

# ERGONOMIA

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- MORE-THAN-HUMAN HEALTH FOR THE RESPONSIBLE INNOVATION OF WEARABLE MEDICAL DEVICES
- A TOOL FOR EVALUATING AND INTERVENING IN THE AD'AGIO PROJECT
- DIGITAL AND PHYSICAL ERGONOMICS TOWARDS A NEW-OLD GENERATION OF SELF-DRIVING CARS
- HOW TO PROMOTE WELL-BEING AND ACCESSIBILITY IN VIRTUAL REALITY
- THE IMPACT OF COVID-19 IN THE RETAIL SECTOR
- FROM PATHOGENESIS TO SALUTOGENESIS: A PERSPECTIVE SHIFT FOR HAPPY WORKPLACES

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# RIVISTA ITALIANA DI ERGONOMIA

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# The Impact of Covid-19 on the Psychological Techniques Used by Visual Merchandisers in the Retail Sector



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Keywords: Covid-19; Visual merchandising; Retail environments; Psychological techniques; Design impacts.

## Abstract

**Visual merchandisers use psychological techniques to target consumers' unconscious mind and influence buying patterns. Successful implementation of these techniques results in increased sales and market share. However, the Covid-19 has changed the user's behavior in stores and visual merchandisers have conceived new design strategies to ensure safety and hygiene; this trend was evident during the first years of pandemic. The impact of Covid-19 on VM is therefore crucial to understand the evolution of design aspects related to health and wellbeing. Specifically, this study investigates how the consumer attitude has changed with the introduction of Covid-19-related social distancing protocols. It draws upon comparisons in consumers priorities demonstrated during a shopping experience and how mindsets have changed. The evolution of consumers' priorities before and during the pandemic is portrayed. Finally, in the perspective of new restrictions or similar conditions, behavioral-based recommendations for visual merchandisers use-**

**ful to meet the customers' changing preferences are presented to ensure that stores are attractive, healthy, well laid out, and entice consumers in.**

## Introduction

The Covid-19 pandemic has produced dramatic changes in the way people use public spaces. These effects were particularly evident in the retail sector (Hall et al., 2020): in many countries, all non-essential stores have been closed for a substantial amount of time. Eurostat (2021) stated that the trade volume of non-essential shops drastically decreased; store sales fell dramatically, with consumers having to move to online shopping (Donthu & Gustafsson, 2020). When stores were able to reopen, safety measures were introduced.

Safety measures related to health impacted both the human side and the design of stores. At the human level, people started to visit stores in a new way and purchasing habits have remarkably changed. At the design level, store managers and brands created new guidelines to arrange store layouts and visitor experience (Lopes & Reis, 2021). The visual merchandisers' role became central to conceive new design strategies to overcome the fear of the virus and to interpret the changes in consumer behavioral preference.

Visual merchandisers have long used psychological techniques when designing a store to increase product sales, as the unconscious mind is the main driver behind consumer decisions (Martin & Morich, 2011). All be it a consumer may enter a store with clear intentions of buying a specific product, it is the VM techniques that grabs the attention of the unconscious mind of the consumer and encourages them to make a purchase that they had not previously considered. However, during the Covid-19 restrictions, some of these techniques were ineffective and the attitude of the consumer changed, as feeling safe in a retail environment was one of the main priorities.

This study analyses what effects the pandemic has had on techniques used in the VM sector. It provides evidence about new factors to consider when designing adapted shopping experiences that are healthy, as well as techniques to be employed to face similar threats that will limit the customers' interaction with physical environments and products. This work also provides indication on the evolutions occurred in the VM sector and on the role of new psychological techniques that can be used in the design practice.

## Methodology

Mixed methods of investigation (Yin, 2015) were used to gain an in-depth insight into human behaviours in specific settings, as well as to retrospectively document the evolution of the scenario in the sector and to identify design recommendations. Three main methods were used in this work:

- *Literature review*: several sources were chosen to investigate the VM practice and to provide a critical insight into the unconscious mind of consumers.
- *Interview*: based upon a semi-structured approach and followed a set of structured questions allowed to gain an understanding of the profession.
- *Questionnaires*: an online survey was completed by a wide demographic of consumers in UK to understand their experiences in a retail environment, both pre- and post-pandemic.

