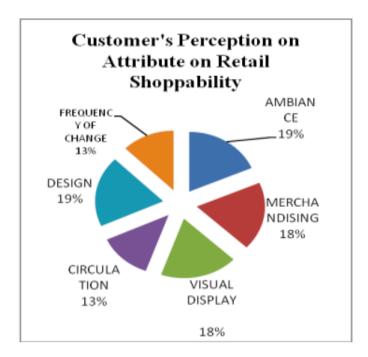


Figure 3: Customers Perception towards Retail Shoppability attributes

process, however, this study is not specific to the senses, but it can be studied for where the atmospheric manipulation can be more saturated to. For example, ambience and design were considered the highest attributed to how shoppable a space is.

Figure 4 below shows: the sensory experience, and it shows how they all come together to create consumer behaviour. Although in real life, some sections may be larger than others (more influential) as

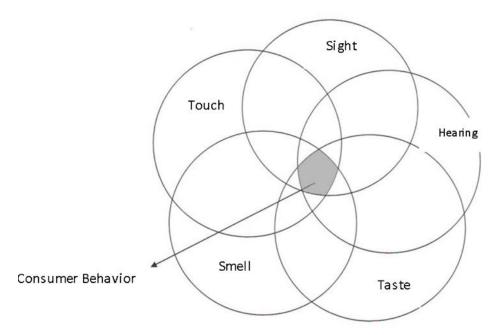


Figure 4: The sensory experience B. Hulten, N. Broweus, and M. Van Dijk, Sinnesmarknadsforing (Malmo: Liber AB, 2008)

a whole, it shows how all aspects use each other to create an experience, all experiences will have different outcomes. Each sense can leave a memory in the brain. Smell creates olfactory memories; sight makes iconic memories and sounds leave echoic memories. Noel said, 'How both new and remembered knowledge combine to influence purchasing behaviour' (Noel 2009). A memory is the mind storing information, and according to Noel, these memories can be pulled to influence purchasing behaviour. This links more to the customer retention side of marketing and is becoming more relevant since the fall in 'brick and mortar' shopping. Hulten added that 'A sensory experience can be created, not only to increase the chance of an immediate sale but perceptions of the product which play into a customer's return and brand loyalty for the future.' (Hulten 2020). A huge part of sales is though customer loyalty as that leads to word or mouth advertisement, and a higher rate of customer retention. The more satisfied a customer is the more likely they are to make a purchase. However, there is almost more power being a customer not being satisfied as it lessens the chance of them coming back and will spread bad publicity for the brand. One mid-range fashion retailer which has fallen under this is Hollister. It is well known for a dark and loud atmosphere, one that could be compared to a casino. The loud music is overwhelming and encourages shopping to make a quick purchase and leave, which means they miss out on customers browsing the whole store, therefore missing out on sales.

• Hollister will be investigates to discover if they have changed their tactics

During the methodologies, participants will have the chance to remove prior knowledge of the brand they are exploring. This disassociation means that the answers will be based on their perception within the store, rather than how they think they should feel when inside. For example, if a group was into Primark, their prior knowledge of the store may influence how they think they feel. To allow for this to happen, participants will be blindfolded and led into the store.

Study 1 findings:

Due to the prior research that has been analysed and discussed, the survey can be expected to confirm the idea that individuals believe visual ques are the most influential. However, some secondary evidence suggests that this may not be the case in all studies. It is also likely that this survey could speculate split opinions due to participants recalling information from the past, rather than straight after their store visit, with over half of them saying they have left the store due to being overwhelmed by their senses.



Figure 5: Data from study 1, question 10.

Fortunately, this survey had a range of responses from all demographics, meaning that those who feel overwhelmed stand on different points. For example, 40.6% of the answers related to being visually over stimulated. One person saying "Sometimes it can be frustrating that the store is so dark that you can't tell what colour an item is. When I worked there, many people left because of this." Straight away, this quote shows the store is losing out on potential customers due to their store dynamics being off. Reflecting on how Shukla argues that sight influence consumer behaviour as it creates first impressions and judgments (Irani and Frankel 2020), without this balance, this store will continue to degrade its reputation. On the other end of the spectrum, one person said that "If it's too bright I would leave as I feel it provoke my anxiety". This suggests that a neutral lighting level will settle customers and allow them to stay in the store for longer, thus research shows that warm colours tend to influence the perceived value of products, allowing stores to create bigger profit margins.

