

The Study of Factors Affecting the Selection of Metal Chair used in the Coffee Shop

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Abstract -Metal chair plays an important to coffee shop. Where it can be categorized in many ways depending on what properties that are emphasized. The selection of it depending on price, colour, properties, quality, weight, chairs for different ages or chairs for different kinds of use. Among those criticisms have been lacks of comfort. It is important that functional definitions include among other things, cost, environmental concerns, and the psychological needs of the Customers. That is not preferred can have unfortunate consequences. It is selection criteria can improve the function of the metal chair within a coffee shop and comfortable. For many Customers, particularly the coffee shop is an alternative to the library. Coffee shop customers may need cafe seating for brief periods of time. This is especially important during periods of high volume. poor awareness studies for user which affect on selection of coffee shop metal chair. Coffee shop chairs where social interaction is allowed and encouraged, to create a welcoming environment. Therefore, aim of these study is determined design criteria which affect on coffee shop metal chair.

Key words : Metal Chair - Coffee Shop - Comfortable - User Selection - Design Criteria - Design Elements

1- INTRODUCTION

Metal chair is one of the most important components of any coffee shop. Despite the wide range of sub-types of coffee shops, they share similar goals. (1)

Coffee shops are simply a place to relax and spend time with friends. The level is of social interaction and more Customers sitting in groups. They aim to establish a balance between meeting the universal desires of patrons. Where the success of coffee shops throughout time can be accounted for by their profound social and cultural value. Some rely on their daily stop at the coffee shop to get them through a tough day, while others find their inspiration in the bustle of the environment. Coffee shops have evolved to serve a variety of social functions in society. In modern age coffee shops diverge into two main paths: the sidewalk coffee shop and the coffeehouse. These two are differentiated based on physical features, design, and how customers use the spaces. The sidewalk coffee shop emerged earlier and remains as a tie to the past. It maintains the culture and atmosphere of old coffee shops. Its structures are modest and traditional as most of the action in these establishments occurs on the street. (3)

For example clear expression of the function of a coffee metal chair's parts was to have a significant impact its' design. The success of these establishments relies on their ability to change with the times. Catering to present-day needs, the coffeehouse offers a variety of specialty drinks as well as environmental stimulation in the form of art and music.

Customers typically frequent these coffee shops for work purposes. The only factor that it share in common with its. A price has been paid for adaptation to modern, technological times. While surely a symbol of the world's advancement and innovation. coffee shop lack the sense of community that has drawn customers to coffee shops throughout history. Sub-types of coffee shops can be distinguished primarily upon the basis of user needs.

2. THEORETICAL STUDY

2.1. Comfortable metal chair:

coffee shop metal chair is helping to encourage long seating when achieve comfortable. Start from design it with some ergonomic factors such as physiological easting, anthropometry, psychological stress etc. Comfort is a construct of a defining personal nature; and affected by factors of nature (physical, psychological etc.); and Comfort is the environment reaction. Customers sit in different positions. Casual observation of Customers at cafe shows a wide variety of postures and positions such as sit upright and erect, slouch, sit on feet, cross legs, Customers straddle chairs, sit sideways, balance on the front edge, tip back on the back legs.(4)

Defining the function of a chair to include the development of related criteria for evaluation did and factors of environmental psychology. Also environmental psychology begins to explain why the selection and arrangement of chair in an outdoor and indoor space is important. In fact, result in a chair selection that is more appealing and useful for a given setting.

An issue of focus in the design of the chair was the impact the chair would have on the comfort of those using it. The overall ergonomics of the chair needed to provide a sense of relaxation for the user. But the time comfortable related to the purpose of uses.

Customers spend a good deal of time in coffee shops and thus desire a sense of comfort and belongingness. They may need cafe seating for brief periods of time. This is especially important during periods of high volume." These signs appeared to have very little

effect on the problem. These campers and their lengthy stays cannot be overlooked when designing a coffee shop.

Customers may wish that coffee shops provide an environment that fosters mental stimulation. Stimulation in coffee shops can be achieved through the obvious senses of sight, hearing, and taste. (5)

Geometrically-shaped (e.g., trapezoids) and mobile tables that can fit together in groups of 4, 6 or 8 to form spaces and surfaces for seating work. The quantity of metal chair should also match the number of users and the space. In addition, the size of the table and the ability to pull two tables together also influenced seat selection. Good design allows for flexibility in the environment, meeting a range of customer needs. The size and placement of chair in an environment can affect ones comfort within a space. for furniture in flexible cafe to avoid congestion and chaos .

