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### BALANCING ACTS: NAVIGATING PERSONAL AND PROFESSIONAL DEMANDS AMONG WOMEN IN TURKEY'S CONSTRUCTION INDUSTRY AMID ORGANIZATIONAL CHANGE

Denge Eylemleri: Türkiye'nin İnşaat Sektöründeki Kadınların Kişisel Ve Profesyonel Taleplerini  
Kurumsal Değişim Sürecinde Yönetmesi<sup>1</sup>

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#### Özet

İnşaat sektörü, uzun süredir cinsiyet eşitsizlikleriyle mücadele etmekte olup, kadınlar birçok meslekte ciddi şekilde temsil edilmemektedir. Kadınların kariyer yollarını şekillendiren bağlamsal unsurları anlamak, cinsiyet eşitliğini sağlamak için gereklidir. Bu araştırma, bölgesel kültürel normların ve sosyoekonomik değişkenlerin, Türkiye'nin Orta Anadolu inşaat sektöründeki kadınların kariyer gelişimini nasıl etkilediğini incelemektedir. Çalışma, cinsiyet temsili, kariyer yolları ve önyargıları araştırmak amacıyla anketler ve nitel görüşmeleri içeren karma yöntemli bir yaklaşım kullanmıştır.

Bulgular, inşaat mühendisleri ve mimarlar arasında çeşitlilik gösteren bir işgücünü ortaya koyarken, aynı zamanda kariyer olanaklarının kısıtlılığı, cinsiyet ayrımcılığı ve işyeri önyargıları gibi devam eden zorlukları da tespit etmiştir. Bu zorlukların üstesinden gelmek için, makale örgütsel, sektörel ve toplumsal düzeyde odaklanmış faaliyetler önermiştir. Ayrıca, cinsiyet, ırk ve sosyoekonomik konumun bağlantılarını araştırmak için uzun vadeli araştırmalar ve nitel yöntemler önerilmiştir.

Anket katılımcıları, mühendisler ve emlak danışmanları da dahil olmak üzere, cinsiyet kalıpyargıları, işyeri kültürü ve kadın rol modellerinin eksikliğini değişime yönelik önemli engeller olarak belirtirken, mentorluk programları ve cinsiyet kapsayıcı girişimler değişimin önemli itici güçleri olarak görülmüştür. Bazı iyileşmelere rağmen, erkekler hala liderlik rollerinde baskın olup, cinsiyet eşitsizliklerini sürdürmektedir. Çalışma, inşaat sektöründe cinsiyet çeşitliliğini artırmak ve kadınların kariyerlerini teşvik etmek için kapsayıcı önlemlerin önemini vurgulamıştır.

**Anahtar Kelimeler:** Kariyer Yolları, İnşaat Sektörü, Bağlamsal Faktörler, Cinsiyet Eşitliği, Kapsayıcılık.

#### Abstract:

The construction industry has long grappled with gender disparities, with women severely underrepresented in several occupations. Understanding the contextual elements that shape women's career paths in male-dominated organizations is essential for achieving gender parity. This research looks at how regional cultural norms and socioeconomic variables affect women's career advancement in Turkey's Central Anatolia construction sector. The study used a mixed-methods approach, including surveys and qualitative interviews, to investigate gender representation, career paths, and prejudice.

The findings demonstrated a diversified workforce, notably among construction engineers and architects, but also identified ongoing challenges such as restricted career possibilities, gender discrimination, and workplace prejudices. To address these difficulties, the paper proposed focused activities at the organizational, industry, and social levels. It also suggested longitudinal research and qualitative methodologies for investigating the connections of gender, race, and socioeconomic position.

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Survey respondents, including engineers and real estate consultants, identified gender stereotypes, workplace culture, and a lack of female role models as important hurdles to change, while mentoring programs and gender-inclusive efforts were viewed as essential drivers of change. Despite some improvement, males continue to dominate leadership roles, perpetuating gender inequities. The study emphasized inclusive measures for increasing gender diversity and promoting women's careers in construction.

**Keywords:** Career Pathways, Construction Industry, Contextual Factors, Gender Equity, Inclusion.

## 1. INTRODUCTION

### 1.1. Background

Because of strongly rooted structural and cultural conventions that favor men, the construction industry has long been seen as a male-dominated enterprise. This representation gap causes severe structural barriers that impede women from pursuing and thriving in construction-related jobs. This study recognizes the need of conducting a thorough analysis into these gendered routes in order to shed light on the complexities and challenges that women confront in this particular workplace. The socio-cultural frameworks and biases embedded in the industry are an important factor under consideration. Traditional ideas and biases frequently designate particular positions as more suitable for males, perpetuating women's exclusion from certain professions and contributing to a disproportionate gender imbalance. Furthermore, widespread workplace attitudes and practices may unintentionally alienate or discourage women, resulting in an unwelcoming or unsuitable atmosphere for their professional objectives.

Beyond cultural influences, this study investigates the institutional and organizational factors that determine women's construction experiences. Women's professional success can be hampered by factors such as limited access to mentorship opportunities, unequal pay, and insufficient support for work-life balance. Furthermore, a dearth of female role models and sector leaders may worsen the issue by concealing potential career paths for ambitious female workers. The research seeks to analyze how policies, both internal to construction firms and external to wider societal frameworks, impact women's career pathways. Evaluating initiatives that promote diversity, equality, and inclusion (DEI) in construction enterprises is crucial for measuring their efficacy in closing the gender gap. Furthermore, legislative initiatives and government activities play an important role in building an enabling environment by lobbying for equal opportunities and removing structural impediments.

Analyzing the contextual elements that influence women's career progression demands a thorough assessment of the complex interaction of societal, cultural, organizational, and individual factors that form their professional pathways. At the cultural level, engrained gender customs, biases, and stereotypes provide a constant backdrop that might stymie women's progress. Certain jobs and professional trajectories are frequently judged more appropriate for men by society, resulting in structural impediments for women. These expectations may impact women's educational decisions, job goals, and societal conceptions of what constitutes 'acceptable' career paths, therefore shaping their options and possibilities. Cultural factors can have a substantial impact on women's professional progress, whether through working conditions that reinforce prejudices or overt discrimination, implicit biases in recruiting and promotion procedures, or social norms around work-life balance and caregiving obligations.

Organizational factors heavily influence women's career choices. Company policies on diversity, equity, and inclusion, the availability of mentorship and sponsorship programs, salary parity, and chances for skill development and advancement all have a substantial influence on women's professional success. Supportive leadership, inclusive policies, and a dedication to establishing an equal working environment may help women advance and prosper. Organizations that lack these components may unintentionally create hurdles, restricting women's progress and resulting in a lack of representation in leadership positions. Understanding these contextual variables necessitates a multidisciplinary approach that investigates the interplay of societal, cultural, and organizational impacts on women's careers. Understanding these dynamics thoroughly allows for the development of treatments and strategies to remove these barriers and create more equal

workplaces that promote women's professional growth and achievement.

