

Public and professional perceptions of interior architecture discipline: A comparative analysis of stereotypes

Pariya Mohammadi ^a, Parastoo Eshrati ^{a,*}

^a School of Architecture, Collage of Fine Arts, University of Tehran, Tehran, Iran.

Received: 15 November 2023.- Accepted: 06 October 2024

Abstract

The public's perception of interior architecture is crucial for graduates' recognition and job assignments. However, graduates' self-perception, influenced by education, may differ from public view, posing career challenges. By examining public and professional perceptions and identifying existing gaps, this research aims to enhance an accurate understanding of the field to improve graduates' career prospects. To achieve this goal, relevant domains were identified through literature review: "refurbishment", "safety", "economy", "sustainability", "function", "innovation", and "aesthetics". Then, the two groups were surveyed using a mixed questionnaire that included open-ended, multiple-choice, and Likert scale questions. Data analysis involved mixed methods, combining the Comparative Method for Themes Saturation for qualitative questions as well as descriptive and statistical analysis for quantitative questions. The results show that the public holds "exaggerated" decoration-oriented perceptions. Graduates exhibit some misalignment; viewing the public "negatively" but having a "positive" perception of privileged clients. Additionally, students are "positive" about the job market, while experienced professionals are more "negative". Both groups prioritize the 'Functional' domain, while undervaluing structural reinforcement and building installation upgrades within "Refurbishment" domain. Notably, the "economy" stands out as a key difference between the groups; graduates recognize their significant role in cost reduction, while the public dismisses it. Mann-Whitney and Kruskal-Wallis tests show no difference in high importance of "innovation" and "aesthetics" for both groups, and gender, education, referral experience, and work experience have no impact on the perceptions. Considering the obtained results, promoting the discipline, revising the curriculum, and aligning perceptions in society, academia, and the job market are crucial.

Keywords: Academic discipline; Interior Architecture; Stereotypes; University and society interactions

1. Introduction

Perceptions and mutual understandings held by groups of each other play a pivotal role in shaping and influencing communal identity within the framework of social psychology, exerting the potential to either strengthen or weaken its foundations. (Nazari, 2012, p. 59). In this regard, society and the university can be regarded as interconnected contexts, and the lack of coordination between the stereotypes held by the general public and academic individuals pertaining to a particular field can have detrimental effects. Graduates who are influenced by these stereotypes face a significant threat to their professional identity, as such stereotypes persistently impact and quickly disseminate within the broader public culture. Consequently, these perceptions not only have the potential to undermine their abilities but also pose an additional risk to their employment prospects (Aronson, et al., 1998; Nazari, 2012, p. 60). The current study aims to examine the stereotypes associated with interior architecture as an academic discipline. In comparison to other architectural fields, interior architecture has a relatively brief and dependent history. In the past, the role of interior architecture was fulfilled by architects and artisans, with architects being responsible for the building's design, structural engineering, and interior design. Meanwhile, creative artisans were employed

alongside architects in the privileged class to produce furniture and decorations. (Piotrowski, 2009/ 2013: pp. 3-5). Nowadays, interior architecture has emerged as a distinct discipline separate from both decoration and architecture, encompassing unique roles and responsibilities at both the academic and professional levels. (Zia Shahabi, 2019, p. 64). Due to the relatively recent emergence of interior architecture as an academic discipline, there is a potential for stereotypes to exist regarding the responsibilities and activity domains of interior architects that may not accurately align with their actual roles. Therefore, the purpose of this study is to investigate the perceptions held by the general public and interior architecture graduates, aiming to identify any gaps between these two groups' understandings and perceptions. Uncovering these perspectives not only allows for the identification of the strengths and weaknesses in the perception of interior architecture but also facilitates its enhancement. To accomplish the research objectives, the main inquiries can be categorized as follows:

- what are the stereotype among the general public and the graduates concerning the field of interior architecture?
- Are there differences between the perceptions of the general public and the graduates regarding the activity domains of interior architecture?

* Corresponding Author Email: eshrati@ut.ac.ir

2. Research Background

2.1. Background studies on stereotypes

Numerous studies have been conducted on stereotypes in the field of social psychology, each approaching the subject from a specific perspective. In this research background, the focus was on academia-oriented stereotypes. The studies on stereotypes were classified into four main categories: academia, gender-academia,

profession, and gender-profession. Most research studies have focused on the stereotypes of a particular group in relation to a specific topic. However, this article emphasizes the comparison of stereotypes between two distinct groups- the public and the professionals- regarding the field of interior architecture. Table 1 presents an example of these studies.

Table 1
Background studies on stereotypes

Category	Author(s)	Year of Publication	Statistical Population	Subject of the Study
Academia	Nazari and Nazari Majd	2013 (In Persian)	University of Tehran	How stereotypes and prejudice shape group identities
	Nazari	2016 (In Persian)	University of Tehran	The origins of prejudice and stereotypes among societal identity groups
	Ashayeri et al	2016 (In Persian)	Tabriz University of Medical Sciences	Factors affecting stereotypes
Gender-Academia	Tavakol et al	2009 (In Persian)	Tehran University of Medical Sciences, Shahid Beheshti, Iran	The position of girls in Iran's medical education system
	Zare Shahabadi and Soleimani	2011 (In Persian)	Yazd University	Clarification of the types of gender stereotypes attributed to women and men
	Banchefsky and Park	2018	Variety of Academic Majors	Exploring gender biases in male-dominated academia.
Discipline/Profession	Akbulut-Bailey	2009	Information Systems (IS)	The image of IS professionals
	Faragalla	2015	Accounting Profession	Contrasting stereotypes in accounting: traditional vs. business professional
	Fesharaki	2018 (In Persian)	Nurses	The effects of stereotypes and discrimination perceived by employees
	Darmayani et al	2020	Health Professions	Examining perceptions of stereotypes among health professionals
	Demirkol	2022	Teaching Profession	Stereotypes About the Teaching Profession
	Teresa-Morales et al	2022	Nursing Profession	Stereotypes in nursing: student and professional perceptions
	Turochy et al	2023	Latinx Engineering	Stereotype threats experienced by Latinx engineering students
Gender-Profession	Stout et al	2010	STEM	Creating a model to study Women's Self-Concept in STEM
	Nejat and Hatami	2012 (In Persian)	STEM and Humanities Students	Comparing gender stereotypes in susceptibility to career goals
	Brawner et al	2012	Industrial Engineering	Assumptions about industrial engineering undergraduate women
	Abbas et al	2023	Management	Stereotype threat and stress levels in female academic managers
	Frank et al	2023	Internal Medicine Residency	Stereotype threat in IM residency and contributing experiences

2.2. Background studies on interior architecture

Generally, the field of interior architecture is less explored. Based on the study, despite the resolutions of the Ministry of Science, Research, and Technology, limited research has been conducted in the domains of

this field. These studies highlight the roles of interior architects in areas such as "refurbishment", "safety", "economy", "sustainability", "function", "innovation" and "aesthetics", categorized and presented in Table 2.