Resulting qualitative data were compared to understand how the Covid-19 has affected the attitude of consumers, their priority when engaging in a store, and to establish design recommendations.

## Data obtained from literature review

This section presents the main VM techniques employed, extracted from the analysis of key sources. The analysis of design techniques affected and non-affected by the Covid-19 documents significant evolutions in the sector.

## Main VM techniques employed

VM techniques are a means in which a consumer can be encouraged into store for a positive retail experience. Effective techniques can stop consumers from walking by and encourage them into stores when they were previously not planning on entering. Successful psychological VM encourages consumers to behave in a certain way without them being aware that their behaviour, or buying pattern, is being influenced as the unconscious mind is the real driver of consumer behaviour (Graves, 2013).

Main employed VM techniques concern: 1) floor layout (Morgan, 2016), 2) grouping (Ali Soomro et al., 2017), 3) colour (Bell & Ternus, 2012) and 4) sensory stimulation (Graves, 2013).

## Analysis of design techniques affected and non-affected by Covid-19

As a result of the Covid-19 pandemic, all retail environments have had to adapt due to national guidelines and changes in consumer attitude. This had a large impact on what techniques were no longer feasible to implement in store. Table 1 shows the design techniques affected and non-affected by Covid-19.

VM TECHNIQUES	DESCRIPTION
<b>Techniques affected by Covid-19</b>	<ul style="list-style-type: none"> <li>• Aromas made ineffective by compulsory use of masks.</li> <li>• Restricted use of products to exploit the sense of touch.</li> <li>• Zoning techniques adapted to incorporate one-way systems and social distancing measures.</li> <li>• Additional space around displays.</li> <li>• Reduced merchandise on displays to give an uncluttered and hygienic view.</li> </ul>
<b>Techniques non-affected by Covid-19</b>	<ul style="list-style-type: none"> <li>• High-quality first focal point within the store.</li> <li>• Enticing window displays to attract consumers.</li> <li>• Creating a positive ambience in store to tune into the consumers' unconscious mind.</li> <li>• Grouping and focal point techniques to arrange products.</li> <li>• Use of color schemes to create eye-pleasing arrangements.</li> </ul>
<b>Design-related considerations arose during Covid-19</b>	<ul style="list-style-type: none"> <li>• Less shopping assistants to aid consumers.</li> <li>• Closure of changing rooms.</li> <li>• Quarantine of items if returned.</li> <li>• Reduced number of consumers allowed in stores at any one time.</li> <li>• Reduced browsing times – time-effective shopping experience.</li> <li>• Increased queuing times.</li> </ul>

Table 1. VM design techniques affected and non-affected by Covid-19.



## Design considerations

Data discussed in the previous sections allow defining the following design considerations that help to understand the impact produced by the pandemic in the retail sector. Therefore:

- Focal points had to be more appealing as other sensory techniques were limited.
- Visual merchandisers produced more engaging visual elements to attract the attention of the wider audience.
- Ambience had to be used in more powerful ways to create positive shopping experiences.
- Grouping techniques helped to make products look more appealing as sight was not affected by guidelines.
- Exploited colour schemes, as the sense of sight was not limited whereas the sense of smell and touch were.
- Zoning techniques had a negative impact.
- Reduced space in store resulted in a limited amount of stock being placed on display.

## Data obtained from interviews and questionnaires

This section shows qualitative and quantitative data inferred from anonymous questionnaires and an interview with a professional. Findings are later analysed and discussed with the information gathered in the literature review to form a conclusion to the study.

### Post Covid-19 effects identified

Primary research allowed to identify important patterns related to the effects produced by the Covid-19 pandemic on the consumer habits. Relevant data discussed in this section portray a picture of main effects identified.

In terms of change in time spent in store pre- and post-pandemic, 7% of respondents has increased the time spent in store, 49% decreased, whilst 44% has not changed (Fig. 1).