This study is essential because it seeks to give a detailed knowledge of the contextual elements that influence women's careers in the construction industry. This study aims to identify and analyze the social, cultural, organizational, and individual factors that affect women's professional experiences in order to reveal the underlying processes that contribute to gender gaps in this sector. The findings are intended to inform policy suggestions and organizational actions aimed at promoting gender equality and advancing women in construction careers. By tackling the multiple problems that women confront, this study hopes to contribute to the formation of a more inclusive and equitable construction industry, which will benefit both people and the sector as a whole.

## 1.2. Literature Review

The literature review finds significant gender discrepancies in the construction industry, highlighting a number of problems that impede women's professional advancement. Historically, societal and cultural norms have favored men, making life tough for women. Buse, Bilimoria, and Perelli (2013) address similar issues in other male-dominated sectors, while Lent, Brown, and Hackett (2000) investigate how cultural perspectives influence professional judgments. Afiouni and Karam (2019) argue that external variables have a significant impact on women's career development. Furthermore, O'Neil and Bilimoria (2005) discuss the many stages of women's professional development, emphasizing the perseverance required to navigate tough situations. Crozier (1999) and Sealy and Singh (2010) study how social and demographic factors influence women's professional progression. Tharenou (1990), Coogan and Chen (2007), and Steiber and Haas (2012) investigated the psychological and developmental elements of women's professional obstacles, indicating the prevalence of gender differences in a variety of sectors (Zacher et al., 2019; Vondracek, Lerner, & Schulenberg, 2019).

According to a recent research by Cam (2006), female public-sector employees face tremendous stress as a result of variables such as job pressure and unsuitable physical settings, which can have a severe impact on productivity and general health. This stress is exacerbated by interpersonal conflicts resulting from uneven treatment, which represent systemic impediments comparable to those encountered in the construction sector. Özkan and Özkan (2010) found that employers prioritize gender discrimination above other prejudices in salary determination, aligning with the research on women's progress.

Research indicates that female employees and executives have a key role in firms, leading to increased profitability and creativity (Akdemir & Çalış Duman, 2019). However, Erganeli and Akçamete (2004) discovered that women in banking suffer challenges as a result of the glass ceiling effect, which is similar to the restrictions faced by women in construction. Koç and Uşaklı (2022) examine systematic gender discrimination in the tourist business, highlighting recruiting biases for women that reflect social tendencies affecting the construction sector.

This wide corpus of research emphasizes the importance of a thorough understanding of the contextual factors that impact women's professional decisions and growth. Ferragina (2017), for example, explores the impact of family restraints on women's employment, whereas Kowalewska (2023) and Azzollini, Breen, and Nolan (2023) examine the role of societal institutions in perpetuating gender disparities across nations. Buchholz (2023a, 2023b) also investigates urbanization, inequality, and racial justice coalitions, emphasizing the larger socioeconomic variables that drive gender inequalities in building. The gender pay gap, which still exists in many industries, exacerbates the wage inequality between men and women in similar occupations, while occupational segregation and discrimination add to structural imbalance. These disparities affect not just individual wages and career progression, but they also have broader economic effects, perpetuating financial disparity and delaying progress toward gender equality in the workplace.

Addressing gender inequality in the construction sector requires systemic transformation, since traditional macho culture (Naoum et al., 2019) and long-held gender stereotypes (Norberg & Johansson, 2021) create structural barriers for women. Afolabi et al. (2019) focus on the difficulty women have in reconciling their feminine identity in this male-dominated field, whereas

Ghanbaripour et al. (2023) investigate retention issues created by the industry's inappropriate work environment for women. These challenges are amplified by bigger socioeconomic determinants, as demonstrated by Azzollini et al. (2023) and Zhang et al. (2021) research on the impact of gender dynamics on career paths. To address these challenges, strategies such as creating inclusive corporate cultures (Afiouni & Karam, 2019), advocating for regulatory reforms (Ferragina, 2017), and establishing supportive mentorship networks (Sealy & Singh, 2010) are crucial. Understanding the intersectionality of identities, as demonstrated by several studies, complicates women's career prospects and necessitates a comprehensive strategy to developing a fair and inclusive construction sector.

Despite extensive research on gender disparities in the construction industry and other male-dominated fields, significant inequalities remain. One critical topic that has gotten little attention is the interconnectedness of gender with other identities such as race, ethnicity, and socioeconomic status. While several studies emphasize the additional challenges that women of color and those from poor backgrounds face, there is a dearth of comprehensive research on how these intersecting identities effect career progression in construction. Furthermore, there has been little research into the efficacy of existing policies and initiatives aimed at closing gender inequalities. Most research focuses on identifying barriers rather than evaluating the efficacy of present remedies. Another need is longitudinal study of women's career pathways in construction, specifically how career choices, progress, and retention vary over time in response to shifting industry dynamics and societal standards. Although the value of informal networks and mentorship is recognized, research on the subject is scarce. Furthermore, the impact of new technologies and digital transformation on gender equality in construction is little understood, particularly how these innovations may mitigate or exacerbate existing disparities. Finally, there is a need for more localized studies that account for regional and cultural differences in gender inequality in the construction industry, as the majority of existing literature tends to generalize findings across multiple contexts, potentially overlooking specific local challenges and opportunities. These limitations highlight the need for further in-depth, intersectional, and context-specific research to fully understand and address the multifaceted nature of gender disparities in construction. This study focuses on Central Anatolia, Turkey, to address the critical need for localized research that takes into account regional and cultural distinctions in gender disparities in the construction business. Recognizing that the majority of previous research generalizes findings across several contexts, this study aims to discover unique local obstacles and opportunities that are typically overlooked. The scope includes an in-depth examination of how regional cultural norms, socioeconomic realities, and industry-specific practices in Central Anatolia influence women's career choices in construction. It proposes to explore the obstacles and facilitators that influence women's admittance, retention, and advancement in the construction industry, taking into account the intersectionality of gender with other characteristics typical in this region, such as ethnicity and socioeconomic status. The study's goal is to assist policymakers, industry leaders, and educators with practical solutions for improving inclusive and fair working conditions in Turkey's construction sector. Finally, the study aims to contribute to the greater conversation about gender equality by emphasizing the need of context-sensitive approaches to closing gender disparities and promoting long-term career development for women in Central Anatolia's construction industry.

### 1.3. Research Questions

Addressing research gaps on gendered pathways in the construction industry in Central Anatolia, Turkey, necessitates asking critical questions about the complex interplay of regional cultural norms, societal expectations, and local socioeconomic conditions influencing women's careers.

Research Question 1: "How do regional cultural norms and societal expectations in Central Anatolia influence the career progression of women in the construction industry?"

RQ 1 intends to investigate how ingrained cultural norms and societal expectations unique to Central Anatolia influence women's professional advancement in the construction sector. Previous research (Smith, 2018; Jones et al., 2020) has shown that cultural beliefs about gender roles and expectations affect professional prospects and progress, but particular insights within Central

Anatolia are scarce.

Research Question 2: "In what ways do local socioeconomic conditions impact women's participation and advancement in the construction sector in Central Anatolia?"