Table 1
 Background of studies on interior architecture

Category	Author(s)	Year of Publication	Subject of the Study
Refurbishment	Bakhtiari Doust and Kabir Saber	2018 (In Persian)	Effective interior design principles for heritage buildings
	Masoud et al	2019 (In Persian)	Interior architects' role in heritage reuse and change management
	Camocini and Nosova	2017	The role of Interior Design in temporary adaptive reuse
	Celadyn	2019	Interior Design Model for Sustainable Resource Management
	Chan et al	2020	Economic and Energy Impacts of Adaptive Reuse
Safety	Mirsaeedie and Shamsi	2018 (In Persian)	Considering effective elements in evacuation the buildings in fire
	Khodaparast and Tehrani	2018 (In Persian)	Novel Approach to Architectural Safety Analysis Using Space Syntax
	Moody and Petty	2014	Interior Design Impact on Public Health and Safety
	Dereci and Beşir	2022	Earthquake & Non-Structural Elements in Architecture and interior architecture Education
Economy	Sedighi	2016 (In Persian)	Reducing Construction Costs Through Optimal Design and Materials
	Izani et al	2022	The economical and practical approach to integrating interior design 3D scenes into VR/AR
Sustainability	Asadi Azar	2016 (In Persian)	Interior Architecture's Impact on Sustainability: Toffler's Theory
	Zia shahabi	2017 (In Persian)	Sustainable Interior Design: A Novel Approach to Enhancing Built Environment Quality
	Safikhani and Baharvand	2018 (In Persian)	Climate Sustainability in Interior Architecture
	Rashdan and Ashour	2017	Criteria for sustainable interior design solutions
	Celadyn	2020	Integrative design classes for environmental sustainability of interior architectural design
	Alfuraty Jain	2020 2023	Sustainable Interior Design: Material Choice Sustainable Design Practices for Eco-Interiors
Function	Faraji and Nouri	2019 (In Persian)	Architectural Solutions for Enhancing Spatial Flexibility in Interior Architecture
	Ghadiri Seresht et al	2017 (In Persian)	Flexible Design for Optimal Residential Space Use
	Q. Abdulqader et al	2014	Impact of flexibility on the efficiency of Interior Design
	Al Khafaji and Kamaran	2019	Spatial flexibility to improve sustainability of interior design
	Sarkar and Bardhan	2019	Optimizing Indoor Environmental Quality (IEQ) through Interior Design Parameters
Innovation	Fallahnia	2013 (In Persian)	Application of Innovative Perspectives in Architecture and Interior Space
	Yildirim	2015	Effects of intelligent spaces on the role of interior designer
	Gong	2023	Artificial Intelligence Technology in Interior Design
	Tang et al	2023	Interactive Virtual Reality (IVR) in Interior Design
	Wu and Han	2023	AI and VR in Interior Decoration Design
Aesthetics	Hasibi and Amiri	2015 (In Persian)	Semantic Beauty: Water in Modern Home Interiors
	Moosavian	2022 (In Persian)	Components Affecting Aesthetic Experience of Architecture in Cognitive Sciences
	Kim and Heo	2021	Artistic Elements in Store Interior Design
	Bondar et al	2022	Evolution of the Artistic Image in the Interior Design

3. Literature Review

3.1. Stereotypes

Attitudes are commonly studied in three dimensions: cognitive, affective, and behavioral. The cognitive dimension pertains to how we think about a particular object or subject. The affective dimension involves our emotional responses towards the object or subject. The behavioral dimension focuses on the actions and approaches we take when confronted with the object or subject. These dimensions are often employed in evaluating social groups (Aronson, 1972/ 2019). Stereotypes, in essence, can be understood as a collection of prior assumptions, often accompanied by negative emotions, general ideas, beliefs, and actions directed toward specific social groups that possess distinct commonalities or social identities (Nazari, 2016, p. 519). Walter Lippmann, a prominent American journalist, was the first to systematically discuss and examine stereotypes in his book "Public Opinion" (1922). The concept of stereotypes has since been utilized in the fields of social sciences and social psychology. According to Gudykunst, stereotypes are specific generalizations that individuals form through perception. They serve as a source of expectations that inform us about the likely characteristics of a group and its members. Stereotypes allow humans to categorize and describe individuals or groups, even though these categorizations may not always be firmly grounded in reality. In some cases, stereotypes may involve hostile attitudes towards other groups, leading to derogatory treatment. (Ashayeri, et al., 2016, p. 129). In other words, stereotypes can be described as exaggerated mental images or beliefs that assume any belief about a group can be applied to all its members (Meyers, 2005; Ashayeri et al., 2016, p. 123). Some stereotypes may accurately portray certain characteristics of a group, while others may be exaggerated or entirely fabricated. Although stereotypes can assist individuals in quickly processing available information, reducing ambiguities, and simplifying complex situations, they ultimately hinder accurate observations and understanding (Nazari, 2016, p. 519). Social psychologists, such as Samuel Ash, argue that understanding intergroup relations and the perceptions held by different groups is a fundamental concern in social psychology. Consequently, interactions with others are heavily influenced by group membership, often manifested through psychological representations of these groups (Naseri and Kianpour, 2015, p. 63).

3.2. The Domains of Interior Architecture

Each architectural building possesses a unique value that is shaped by factors such as its time period, geographical location, architectural techniques employed, prevailing design trends, occupancy, and stylistic characteristics. These buildings often attain a special status as cultural and historical heritage. However, with the passage of time and abandonment, these values can deteriorate, exposing architectural structures to the risk of destruction. Therefore, the preservation of historical buildings

becomes imperative. One of the approaches widely adopted worldwide for the protection of historical buildings is adaptive reuse, which takes into account the preservation of cultural values. Adaptive reuse involves interventions and modifications to the building, making it crucial to adhere to the principles and fundamentals of interior architecture. Neglecting these principles during the refurbishment process can lead to the destruction rather than the preservation of historical buildings. Consequently, the role of interior architecture in the refurbishment and adaptive reuse of historical buildings is significant (Brooker and Stone, 2010; Zia Shahabi and Imani, 2013, p. 122).

Professional interior designers undergo training to make informed decisions throughout the design process, prioritizing the safety and well-being of the space's users. One crucial aspect of their decision-making involves creating space plans that adhere to building codes and regulations. By ensuring compliance with these codes, interior designers can provide occupants with sufficient time and safe routes to evacuate from the building in the event of a fire or emergency. (Martin, 2008; Moody and Petty, 2014). Earthquakes, as natural disasters, pose a range of risks to buildings, encompassing potential loss of life and property, injuries, disruption of normal activities, and the increased likelihood of fire incidents (FEMA, 2011; Darsi and Basir, 2022, p. 1082). It is of utmost importance to have a comprehensive understanding of the potential small-scale interventions and spatial arrangements that can be implemented within interior spaces. Furthermore, in the context of earthquake-resistant space design, there is a need to enhance the knowledge and awareness of architects and interior designers regarding this subject matter. The awareness of all elements and decorations that can be risky in the interior space is crucial. Moreover, the level of knowledge and awareness among interior designers needs to be elevated in the field of earthquake-resistant space design, alongside the measures that can be undertaken by internal users. Recent studies emphasize the significance of interior architects in the design of earthquake-resistant buildings (Darsi and Basir, 2022, p. 1083).

The significance of economic considerations is a topic of ongoing debate in the field of interior design, and it can be viewed as a significant barrier to perceiving this field. The financial factor serves as one of the primary reasons why individuals may hesitate to hire interior designers. There is a common perception among the general public that this profession is associated with the affluent segment of society (Eshrati and Mohammadi, 2021, pp. 9-10).

Sustainable Interior Design (SID) is an emerging concept within the field of interior architecture that aims to minimize the negative environmental impact of interior design while promoting the well-being of occupants. By implementing sustainable design principles such as the use of eco-friendly materials, energy efficiency, indoor air

quality improvement, water conservation, and waste be significantly reduced, leading to enhanced sustainability. The incorporation of SID allows designers to create healthier and more sustainable living and working environments. It is crucial for designers to keep up with the latest sustainable design methods and technologies to ensure that their designs are both aesthetically pleasing and environmentally friendly (Kineber et al., 2023, p. 3).

Flexibility is a fundamental concept in contemporary interior space design, given the constraints of existing buildings, the diverse needs of individuals, and the evolving nature of their living conditions over time (Pakzad and Bozorg, p. 2015). In recent years, the trend of reducing the size of residential units has emerged, making targeted furniture design and precise utilization essential for optimizing all spaces, particularly residential areas (Darbandi, 2016, p. 43). An interior designer's role encompasses employing techniques that maximize spatial qualities, ensuring appropriate and effective utilization of space to achieve spatial balance and provide an optimal environment for individuals (Nazarpour et al., 2020).

