The Impact of Interior Design Elements and Circulation Systems on Visitor Satisfaction in Exhibitions

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ABSTRACT
This article explains the relationship between visitor satisfaction and circulation design quality in the context of exhibition design and interior environment. The article deals with the relationship between visitor expectations and space planning of indoor circulation design in exhibitions. For this purpose, answers are sought to critical questions about the definition of internal circulation design and how the design can affect the satisfaction of the exhibition visitors. This study is important in terms of revealing the dimensions of the relationship between visitor satisfaction and internal circulation design by focusing on the exhibition visitors. As a result of the study, a significant relationship was found between satisfaction and indoor environment expectations. In terms of lighting design, furniture arrangement and coating materials, the open aspects of the exhibition interior environments are revealed as a result of the analyzes made.
Keywords: exhibition, exhibition design, interior environment, interior elements, interior circulation, visitor satisfaction

Fuarlarda İç Mekan Tasarım Öğeleri ve Sirkülasyon Sistemlerinin Ziyaretçi Memnuniyetine Etkisi

ÖZET
Bu makale, sergi tasarımı ve iç ortam bağlamında, ziyaretçi memnuniyetinin sirkülasyon tasarım kalitesiyle ilişkisini açıklamaktadır. Makale, ziyaretçi beklentileri ile sergilerde iç sirkülasyon tasarımının mekan planlaması arasındaki ilişkiyi konu edinmektedir. Bu amaçla iç sirkülasyon tasarımının tanımı ile yapılan tasarımın sergi ziyaretçilerinin memnuniyetini nasıl etkileyebileceği ile ilgili kritik sorulara yanıtlar aranmaktadır. Bu çalışma sergi ziyaretçilerine odaklanarak ziyaretçi memnuniyetinin iç sirkülasyon tasarımıyla ilişkisinin boyutlarını ortaya koyması açısından önem arz etmektedir. Çalışma sonucunda memnuniyet ve iç ortam beklentileri arasında anlamlı bir ilişki bulunmuştur. Aydınlatma tasarımı, mobilya düzenlemesi ve kaplama malzemeleri açısından sergi iç ortamlarının gelişime açık yönleri yapılan analizler sonucu ortaya konmaktadır.
Anahtar Kelimeler: sergileme, sergileme tasarımı, iç ortam, iç mekan elemanları, iç sirkülasyon, ziyaretçi memnuniyeti

1. INTRODUCTION
Exhibition is commonly used for organized the collection of selected items and display in publicly. In simple words, we can say that- exhibition is just a collection of things for the display. Exhibition focuses on the identification, display, and interpretation of collective things also. The exhibition in education process of teaching and learning, exhibition is a test of all the teachers as well as the students also and their learning process. Teachers are tested how far they have been successful in imparting all the desired knowledge as well as skills whereas the students are tested on the parameters that of how much they

have acquired by the teaching process. Exhibition displays or shows the learning of the students and even in the complete process of the exhibition the teaching and learning process continues. An exhibition is a great tool that caters all these entire requirements at the same time.

Exhibition design is the process of conveying information through visual storytelling and environment. It is an integrative, multidisciplinary process that often combines architecture, interior design, graphic design, experienceand interaction design, multimedia and technology, lighting, audio, and other disciplines to create multilayered narratives around a theme or topic.

Exhibition design spans a wide range of applications including museums, visitor centers, heritage parks, themed entertainment venues, trade shows, corporate environments, expositions, and retail stores. It harnesses physical space and visual storytelling to create environments that communicate.

Exhibition design can be limited to a single display or can be expressed in immersive, architecturally integrated environments. With the rapid onboarding of technology in the public domain, Exhibition design is increasingly media-driven, social, and democratized, with content generated not just by designers and curators, but also by users themselves. This cutting-edge discipline continues to evolve. Regardless of the role of technology, however, it remains a collaborative process and one that demands the balancing of space, object, and information with the deft integration of technology and the role of the audience.

Exhibition design dates virtually from early human development, but first became formalized in the "cabinets of curiosity" of the 17th century as people began to travel the world and display their treasures in private collections. While the museums of today bear little resemblance to these early attempts at Exhibition design, they are still rooted in human curiosity and the need to learn more about the world around us.

2. AIM OF THE STUDY

A major objective of the research is to examine the views of the visitors about the exhibition by identifying the issues they encountered during the duration of the exhibition. Thus find effective solutions to improve exhibition design and ergonomic circulation system in the context of exhibition future design. It is aimed to shed light on the future fairs by researching the various effects of the fairgrounds on the visitors and deciding which direction to continue or what needs to be corrected.