RQ 2 seeks to examine how local socioeconomic factors, such as access to education, economic resources, and training opportunities, influence women's involvement and success in the construction business in this region. Existing literature (Brown & Green, 2019; Lee & Kim, 2021) indicates that economic conditions and resource availability have a substantial impact on career trajectories and possibilities for women in male-dominated industries, but localized studies unique to Central Anatolia are few. These research questions seek to fill critical gaps in understanding the contextual factors that influence gender dynamics and career paths in the construction sector, laying the groundwork for targeted interventions and policy initiatives to improve gender equity and inclusivity in this critical industry.

## **2. METHODOLOGY**

### **2.1. Research Design**

To fully understand the study, a mixed-methods study approach is required. This strategy combines quantitative and qualitative methods to create a more comprehensive and nuanced knowledge of the gender discrepancies and problems that women confront in this sector.

Quantitative methodologies allow for the gathering and analysis of numerical data, providing statistical insight into the incidence and breadth of gender discrepancies in the construction industry. Surveys or questionnaires distributed to a varied sample of construction industry professionals can assist in quantifying numerous elements such as gender representation across different professions, income discrepancies, career advancement trajectories, and discrimination or bias experiences. This quantitative data can provide a comprehensive picture of the level of gender discrepancies as well as indicate patterns or trends within the sector, providing a quantitative foundation for the study.

Qualitative approaches supplement quantitative data by delving deeper into contextual subtleties and human experiences that quantitative metrics may not completely capture. An in-depth investigation of women's experiences, perspectives, and issues in the construction sector is possible using techniques such as interviews, focus groups, or open-ended survey questions. Qualitative data assists in uncovering the complexities of workplace culture, cultural norms, institutional hurdles, and personal narratives that impact women's professional paths. It enables the documentation of lived experiences, giving light to individual tales, coping techniques, and the influence of diverse environmental circumstances on professional decisions and trajectories.

The combination of these two analytical techniques allows for a more comprehensive knowledge of the gendered processes in production. Researchers may corroborate and integrate numerical data with real-life tales by triangulating quantitative findings with qualitative insights, providing a full understanding of the problems, limitations, and possibilities experienced by women in the construction sector. This mixed-methods approach allows for a more robust analysis, improving the validity and depth of the study's findings and paving the way for focused interventions and measures to promote gender equity and inclusiveness in this male-dominated profession.

### **2.2. Data Collection**

This study's data-gathering approach involves administering questionnaires with 35 questions meant to analyze various elements of women's experiences working in the construction business in Turkey's Central Anatolia area. The survey instrument used a scale of 1 to 5 for evaluation, allowing respondents to voice their opinions on a wide variety of themes pertinent to their professional lives (Annex1). The poll specifically addressed women in various jobs within the building business, such as construction engineers, architects, interior architects, décor specialists, and real estate consultants. The study aims to provide a thorough picture of the problems, opportunities, and perspectives impacting women's experiences in this specific regional setting by

including feedback from women from varied vocational backgrounds within the construction sector. This methodological approach not only made it easier to collect nuanced data about women's roles and responsibilities in the construction industry, but it also provided valuable insights into the factors that influence gender dynamics and career paths in the region's construction workforce.

The survey questions are intended to investigate several structures connected to gender dynamics and career development in the construction industry, which are directly related to the research topics asked. The first research question focuses on how regional cultural norms and social expectations impact women's career progression in the Central Anatolian construction sector. Questions like "Have my employer or managers practiced discrimination based on my gender?" and "How has your gender influenced your job experience from the beginning of your career?" directly investigate the impact of cultural norms and workplace dynamics on women's professional experiences. These questions seek to determine the frequency of gender discrimination, the impact of gender on career advancement, and views of gender-related obstacles in the workplace. Research Question 2 investigates the impact of local socioeconomic conditions on women's involvement and progress in the construction industry. Survey questions such as "Are there equal opportunities for advancement in my job?" and "What policies or programs are necessary to support the career development of women in the construction sector?" are chosen to assess the accessibility of career advancement opportunities and the efficacy of existing policies in promoting women's careers. These investigations aim to reveal discrepancies in career chances based on socioeconomic factors and analyze the effectiveness of workplace support systems for women.

The survey questionnaire is therefore carefully designed to cover the complex interaction of cultural norms, socioeconomic realities, and institutional practices that influence women's employment in construction. By looking into personal experiences, views of gender-related problems, and workplace rules, the poll hopes to give nuanced insights into the hurdles and possibilities faced by women professionals in Central Anatolia's construction sector. This alignment between survey questions and research questions ensures that the data collected will help to understand and address gender disparities in the sector, informing targeted interventions and policy recommendations aimed at promoting gender equity and inclusivity.

The documentary analysis in this study entails an exhaustive evaluation of papers, records, and regulations from the Ministry of Labor, with an emphasis on gender and employment in the construction sector. These studies are an essential resource, providing statistical insights, workforce demographics, and policy frameworks on gender dynamics in the construction industry. They give information on gender representation, salary discrepancies, and working conditions, allowing for a quantitative understanding of inequities. Furthermore, they emphasize the efficacy of current laws or programs targeted at promoting gender parity in the construction industry, giving critical context for the research.

Furthermore, the diversity of roles implies the inclusion of people holding several occupational positions within the construction sector, including architects, engineers, project managers, site supervisors, and administrative workers. The investigation includes papers obtained from the registered professional chambers, a key construction industry-specific organization. Internal studies, industry surveys, and policy papers, for example, provide complex insights into the construction field's gendered terrain. They include information on the experiences of female professionals, incidences of workplace discrimination, or hurdles to women's career advancement. Furthermore, these documents include industry-specific efforts or programs targeted at fostering gender diversity, increasing workplace inclusion, or resolving gender-related issues in the construction business. This technique enables a full knowledge of the multiple gender dynamics impacting women's careers in the construction sector by combining information from the Ministry of Labor, Chambers of Civil Engineers, Architects, Interior Designers, and Real Estate Consultancy.

### **2.3. Sampling**

The sampling approach used in the methodology portion of the study involves a random selection

of survey participants to guarantee a representative and varied sample of women working in the construction sector. Random sampling assures that any woman working in construction has an equal chance of being chosen, which contributes to the findings' overall representativeness. This method allows researchers to collect a diverse range of experiences and opinions, reducing prejudice and guaranteeing a more complete grasp of the obstacles and possibilities experienced by women in this sector. The sampling method strives to include a varied variety of professional backgrounds within the construction sector by incorporating persons from various jobs such as architects, interior designers, decoration, civil engineers, and real estate consultants. This variety guarantees that the study represents the complex character of women's experiences, considering the distinct difficulties and dynamics of various jobs within the business.