As technology advances at a rapid pace, people's living standards have significantly improved. The swift integration of new technologies into daily life has led to more dynamic changes in interior design styles and the evolving needs of individuals. Consequently, interior design thinking must embrace predictability, ecological considerations, and standardized design to adapt to new functionalities and concepts effectively (Liu and Chen, 2023). Smart interior design offers efficient, flexible, and cost-effective solutions to address the frequently changing and complex demands of occupants, enabling the creation of pleasant, comfortable, enjoyable, and efficient environments. By employing smart interior design techniques, designers can provide customized choices and solutions that cater to the diverse preferences of consumers (Will and Worsham, 2019; Kamran, 2021).

Introducing beauty, innovation, and creative thinking is a crucial aspect of interior architecture. The presence and impact of such ideas undoubtedly elevate society's taste and aesthetic standards, playing a significant role in enhancing public and private spaces, as well as the overall human living environment in the long run (Kiani, 2010, p. 22). Interior architecture holds substantial importance in shaping the quality of the built environment, thereby directly influencing the quality of users' lives. Key factors such as materials, colors, lighting, furniture, spatial arrangement, and division all contribute to the beauty and functionality of interior spaces (Ershadi and Khorsidi, 2017; Pakdel and Lavafaan, 2022, p. 6).

4. Research Methodology

The present study is practical in terms of purpose and employs a mixed-method approach, combining both quantitative and qualitative methodologies. First, the required data for identifying the domains of interior architecture was gathered through a comprehensive literature review. Subsequently, a mixed questionnaire

reduction, the environmental effects of interior design can be utilized, incorporating open-ended, multiple-choice, and five-point Likert scale questions to gather data from the target population. The questionnaire was organized into three main sections, as follows:

The first section of the questionnaire (General Questions): included general questions for the first group (general public) regarding age, gender, level of education, field of study, and referral experience to interior architects. For the second group (interior architects) the questions focused on age, gender, educational status, and work experience.

The second section of the questionnaire (Open-ended and Multiple-Choice Questions): For the first group (general public), two open-ended questions were included. The first question aimed to identify their understanding of the distinction between decoration and interior architecture, while the second question explored their general perception of interior architecture. For the second group (interior architects), the open-ended questions were divided into two parts. The first part focused on their perceptions of interior architecture before and after entering university, as well as their views on the job market (personal perception). The second part explored their perspective on the relationship between the field of interior architecture and the general public, the public's perception of the profession, and the factors influencing these perspectives (non-personal perception). In the multiple-choice questions, two questions were shared between both groups. The first question addressed the necessity of consulting with educated interior architects, while the second question explored the impact of building function on job opportunities for interior architects.

The third section of the questionnaire (Rating Scale Questions): Consisted of 17 questions that were categorized into 7 distinct domains. The questions were presented in a Likert scale format, utilizing a 5-point scale ranging from "Very Low" to "Very High", with "Low", "Moderate", and "High" as intermediate options. The domains and their corresponding subcategories were as follows:

- a. Refurbishment Domain: This domain included four questions that assessed the extent of the interior architect's role in areas such as the "adaptive reuse of old buildings", "adaptive reuse of historical buildings", "upgrading building installations", and "structures reinforcing".
- b. Safety Domain: This domain comprised three questions that focused on the interior architect's involvement in ensuring "the integration of interior decoration against earthquakes", "general space safety", and "fire safety".
- c. Economy Domain: This domain consisted of one question that evaluated the interior architect's contribution to "reducing interior-related costs".
- d. Sustainability Domain: This domain encompassed two questions that assessed the interior architect's consideration of "environmental issues" and "energy optimization".
- e. Function Domain: This domain included three questions that measured the interior architect's emphasis

on "space flexibility", "maximum space utilization", and "functional efficiency".

f. Innovation Domain: This domain comprised three questions that assessed the interior architect's involvement in incorporating "idea and creativity", "technology and innovation", and "utilizing new materials".

g. Aesthetics Domain: This domain had one question that focused on the interior architect's attention to "visual aesthetics".

The "validity" of the questionnaire was confirmed through a two-stage process involving five members of the academic faculty and experts in the field of interior architecture. In the first stage, the initial questionnaire was distributed to each of the five individuals, and their opinions were collected. To assess the content validity of the questionnaire, they were asked to rate the relevance of each question using a four-point scale: a) Not relevant, b) Requires fundamental revision, c) Relevant but needs revision, d) Completely relevant. Based on their feedback, two questions were identified as relevant but requiring revision to ensure clearer communication of the intended meaning to the interviewees. Subsequently, the questionnaire was revised based on the feedback received. In the second stage, the revised questionnaire was shared

with the participants, and their final opinions were gathered. To assess the "reliability" of the questionnaire, Cronbach's alpha coefficient was calculated. The obtained Cronbach's alpha value was 0.806, indicating satisfactory reliability of the questionnaire.

The statistical population consists of two groups: the first group, the general public, includes ordinary individuals residing in Tehran, selected through simple random sampling based on gender homogeneity, educational diversity, and varied experience consulting with interior architects (no, direct, or indirect experience). The second group comprises individuals with a master's degree in interior architecture, selected through purposive sampling. Selection criteria were gender homogeneity and current status within the field, including students, graduates, and professionals. The statistical population of the second group comprises individuals educated in the field of interior architecture at the master's level selected through purposive sampling. The criteria included the homogeneity of the individuals-both females and males- and individuals at various stages of this field, including students, graduates, and professionals. Table 3 demonstrates information about the study's sample population.

Table 2
 Sample population's information

Group 1 (general public)									
Gender	Total	Age		Educational level			Referral Experience		
		20-30	>30	≥Master	Bachelor	Bachelor>	direct	In-direct	Non-referral
Female	16	8	8	4	8	4	3	4	9
Male	16	13	3	12	4	0	1	7	8
Total	32	21	11	16	12	4	4	11	17
Group 2 (educated interior architects)									
Gender	Total	Age		Educational status			Work experience		
		20-30	>30	Semester 1-3	Semester 4-6	Graduated	0	<5	>5
Female	10	9	1	6	2	2	7	2	1
Male	8	6	2	0	5	3	0	6	2
Total	18	15	3	6	7	5	7	8	3

For conducting the questionnaire, communication was established online through the social media platform WhatsApp during the autumn and winter of 2020. To ensure comprehensive responses were obtained from respondents and to mitigate the possibility of errors, the open-ended questions were asked orally in the format of semi-structured interviews. Prior to the interviews, explicit permission was obtained from the participants, and all interviews were recorded and transcribed verbatim. On average, the interviews lasted between 15 to 20 minutes.

In qualitative research, sample sizes are generally small (Hammarberg et al. 2016, 500). Sampling continues until the saturation point is achieved. The saturation point occurs when no new information is forthcoming from further data collection, which can even result in a loss of clarity (Leavy 2017, 213). One method to ensure data saturation is the Comparative Method for Themes Saturation (CoMe TS), proposed by Constantinou (2017). This method involves coding each semi-structured interview and extracting themes. Then, the similarities between the themes are examined in two stages. First, all

semi-structured interviews are compared with each other. Second, the sequence of semi-structured interviews is reordered twice, and saturation is rechecked (Eshrati and Eshrati, 2022). In this study, to determine the saturation point, each interview was coded after being conducted based on this method. Coding 28 interviews from the general public and 14 interviews from interior designers indicated that saturation had been reached; however, to ensure thoroughness, interviews continued up to the 32nd person among the general public and up to the 18th the interior architect. In total, 50 interviews were conducted, comprising 32 people from the general public and 18 interior architects. In the quantitative part, due to the unavailability of the exact number of the statistical population in both groups, it was not possible to use conventional tests to accurately determine the sample size. On the other hand, Considering the alignment of the statistical population in both qualitative and quantitative

sections, the sample size for the quantitative section was also set in accordance with the qualitative section. For the quantitative analysis, descriptive and inferential statistics were employed using IBM SPSS Statistics software (version 27). Considering the time, budget, and accessibility constraints of the authors, it was evident from the outset of the research that achieving a large sample size and meeting the conditions of a "normal" distribution of data would not be feasible. Therefore, non-parametric tests were chosen for hypothesis testing. Given the nature of the hypotheses and according to Pallant (2020), the "Mann-Whitney U test" was chosen for comparing hypotheses between two independent groups, and the "Kruskal-Wallis test" for comparing hypotheses involving more than two independent groups in analyzing questionnaire data. Figure 1 reveals the Methodology framework of the study.