The user should be able to move and change postures regularly and freely without any constraints from the metal chair. The surface material must provide sufficient friction to prevent sliding. (6)

Metal chair designed to be ergonomically appropriate for users of varying sizes and proportions .For example differences between elderly and young adult dimensions. Anthropometric data on the elderly were compared with the available published data on young adults to determine the differences between the two population groups. Survey was drawn from a stratified sample of 75 male and 35 female. The age of the male ranged between 18 and 62 years, with a mean age of 34.6 years. The female had a mean age of 32.2 years and their ages ranged between 17 and 46 years. The data presented that both elderly males and females are significantly heavier than the younger group, but elderly males and females were significantly shorter than the younger group. (7)

Chair design should enable different postures too. Dimensions shall be; Seat height (from floor) 18 inches (nominal) Chair depth of seat 16 inches (nominal) Chair width of seat 16 inches (nominal) Limits on these dimensions are + or - 1/2 inch. (8)

Should shaped chairs and tables can fit together in groups form spaces and surfaces for group seating.

2.2. Construction sensibility of metal chair

Sensibility design is language of design that blends the advantages of an metal chair with the human senses. Such sensibilities as comfort, richness, satisfaction, pleasantness, etc. can be described as specific design approach which creates products that stimulate the human mind and the senses through vision. That aligns with current senses user.

The metal chairs offer an aesthetic quality. They are also capable of being reclined based on the preference of the customer and are virtually weightless, permitting customers to move them easily. (9) For this it is important with a material that has a high strength and stiffness. A metal will be suitable for this purpose. According to the material, low carbon steel and aluminum are common materials used in furniture design and these two materials will be compared with respect to strength & material and cost as:-

2.2.1- Strength & material

Coffee shop metal chair is designed to endure requirement the rigors of a busy coffee shop. Language expresses structural logic through an abstract representation that finds meaning in four different layers: structural order, structural function, structural dimensions and structural design possibilities. The use of tubular steel for structure is a perfect expression of strength, who at no point comes in contact with any structural members. The legs must be solid (to make them thin) and as light as possible (to make the metal chair easier to move). They must support metal chair and whatever is placed upon it without buckling. What materials could one recommend? There are five major types of structural dimensions to be considered (10):-

- Tension through axial transfer of force.
- Compression through axial transfer of force.
- Bending through parallel transfer of force.
- Torsion through axial transfer of moment.
- Bending through parallel transfer of moment.

The characteristics of structural dimensions are directly derived from the characteristics of structural functions, except for axial transfer of force, which is divided into tension and compression. Steel has a higher Young's modulus than the chosen aluminum. This means that to get the same strength from it, there is a need for a larger volume of material. Since the density for aluminum is much lower than for steel, the weight would still be lower with increased volume. The price for aluminum is significantly higher than for Steel.

2.2.2 - cost

The price of metal chair should match the utility. When introducing a new product to a market, it is important to offer an appealing design concerning the segment the product is introduced to. For the segment the functions and properties are important and the design therefore needs to consider. The chair also needs to fit into the surrounding environment. When selecting a material for a particular chair, understand relationship, material, design, performance, characteristics and manufacturing. Cost Variable associated with all of the above -what materials are suitable for the chair. There are a lot of models (fig.1) that the selection of coffee metal chair depended on it:

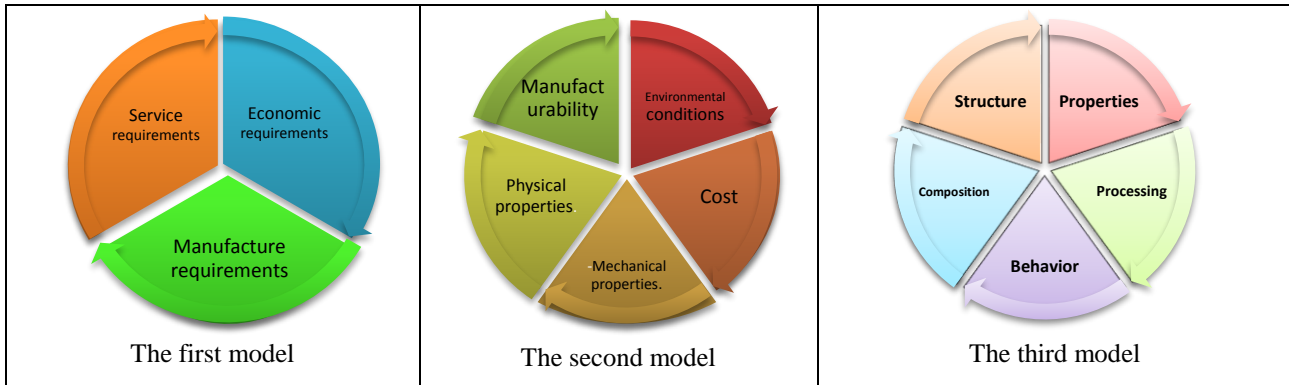


Figure (1) models selection of coffee metal chair

2.3. Rules Selecting the Coffee shop metal chair

The process of selecting the right products, supplier and manufacturer need not be complex. User choice in surveys and in the marketplace reflects a complex process of screening and evaluating choice alternatives. The function of the metal chair can improve the selection criteria within a coffee shop and comfortable.(11)

3- RESULT AND DISCUSSION

The research found that design criteria depend on two factors: selection of coffee metal chair & design elements:-

A- Selection of coffee metal chair

For metal chair selection and the appropriate application of those criteria can lead to more successful spaces. It affects not only ones preference for a space, but also the function of a seat within a given context was able to be presented chose rule. Therefore the selection is depending on Three types of user choice processes :-

1- Affective Choice

Affective choices tend to be more holistic. Evaluations generally focus on how they will make the user feel as they are used. Choices are often based primarily on the immediate emotional response to the product or service.

2- Attitude-Based Choice

Involves the use of general attitudes, summary impressions, intuitions, or heuristics.

Requires the

3- Attribute-Based Choice

knowledge of specific attributes at the time the choice is made, and it involves attribute-by-attribute comparisons across brands. Propose methods for estimating choice models with conjunctive, disjunctive and Elimination-by-Aspects rules, where the first two rules involve thresholds for attribute-levels.(12)

So the research put three principals criteria Based Choices to develop the performance of selection. These principals criteria (rules) are often used in conjoint analysis. Consumers might rank features to accept or eliminate alternatives (conjunctive, disjunctive, disjunctions of conjunctions):-

First: Conjunctive rule (Satisfying)

In a conjunctive rule a profile must have all of its features above minimum levels. Of course, some minimum levels can be such that all profiles satisfy. The conjunctive model, which requires that an alternative be acceptable on all relevant attributes in order to be included in the final choice set, was the best fitting model in their study. Screening rules can result in a loss of utility when an alternative is eliminated on the basis of a single attribute, while consideration of all attributes might reveal it as the most preferred alternative.(12)

Second: Disjunctive rule (Excellent solution)

In a disjunctive rule a profile is considered if one feature or set of features is above a threshold. In a disjunctive rule, the other features do not matter.

Third: Aspects elimination

Rule the consumer successively chooses aspects (feature levels) and eliminates all profiles that have that aspect. Because an aspect is binary, a profile either has it or not, we can define aspects by their negation to produce an equivalent rule of acceptance-by-aspects.(13)

Focuses on how consumers actually make choices given their limited ability to accumulate, process, and make optimal decisions using all the information available in the market place. A consumer places different levels of importance, or weight, on each of these aspects. The choice process begins with the consumer probabilistically selecting one of the aspects; the probability of selecting a given aspect is proportional to its weight. All alternatives without that aspect are eliminated from the choice set; if only one alternative remains, it is chosen. If more than one alternative remains, a second aspect is chosen, again with probability proportional to its weight relative to the weight of the remaining aspects. The elimination process continues until only one alternative remains:-

- Decision Rules for Attribute-Based Choices.
- Disjunctive Rule.
- Establishes a minimum required performance for each important attribute (often a high level).
- All brands that meet or exceed the performance level for any key attribute are acceptable.

Decision Rules for Attribute-Based Choices

Elimination-by-Aspects Rule

First, evaluative criteria ranked in terms of importance

Second, cutoff point for each criterion is established.

Finally (in order of attribute importance) brands are eliminated if they fail to meet or exceed the cutoff.

- Also environmental psychology begins to explain why the selection and arrangement of chair in an outdoor and indoor space is important. In fact, result in a chair selection that is more appealing and useful for a given setting.

B- The design elements

- Metal chair designed to improve comfort for periods of extended use. With metal chair provides functional and flexible seating for a variety of uses such as Coffee shop and reception waiting areas.
- These small round tables had been successful in shortening stays at other coffee shops in the same national chain.
- Round tables are a practical option so that the number of chairs cans vary creates the right atmosphere for a quick snack, chair is light and easy-to-clean finishes generate a friendly and hygienic look.
- Coffee shop metal chair should to be a success through its balance between maintaining tradition and adapting to modern times.
- Metal chair that suits the activity seating, supports diverse seating, meets the physical needs of user, fosters a sense of community, maximizes utilization of space and meets budget and sustainability criteria.