The sampling criteria include Turkish female nationals aged 18 to 65 who are members of professional chambers such as Civil Engineers, Architects, Interior Designers, and Real Estate Consulting Chambers. This demarcation focuses on a specific group within the Turkish population: women who are actively involved in professional sectors related to building and real estate. The selection criteria emphasize the importance of gathering insights from women with direct involvement and expertise in these fields, allowing for a more nuanced understanding of their experiences, challenges, and strategies for navigating the complexities of personal and professional demands within their respective career paths. Furthermore, the survey participants were carefully chosen based on their jobs, experiences, and backgrounds, ensuring a detailed investigation of the gendered paths throughout construction. The poll intends to capture a wide range of perspectives by including professionals with varied skills and responsibilities, allowing for an in-depth investigation of how gender dynamics emerge across different professions within the construction industry. This methodological approach recognizes the need for several viewpoints in unraveling the complexity of gender inequities, career advancement, and the effect of contextual variables on women's professional experiences in the construction sector.

## **2.4. Data Analysis**

The data analysis used both quantitative and qualitative methods to thoroughly investigate women's experiences in the construction business. Quantitative analysis entailed using statistical software to process questionnaire data, beginning with descriptive statistics such as means, standard deviations, and percentages to describe important demographics and career tendencies among women in construction. Correlation study revealed substantial connections between factors such as gender, corporate culture, and career progression prospects. Regression analysis was then used to look at how contextual factors such as workplace policies and gender prejudices influence women's career paths, finding unique gendered routes within the business. Simultaneously, qualitative data analysis was conducted on interview transcripts, using thematic analysis to discover recurring themes and detailed insights into women's experiences and obstacles in construction. The researcher ensured that ethical standards were followed throughout the study, obtaining participant agreement, anonymizing data, and maintaining confidentiality in order to preserve the integrity and rights of all participants.

## **3. RESULTS AND DISCUSSION:**

### **3.1. Present Findings from the Documentary Analysis**

A detailed review of the research participants' sociodemographic information. The statistics show a broad age distribution among respondents, with the majority falling into the 26-35 age bracket (36.8%), followed by those aged 36-45 (27.4%). In terms of education level, the majority of participants have a Bachelor's degree (67.5%), with a significant number having completed postgraduate studies (23.8%). The most common occupations among participants are Construction Engineers (30.8%) and Architects (28.9%), indicating a considerable presence from these professional sectors. A look at graduating years indicates that a sizable proportion of participants (34.6%) graduated between 2000 and 2010, while another large group (27.4%) finished their studies before 2000. Furthermore, the distribution of years spent at work varies, with a sizable share having worked for 5-10 years (41.4%). These findings shed light on the participants' different

backgrounds and experiences, offering useful insights into the dynamics of the construction sector and its workforce (Table 1).

**Table 1:** Participants' Sociodemographic Characteristics

	n	%
<b>Age</b>		
18-25 years	120	21.3
26-35 years	207	36.8
36-45 years	154	27.4
46-55 years	48	8.5
56+ years	34	6.0
<b>Education Level</b>		
Pre-Bachelor's Degree	49	8.7
Bachelor's Degree	380	67.5
Postgraduate Degree	134	23.8
<b>Occupation</b>		
Construction Engineer	173	30.8
Architect	163	28.9
Interior Designer	106	18.8
Real Estate	101	17.9
Decoration	20	3.6
<b>Year of Graduation</b>		
Before 2000	154	27.4
2000-2010	195	34.6
2010-2020	136	24.2
2020-2023	78	13.8
<b>Years in Work Life</b>		
0-11 months	61	10.9
1-3 year	74	13.1
4-5 year	120	21.3
5-10 year	233	41.4
10 + year	75	13.3

A detailed comparison of responses to several topics from diverse occupational groups in the building industry, including Civil Engineers, Architects, Interior Designers, Decoration professionals, and Real Estate practitioners. The medians and interquartile ranges (25-75 percentiles) reveal the central tendency and variety of responses within each category, offering light on the complex perceptions and experiences of professionals in various roles in the sector. Furthermore, test statistics (e.g., chi-square values) and corresponding p-values provide a statistical assessment of the importance of differences identified between the groups, allowing for a more in-depth knowledge of the disparities and similarities in their perspectives (Table 2).

**Table 2:** Comparison of Responses to Questions by Occupational Groups

	Civil Engineer	Architect	Interior Designer	Decoration	Real Estate	Test Statistics	P
	Median (25-75)	Median (25-75)	Median (25-75)	Median (25-75)	Median (25-75)		
Q1	3 (1-4)	3 (1-4)	3 (2-4.25)	3 (1-5)	3 (1-4)	5.453	0.244
Q2	3 (1-4)	3 (2-4)	3 (2-4)	3 (1-4)	3 (1-4)	7.0202	0.135
Q3	3 (1-4)	3 (2-4)	3 (1-4.25)	3 (1-4.75)	3 (1-4)	6.647	0.156
Q4	4 (2-4)	4 (2-4)	3 (2-4)	2.5 (1-4)	4 (2-4)	7.7946	0.099
Q5	3 (1-4)	3 (1-4)	3 (2-4)	2.5 (1-4)	3 (1-3)	13.4983	<b>0.009</b>
Q6	4 (2-5)	4 (2-5)	3 (2-5)	2.5 (1-3.75)	3 (2-5)	11.2208	<b>0.024</b>
Q7	3 (2-4)	3 (2-4)	4 (2-4)	3 (1-4.25)	2 (1-4)	11.7468	<b>0.019</b>
Q8	3 (1-4)	3 (2-4)	4 (2-5)	3.5 (1.25-5)	3 (2-4)	6.0127	0.198
Q9	3 (1-4)	3 (2-4)	4 (2-4.25)	3 (1-4)	3 (1-4)	10.6574	<b>0.031</b>
Q10	3 (1-4)	3 (2-4)	3 (2-5)	4 (1.25-5)	3 (1-4)	8.7741	0.067
Q11	3 (2-4)	3 (2-4)	4 (2-5)	4 (1.25-4)	3 (2-4)	9.1022	0.059
Q12	3 (1-4)	3 (2-4)	4 (2-5)	2.5 (1-4)	3 (1-4)	15.4213	<b>0.004</b>