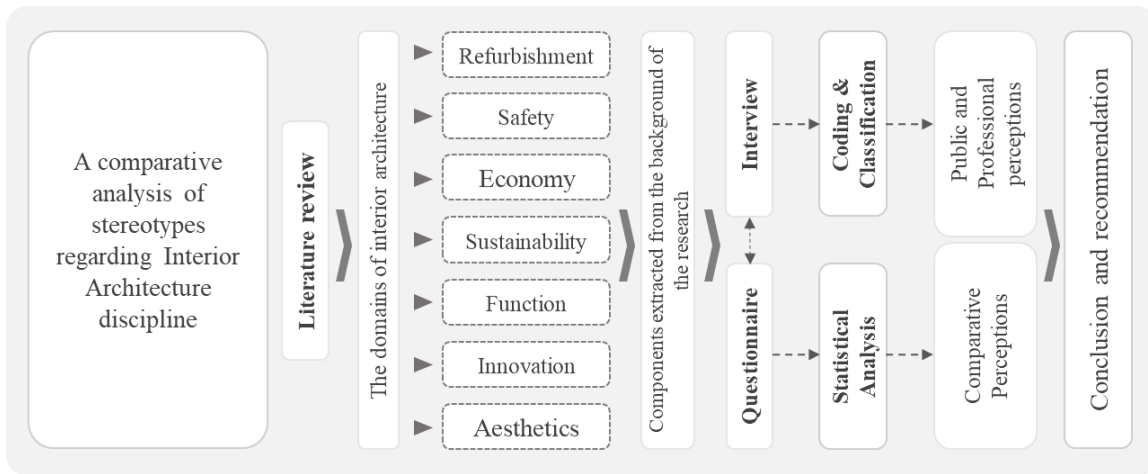


Fig. 1. Methodology framework of the study

5. Results

5.1. The public stereotypes of interior architecture discipline

The interviews with Group 1 commenced by exploring their understanding of the differentiation between interior architecture and decoration. While 70% of the interviewees acknowledged the distinction between these two fields, only a small number (2 individuals) were capable of articulating the differences.

The second question focused on the general perception of the interior architecture discipline. While in the majority of descriptions provided by the interviewees, an "exaggerated" stereotype associated with decoration was mentioned, "well-defined" perceptions were highlighted by just under 50% of them. The presence of "ambiguous" perception among them was also evident based on their "uninformed" responses (Figure 2).

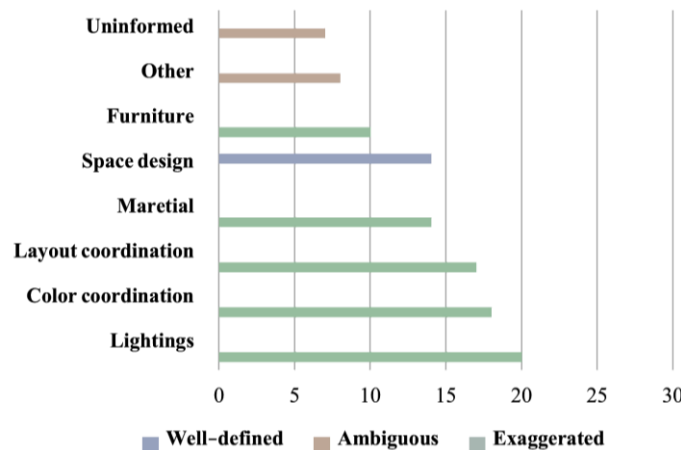


Fig. 2. The public stereotypes of interior architecture discipline

5.2. The professional stereotypes of interior architecture discipline

The interviews with Group 2 began by exploring their "personal perceptions" of the interior architecture profession. By considering their experiences in various contexts related to the field, their perceptions before entering university, during education and in the job market were aimed. It is noteworthy that the graduates held the "exaggerated" stereotype with 79% and the "ambiguous" perception at 9% regarding the field prior to entering university. Here two of the quotes are mentioned: "I thought it was about decoration or simply arranging household items and painting walls" (Female, 25 years old). "I thought money was a prominent aspect of this profession and its career prospects were guaranteed. Before university, I had participated in training courses where the instructors talked about earning billions, so for me, this profession seemed like a luxury profession" (Female, 23 years old). However, 12% had a "well-defined" perception of the discipline, with a clear understanding of the job positions associated with it before entering university: "Interior architecture is essentially architecture on a smaller scale with more emphasis on details" (Male, 32

years old, graduate). "It's a field that can serve as a bridge between architecture, industrial design, and conservation, and details hold great importance in it" (Male, 27 years old, graduate).

During the university, most of the professionals had a "well-defined" perception. However, an "exaggerated" stereotype was noted, considering interior architecture as superior to architecture. Regarding their perception of the job market, while 25% mentioned having "relative" perceptions, 47% of the graduates had a "positive" image: "It has a promising career future, and day by day, the interior architecture profession becomes more important to people. Since people lack the resources for Demolition and construction, they also turn to interior architects for conservation and remodeling purposes" (Male, 28 years old, graduate).

Conversely, 28% held a "negative" image of the job market:

"The conditions are not particularly ideal, and the reason for that is the offering of this field in non-specialized universities and also in private training institutes, which provide an incomplete understanding of the experts in this field to the public" (Male, 27 years old, graduate). (Figure 3).