On the question 'how much has Covid-19 affected the shopping experience?', 25% of people stated that the effect was a great deal, 30% affirmed that the shopping experience changed a lot, 32% thought that the shopping experience changed moderately, whilst 12% believed it changed a little and only the 1% said that this has not changed at all (Fig. 2).

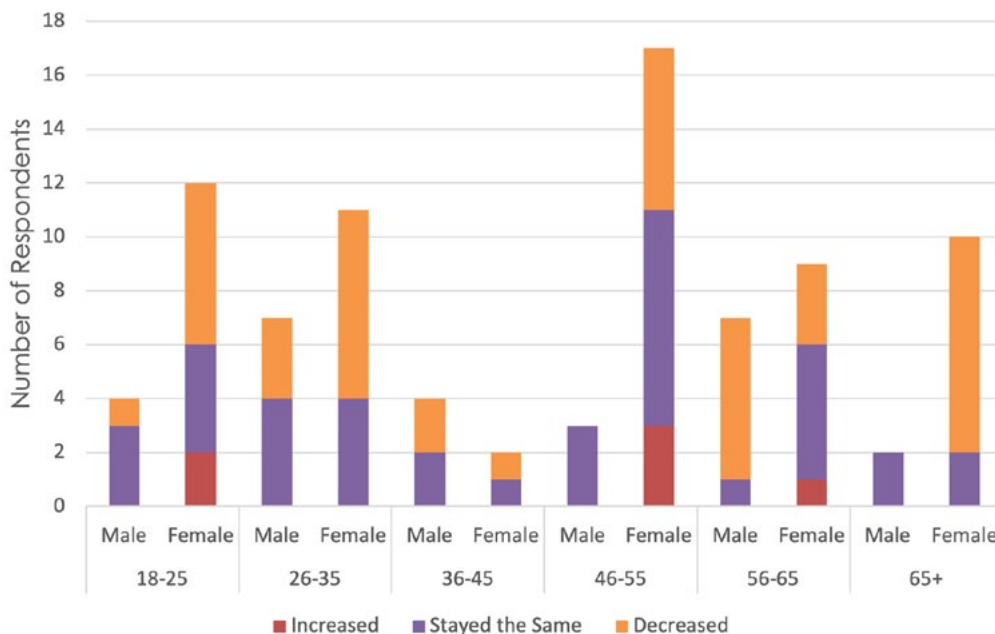


Figure 1. Change in time spent in store post Covid-19.

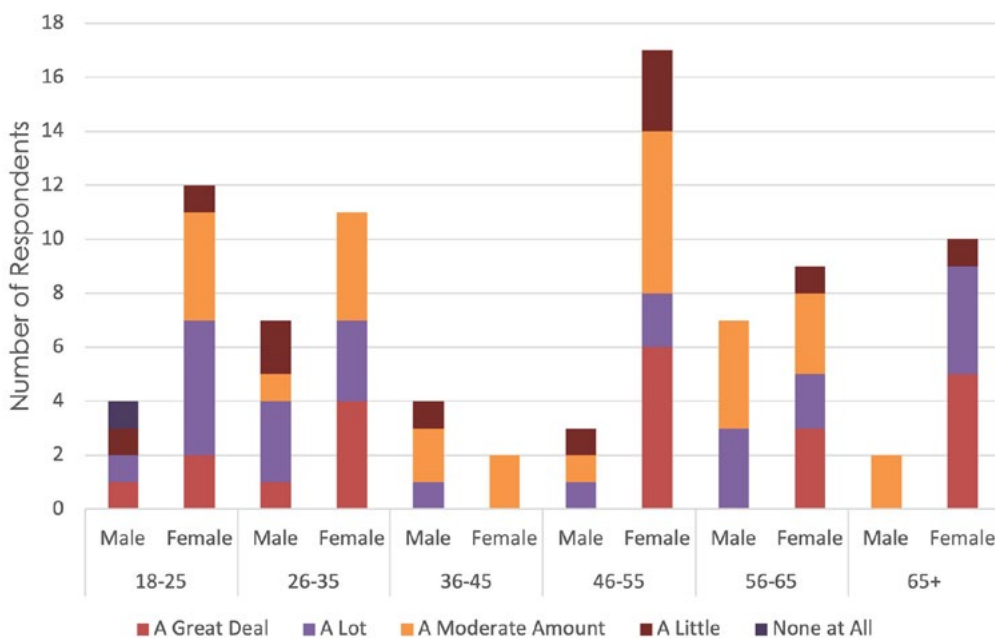


Figure 2. Post Covid-19 effects on shopping experience.