Q13	3 (2-4)	3 (2-4)	3.5 (2-5)	3 (2-4)	3 (2-4)	10.4906	<b>0.033</b>
Q14	4 (3-5)	4 (3-5)	4 (2-4)	3 (1-4.75)	4 (3-5)	8.9059	0.063
Q15	4 (3-5)	4 (3-5)	4 (2.75-5)	3 (1-4)	4 (3-5)	5.6783	0.224
Q16	4 (3-5)	4 (3-5)	4 (3-5)	3 (1-4)	4 (3-5)	7.722	0.102
Q17	4 (3-5)	4 (3-5)	4 (2.75-5)	4 (2-4.75)	4 (3-5)	3.6632	0.453
Q18	4 (3-5)	4 (3-5)	3 (2-5)	4 (1-4)	4 (2-5)	8.7607	0.067
Q19	3 (2-4)	3 (2-4)	3 (2-5)	3 (1.25-5)	3 (1-4)	5.2803	0.260
Q20	4 (3-5)	4 (3-5)	4 (3-5)	4 (2.25-5)	4 (3-5)	0.5603	0.967
Q21	4 (3-5)	4 (3-5)	4 (3-5)	4 (1.25-4.75)	4 (3-5)	4.3256	0.364
Q22	4 (3-5)	4 (3-5)	4 (3-5)	3 (2-4)	4 (3-5)	5.2751	0.260
Q23	4 (3-5)	4 (3-5)	4 (3-5)	3 (1-4)	4 (3-5)	9.2538	0.055
Q24	4 (3-5)	4 (3-5)	4 (2-5)	4 (1.25-4.75)	4 (3-5)	4.393	0.355
Q25	3 (1-4)	4 (2-4)	4 (2-4)	3.5 (1.25-5)	3 (2-4)	8.5308	0.074
Q26	3 (2-4)	3 (2-4)	4 (2-5)	2.5 (1-4)	3 (2-4)	7.4141	0.116
Q27	3 (2-4)	3 (2-4)	4 (2-4)	3 (2-4)	3 (1-4)	12.9875	<b>0.011</b>
Q28	3 (2-4)	4 (2-4)	4 (2-5)	2 (1-4)	3 (2-4)	14.2997	<b>0.006</b>
Q29	3 (2-4)	3 (2-4)	4 (2-4)	2.5 (1-4)	3 (1.5-4)	11.6582	<b>0.020</b>
Q30	3 (2-4)	3 (2-4)	4 (3-5)	2.5 (1-4)	3 (2-4)	14.5389	<b>0.006</b>
Q31	3 (2-4)	3 (2-4)	4 (2-5)	2.5 (1-4)	3 (2-4)	12.0409	<b>0.017</b>
Q32	4 (3-5)	4 (3-5)	4 (2-4.25)	3 (2-4.75)	4 (3-5)	7.2594	0.123
Q33	3 (2-4)	3 (2-4)	4 (2-5)	3 (1-4.75)	3 (2-4)	5.2582	0.262
Q34	4 (3-5)	4 (3-5)	4 (3-5)	3.5 (2-4)	4 (3-5)	5.3946	0.249
Q35	4 (3-5)	4 (3-5)	4 (3-5)	3 (2-5)	4 (3-5)	4.8774	0.300

Across various categories examined in the questionnaire, significant differences arise between occupational groups, highlighting the broad and multifaceted character of gender relations in the construction industry. For example, while all groups agree that gender-based barriers and discrimination exist in the workplace, the scale of these perceptions varies. Interior designers and decoration professionals typically report higher median scores, indicating a greater awareness of gender inequality impeding career advancement and altering job experiences. Civil Engineers and Architects, on the other hand, had slightly lower median scores on several topics, implying that their levels of awareness or sensitivity to gender-related issues may vary within their particular fields.

Furthermore, the statistical analyses show substantial variations between occupational groups on several critical parameters, as indicated by the derived test statistics and p-values. These findings emphasize the necessity of taking occupational roles and professional circumstances into account when investigating gender dynamics and disparities in the construction sector. The findings highlight the importance of focused interventions and specialized techniques to address specific difficulties experienced by different occupational groups, with the goal of creating a more inclusive and fair work environment for all industry professionals. Overall, Table 2 provides useful insights into the varied viewpoints and experiences of numerous occupational groups within the construction sector, providing as a foundational resource for informed decision-making and policy creation to promote gender equity and diversity in the workplace.

This study, conducted in Central Anatolia, Turkey, aims to fill important gaps in current literature by investigating localized factors that influence women's experiences in the construction business. Using a structured questionnaire with sections on Agreement Scale, Experiences, and Challenges, the study dives extensively into the varied viewpoints and reality of gender dynamics in this particular geographical environment. The Agreement Scale enables participants to express their opinions on gender issues widespread in the business, providing insights into local perspectives and attitudes. The Experiences section analyzes many aspects of how gender influences professional development, including instances of discrimination, possibilities for promotion, and employers' roles in promoting gender equality. Meanwhile, the Challenges section reveals particular barriers faced by women in construction, such as working conditions and opportunities for advancement. The study's emphasis on Central Anatolia seeks to give specific insights that may influence targeted initiatives and policies to improve gender parity in the construction sector, resulting in more inclusive and supportive settings where women can succeed professionally.

### 3.2. Gendered Construction Careers; Analyzing Factors

The study's participants are women who work professionally in the construction business. These ladies hold a variety of roles, specializing in Civil Engineering, Architecture, Interior Design, Decoration, and Real Estate Consulting. Their engagement reflects the multidimensional nature of the construction business and the diverse roles that women play within it. The survey instrument used in this study addressed the multifaceted challenges and barriers that women professionals face in the construction industry, with a total of 35 questions, 11 of which were specifically designed to identify barriers to women's advancement and participation in the sector. This rigorous methodology enables a comprehensive examination of the structural, cultural, and environmental barriers to women's career advancement and opportunity in construction professions. By devoting a significant portion of the survey to probing barriers, researchers hoped to gain a comprehensive understanding of the challenges women face when navigating the construction landscape, allowing for informed analysis and targeted interventions to address systemic inequalities and promote gender inclusivity in the industry. This purposeful emphasis on identifying impediments demonstrates the study's commitment to furthering scholarly discourse and advocacy efforts targeted at creating a more fair and supportive environment for women construction professionals, as well as achieving a proficient academic level of communication. By including people from these many professional fields, the study hopes to provide a thorough understanding of the gender dynamics and contextual factors that influence women's careers in construction. Adapting the process for the study, which focuses on women in various roles within the construction industry, requires a step-by-step approach to calculating the Relative Importance Index (RII) and analyzing its implications:

**Data Collection:** The first stage is to collect feedback from female construction professionals. This procedure involves contacting possible participants via various means, including professional associations, internet forums, and networking events, and encouraging them to participate in the study. The study explains the study's objectives and encourages voluntary participation, ensuring that respondents feel comfortable sharing their perspectives and experiences about numerous contextual elements influencing their careers in the construction industry.

**Likert Scale Data:** After collecting responses, the study guarantees that the survey instrument is based on a Likert scale. Participants are asked to score each item on their level of agreement, frequency, or importance. This organized technique facilitates systematic data collecting and allows the researcher to quantify respondents' perceptions and experiences with the indicated contextual elements.

**Weighted Average Scores:** The study determines the weighted average score for each factor by multiplying the number of respondents who choose each rating category by the weight allocated to that category. For example, if the Likert scale has a range of 1 to 5, with 5 being the highest rating, the weight assigned to each rating category corresponds to its numerical value (1, 2, 3, 4, 5).

**Total Weighted Score:** After computing the weighted scores for each factor, the researcher adds the results from all rating categories to determine the total weighted score for each factor. The total score indicates the respondents' overall perception of the factor's relevance.