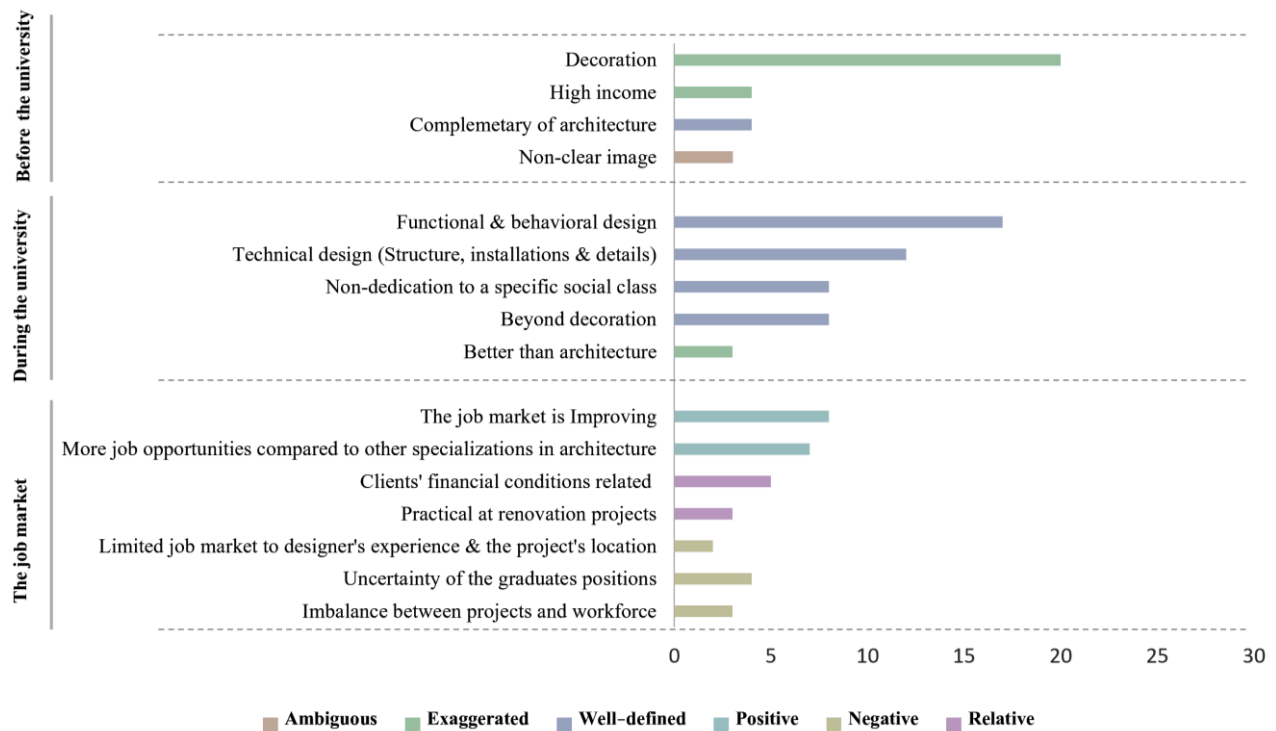


Fig. 3. Personal stereotypes of interior architects

The second part of the interview focused on the "non-personal perceptions" of interior architects. They were asked about their viewpoint regarding the general public's perception of the interior architecture profession. The results showed that 70% of the responses indicated the presence of "exaggerated" stereotypes held by the general public:

"People often perceive those working in interior architecture as individuals with refined taste, well-informed in materials and the intricacies of the field. There is an exaggerated notion that an interior architect embodies exquisite taste" (Male, 33 years old, graduate). Additionally, 13% referred to a "negative" image:

"In my opinion, what people expect from interior architecture is primarily interior decoration, rather than interior architecture itself. Their expectations mostly revolve around colors and furniture, and in many cases, making significant changes to the overall space seems quite peculiar to them (from the client's perspective). However, this perception could partially stem from their limited understanding of this field." (Male, 27 years old, graduate).

However, 17% mentioned a "positive" image of the perceptions held by the public toward the discipline:

"People have a positive outlook, and most of the people around me are focused on making their homes more beautiful. People don't want their homes to be ordinary. In recent years, individuals have been spending money on their living spaces and trying to create comfort. They have understood the importance of that" (Female, 26 years old, student).

The subsequent question explored the reasons behind the prevalence of unclear perceptions among the public. The responses indicated that the lack of adequate awareness in society (30%) and the activities of non-professionals (27%) in the education and job market of interior architecture were identified as the most contributing factors:

"In the virtual platforms, interior architecture is often presented to the public in the form of tutorials on arrangement, colors, lighting, and a series of tips. People perceive these tips as sufficient knowledge. That is, in reality, the essence of interior architecture is not effectively conveyed to the public through media" (Female, 24 years old, student). "Training institutes provide interior architecture certification within a span of 2 months, which leads individuals without proper

expertise and specialization in this field to engage in interior architecture work" (Female, 23 years old, student).

Additionally, the lack of affiliated organizations was mentioned by 23% of participants:

"In fields such as conservation, even if people are unfamiliar with it, there is an organization like the Cultural Heritage Organization dedicated to it. Landscape architecture, at least in some cases, has positions within municipalities or other organizations that deal with environmental activities and urban design separately. However, interior architecture is not affiliated with any specific organization and is not officially recognized".

19% of the responses addressed financial problems:

"The majority of our society, who belong to the middle class, prefer to handle interior architecture themselves, limited to arranging the furniture. Their perception is that interior architecture incurs additional expenses" (Male, 27 years old, student).

Lastly, the interview addressed the perception of interior architects regarding the general public. The majority of them, 70%, expressed a "negative" image:

"People are unwilling to perceive interior architecture as a specialized field. Their concerns mostly revolve around reducing project costs. Even those who are willing to spend money prioritize project execution over the design" (Female, 24 years old, student).

However, 15% of the participants conveyed a "positive" image, highlighting the increasing awareness and acceptance of the interior architecture profession within society. The presence of "relative" perceptions was also mentioned by 15% of the respondents (Figure 4).

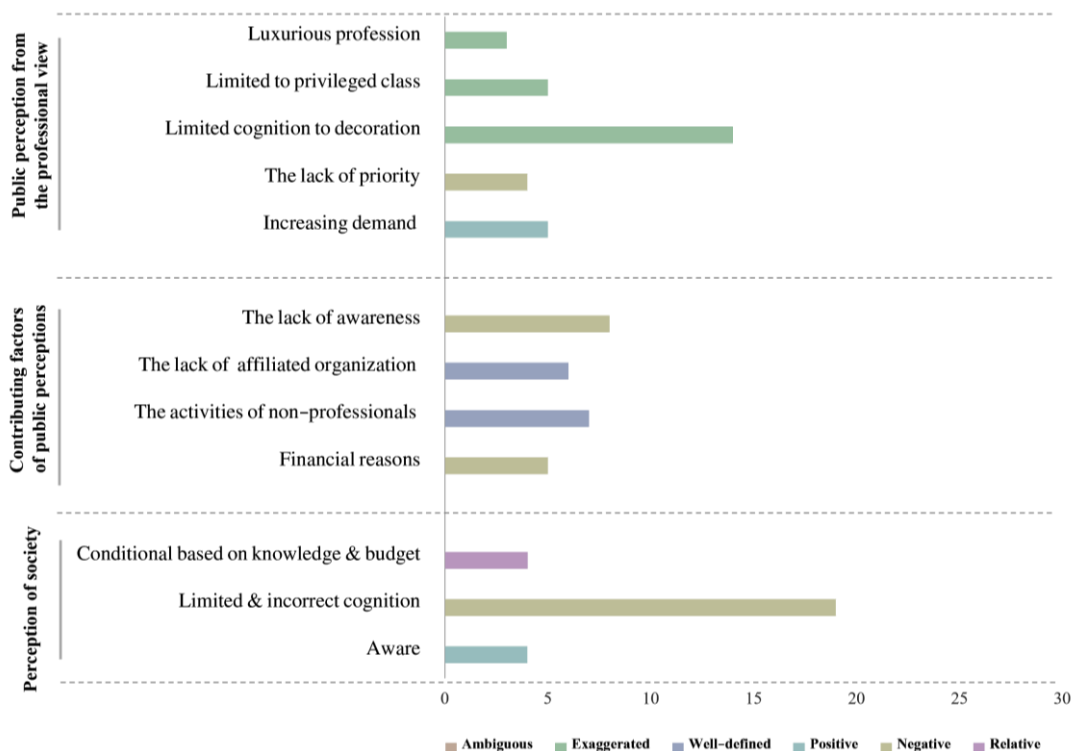


Fig. 4. Non-personal stereotypes of interior architects

5.3 A comparative analysis of professional and public perceptions

5.3.1 The necessity of doing interior architecture activities by interior architecture graduates

The first shared multiple-choice question in the interview pertained to the level of necessity for consulting interior

architecture graduates instead of unqualified employees in the profession. Despite a desperation of response among Group 1, 62% of the participants in Group 2 believed that this task should necessarily be carried out by interior architecture graduates (Figure 5).