3. STRUCTURE OF THE STUDY

IN THE INTRODUCTION TO THIS RESEARCH; a detailed description about the purpose of the exhibitions as well as the uses and the role it plays. Further more the fields offered by the exhibitions and the places where exhibitions are held, in addition to brief start of exhibitions' history

IN THE DEVELOPMENT PART OF THE RESEARCH; the factors in which the interior space in the indoor fair area is affected by the design, the issues to be considered when designing public visit areas are examined. The level of duties of the design elements made to facilitate this visit, its adequacy, the criterion titles used in the selection of materials and their functionality for serving the purpose are also discussed. Furthermore, the established stands are the center of attention for the visitors and what are the reasons why the stands attract visitors directly to them.

IN THE CONCLUSION OF THE RESEARCH; according to the survey results, the stands in closed exhibition areas and the effects of the stands, which were designed and installed within these areas, on visitors were processed within certain headings. These titles include; routing, lighting, color-texture, materials used, design ideas and ergonomic

effects can be listed as. The stands designed according to these headings were analyzed and the overall focus of attention of the visitors was determined.

4. METHODOLOGY

Quantitative data will be obtained by arranging graphs and preparing survey questions, bringing together opinions of participants who have participated in the fair before and those who have not. Based on the data obtained by the Question-Answer method, hypotheses will be formed and objective judgments will be made. Therefore, the truths and mistakes made at the fairgrounds will be verified through the eyes of the actual visitors, i.e., the actual users, and solutions will be found to the problems.

5. EXHIBITION AND DESIGN

5.1. EXHIBITION DESIGN

An exhibition, in the most general sense, is an organized presentation and display of a selection of items. In practice, exhibitions usually occur within a cultural or educational setting such as a museum, art gallery, park, library, exhibition hall, or World's fairs. Exhibitions can include many things such as art in both major museums and smaller galleries, interpretive exhibitions, natural history museums and history museums, and also varieties such as more commercially focused exhibitions and trade fairs.

Though exhibitions are common events, the concept of an exhibition is quite wide and encompasses many variables. Exhibitions range from an extraordinarily large event such as a World's fair exposition to small one-artist solo shows or a display of just one item. Often a team of specialists is required to assemble and execute an exhibition; these specialists vary depending on the type of said exhibit. Curators are sometimes involved as the people who select the items in an exhibition. Writers and editors are sometimes needed to write text, labels and accompanying printed material such as catalogs and books. Architects, exhibition designers, graphic designers and other designers may be needed to shape the exhibition space and give form to the editorial content. Organizing and holding exhibitions also requires effective event planning, management, and logistics

5.2. EXHIBITION HISTORY

The exhibition came fully into its own in the 19th century, but various temporary exhibitions had been held before that, especially the regular displays of mostly new art in major cities. The Paris Salon of the Académie des Beaux-Arts was the most famous of these, beginning in 1667, and open to the public from 1737. By the mid-18th century this and its equivalents in other countries had become crucial for developing and maintaining the reputation of contemporary artists. In London the Royal Academy Summer Exhibition has been held annually since 1769, and the British Institution ran temporary exhibitions from 1805 to 1867, typically twice a year, with one of new British painting and one of loans of old masters from the Royal Collection and the aristocratic collections of English country houses. By the mid- 19th century many of the new national museums of Europe were in place, and holding exhibitions of their own collections, or loaned collections, or a mixture of objects from both sourcers, which remains a typical mix today. The "Chronology of Temporary Exhibitions at the British Museum" goes back to 1838.

The tradition of the Universal exposition "world Expo" or "World's Fair" began with the Great Exhibition of 1851 in London; these are only held every few years. The Eiffel Tower in Paris was built for the Exposition Universelle (1889) and served as an entrance arch.

Modern exhibitions may be concerned with preservation, education and demonstration, early exhibitions were designed to attract public interest and curiosity. Before the widespread adoption of photography, the exhibition of a single object could attract large crowds. Visitors might even be overcome with Stendhal syndrome, feeling dizzy or overwhelmed by the intense sensory experience of an exhibit. Today, there is still tension between the design of exhibits for educational purposes or for the purpose of attracting and entertaining an audience, as a tourist attraction.

5.3. EXHIBITION TYPES

5.3.1. ART EXHIBITIONS

Art exhibitions include an array of artifacts from countless forms of human making: paintings, drawings, crafts, sculpture, video installations, sound installations, performances, interactive art. Art exhibitions may focus on one artist, one group, one genre, one theme or one collection; or may be organized by curators, selected by juries, or show any artwork submitted. Fine arts exhibitions typically highlight works of art with generous space and lighting, supplying information through labels or audio guides designed to be unobtrusive to the art itself. Exhibitions may occur in series or periodically, as in the case with Biennales, triennials and quadrennials. The first art exhibition to be called a blockbuster was allegedly the 1960 Picasso show at Tate in London.