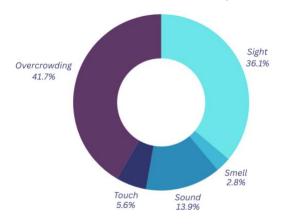


Figure 6: Data from study 1, question 11

Although not counted as a direct one of the 5 senses, 46.9% customers said to have left the store due to overcrowding. One answer saying how "it can get quite overwhelming, and it can become a stressful environment when busy". Followed by others saying, "It's a very closed in store, there's not a lot of room to traverse around the store so almost feels claustrophobic" and "It was too crowded because of the clothes and racks being too close. Furthermore, a lot of people made me want to leave as it felt to suffocating". This counteracts the points being made as it suggests that no matter how the store manipulates their design to target a customer's 5 senses, once they are overwhelmed due to overcrowding, they are enticed to leave. Overcrowding can be subcategorised into all the five senses, as the more compact a space is, the more sensual experiences are exposed.

Given the chance to talk about one of the 10 fashion retailers in West Quay Southampton, 85% of the people said they felt sight was the most memorable sense provoked in store, as seen in figure 7 below.

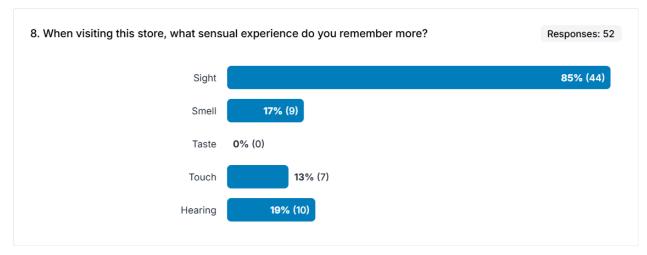


Figure 7: Data from study 1, question 8

Within that 85%, the design layout of the store was mentioned in 66.7% of the answers, with comments such as "The store layout is very aesthetic. Clean cut and spacious enough to walk freely around", and "I remember how the store is laid out, the order of how the clothes were. The store was very aesthetic which made it better to shop in and everything was easier to find. The clothes were grouped with colours or with types (e.g., jumpers) which made it look very neat". The word 'aesthetic' was mentioned in both responses and featured in another two, according to the Cambridge Dictionary, that relates to "the enjoyment or study of beauty". This suggests that their relationship with the store is positive, and they would enjoy spending time looking around are more engaged with the design elements around them.

Smell (17%) and sound (19%) were the next most provoked senses to the participants. Music contributes to the majority of what we can hear within a store, as it is what can be controlled during the design process, as witnessed by the 80% of those who chose music said in their answer. Some examples are: "The music - too loud?", and "How loud music is, if it's too loud it can be overwhelming".

This brings it back around to the sense of feeling overwhelmed. Research suggests that the type of music played cam affect consumer behaviour, however, this study shows that people tend to me more affected by the volume, and this can distract their emotions. A contribution from a participant led "Zara is usually quite loud with people, and they don't often play music which changes the atmosphere". This lack of music allows customers to tone in on the surroundings which can take away from their shopping experience, this can be reinforced by this person saying, "A quiet store is easier to shop in as loud music/people can be distracting". This suggests that design regarding sound should be carefully considered in design, to be subtle yet affective. Abiddine Fellah said, "Interior acoustical design is a field where mixes of discipline contribute to the sound excellence for the benefits of the users" (Zine El Abiddine Fellah 2019). More consideration must be applied during the design process to target the audible sensory ques customers have in store.

Key findings and points of interest that lead to further development in the next study:

- Sight is the most remembered sense when thinking back to a shopping experience
- 58% of customers would leave a store based on their sensory reactions
- 74% of customers feel sight is the most important sense while shopping
- 81% of customers agree that taste is the least influential sense while clothes shopping

Study 2 Findings:

Based on the information above, a focus group was conducted to further justify findings. As seen prior, 74% of customers felt sight is the most influential sense while fashion retail shopping. This lead the study in an interesting direction as the case study was conducted with the removal of sight. Due to results from previous research, the case study disregarded the sense of taste as it lacked backing from answers suggesting it could be hugely influential.