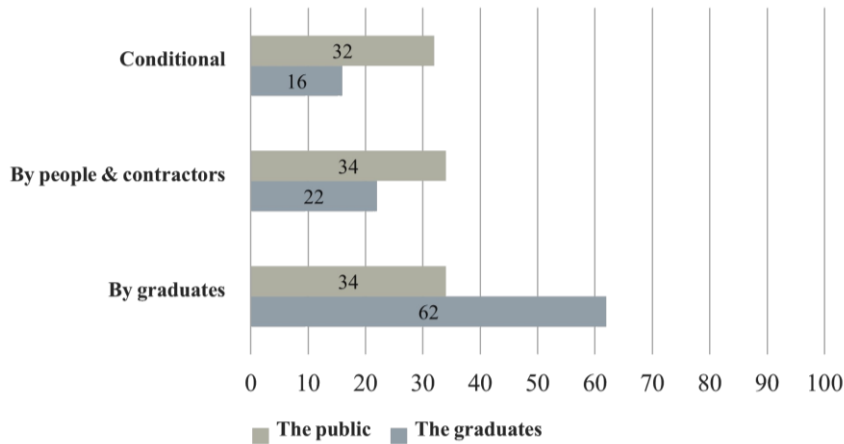


Fig. 5. The necessity of doing interior architecture activities by graduated interior architects

5.3.2 The impact of building function on the job opportunities

Considering the significance of building function in the field of interior architecture, the second multiple-choice question was dedicated to the types of buildings. The

responses indicates that interior architecture graduates primarily consider residential projects as the main focus of their profession. However, the general public perceives commercial and office functions as the primary market for interior architects (Figure 6).

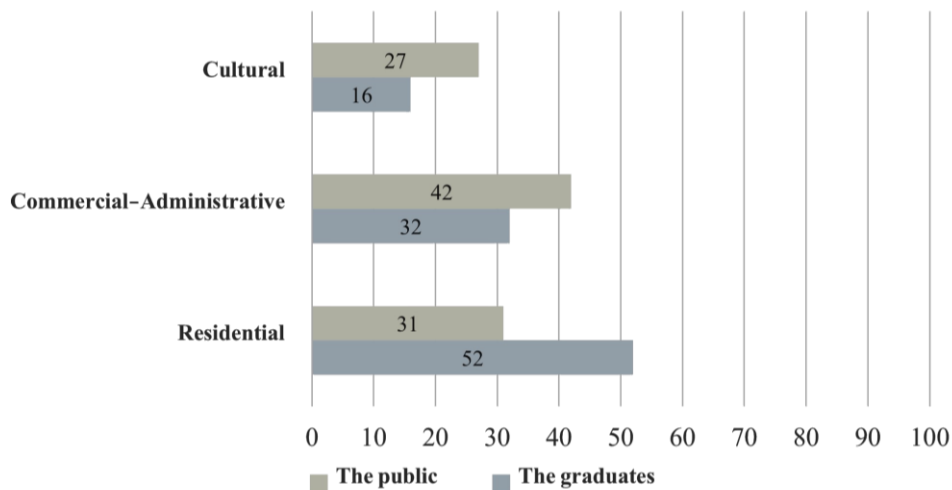


Fig. 6. The impact of building function on the job opportunities

5.3.3 A comparative analysis of interior architecture domains

A 5-point Likert scale questionnaire was constructed, consisting of 17 questions that assessed the involvement of interior architects across seven distinct domains: "refurbishment," "safety," "economy," "sustainability,"

"function," "innovation," and "aesthetics." Descriptive statistics were utilized to report the data, and statistical tests were applied to evaluating the variables of the questionnaire (Figure 7).

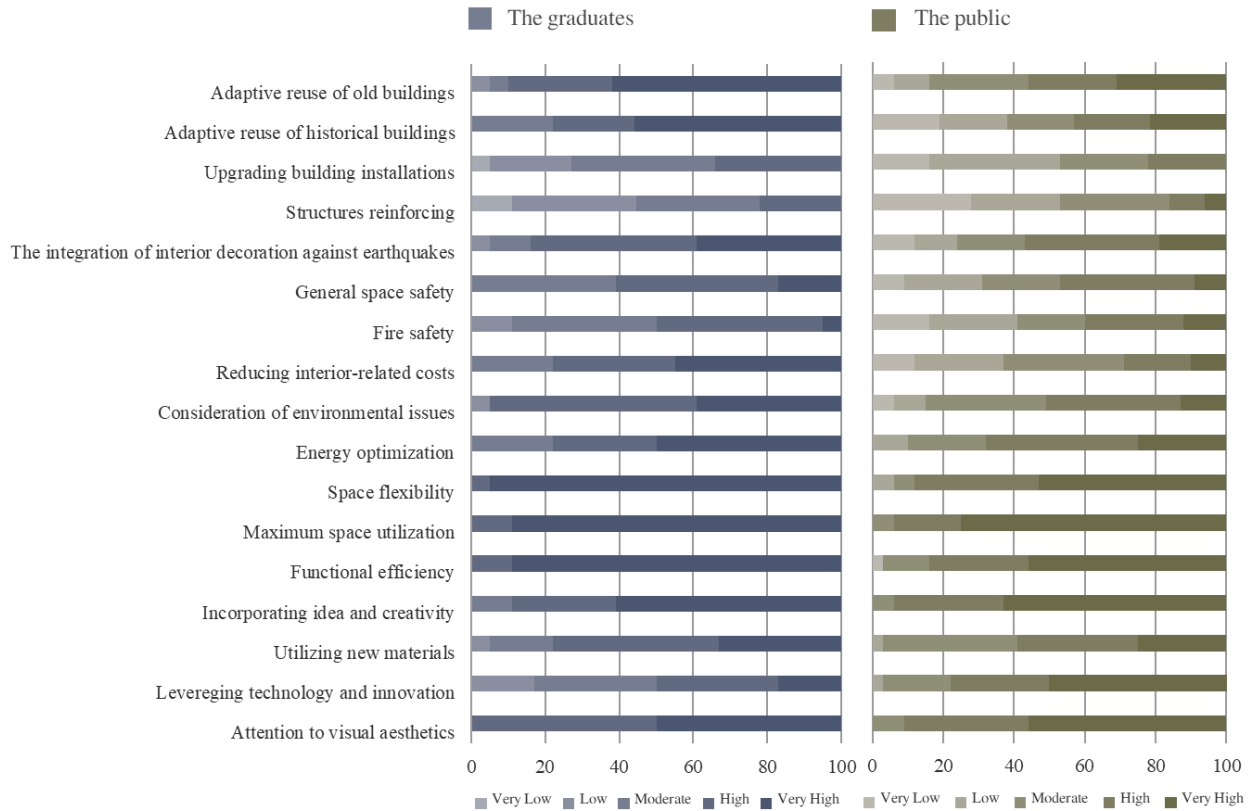


Fig. 7. A comparative analysis of interior architecture domains

The data based on descriptive statistics revealed that graduates view interior architects as having a higher average level of expertise in six domains, except for innovation, compared to the general public. More specifically, the general public prioritizes interior architects' roles in "function" and "aesthetics", while downplaying their "economy" role. In contrast, graduates consider "function" most important and "refurbishment" least important in interior architects' roles.

With respect to subcategory roles within the domains of interior architecture, from the perspective of the general public, the most important roles of interior architects are maximizing space utilization, incorporating ideas and creativity, and focusing on aesthetics, respectively. Conversely, for graduates, the most valued involvements of interior architects are in enhancing space flexibility, maximizing space utilization, and improving functional efficiency. Moreover, despite both groups viewing the roles of structure reinforcement and upgrading installation

systems as least important, reducing interior-related costs was considered the least significant by the general public, while utilizing new materials was viewed similarly by graduates.

In general, the role of interior architects is rated highest in the "function" domain and lowest in the "refurbishment", "safety", and "sustainability" domains, respectively. Additionally, the largest perception gap between the general public and graduates is in the roles of interior architecture in reducing interior-related costs and the adaptive reuse of historic buildings, with graduates placing much higher importance on these areas compared to the general public. Furthermore, the highest agreement between the general public and graduates is on the importance of attention to visual aesthetics and incorporating ideas and creativity, with both groups recognizing their significant role in interior architecture (Figure 8).