5.3.2. INTERPRETIVE EXHIBITION

Interpretive exhibitions are exhibitions that require more context to explain the items being displayed. This is generally true of exhibitions devoted to scientific and historical themes, where text, dioramas, charts, maps and interactive displays may provide necessary explanation of background and concepts. Interpretive exhibitions generally require more text and more graphics than fine art exhibitions do. The topics of interpretive graphics cover a wide range including archaeology, anthropology, ethnology, history, science, technology and natural history.

5.3.3. COMMERCIAL EXHIBITION

Commercial exhibitions, generally called trade fairs, trade shows or expos, are usually organized so that organizations in a specific interest or industry can showcase and demonstrate their latest products, service, study activities of rivals and examine recent trends and opportunities. Some trade fairs are open to the public, while others can only be attended by company representatives (members of the trade) and members of the press.

5.3.4. DIGITALIZED EXHIBITION

Changes in scholarly communication and the rise of the Internet have led to the creation of online exhibitions or digital exhibitions. These can include the digital viewing of physical exhibits; video tours of museums, art galleries and other cultural venues; and/or online exhibitions of "born digital" art, models or educational tools. The integration of information technology into museums and archives has also created opportunities for interactive and multimedia experiences inside cultural institutions. Many museums and galleries have extensive online resources that complement or enhance their physical exhibits. For example, the British Museum, the Louvre, the MET have put their collections online. Another example from 2009, "Public Poet, Private Man," an online exhibit on the work of Henry Wadsworth Longfellow, was recognized as an outstanding digital exhibit by the Association of College and Research Libraries.

5.4. PRINCIPLES OF EXHIBITION DESIGN

While art and attraction certainly play a major role in the design of an exhibition space, science should be the dominant discipline at play. Good looks are grounded in their ability to attract the attention of the right type of consumers; assets are added for interest and engagement and sensory elements for their ability to stimulate. But it seems the thinking behind the layout of an exhibition is often not based on the principles that can deliver increased cut through and consumer engagement but instead by what fits in the budget or can be reused from last year’s effort.

The principles of design is not a new concept, in fact Steve Bitgood and Don Patterson espoused their power as long ago as 1987. They believed that successful exhibitions should be built in answer to three key aspects of design:
1) The characteristics of the exhibit object
2) The characteristics of the exhibit architecture
3) The characteristics of the visitors

And while the language feels "so 80s", they raise some valid and still very relevant points. In fact, while delivery has matured in look, execution and engagement the principles that underpin 'good practice' remain the same and when employed today can guarantee an exhibition space that delivers.

5.5. THE CHARECTERSTICS OF EXHIBIT ARCHITECTURE

These are the more traditional positioning aspects of exhibition design including:

5.5.1. Visibility – the more visible you are, the more attention you attract. This is not just about prime positioning but about standing out from the crowds – think height, width and colour

5.5.2. Proximity – play where the people play. Be best positioned to take advantage of the crowds and as close to the action as you can afford

5.5.3. Positioning – while the eyes aren't the only sense to be engaged, they must be 5rioritized when considering positioning. Place your key attraction or messaging at eye level – this is what attracts attention and draws in your audience

5.5.4. Realism – the exhibition needs to feel real to consumers. By placing the product in a real environment, they best understand how it works and its importance

5.5.5. Sensory overload – while sensory stimulation is key, overload is a detractor. Ensuring that these all work together, harmoniously, and the stand doesn't become too busy is pivotal to ensuring attraction

6. INTERIOR DESIGN ELEMENTS

6.1. LIGHTS

Plan lighting early in exhibition development, as it makes a huge difference to displays and is often left until the last minute, a lighting designer can be useful for major projects. It is always best to light works that are hanging on walls from an angle, positioning spotlights so that they pan over several exhibits.

No exhibit should be placed where it is in direct sunlight at any time of the day, this is particularly important for fabric, paintings, drawings, prints or original photographs. Any windows near exhibits should be being blocked out or fitted with UV filtering screens for the duration of the exhibition.

6.2. COLORS

Colour brings a room to life and can be used as a complementary or a contrasting element. It is often based on colour psychology to ensure the right feelings of the room are being set.

6.3. MATERIALS AND TEXTURES

The purpose of texture is to add depth and interest. There are two types; visual and actual. Visual textures are in appearance only, such as marble. Actual textures are both seen and felt, such as velvet. When looking to sell your home, adding colour, texture and patterns is an easy way to enliven a space without the need for major design updates

6.4. SPACE AND FORM

Knowing the overall size and where doors and windows are located is essential to a seamless design. Space that is filled with furniture is known as positive space, while empty space is known as negative. Striking a balance between positive and negative space makes it feel inviting.