This case study has highlighted the how the senses reflect off each other. Their sense of sight was removed via blindfold resulting in heightened reactions to their surroundings. The initial response suggested that customers sense of sound is pricked when they can't see, with participants mentioning "Yes I am overwhelmed as my hearing is stronger because I can't see", "I am definitely listening out more" and "With my eyes shut I can hear more, it's noisy and busy". Developing this, the participants were asked "What can you hear while you can't see?", participant 3 responded "It's very noisy, its overwhelming, I can hear so many people and I focus on that rather than the music. The music is aggressive". This suggests that sound is a strong contributor to the feeling of being overwhelmed, which was a key indicator to those who left a store early without completing a transaction. The term 'aggressive' implies that the atmosphere within the store is too intense, this could have a negative impact on the other senses, leading the customer to exit the store. In retail, customer retention is crucial as it leads to higher sales, but not enough focus is put into the store atmospherics when designing the interior. This has led to customers such as participant 4 feeling as though they can "mainly hear the music, less people, to the point it is distracting, and I can't hear myself think". The concept of stores simply adjusting the volume of their music having such an impact on customer retention, leads the investigation towards what other impact each sense has on each other. When asked "What can you hear now you can see?", there was a change in responses, and 64% of participants then noticed the sound of people in store over the music. With participant 6 stating "I can now hear general noise from the public now I can see them, I can hear people moving the clothes on the rails, I am focusing less on the music but without realising" and participant 2 saying "I can hear the music but I am focusing on it less because I can see I'm less interested by what I can hear, drawn more by what I see". This indicates that people listen to what they can see in the moment, not necessarily what is the loudest, this further suggests that consumer behaviour is hugely affected by what they see, as the other senses follow on from sight.

Delving into other avenues, the participants were asked "What can you smell while you can't see?". Based on the idea that sight affected the way people process sound, further investigating led to the impact on smell, the answers varied but most participants picked up on more natural smells such as participant 1 saying "It feels quite airy and outsidy", and participant 4 saying "It smells like wood, I feel

like it's quite earthy". These answers can be directly compared to when the same people were asked "What can you smell now you can see?". Participant 1 now states "Nothing very strong, I could smell more when my eyes were shut", and participant 4 saying "I can almost smell the scent of people being in here, a bit of everything, I can hardly smell the wood anymore". This comparison shows how the same people in the same store reacted differently to the sent depending on weather they could see or not. This suggests that a consumer's sense of smell is more defined when they can't see. This could be due to Proustian memories; the idea that you link what you see to what you can smell. These participants could no longer smell what they initial thought, as what they saw was taking over. This further implies that sight could be considered as the most influential sense, as the other senses seem to work off what you can see.

Whilst touch was explored with and without sight, the results have been disregarded in the development of the study as there was no defining influence on the consumers behaviour. Although participants picked up more on the quality of the items, with participant 5 saying "I can feel decorations and clothes, it feels mid-range quality from thin labels" their textural response didn't lead to valuable insight. Touch and sight go hand in hand to consumer behaviour as participants were more drawn by what they saw visually, and then followed it by exploring it with touch, so again, the sense of touch bounces from sight. Something interesting to note was how participants were more drawn to areas of the store with more textural interest, weather they liked the look of the item or not. This suggests that the layout of items can affect the curiosity in store, thus leading to more exposure of the items. Zara has managed to achieve this, with 50% of participants touching things as soon as they could see again.

Key findings and points of interest that lead to further development in the next study:

- Sight affects the response of other senses
- Sound is less impactful when sight is taken away
- Smell is more impactful when sight is taken away
- Touch is linked to sight via what appears interesting

Study 3 Findings:

To conclude the information provided by the prior studies, a case study was completed to tie together the findings. This body of work will further address the link between the senses and the affects they have on one another. Within the study, exploration was done into the balance of sound, sight and smell. A participant will test their sense of smell against sight and sound as well at noticing the tones within the store design.

As to be expected, the results showed a slight decrease in the strength of smell as the other senses were reintroduced. These results show the average score across the 7 fashion retail stores that were mentioned during the questionnaire and focus group. This allowed the results to interact with previous information to further understand the five senses in retail spaces. To start the case study, the participant was led into the stores without a sense of sight or sound.



Figure 8: Data from study 3, question 1

On average, the strength or store sent was rated 8 based on a 1-9 scale. This suggests that without any distractions, the mind focuses more on the main sense at work, in this case the olfactory system. Leading to a perceived stronger smell, and as previously discussed, Soars (2019) mentions how smell is one of the most powerful influencers as it allows the brain to be occupied with thoughts other than what can be seen (ibid). Proposing that the participant took more time in calculating what they can really smell, rather than basing it off what they think they can smell based off what they can see/hear, leading to a stronger sense of smell.

Linking back to participant 1 in study 2 who said, "Nothing very strong, I could smell more when my eyes were shut", when asked "What can you smell now you can see?", lead for further investigation on how sight can affect smell. When the participant was exposed again to their sense of sound in each store,

the average level of sent was then rated a 7 based on a 1-9 scale.