About the post-pandemic's in-store comfort levels, the survey revealed that males were generally more trustful than females, though this tendency was horizontal in terms of demographics (Fig. 3).

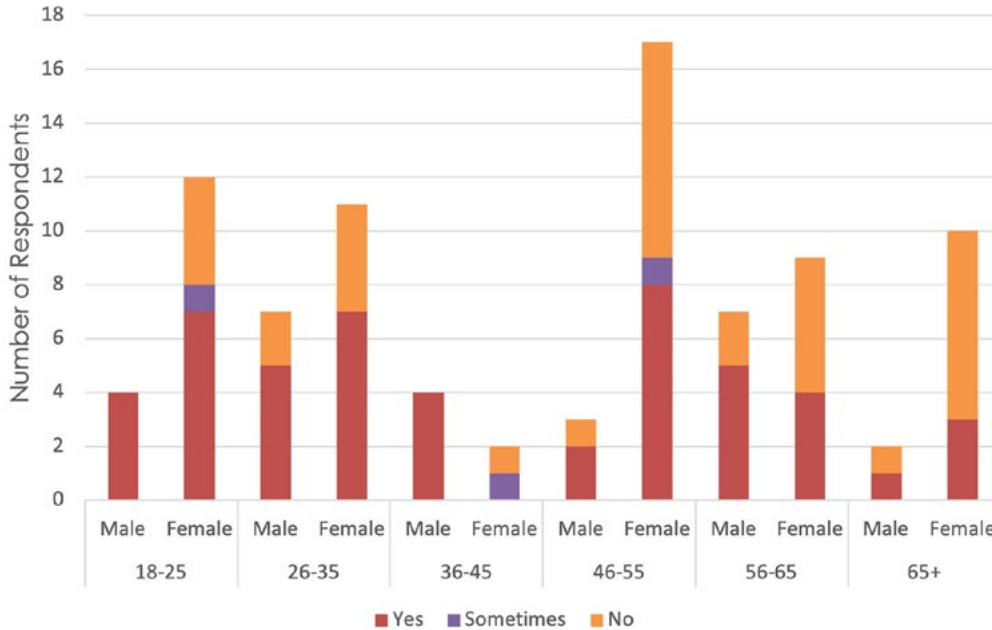


Figure 3. Did consumers feel comfortable going into a retail store?

Finally, participants were asked their opinions on how well retail stores implemented health and safety measures. No participants selected the 'none at all' option, the 8% said that the safety measures were extremely well implemented, the 50% said that the measures were very well implemented, 40% of respondents said that these were moderately well implemented, and finally the 2% said that the measures were slightly well implemented (Fig. 4).

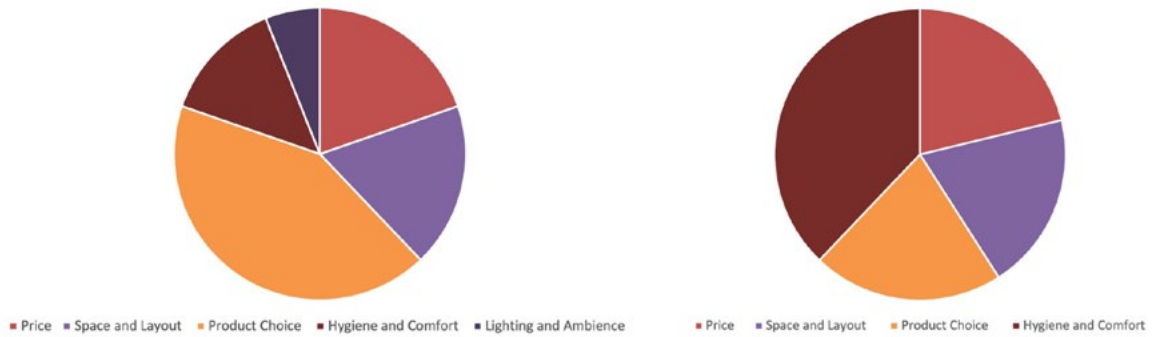


Figure 4. How well retail stores implemented the safety measures?