Form refers to shapes of the room in general. It could be the shape of the entire space, the furniture, décor and even the light fittings. There are two types; geometric and natural. Geometric forms are man-made, such as furniture. Natural shapes are organic,

such as plants. Square shapes tend to embody strength while curves and rounded shapes evoke softness.

7. INTERIOR CIRCULATION DESIGN

7.1. CIRCULATION

Circulation is a concept used for architecture and interior design and is formed by connecting the points left by the movement of human beings through indoor or outdoor spaces. For architectural planning and design, circulations play an important role for effective and efficient use of the given space. In simple terms, a circulation denotes points that form a line, where each footprint leaves a point and the strings of footprints form a line.

7.2. ROLE OF CIRCULATION

In a public space, circulation design is commonly used. A good circulation design is important for exhibition spaces, such as museums and shopping malls, and much knowledge is required to clearly understand how to help people entering a space feel comfortable in moving around without being obstructed by any obstacle or losing their way. In addition, traffic jams would be experienced in amusement parks or other large parks in the absence of good traffic circulation planning. Circulation design is also important in supermarkets and department stores that may emphasize using indirect routes so consumers can walk long distances and see many products. Therefore, not all circulations in space are designed for rapid movement. In designing circulation, two key aspects must be considered: (1) fixed structures and furnishings, and (2) the routes traversed by people or moving agents. These two aspects can influence one another due to design changes. The aspects can be defined according to guidelines on the shape of the space and can be shifted relative to each other due to micro- adjustments of the space. For specific designs, the size of the space, including the area and the height; the geospatial relationships within the space; and the activity requirements of people and their habits comprise the basic elements.

7.3. CIRCULATION DESIGN

Setting the route for streams of people in an exhibition space depends on the design theme, the structural and functional divisions, and other factors. The ideal setting for a visit circulation should have a defined order and a short and convenient constitution form. Thus, in the museum example, visitors can walk through the entire exhibition, and their attention can also be attracted to the media and information centers. During the exhibition design process, both mutual convection and repeated walkthroughs by visitors should be avoided. Visitors should be prevented from accidentally omitting or repeatedly visiting something, and the design should avoid making visitors feeling tired.

Generally a circulation may be in a clockwise direction, moving from left to right, according to the common visual habit. An unordered circulation design may confuse visitors and cause them to omit some areas while repeatedly visiting others. Also, the division of the exhibition design in the circulation area should be simple and clear and with necessary turns and curves so that visitors can focus on the exhibition and naturally walk through the space. Depending on the size and nature of the exhibition determines whether the order of the visiting points is essential. For example, most large international exhibitions or comprehensive supermarkets do not have a fixed circulation and only stipulate the exit and entrance; thus, there is no interference if the movements of customers do not obey the rules.

7.4. TYPES OF CIRCULATION

1. A circulation composed of lines usually employs a flow direction of straight lines, curved lines, and broken lines.
2. A circulation comprised of squares is designed according to a combination of the above two types of circulations.
3. A grid circulation generally uses a combination system of standard components in a

pillar-free hall. The shapes of the grids are usually geometrical and include squares, rectangles, rhombi, and other polygons.

8. SURVEY

Table 1: Survey questions about visitors' satisfaction on the exhibition

QUESTION NO	QUESTIONS	STRONGLY AGREE	AGREE	NO IDEA	DISAGREE	STRONGLY DISAGREE
1	Guidance elements are suffecient to be found in the exhibition areas					
2	It is enough to use general lights in exhibitions					
3	Using general white lights do effect the visitors psycology in the exhibition					
4	Special lightings are needed for special displayed products					
5	The color choices used in the fair area play a positive psychological role on the visitor.					
6	The patterns, colors and arrangement of the products used in the fair area are very important in emphasizing the exhibited product.					
7	Separatng the fairgrounds into color-coded areas facilitates Access to the desired product.					
8	The wooden materials used in the stands have a positive psychological effect on the visitor.					
9	The designs of the reception desks in the stands play an important role in attracting the visitors.					
10	Directions for exits on the ground are very important for emergencies.					
11	The flooring material used on the floor of the fair area should be classical.					
12	The ventilation system design of the fair area is effective.					
13	The corridor wideness in the fair areas area. ..... at least 3 meters.					
14	The reception counters design makes it more noticable for the visitors.					
15	Human ergonomics are taken into consideration in designing the fairgrounds.					
16	The heights of the products exhibited in the stands are positioned in accordance with the standards of human dimensions.					
17	The visitor circulation corridors of the fair area are designed systematically and ergonomically.					
18	It is important that the products exhibited in the fairgrounds are realistic and that the products are ergonomically pleasing to the visitor.					
19	The ergonomics of the areas where the visitors are hosted provide psychological comfort.					
20	The emergency exit doors of a standard exhibition area should be in the form of ergonomics and easily accessible.					
21	The entrance to the fair should be comfortable and wide					
22	The exterior design should reflect the interior.					
23	The circulation system of the fair must be connected					
24	There should be directional signs at the fair.					
25	Ground guidance in the fair should be added					
26	Suspended ceiling should be used in stand design					
27	High ceilings at the fair should be used					
28	The existing signage and direction system at the fair is sufficient.					
29	The circulation system available at the fair is suitable					
30	There should be seating areas at the fair.					
31	d be present at the fair.					
32	Circulation distances at the fair should not be long					