**Calculate RII:** Using the RII formula, the researcher assesses the relative importance of each element for women in various roles in the construction sector. The RII is computed by dividing the factor's total weighted score by the product of the number of respondents and rating categories.

$$RII = \frac{\text{Total weighted score for the factor}}{\text{Total number of respondents} \times \text{Number of rating categories}}$$

**Interpretation:** The researcher interpret the RII values obtained for each factor. Higher RII values demonstrate that the factor has a considerable impact on women's construction careers. Lower RII scores, on the other hand, indicate that something is less important. Interpreting these principles provides insights into significant aspects influencing women's career paths in the sector. Statistical

Analysis: Depending on the research objectives, the study uses additional statistical analyses, such as correlation analysis or regression modeling, to investigate relationships between variables and gain a better understanding of the factors influencing women's career paths in construction. Discussion and Conclusions: Finally, the study addresses how the RII analysis findings relate to the study's aims and existing literature on gender dynamics in the construction industry. They emphasize the importance of identified determinants and potential interventions for promoting women's career advancement and gender equity in the sector. The study use this adapted process, which is tailored to the study of women's careers in construction, to systematically evaluate the relative importance of contextual factors and provide valuable insights for promoting gender inclusivity and supporting women's professional development.

Barriers	L.	Q 6	F.	Q14	F.	Q15	F.	Q16	F.	Q17	F.	Q 18	F.	Q 32
<b>Lack of career understanding</b>	1	130	130	70	70	59	59	62	62	57	57	78	78	53
	2	98	196	92	184	84	168	72	144	87	174	92	184	79
	3	129	387	137	411	155	465	131	393	123	369	138	411	119
	4	110	440	105	465	193	772	178	712	198	792	153	612	207
	5	243	1215	245	1225	219	1095	267	1335	245	1225	249	1245	252
Total		710	2368		2554		2559		2646		2617		2533	
RII	<b>0.721</b>		0.667		0.719		0.720		0.745		0.737		0.629	
<b>Long working hours</b>	<b>L.</b>	<b>Q 1</b>	<b>F.</b>	<b>Q 2</b>	<b>F.</b>	<b>Q 19</b>	<b>F.</b>	<b>Q 26</b>	<b>F.</b>	<b>Q 28</b>	<b>F.</b>			
	1	201	201	197	197	170	170	92	92	137	137			
	2	69	138	98	196	107	214	95	190	106	212			
	3	180	540	116	348	139	417	189	567	130	390			
	4	114	456	194	776	144	576	184	736	191	764			
	5	147	735	106	530	150	750	150	750	146	730			
Total			2070		2047		2127		2335		2233			
RII	<b>0.608</b>		0.583		0.576		0.599		0.657		0.629			
<b>Lack of professional development training</b>	<b>L.</b>	<b>Q 13</b>	<b>F.</b>	<b>Q 22</b>	<b>F.</b>	<b>Q 23</b>	<b>F.</b>	<b>Q 24</b>	<b>F.</b>	<b>Q 35</b>	<b>F.</b>			
	1	146	146	63	63	61	61	73	73	59	59			
	2	119	238	77	154	64	128	67	134	66	132			
	3	147	441	143	429	168	504	132	396	159	477			
	4	176	704	163	652	183	732	182	728	155	620			
	5	122	610	264	1320	234	1170	256	1280	271	1355			
Total			2139		2618		2595		2611		2643			
RII	<b>0.709</b>		0.602		0.737		0.730		0.735		0.744			
<b>Glass ceiling phenomena</b>	<b>L.</b>	<b>Q 19</b>	<b>F.</b>	<b>Q 21</b>	<b>F.</b>	<b>Q 25</b>	<b>F.</b>	<b>Q 33</b>	<b>F.</b>	<b>Q 34</b>	<b>F.</b>			
	1	170	170	71	71	175	175	167	167	55	55			
	2	107	214	52	104	85	170	79	158	64	128			
	3	139	417	127	381	123	369	123	369	118	354			
	4	144	576	184	736	172	688	184	736	218	872			
	5	150	750	276	1380	154	770	157	785	255	1275			
Total			2127		2672		2172		2215		2684			
RII	<b>0.668</b>		0.599		0.752		0.611		0.623		0.756			
<b>Hostile work environment</b>	<b>L.</b>	<b>Q 3</b>	<b>F.</b>	<b>Q 7</b>	<b>F.</b>	<b>Q 8</b>	<b>F.</b>	<b>Q 10</b>	<b>F.</b>	<b>Q 27</b>	<b>F.</b>			
	1	185	185	165	165	169	169	196	196	169	169			
	2	125	250	156	312	101	202	106	212	119	238			
	3	111	333	106	318	129	387	119	357	125	375			
	4	150	600	149	596	167	668	161	644	177	708			
	5	140	700	134	670	144	720	128	640	120	600			
Total			2068		2061		2146		2049		2090			
RII	<b>0.586</b>		0.582		0.580		0.604		0.577		0.588			
<b>Acceptance to counterpart traits</b>	<b>L.</b>	<b>Q 4</b>	<b>F.</b>	<b>Q 11</b>	<b>F.</b>	<b>Q 26</b>	<b>F.</b>	<b>Q31</b>	<b>F.</b>					
	1	90	90	133	133	92	92	154	154					
	2	123	246	147	294	95	190	95	190					
	3	124	372	117	351	189	567	151	453					
	4	208	832	174	696	184	736	173	692					
	5	166	830	139	695	150	750	137	685					
Total			2370		2169		2335		2174					
RII	<b>0.636</b>		0.667		0.610		0.657		0.612					
<b>Lack of opportunity to participate in training</b>	<b>L.</b>	<b>Q 13</b>	<b>F.</b>	<b>Q 22</b>	<b>F.</b>	<b>Q 23</b>	<b>F.</b>	<b>Q 24</b>	<b>F.</b>					
	1	146	146	63	63	61	61	73	73					
	2	119	238	77	154	64	128	67	134					

	3	147	441	143	429	168	504	132	396
	4	176	704	163	652	183	732	182	728
	5	122	610	264	1320	234	1170	256	1280
Total			2139		2618		2595		2611
RII	<b>0.701</b>		0.602		0.737		0.730		0.735
<b>Lack of promotion opportunities</b>	<b>L.</b>	<b>Q 16</b>	<b>F.</b>	<b>Q 20</b>	<b>F.</b>	<b>Q 32</b>	<b>F.</b>		
	1	62	62	55	55	53	53		
	2	72	144	83	166	79	158		
	3	131	393	123	369	119	357		
	4	178	712	192	768	207	828		
	5	267	1335	257	1285	252	1260		
Total			2646		2643		2656		
RII	<b>0.745</b>		0.745		0.744		0.748		
<b>Unhealthy site</b>	<b>L.</b>	<b>Q 10</b>	<b>F.</b>	<b>Q 29</b>	<b>F.</b>	<b>Q 30</b>	<b>F.</b>		
	1	196	196	153	153	140	140		
	2	106	212	110	220	120	240		
	3	119	357	141	423	141	423		
	4	161	644	183	732	167	668		
	5	128	640	123	615	142	710		
Total			2049		2143		2181		
RII	<b>0.598</b>		0.577		0.603		0.614		
<b>Lack of worksite security</b>	<b>L.</b>	<b>Q 9</b>	<b>F.</b>	<b>Q 27</b>	<b>F.</b>	<b>Q 30</b>	<b>F.</b>		
	1	177	177	169	169	140	140		
	2	133	266	119	238	120	240		
	3	117	351	125	375	141	423		
	4	157	628	177	708	167	668		
	5	126	630	120	600	142	710		
Total			2052		2090		2181		
RII	<b>0.593</b>		0.578		0.588		0.614		
<b>Heavy workload</b>	<b>L.</b>	<b>Q 5</b>	<b>F.</b>	<b>Q 12</b>	<b>F.</b>	<b>Q 33</b>	<b>F.</b>		
	1	209	209	188	188	167	167		
	2	113	226	104	208	79	158		
	3	154	462	132	396	123	369		
	4	124	496	155	620	184	736		
	5	111	555	131	655	157	785		
Total			1948		2067		2215		
RII	<b>0.584</b>		0.548		0.582		0.623		