### Consumer priorities

The pre- and post-pandemic sections of the questionnaire asked participants to rank five factors concerned with shop design and the consumer experience. This highlighted changes in both the attitudes and priorities of consumers, as well as experiences and feelings. 75% of respondents changed their rankings in some way. Of the 75% who changed their rankings, analysis took place to ascertain what their most important factor was pre-Covid-19 compared to post-Covid-19 (Fig. 5). As the 'lighting and ambience' factor was not ranked as being most important in the post Covid-19 responses this category has been removed from Fig. 5 (right).

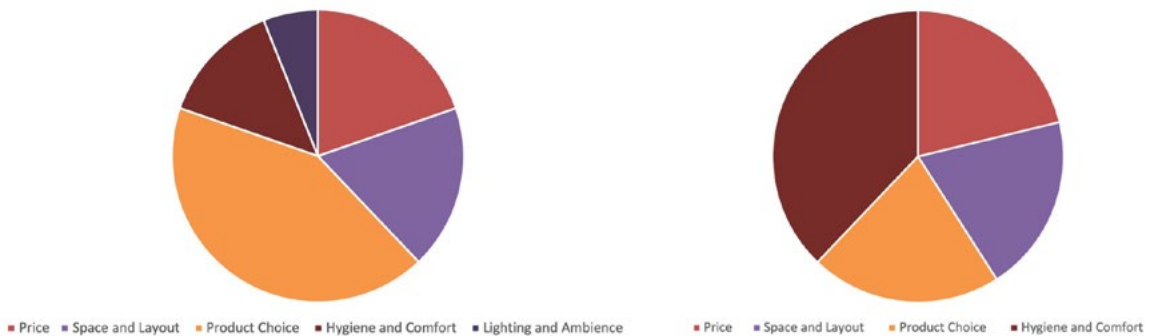


Figure 5. Changes in consumer priorities pre Covid-19 (left) and post Covid-19 (right).

### Interview response

An interview took place with a professional visual merchandiser working for John Lewis Visual Merchandiser. Responses noted throughout

the interview have been reviewed and summarised in key points (Table 2) and further explored to extract design recommendations.

PRE COVID-19	POST COVID-19	FUTURE
<ul style="list-style-type: none"> <li>• Inspirational design theme of stores.</li> <li>• Emphasis on creating a retail experience.</li> <li>• Customer journey.</li> <li>• Encourage consumers to remain in store for long time.</li> </ul>	<ul style="list-style-type: none"> <li>• Informational design theme of stores.</li> <li>• Interactive features, hot spots and seating areas removed to prevent congregation.</li> <li>• Clear signage and instructions throughout the store.</li> </ul>	<ul style="list-style-type: none"> <li>• Consumers will return to stores after full confidence is achieved.</li> <li>• Consumers will adopt 'spontaneous' safety measures, due to changed habits.</li> <li>• Important safety measures will remain in place after the pandemic.</li> <li>• Store will revert to creating a retail experience when it is safe to do so.</li> </ul>

Table 2. Notes from professional interview.

## Analysis and discussion

This part provides discussion of findings shown in the previous two parts.

### Analysis of pre Covid-19 trends: Browsing

Participants were asked to comment on their browsing habits and attraction to window displays. Of the 42 participants who stated that they liked to browse, 30 of them (71%) were also attracted to window displays.

### Trends related to Covid-19

#### *Time spent in stores*

49% of participants decreased the time spent in a retail store, whilst 7% affirmed that time has increased. This is in contrast with Graves (2013), who said that the time spent in store is the most important

factor of VM and store design. In support of this, the professional interview found that visual merchandisers designed stores in such a way that consumers were encouraged to shop as efficiently as possible. This correlates with the data proving that the number of consumers now spending less time in store could be a result of both the changes in the attitude of the consumer and the purposeful store design changes implemented.