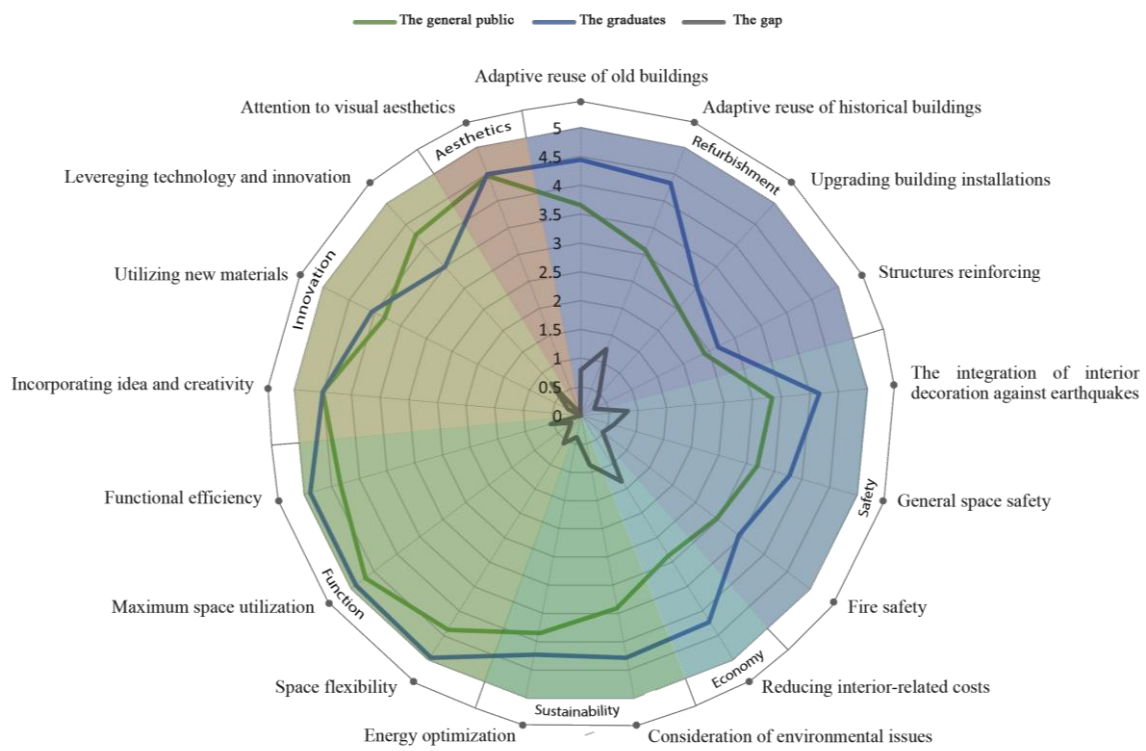


Fig. 8. Comparing the overlap of perceptions between the general public and the graduates regarding the roles of interior architecture

5.4 Statistical tests

As noted in the research methodology, nonparametric tests were used due to the non-normal data distribution, specifically the Mann-Whitney test for comparing two independent groups and the Kruskal-Wallis test for comparing more than two independent groups. The findings are as follows:

5.4.1 Statistical test 1

To answer the Second question, "Are there differences between the perceptions' of the general public and the

graduates regarding the activity domains of interior architecture?" a hypothesis was formulated.

Hypothesis 1: The difference exists between the perceptions of the two groups regarding the activity domains of interior architecture.

Hypothesis 1 Testing: The Mann-Whitney test was conducted using SPSS software. The results indicate that except for the "aesthetic" and "innovation" domains (Asmp. Sig.= 0.918, 0.512) respectively, there is a statistically significant difference between the two groups (Table 4).

Table 3
 Mann-Whitney test for assessing the difference between the perceptions of the general public and graduates (In general and by domain)

	Refurbishment	Safety	Economy	Sustainability	Function	Innovation	Aesthetics	Total
Mann-Whitney U	147.000	181.000	106.000	165.000	154.000	256.000	283.500	118.500
Wilcoxon W	675.000	709.000	634.000	693.000	682.000	427.000	454.500	646.500
Z	-2.867	-2.179	-3.785	-2.529	-2.971	-.656	-.103	-3.429
Asymp. Sig. (2-tailed)	.004*	.029*	.000*	.011*	.003*	.512	.918	.001*

*Significant difference between the two groups

The results of this test, at the subcategory level, indicated that roles such as the adaptive reuse of historical buildings, ensuring the structural integrity of interior decoration against earthquakes, energy optimization, reducing interior-related costs, addressing user needs in

terms of space flexibility and functional efficiency, and leveraging technology and innovations, showed a statistically significant difference between the perceptions of the general public and graduates (Table 5).

Table 4
Mann-Whitney test for assessing the difference between the perceptions of the general public and graduates (by subcategory roles)

	Refurbishment				Safety			Economy	
	Adaptive reuse of old buildings	Adaptive reuse of historical buildings	Upgrading building installations	Structures reinforcing	The integration of interior decoration against earthquakes	General space safety	Fire safety	Reducing interior-related costs	
Mann-Whitney U	176.000	145.000	211.500	243.000	177.500	211.500	228.000	106.000	
Wilcoxon W	704.000	673.000	739.500	771.000	705.500	739.500	756.000	634.000	
Z	-2.386	-2.983	-1.611	-.942	-2.345	-1.614	-1.255	-3.785	
Asymp. Sig. (2-tailed)	.017*	.003*	.107	.346	.019*	.107	.209	.000*	
	Sustainability		Function			Innovation			Aesthetics
	Consideration of environmental issues	Energy optimization	Space flexibility	Maximum space utilization	Functional efficiency	Incorporating idea and creativity	Utilizing new materials	Leveraging technology and innovation	Attention to visual aesthetics
Mann-Whitney U	218.000	142.500	176.000	246.000	189.000	281.000	238.500	166.500	283.500
Wilcoxon W	746.000	670.500	704.000	774.000	717.000	809.000	766.500	337.500	454.500
Z	-1.493	-3.111	-2.815	-1.220	-2.436	-.162	-1.057	-2.583	-.103
Asymp. Sig. (2-tailed)	.135	.002*	.005*	.222	.015*	.872	.291	.010*	.918

* Significant difference between the two groups

5.4.2 Statistical test 2

To evaluating the variables related to the general public, "gender, level of education, and referral experience" that may affect the result of the Second research question, three hypotheses were formulated.

Hypothesis 2: Gender influences the general public's perceptions of interior architecture domains.

Hypothesis 3 Testing: The Kruskal-Wallis test reveals no statistically significant relation between the educational levels of Group 1 and their perception of interior architects' roles at general and specific domain levels

Hypothesis 3: Educational level affects the general public's perceptions of interior architecture domains.

Hypothesis 4: Referral experience impacts the general public's perceptions of interior architecture domains.

Hypothesis 2 Testing: The Mann-Whitney U test shows no statistically significant relation between the gender of the first group (the public) and their perception of interior architects' domains at general, domain, and subcategory levels (Asmp. Sig.=0.970, 0.637-0.984).

(Asmp. Sig.=0.065, 0.058-0.415). However, a significant relation is found at the subcategory level in Question 2 (the role of the interior architect in adaptive reuse of historical buildings) (Asmp. Sig.= .036).

Hypothesis 4 Testing: The Kruskal-Wallis test shows no statistically significant relation between the referral experience of Group 1 and their perception of the interior architect's role at general and specific domain levels (Asmp. Sig.=0.366, 0.222-0.671). However, a significant relation exists at the subcategory level in Question 2 (the role of the interior architect in adaptive reuse of historical buildings) (Asmp. Sig.= .008).