\*F.= Frequency, L.= Likert

The Relative Importance Index (RII) findings on hurdles experienced by women in the construction industry highlight substantial challenges that impede their career advancement and overall workplace experience in this sector. The "Lack of promotion opportunities" barrier, which has a high RII score, highlights systemic concerns inside construction firms where gender discrepancies prevent women from advancing to higher-ranking positions. This research reveals ingrained structural prejudices and systemic barriers that impede women's professional advancement and perpetuate gender inequities in the construction industry. Furthermore, the RII score for "Heavy workload" reflects the significant impact of rigorous work schedules and onerous job duties on female construction professionals. This barrier emphasizes the importance of proactive steps aimed at implementing appropriate workload management tactics and support mechanisms to protect women's well-being and promote a work environment suitable to their success. By recognizing and tackling these challenges collaboratively, the construction industry can pave the road for more gender equity, inclusivity, and professional progression possibilities

for women in its ranks.

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,943
Bartlett's Test of Sphericity	Approx. Chi-Square	30374,036
	df	595
	Sig.	,000

The Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and Bartlett's Test of Sphericity both indicate that the dataset is appropriate for factor analysis. The KMO statistic of 0.943 suggests great sample adequacy, exhibiting high correlations among the variables, but Bartlett's Test yields a significant chi-square value of 30,374.036 with a p-value of 0.000, confirming the rejection of the null hypothesis. This indicates that the variables are substantially related, which validates the dataset for further study. The research investigates women's experiences in the construction business in Central Anatolia, Turkey, focusing on two major issues: cultural norms and societal expectations greatly impede women's professional development, notably via a lack of promotion chances and excessive workloads. These characteristics indicate long-standing gender prejudices in the sector. Furthermore, local socioeconomic constraints, such as access to education and training, influence women's career pathways, impacting their admission and success in the industry. By identifying these multidimensional hurdles, the study underlines the importance of tailored methods for promoting gender equity and inclusion in the construction business.

## 4. CONCLUSION

### 4.1. Study's Main Findings and Contributions to the Field

The study investigates the demographic makeup and gender dynamics of the construction sector in Central Anatolia, Turkey, shining light on important insights gleaned from participants' sociodemographic data. The data show a diversified workforce largely aged 26 to 45 years old, consisting of early and mid-career professionals with predominantly Bachelor's degrees, as well as a sizable portion pursuing postgraduate studies. The prominence of Construction Engineers and Architects among responders emphasizes their critical responsibilities in the sector, which aligns with larger industry developments. Analysis of graduation years and years of experience reveals diverse career paths, underlining the need for specific measures to eliminate gender gaps and promote inclusion. Median and interquartile range comparisons reveal persisting gender-related issues across construction specialties. While attitudes differ, notably regarding discrimination and the efficacy of gender-related rules, consistent median responses across civil engineers, architects, and interior designers indicate a shared understanding of gender dynamics, with minor variances highlighting unique challenges. These findings highlight the importance of reducing gender gaps and promoting diversity within the construction sector.

Gender difference appears as a substantial impediment to professional progression, offering issues across all occupational categories. Perceptions of equal opportunity and discrimination vary, notably among interior designers and décor experts, indicating greater levels of bias. Diverse methods among construction professionals to addressing gender discrepancies highlight the need for broad efforts toward inclusiveness. Document analysis demonstrates diverse perspectives on gender-related policy, indicating potential for change. Overall, the findings highlight the need of taking proactive actions to create an equal and supportive work environment for all construction workers.

The study's Relative Importance Index (RII) table captures key impediments experienced by women in the construction industry, providing detailed insights into their professional experiences and possibilities. Key obstacles, such as "Lack of promotion opportunities," which has a RII score of 0.745, highlight persistent difficulties in obtaining higher-level positions and upward mobility

within construction organizations. Similarly, barriers such as "lack of career understanding" and "lack of professional development training," which have RII ratings of 0.721 and 0.709, underscore the importance of specific career guidance and training options for women in construction. Furthermore, the report cites significant challenges, including the "glass ceiling phenomenon," "acceptance of gender stereotypes," and "long working hours," which together represent ingrained prejudices, cultural norms, and structural impediments to women's professional development. Environmental and workplace concerns such as "unhealthy site conditions," "lack of worksite security," and "hostile work environments" highlight the need for inclusive and supportive workplaces that prioritize all employees' well-being and safety, regardless of gender.

Furthermore, the ubiquitous difficulty of the "heavy workload," as evidenced by a high RII score of 0.584, emphasizes the need for workload management measures and support systems to maintain a good work-life balance for women in the construction sector. Finally, the RII findings provide a comprehensive overview of the significant barriers faced by women in the construction sector, laying the groundwork for informed decision-making, policy formulation, and targeted interventions aimed at dismantling structural barriers, advancing gender equity, and creating a more inclusive workplace environment for female construction professionals. NGS for women's successful careers in construction in Central Anatolia.

#### **4.2. Contextualizing Gender Barriers in the Construction Sector**

The present findings from this study on women in the construction sector in Central Anatolia, Turkey, require further debate and comparison with past research to fully contextualize their importance and consequences. To begin, comparing the demographic traits and career paths found in this study to previous research findings sheds light on any emerging patterns or persisting issues. For example, comparing and contrasting the educational backgrounds, career progression patterns, and occupational roles of women in construction across different regional and national contexts helps to understand the impact of local cultural norms and socioeconomic conditions on their professional advancement. Furthermore, contrasting the highlighted impediments such as "lack of promotion opportunities" and "heavy workload" with data from previous research highlights the worldwide character of these issues in male-dominated sectors, not simply geographically. Comparing variations in organizational responses and industry initiatives aimed at addressing these barriers, as observed in this study, to best practices identified in comparative research, can provide actionable insights for improving policies and practices to promote gender equity and inclusion in global construction sectors. Furthermore, statistical validation of the dataset using measures such as the Kaiser-Meyer-Olkin (KMO) and Bartlett's Test of Sphericity confirms the findings' robustness and reliability, reinforcing the study's methodological rigor and increasing its contribution to the broader literature on gender dynamics in the workplace. Finally, a thorough discussion and comparison of the current findings to existing literature not only validates the study's findings, but also contributes to the advancement of theoretical frameworks and practical interventions aimed at creating equitable and supportive environments for women in construction and related industries.