- The size of the metal chair is the first thing to consider when buying metal chair.
- The chair is important and should be related to the space because it will be perfectly fit into the space in the buyer’s coffee shop.
- It is not necessary that metal chair will have the same shape in every piece.
- The shape should be a little difference in order to provide an elegant look but not so different that it does not match with the others.
- Use criteria were developed that expanded the definition of function to include factors influenced by design requirement. It was determined, visual preference and personal space
- The chairs need to be easy to handle with Focus user’s comfort and well, The chair that suits the variety of spaces needed for individual seating, small- and large-group.
- Choose Metal base chairs are strong, lightweight, stable and durable enough for heavy use
- Some uses when in the majority of settings, the selection of metal chair has been limited to three factors: cost, style maintenance.
- Metal chair is widely used in the construction of outdoor chair because it is extremely durable, lightweight, can be formed into many styles and shapes, and will not rust.
- The designer is responsible, when designing metal chair, for creating comfortable that facilitate social interaction on the coffee shop.

There are some elements linked with customers in their selection (table 1):-

Table (1) Elements linked with selection process

Elements	Features
cost	- The price of metal chair should match the utility, durability, style neatness, satisfaction, energy.
aesthetic preference metal	- The choice of materials can also have a significant impact on the function of site metal chair with respect to aesthetic preference. - The colours of the metal chair finish and upholstery shall be selected from the manufacturer's standard colors. Well-finished appearance and shall be free of all imperfections.
assembly easy	- The assembly is easy and the chair consists of few parts and the maintenance of the metal chair.
user’s preference	- Improvements were observed that will likely increase the user’s preference. In order to tap into the needs and wants of customers, they crave a sense of relaxation and luxury. - Accommodate users of different sizes and proportions and use over long periods of time.
structural design	- Coffee shop metal chair is designed to endure requirement the rigors of a busy indoor and outdoor coffee shop. - The structural design of the chairs shall be such that any sustained or impacted weight will be uniformly distributed on all supporting parts with no excessive strain on any one supporting part under normal use.
fosters a sense of community	- Chairs to accommodate -Such as - meetings and gatherings, and community events.

	<ul style="list-style-type: none"> - The owner of coffee shop believed that the coffee shop should be a place for social interaction and encourage conversation. Designers can meet the goal of creating a sense of community and belongingness by taking into account the elements of stimulation.
Health and safety	<ul style="list-style-type: none"> - Metal chair that can be easy cleaned and sanitized regularly since it typically has direct contact with multiple users. - metal chair located outdoors also helps encourage activity; - To encourage more physical activity in the coffee shop. - Metals chair types and layouts that do not block fire and emergency exits. - Easily maintain appearance and comfort with a clean-out space between the seat and back.
Storage space	<ul style="list-style-type: none"> - Use metals chairs which are easily folded. will result in great space savings during transport. - The chair needed to be light weight in order to provide for easy movement and can hang to make cleaning the floor easier - This is properties effects storage space, many of today are cafe adequate space to store the moveable chairs - There is the factor associated with the mobility and storage of the chair. Therefore - Storage space is extremely expensive to construct and does not generate revenue. The excess chair is now being stored along the walls in the service corridors resulting in reduced operational efficiency. - Often the lack of floor space requires that chairs be stacked on end and leaned against the wall so that the least amount of floor space is consumed. - The chair and storage units are evidence of a new relationship between precision engineering and furniture manufacture that produced furniture at a reasonable cost.

Despite variations in target populations and design elements, coffee shops can be successful if they maintain the integrity of the shop.

A sense of community and belongingness are crucial to the coffee shop culture experience.

There is a huge selection of metals chairs and how Consumers Make Choices Alternative Selection. Chair procurement process that involves users takes into account educational goals, durability, style neatness, satisfaction, energy, the maintenance of the metal chair, sustainability, design, cost, comfort, productivity and designers; to ensure chair efficiency, flexibility and functionality with building space design.