9. DESCRIPTIVE STATISTICS

Table 2: Descriptive Statistics on the Effect of Fair Interior Design on Texture & Color

QUESTION NO	QUESTIONS	STRONGLY AGREE		AGREE		NO IDEA		DISAGREE		STRONGLY DISAGREE	
		N	%	N	%	N	%	N	%	N	%
1	The color choices used in the fair area play a positive psychological role on the visitor.	36	**36%**	48	**48%**	12	**12%**	3	**3%**	0	**0%**
2	The patterns, colors and arrangement of the products used in the fair area are very important in emphasizing the exhibited product.	40	**40%**	52	**52%**	6	**6%**	2	**2%**	0	**0%**
3	Separatng the fairgrounds into color-coded areas facilitates access to the desired product.	36	**36%**	52	**52%**	6	**6%**	1	**1%**	0	**0%**
4	The wooden materials used in the stands have a positive psychological effect on the visitor.	40	**40%**	52	**52%**	6	**6%**	2	**2%**	0	**0%**

5	The flooring material used on the floor of the fair area should be classical.	34	**34%**	56	**56%**	5	**5%**	4	**4%**	1	**1%**

Table 3: Descriptive Statistics on the Effect of Fair Interior Design on Orientations

QUESTION NO	QUESTIONS	STRONGLY AGREE		AGREE		NO IDEA		DISAGREE		STRONGLY DISAGREE	
		N	%	N	%	N	%	N	%	N	%
1	Guidance elements are suffecient to be found in the exhibition areas	53	**53%**	14	**14%**	7	**7%**	24	**24%**	2	**2%**
2	Directions for exits on the ground are very important for emergencies.	37	**37%**	42	**42%**	17	**17%**	3	**3%**	1	**1%**
3	There should be directional signs at the fair.	53	**53%**	35	**35%**	10	**10%**	0	**0%**	1	**1%**
4	Ground guidance in the fair should be added	34	**34%**	59	**59%**	3	**3%**	4	**4%**	0	**0%**
5	The existing signage and direction system at the fair is sufficient.	56	**56%**	23	**23%**	19	**19%**	2	**2%**	0	**0%**

Table 4: Descriptive Statistics on the Effect of Fair Interior Design on Lights

QUESTION NO	QUESTIONS	STRONGLY AGREE		AGREE		NO IDEA		DISAGREE		STRONGLY DISAGREE	
		N	%	N	%	N	%	N	%	N	%
1	It is enough to use general lights in exhibitions	66	**66%**	26	**26%**	5	**5%**	3	**3%**	0	**0%**
2	Using general white lights do effect the visitors psycology in the exhibition	65	**65%**	22	**22%**	9	**9%**	4	**4%**	0	**0%**
3	Special lightings are needed for special displayed products	46	**46%**	50	**50%**	3	**3%**	1	**1%**	0	**0%**

Table 5: Descriptive Statistics on the Effect of Fair Interior Design on General Design

NO	QUESTIONS	STRONGLY AGREE		AGREE		NO IDEA		DISAGREE		STRONGLY DISAGREE	
1	The designs of the reception desks in the stands play an important role in attracting the visitors.	36	**36 %**	52	**52 %**	8	**8%**	3	**3 %**	1	**1%**
2	The ventilation system design of the fair area is effective.	22	**22 %**	12	**12 %**	9	**9%**	36	**36 %**	20	**20 %**
3	The corridor wideness in the fair areas area. at least 3 meters.	44	**44 %**	34	**34 %**	18	**18 %**	2	**2 %**	2	**2%**
4	The reception counters design makes it more noticable for the visitors.	50	**50 %**	28	**28 %**	21	**21 %**	1	**1 %**	0	**0%**
5	Human ergonomics are taken into consideration in designing the fairgrounds.	56	**56 %**	22	**22 %**	16	**16 %**	6	**6 %**	0	**0%**
6	The heights of the products exhibited in the stands are positioned in accordance with the standards of human dimensions.	60	**60 %**	32	**32 %**	3	**3%**	5	**5 %**	0	**0%**
7	It is important that the products exhibited in the fairgrounds are realistic and that the products are ergonomically pleasing to the visitor.	52	**52 %**	42	**42 %**	2	**2%**	4	**4 %**	0	**0%**
8	The ergonomics of the areas where the visitors are hosted provide psychological comfort.	57	**57 %**	38	**38 %**	3	**3%**	2	**2 %**	0	**0%**
9	The emergency exit doors of a standard exhibition area should be in the form of ergonomics and easily accessible.	54	**54 %**	35	**35 %**	7	**7%**	3	**3 %**	1	**1%**
10	The entrance to the fair should be comfortable and wide	53	**53 %**	42	**42 %**	2	**2%**	2	**2 %**	0	**0%**
11	The exterior design should reflect the interior.	36	**36 %**	59	**59 %**	2	**2%**	3	**3 %**	0	**0%**
12	Suspended ceiling should be used in stand design	41	**41 %**	53	**53 %**	2	**2%**	4	**4 %**	0	**0%**
13	High ceilings at the fair should be used	22	**22 %**	10	**10 %**	38	**38 %**	24	**24 %**	6	**6%**