5.4.3 Statistical Test 3

To evaluating the variables related to the graduates, "gender, educational status, and work experience" that may affect the result of the Second research question, three hypotheses were formulated.

Hypothesis 5: Gender influences graduates' perceptions of interior architecture domains.

Hypothesis 6: Educational status affects graduates' perceptions of interior architecture domains.

Hypothesis 7: Work experience impacts graduates' perceptions of interior architecture domains.

Hypothesis 5 Testing: The Mann-Whitney U test indicates no statistically significant relation between the gender of Group 2 and their perception of the interior architect's role at general and specific domain levels (Asmp. Sig=.197-.784). However, a significant relation exists at the subcategory level in Question 15, concerning the role of interior architects in utilizing new materials (Asmp. Sig=.012).

Hypothesis 6 Testing: The Mann-Whitney U test reveals no statistically significant relation between the educational status of Group 2 and their perception of the interior architect's role at general, domain, and subcategory levels (Asmp. Sig=.098-.566).

Hypothesis 7 Testing: The Mann-Whitney U test shows no statistically significant relation between the work experience of Group 2 and their perception of the interior architect's role overall and in specific domains (Asmp. Sig=.122-.965). However, a significant relation exists at the subcategory level in Question 15, regarding the role of interior architects in utilizing new materials (Asmp. Sig=.041).

6. Discussion

The results of qualitative analysis based on coding indicate that the general public holds "exaggerated" decoration-oriented perceptions. That is, the general public does not clearly distinguish between the professions of decoration and interior architecture. Additionally, there are not only "ambiguous" perceptions about this field but also the concise and restricted responses suggest limited knowledge about the nature of this field.

As regards the "personal perception" of the graduates, graduates mainly entered university with "exaggerated" decoration-oriented views that evolved into "well-defined" perceptions of the field, highlighting the significant role of university education in shaping their understanding. However, graduates with work experience often held "negative" perceptions of the job market, contrasting the "positive" views fostered during their

education. This discrepancy suggests a misalignment between the optimistic perceptions instilled by universities and the realities of the job market and societal needs, highlighting a gap between societal and academic perspectives in the field of interior architecture.

However, given their "non-personal perception", the contrast between graduates' "negative" stereotypes of the general public and "positive" perceptions of the job market suggests they may view only a specific segment of society as potential employers. This focus could limit job opportunities in interior architecture. Generally, there appears to be a lack of alignment between society, universities, and the job market, leading to contradictory perceptions among graduates across different contexts.

The public's varied responses on the necessity of graduate-level interior architecture work suggest a lack of understanding and differentiation between academically qualified interior architects and other practitioners without formal education in the field. Graduates prioritize residential design, while the public sees their expertise in commercial, administrative, and cultural spaces, potentially leading to missed job opportunities in residential design for graduates.

The results of descriptive statistics reveal that Despite both groups rating "Refurbishment" roles (structural reinforcement and upgrading building installations) as least important, graduates highlighted the role of interior architects in these areas during interviews, indicating a possible misconception among graduates. The largest perception gaps exist in "Economy" (cost reduction) and "Refurbishment" (adaptive reuse of historical buildings), where graduates place significantly higher importance on the role of interior architects compared to the general public. This disparity in perception may hinder consultation. Both groups initially did not mention roles related to the "Safety" and "Sustainability" domains but rated them as important in the Likert scale questions, indicating a lack of precise understanding of these roles among both groups.

Previous profession-oriented research has identified gender-discipline stereotypes in various professions. Studies have shown fields like accounting (Faragalla, 2015) and IS professionals (Akbulut-Bailey, 2009) to be perceived as male-dominated, while teaching (Demirkol, 2022) and nursing (Teresa-Morales et al., 2022) are often seen as female-dominated. However, the current research deviates from this trend, with neither group making any reference to gender in their responses. A previous study by Eshrati & Mohammadi (2021) found that interior architecture is often perceived as a luxury service reserved for the wealthy, with cost being the primary reason hindering people from consulting with interior architects. Interestingly, the study also revealed that graduates of interior architecture programs primarily envisioned affluent individuals as their clientele. However, these graduates also emphasized the importance of engaging educated interior architects to optimize costs and achieve desired outcomes.

While awareness gaps exist in various fields, including healthcare (Darmayani et al., 2020), the issue in interior

architecture is more nuanced. Moreover, similar studies have provided more detailed stereotypes regarding other fields, including professionals' personality traits (Faragalla, 2015), technical skills (Akbulut-Bailey, 2009), and social status (Teresa-Morales et al., 2022), while the public perception of interior architecture fails to distinguish this field from related professions and differentiate between qualified graduates and non-academic practitioners.

7. Conclusion

This research aimed to investigate the public and professional stereotypes regarding interior architecture discipline and its domains. It also sought to identify and examine the gaps between these two perspectives. The qualitative analysis, based on coding, revealed that Society holds "exaggerated" decoration-based and "ambiguous" perceptions of interior architecture. Contributing factors include limited public awareness, a lack of professional organizations, the presence of unqualified practitioners, and financial constraints. Graduates' perceptions of their field differ across society, university, and the job market. They may start with "exaggerated" expectations, but gain a "well-defined" understanding during university while holding "positive" job market views. However, professionals with experience often have "negative" work conditions perceptions. Meanwhile, they hold "negative" non-personal perceptions regarding society, while privileged employers are viewed "positively". Thus, aligning society, university, and the job market is crucial for establishing a correct understanding of the field. Given the confinement of interior architecture employers to privileged groups, identifying diverse social classes of society particularly the lower-class, and understanding their needs for tailored interior architecture solutions can open up more job opportunities for graduates. In addition, clarifying the value of interior architecture services provided by educated graduates compared to uneducated practitioners is essential for raising awareness, particularly in residential projects.

Another finding is that interior architects can contribute in seven domains including "refurbishment", "safety", "economy", "sustainability", "function", "innovation" and "aesthetics." Based on descriptive statistics, both groups attribute the highest level of significance to the "function" domain. Conversely, the concepts of "refurbishment", particularly the roles of structural reinforcement and upgrading building installations register as the least significant on average. Notably, the greatest gap between the two groups lies in the role of reducing interior-related costs in the "economy" domain. According to the Mann-Whitney and Kruskal-Wallis tests, the interaction between the two groups in the domains of "Innovation" and "Aesthetics" is not problematic. Furthermore, gender, education, referral experience, and work experience variables have no impact on the perception of the interior architect's activity domains.

Misconceptions regarding the "economy" domain, highlight the necessity for clarification among the general

public. In addition, the ambiguity regarding interior architecture's roles in the "Safety", "Sustainability", and "Refurbishment" domains, necessitates clarification for both groups. The university can effectively address this by integrating them into the curriculum, and also interior architects can play a crucial role in justifying the importance and benefits of these domains to their clients. Moreover, the university can play a key role in clarifying the role of interior architecture in the adaptive reuse of historical buildings to relevant organizations.

In conclusion, the field of interior architecture is still relatively new, requiring more exploration and time for both the general public and professionals to develop a comprehensive understanding of its principles. To expedite this process, coordination between society, the university, and the job market is crucial. Employing advertising and educational strategies through various channels, such as universities, interior architects, magazines, media outlets, and online platforms, can enhance awareness and understanding of interior architecture among different stakeholders. By actively promoting and educating about the discipline, its value and potential can be better recognized, leading to increased opportunities and growth within the field.

The exploration of the "Economic" domain in interior architecture, interior architecture for various demographics, especially low-income groups, cost management by educated interior architects, as well as the areas necessitating reassessment by universities, such as the "Safety", "Sustainability", and "Refurbishment" domains in interior architecture, are beyond the scope of the current research and warrant further investigation.

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