For example the eight key factors affecting user's purchase in metal chair which consists of size, sharp, colour, material, craftsmanship, utilization, price and quantity. There are eight possible factors influence the

consideration of furniture choices which are style, color, price and construction quality, ease of maintenance, comfort, material, and matching with other items.(14)

The model assumes that users eliminate choice alternatives that do not have desired attributes or aspects. The product feature, is selected with a probability proportional to its relative importance, all alternatives without that aspect are eliminated, and the process is repeated until only a single alternative remains. The model has intuitive appeal because the amount of cognitive processing associated with attribute based choice is considered to be less than with compensatory choice models. Where consumers consider all the alternatives on all the attributes.

Taking some factors (fig.2) into consideration allows designers to optimize customer satisfaction.

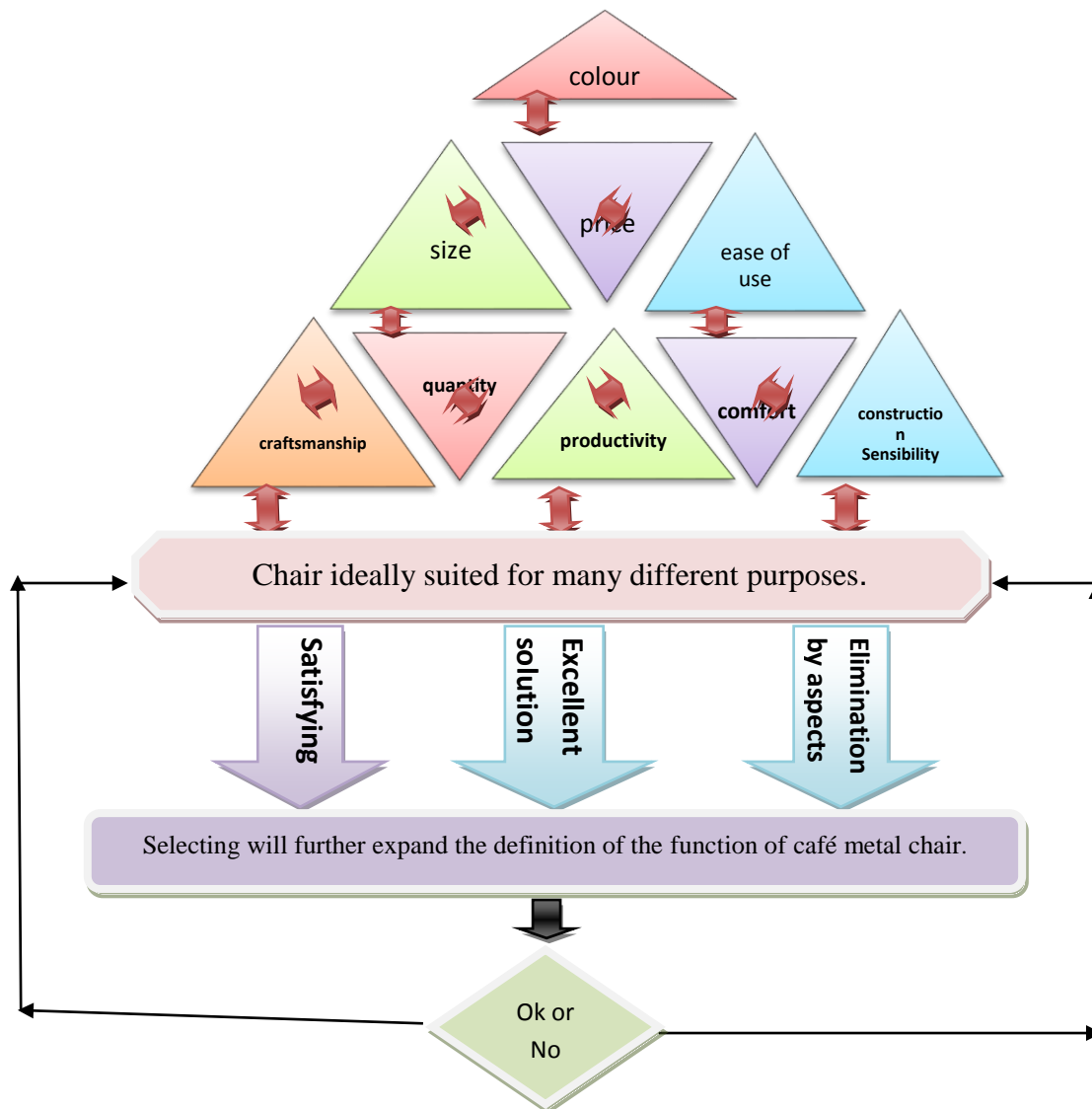


Figure (2) factors affect on design consideration for coffee shop metal chair.

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