14	There should be seating areas at the fair.	59	**59 %**	12	**12 %**	17	**17 %**	11	**11 %**	0	**0%**
15	WC should be present at the fair.	45	**45 %**	42	**42 %**	5	**5%**	7	**7 %**	1	**1%**

Table 6: Descriptive Statistics on the Effect of Fair Interior Design on Circulation

NO	QUESTIONS	STRONGLY AGREE		AGREE		NO IDEA		DISAGREE		STRONGLY DISAGREE	
1	The visitor circulation corridors of the fair area are designed systematically and ergonomically.	66	**66 %**	22	**22 %**	7	**7%**	3	**3 %**	1	**1%**
2	The circulation system of the fair must be connected	46	**46 %**	26	**26 %**	14	**14 %**	14	**14 %**	0	**0%**
3	The circulation system available at the fair is suitable	44	**44 %**	9	**9 %**	24	**24 %**	18	**18 %**	4	**4%**
4	Circulation distances at the fair should not be long	43	**43 %**	38	**38 %**	9	**9%**	8	**8 %**	2	**2%**

10. FINDINGS & CONCLUSION

Table 7: Conclusions 1

1- Gender Ratio

	N	%
Male	37	36.6%
Female	63	62.4%

2- Age Range

	N	%
18-24	90	89.1%
25-29	8	7.9%
30 and above	2	2.0%

3- Education Status

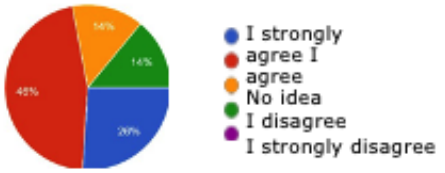
	N	%
Other	2	2.0%
University	98	97.0%

Q1	N	%
The entrance to the fair should be comfortable and wide		
No idea	2	2.0%
I agree	36	35.6%
I disagree	3	3.0%
I strongly agree	59	58.4%

Conclusion
The majority absolutely agrees that the entrance should be designed widely

Q2	N	%
The exterior design should reflect the interior of the fair.		
No idea	14	13.9%
I agree	46	45.5%
I disagree	14	13.9%
I strongly agree	26	25.7%

Conclusion
Nearly 3/4th of the participants agree to connect the design in and out



Q3	N	%
The circulation system of the fair must be connected		
No Idea	10	9.9%
I agree	52	51.5%
I strongly agree	36	35.6%
I strongly disagree	1	1.0%

Conclusion
While designing the fair circulation system should be taken into consideration as the majority prefers the connected circulation system

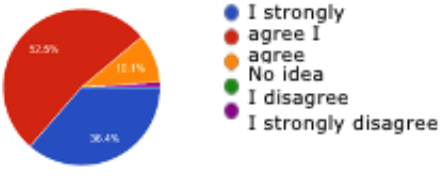
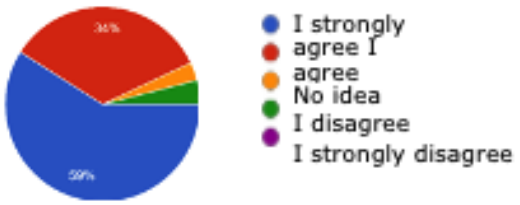


Table 8: Conclusions 2

Q4	N	%
There should be directional signs at the fair.		
No idea	3	3.0%
I agree	34	33.7%
I disagree	4	4.0%
I strongly agree	59	58.4%

Conclusion

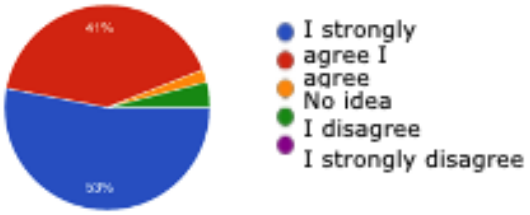
Direction (orientation) elements should be used widely all around the fair