One key factor that was highlighted by participants who have spent less time in stores was the increase in perceived pressure to shop quickly due to the long queues of people outside waiting to enter the store due to capacity restrictions.

### *Covid-19 effect on shopping experiences*

99% of participants stated that the Covid-19 affected their shopping experience to some degree. However, the professional interview found that prior to the pandemic, stores were moving towards providing a healthy retail experience for the consumer, such as safe product demonstrations. Unfortunately, these experiences were no longer provided in store during the pandemic, as all congregational points were removed.

The interviewee also mentioned changes that occurred to window displays, which moved from an 'inspirational' approach to an 'informational' one with clear graphics.

### *Comfort in store post Covid-19*

Approximately 57% of participants still felt comfortable going into a retail store. However, 48% said yes on the provision of good safety measures and distancing rules being implemented and followed by other customers. This is the first time that aspects related to altered conditions of human interaction influence the design of retail stores. This evidences that visual merchandisers were forced to consider new behavioural elements in readapting stores.

When discussing consumer comfort during the professional interview, it was clear that signage plays an essential part in the return of consumers. Clear signage needs to be displayed informing the consumers of how to follow the safety protocols in place. However, the visual merchandiser explained the importance of welcome back signage with the acknowledgement that things have changed, but that the store is still there caring for the consumer. This is supported by the data from the questionnaires whereby approximately 50% of re-

spondents stated they felt comfortable returning into a store if good safety measures are implemented.

Another factor highlighted from the questionnaire responses was the closing of changing facilities, which generally resulted in a negative shopping experience for some groups of consumers and increased the percentage of online purchasing.

### *Health and safety measures implementation*

58% of respondents felt that retail stores have implemented Covid-19 health and safety measures either 'very well' or 'extremely well' with no participants selecting the 'none at all' option. This indicates that retail stores have taken on the responsibility of consumer health and safety well during the pandemic.

## Sensory design elements

### *Positive store designs based on sensory elements*

Participants stated a preference for well-organised stores and mentioned clear wide aisles, which would also aid in case of new social distancing rules. This aspect is supported by Challis (2020) who predicted that "spacious and uncluttered stores will become essential across the retail sector to prioritise consumer well-being while delivering a positive experience". Furthermore, data extracted from the interview confirmed that the consumer journey is important to the brand as successful design approaches give a positive reputation.

### *Negative store designs based on sensory elements*

A variety of shops were highlighted as having a negative design (Silverton, 2021). This resulted in consumers feeling panicked and stressed when entering these retail stores. For example, high numbers of people or high levels of sensory stimulations. This is supported by the findings of Doucé and Adams (2020), who state "a high level of stimulation in the store environment may consequently require too much processing capacity". Therefore, retail stores that have an extreme level of stimulation of any of the senses may result in consumers leaving the store and a negative effect on the store's reputation.

### *Temperature and touch*

An optimum temperature enhances consumer comfort encouraging them to stay in store for a longer period to browse the merchandise. Research into the sense of touch (Graves, 2013) has found that hold-

ing a product for a longer period is a positive indicator of interest. It was highlighted that due to Covid-19, consumers were more aware of what they touch in store.

### Changes in consumer priorities

As shown in Fig. 6, post Covid-19 'health, hygiene, and comfort' was the main priority to the detriment of 'product choice' and 'lighting and ambience'. This contradicts traditional studies on VM (i.e.: Morgan, 2016) as only 6% of respondents selected 'lighting and ambience' as main priority when going into a retail store. It may be that 'lighting and ambience', as psychological techniques, target the unconscious mind and consumers are not aware that this is so important to them during a shopping experience. The Covid-19 pandemic had very little effect on 'price' and 'space and layout' whereas 'hygiene and comfort' has more than doubled its relevance.