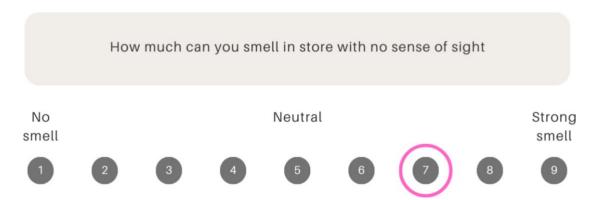


Figure 9: Data from study 3, question 2

Although also a slight drop has occurred, the intensity of the sent in store didn't change, only the participants perception on the smell, suggesting that subconsciously, their ability to smell decreased when other senses came in. Bruner mentioned how people assign emotional meaning to music and experience active reactions (II 1990), so with another element to focus on, there is less thought directed to what the participant could smell as they're reacting to the sound around them. Consequently, stores must consider their choice of music as it can change the atmosphere and take away from what a consumer can smell. Therefore, effort that is put into store sent would be disregarded if there is no balance in the stores sound.

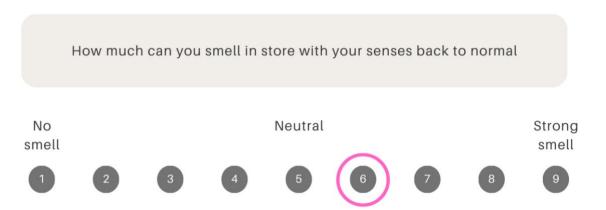


Figure 10: Data from study 3, question 3

Finally, the participants senses were back to normal, and as seen in figure 10, the scent intensity was rated 6. This shows a 22% decrease in sound intensity when a consumer is exposed too all the 5 senses. Linking back to figure 4, on consumer behaviour, it shows how all the senses link together to create consumer behaviour. This case study can confirm that although different senses can be considered more influential, there needs to be a balance between them create a harmonic atmosphere. If some sense is too intense, then it will overpower the others, this can disrupt a consumer's behaviour and leave them feeling overwhelmed, leading them to leave the store.

Conclusion:

To conclude this critical paper, it can be confirmed that the five senses in retail spaces affect consumer behaviour. Undoubtably, each consumer is different and will react to retail spaces in a different way, however, it's reasonable to suggest that the store atmosphere can be manipulated to hit certain senses, thus leading to balanced consumer behaviour. The primary and secondary research of this paper has shown that each sense can be targeted in a unique way, and neither operate the same, although less intensive research was done into taste, as when regarding fashion retailers, it is much less significant to consumer behaviour.

As supported by Shukla (2020) sight is one of the essential sensory factors that influence consumer behaviour, as it plays a significant role in creating first impressions and judgments. The focus group provided insightful information about the affect sight has on the senses, leading to the results that the intensity of different senses differs when sight is taken away. The overall findings led to believe that a consumer's sense of smell decreased, and sound increased during the study. However, this was further developed as part of the case study, leading the results in a different direction, suggesting that a consumer sense of smell is stronger when it is the sole sense they are focusing on. This leads to an interesting debate on what it is that affects a consumer's sense of smell. It can be believed that when a consumer has only one sense to focus on, their reactions are heightened as they can alert their attention to the smaller details, however, when bringing in sound (figure 9), it lowers the intensity of scent for a consumer, in the same way sight would. This study opened the idea of those who are visually impaired, as this is their everyday life. More critical design should be led towards designing for the different senses, ideally the 5% and the 95% percentile, as it will still cover those in-between.

The questionnaire exemplifies how each consumer reacts differently to each sense, thus changing their behaviour in store, there was an assured 53 responses to the questionnaire, as suggested in the proposal. As seen in figure 11, 74% of contributors felt they were more influenced by sight when shopping in a clothing store, however this has been challenged in both the primary and secondary research to confirm that consumers are not primarily influences via one sense, and it is built up from a

collection of all 5 (except in this case where taste has been disregarded).



Figure 11: Data from study 1, question 13

To conclude the entirety of this critical paper, and the proposed discussion on the five senses in fashion retail spaces, the senses equally contribute to consumer behaviour, and each sense can uniquely influence a person. It is apparent that the senses must work in harmony to balance out store atmospherics to decrease the change of a consumer feeling overwhelmed. This would lead to increased customer retention and maximise in-store sales, which has growing importance due to the fall of 'brick-and-mortar' shopping. The idea of consumers feeling overwhelmed has opened a new avenue for this investigation, one that will be researched independently.

It can be recommended that more consideration is put into design strategies that cater for those with unbalances senses (e.g. impaired sight/hearing). This would not only benefit those who are at fault but can also create a more harmonious atmosphere to consumers who are unaware of how it can affect their behaviour. For example, a requirement that stores must extrude a room scent similar of those to flowers (linking to the Nike study), to ensure customers have pleasant connotations while shopping. It can be confirmed that those with impaired sight's sense of smell works differently, so this will create a nicer environment for them, as well as positively influencing those in the 95 percentiles.

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