Q5	N	%
Ground guidance in the fair should be added		
No idea	2	2.0%
I agree	41	40.6%
I disagree	4	4.0%
I strongly agree	53	52.5%

Conclusion

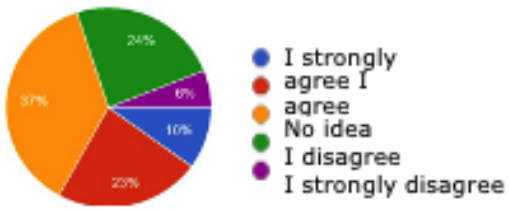
The table shows the agreement majority of participants to add ground guidance



Q6	N	%
Suspended ceiling should be used in stand design		
No idea	37	36.6%
I agree	23	22.8%
I disagree	24	23.8%
I strongly agree	10	9.9%
I strongly disagree	6	5.9%

Conclusion

Most of the participants are not sure of suspended ceiling idea on the other hand they prefer high ceilings



Q7	N	%
High ceilings at the fair should be used		
No idea	19	18.8%
I agree	55	54.5%
I disagree	2	2.0%
I strongly agree	24	23.8%

Conclusion

High ceilings are preferred in the design

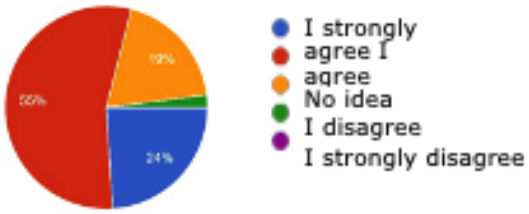
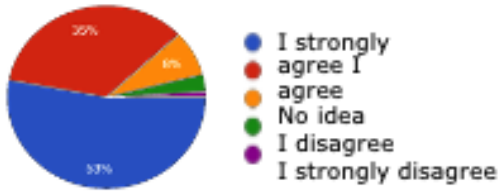


Table 9: Conclusions 3

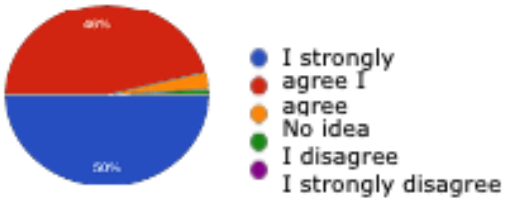
Q8	N	%
Separatng the fairgrounds into color-coded areas facilitates access to the desired product.		
No idea	8	7.9%
I agree	35	34.7%
I disagree	3	3.0%
I strongly agree	53	52.5%
I strongly disagree	1	1.0%

Conclusion
During the design process it is preferred to that different areas must be shown in different colors to help people reach the desired products easily



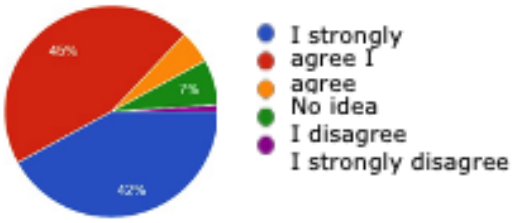
Q9	N	%
Special lightings are needed for special displayed products	1	1.0%
No idea	3	3.0%
I agree	46	45.5%
I disagree	1	1.0%
I strongly agree	50	49.5%

Conclusion
Participants prefer special lights for special displayed products as it helps them to figure the important product



Q10	N	%
There should be seating areas at the fair.		
No idea	5	5.0%
I agree	45	44.6%
I disagree	7	6.9%
I strongly agree	42	41.6%
I strongly disagree	1	1.0%

Conclusion
The majority agrees to have seating areas while walking throughout the fair



Q11	N	%
WC should be present at the fair.		
No idea	6	5.9%
I agree	32	31.7%
I disagree	1	1.0%
I strongly agree	61	60.4%