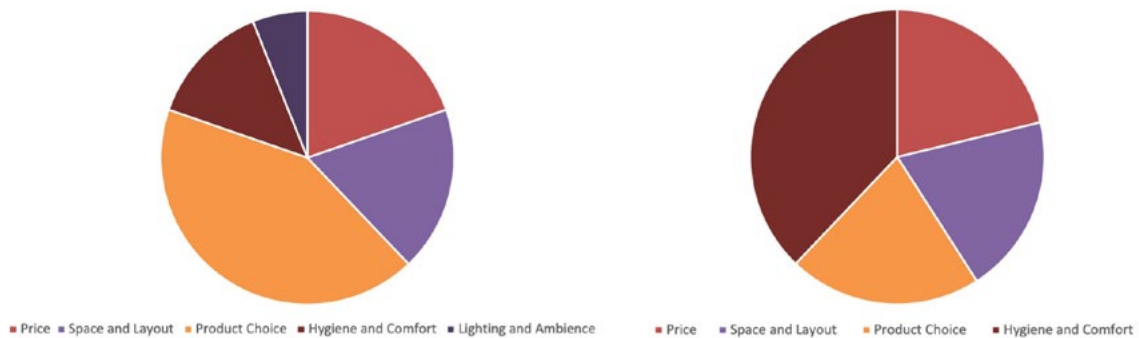


Figure 6. Consumer priorities pre Covid-19 (left) and post Covid-19 (right).

### Covid-19 implications on retail merchandise

During the interview, some factors relating to VM throughout the pandemic became apparent. With vast numbers of people either working from home or being furloughed and spending more time at home, sales of home office equipment and technology products increased dramatically. Similarly, sales of cookware and kitchen appliances together with outdoor seating also increased due to the closure of restaurants. These increases in sales could have been previously predicted when considering the enforced national lockdowns. Alternatively, sales of items such as occasion wear fell due to the cancellation of social events.



As a result of the fact that non-essential retail stores were closed for several months during the national lockdowns, stocks that were in the stores inevitably became obsolete. In addition to this, delays in manufacture and transport resulted in retail stores being uncertain of what merchandise would be available again, and in what quantity.

### Conclusion

This work has shown that the consumers' attitude has changed due to the Covid-19, making other effects even on their unconscious mind. Factors like health, hygiene, safety, etc. that were less considered before the pandemic, produced an impact on the psychological techniques currently employed by visual merchandisers in the design of retail environments because such trends have become consolidated behavioural preferences by customers.

Data suggest that younger groups tend to adapt to the changes more easily compared to older generations. Thus, for future scenarios like the ones caused by the Covid-19, visual merchandisers must consider who their target demographic is and focus the stores design to suit them. Consequently, visual merchandisers must be aware of the changes in consumers' attitude, as it is important to adapt to these behavioural changes in the competitive environment, which will undoubtedly follow the emergency scenarios.

This study clearly proved that 'health, hygiene, and comfort' are now three of the main concerns for consumers, as these have become behavioural and psychological priorities. It is expected that this trend will still be visible for years.

Although people will continue to use retail environments, it is likely that some of the adaptations implemented over the last years will remain in place to ensure consumer confidence, so that they can continue to have a positive healthy and safe retail experience (i.e.: signage).

This study also shows that consumers prefer many department stores. Contrary to this fact, it is department stores that have suffered economically in recent years, and especially during the pandemic with the announcement of many store closures. This aspect seems to be very important for visual merchandisers that must consider the experience got throughout the pandemic to design safe experiences for all customers.

In conclusion, the following design recommendations have been identified to aid visual merchandisers when implementing psychological techniques into the design of stores. These elements are recommend-

ed to improve the customers' new expectations and to support the ones already employed by visual merchandisers in the design of the effective shopping experiences. Therefore:

- Visual merchandisers should focus on consumer's health and safety and consider how their priorities have changed because of the psychological alterations produced by pandemic.
  - Store designs must reflect the changes in consumer priorities and buyers should perceive stores as safe and inclusive.
  - Stores must be designed to meet customers' new priorities since the beginning of the shopping experience.
- Visual merchandisers must create an overall experience for consumers in a healthy, safe, and comfortable environment.
- Visual merchandisers should ensure that safety protocols are clearly communicated and well managed to alleviate the concerns of the target consumer.

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