Conclusion
Participants prefer the existence of wc in the fair area

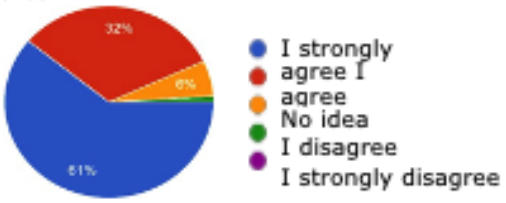
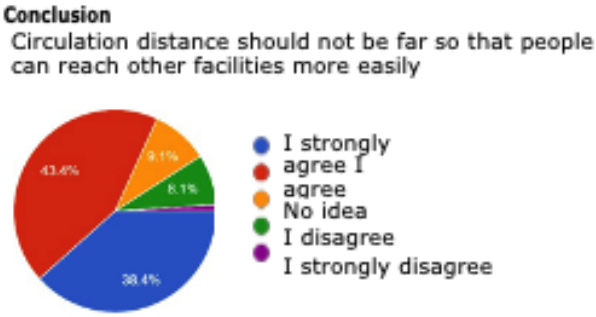
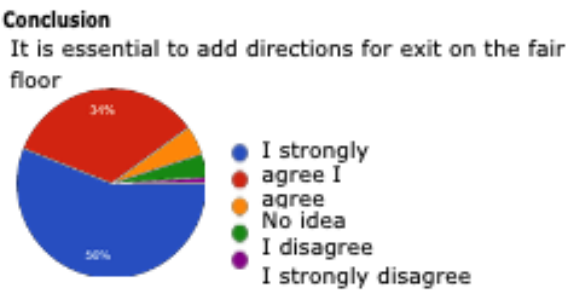


Table 10: Conclusions 4

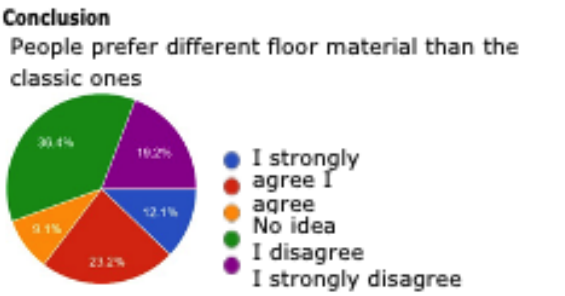
Q12	N	%
Circulation distances at the fair should not be far		
No idea	9	8.9%
I agree	43	42.6%
I disagree	8	7.9%
I strongly agree	38	37.6%
I strongly disagree	1	1.0%



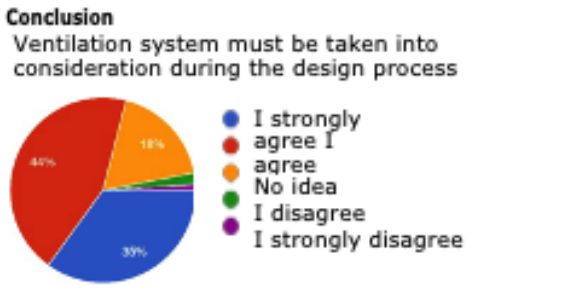
Q13	N	%
Directions for exits on the ground are very important for emergencies.		
No idea	5	5.0%
I agree	34	33.7%
I disagree	4	4.0%
I strongly agree	56	55.4%
I strongly disagree	1	1.0%



Q14	N	%
The flooring material used on the floor of the fair area should be classical.		
No idea	9	8.9%
I agree	23	22.8%
I disagree	36	35.6%
I strongly agree	12	11.9%
I strongly disagree	19	18.8%



Q15	N	%
The ventilation system design of the fair area is effective.		
No idea	18	17.8%
I agree	44	43.6%
I disagree	2	2.0%
I strongly agree	35	34.7%
I strongly disagree	1	1.0%



11. DISCUSSION, CONCLUSION AND RECOMMENDATIONS

As a result, circulation is a linkage that connects each functional unit within a space. In addition to coordinating all functional units, it provides horizontal and vertical links for the entire commercial space, making it a complete and orderly design. In addition high ceilings would be a great choice for supporting the ventilation system during the design. Orientation elements must be added on both floor and ceiling to make it easily reachable. Other facilities like seatings, wc and restaurants must be available on the fair space so that people could find everything they need without going out the fair space searching fot it.

When it comes to designing an exhibition, designers must take serious considerations. A simple selection of appropriate exhibit objects and an effective communication device is insufficient for a successful exhibit. An exhibition's layout must take into consideration how visitors move through space. This article describes principles that can be applied to help include the visitor in this exhibition equation.

Through its collections and exhibitions, Fairs should provide knowledge and education to the public by using an assortment of interior elements in a fun and engaging way. Creating exhibitions that appeal to the eye isn't the only goal, they need to support the success of fairs in conveying information.

The color choices used in the fair area play a positive psychological role on the visitor. 88% of the participants think that Separatng the fairgrounds into color-coded areas facilitates access to the desired product easily. Colors, which are a design element, have an important place in defining and making sense of the space. In crowded and multi-functional spaces, colors are a solution to the uncertainty in the circulation areas in the space with many formulas.

According to the research findings; 67% of the participants think that the directions and signs inside the exhibition areas are sufficient.

The research shows that 72% of the participants agrees that the circulation system in the exhibition area should be connected as it helps people to reach their destination more easily

According to the research 96% of the participants recommend special lighting for special displayed products since it helps draw their attention to them.

The research shows that about 80% of the visitors participants think that it is essential that Human ergonomics must be taken into consideration in designing the fairgrounds.

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