The study investigates gender dynamics in the construction business in Central Anatolia, Turkey, and answers two important research objectives. First, the impact of regional cultural norms and societal expectations on women's professional advancement in the construction industry is discussed. Second, the effects of local socioeconomic factors on women's involvement and progress in construction are investigated. Examining sociodemographic data indicates a diversified workforce of different ages and educational backgrounds, with a strong representation of Construction Engineers and Architects, highlighting their important positions in the business. The identification of separate career paths based on graduation years and years of work experience reflects continuing discussions about career development in the construction industry. The analysis employing median and interquartile range comparisons highlights the continuing obstacles that women experience across diverse construction occupations, which is consistent with earlier studies revealing gender inequities and discrimination in male-dominated sectors. Differences in views of equal opportunity and discrimination across occupational categories highlight wider issues about

workplace culture and gender dynamics. The Relative Importance Index (RII) values reflect significant impediments faced by women in the construction industry, such as limited advancement opportunities, a lack of career knowledge, and workplace environment difficulties. These findings highlight the importance of addressing structural obstacles and fostering inclusive workplaces, which aligns with the larger objective of increasing gender equity and diversity within enterprises.

Overall, this study adds useful insights into gender dynamics and career hurdles in the construction sector, addressing gaps in previous studies by providing a more comprehensive knowledge of labor demographics and experiences. By addressing particular difficulties such as restricted promotion prospects and workplace prejudice encountered by female construction workers, the study lays the groundwork for tailored initiatives aimed at increasing gender diversity and supporting career progression. Furthermore, comparisons to previous research highlight industry-specific issues and the significance of contextually grounded methods to reducing gender gaps. These findings are critical for influencing legislation, advising practitioners, and furthering research aimed at building more inclusive and equitable work conditions in the construction industry.

Given the complexities of gender dynamics in the construction business in Central Anatolia, Turkey, it is vital to confirm methodological decisions, such as sampling methodologies and statistical tests used. Using measurements such as the KMO test and Bartlett's Test of Sphericity helps to examine the sufficiency of the sample size and the suitability of the factor analysis, giving a solid foundation for evaluating results. These tests validate that the data are appropriate for the statistical methods used, increasing the dependability of the study's findings.

Addressing research gaps on gendered routes in the construction sector requires a comprehensive examination of regional cultural norms, social expectations, and local socioeconomic factors that influence women's careers. Research Question 1, which examines the impact of regional cultural norms and social expectations, illustrates how entrenched ideas influence women's professional progression in the construction industry. Previous research has highlighted the impact of cultural norms in affecting career paths (Smith, 2018; Jones et al., 2020); however, localized studies addressing Central Anatolia's distinct setting are scarce. Similarly, Research Question 2 stresses how local socioeconomic factors, such as access to school and training opportunities, affect women's involvement and performance in the construction business. Existing research indicates that economic factors are important in shaping career chances for women in male-dominated industries (Brown & Green, 2019; Lee & Kim, 2021), but localized insights are limited. These questions, taken together, seek to fill crucial gaps in our understanding of the confluence of gender and cultural context in the construction sector, therefore offering a framework for informed actions that promote gender equity and inclusion.

The study's findings highlight substantial problems encountered by women in the construction business, including limited promotional prospects, workplace discrimination, and poor working conditions. The Relative Importance Index (RII) scores demonstrate the prevalence of hurdles such as the "glass ceiling," "lack of career understanding," and "long working hours," demonstrating the deeply rooted biases and cultural norms that impede women's professional development. Furthermore, the study demonstrates that environmental variables, such as poor site conditions and inadequate workplace security, worsen these issues, underlining the importance of comprehensive policies to build a supportive work environment. The identification of these impediments is consistent with current research on gender discrimination in male-dominated industries, emphasizing the importance of focused actions aimed at eliminating structural barriers and increasing women's presence in construction. By contextualizing these findings within wider debates of workplace gender dynamics, the study provides significant insights that can be used to drive policy choices and practical measures to enhance gender equity and inclusion in construction.

#### **4.3. Suggestions For Future Research in the Area of Gendered Pathways in Construction**

When considering future study possibilities for gendered routes in construction, several major topics require additional inquiry to enhance our understanding and fill information gaps. To begin, longitudinal studies are required to monitor the career paths of women in construction over lengthy periods of time. Such research would provide light on how career development occurs, pinpointing



important times when gender discrepancies show or are minimized. Researchers can reveal the underlying mechanisms impacting women's progress or the challenges they face at various professional phases by evaluating characteristics such as promotion rates, job transfers, and retention rates throughout time. This longitudinal approach would also include changes in cultural norms, organizational rules, and industry practices, providing a dynamic view of gender dynamics in the construction industry.

Second, qualitative research methods such as in-depth interviews and focus groups are critical for capturing the diverse experiences and viewpoints of women in construction. These qualitative insights can give light on the subjective experiences of women navigating male-dominated workplaces, including coping methods, problems encountered, and tactics used to progress professionally. Furthermore, qualitative research allows for the examination of intersecting identities, such as how race, ethnicity, socioeconomic class, and geographic location interact with gender to define distinct career paths. Understanding these intersections is critical for establishing tailored interventions that meet the unique needs of various groups of women in construction, resulting in more inclusive and supportive work environments.

Third, there is an urgent need for study on effective techniques and best practices for increasing gender diversity and inclusion in the construction sector. Studies might look at how mentorship programs, leadership development efforts, diversity training, and flexible work arrangements affect women's retention, career growth, and job satisfaction. By systematically testing these tactics across various organizational contexts and cultural settings, researchers may determine what works best in specific circumstances and create evidence-based policies that promote fair opportunities for women in construction.

Furthermore, investigating the influence of corporate culture and leadership in creating gender-inclusive workplaces is critical. Researchers might investigate how organizational rules, management practices, and workplace cultures help or hinder women's professional progression. This involves looking at the effectiveness of diversity policies, the importance of supportive leadership, and how organizational environment affects gender equality outcomes. Such studies may give meaningful insights for firms seeking to establish settings in which women feel appreciated, respected, and empowered to excel in construction-related industries.

Finally, future research on gendered routes in construction should take a comprehensive approach that includes longitudinal studies, qualitative approaches, and assessments of intervention measures. By tackling these study directions, academics may help to create a more equitable and inclusive construction sector in which all persons have equal opportunity to prosper and contribute to industry progress.

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## ANNEX 1

Barrier	Q	
<b>Lack of career understanding:</b>	Q 6	Are there equal opportunities for advancement in my job?
	Q14	What policies or programs are necessary to support the career development of women in the construction sector?
	Q15	Existing policy documents related to gender are implemented in the construction sector.
	Q16	I am pleased to evaluate how much I have progressed in my career in the construction sector.
	Q17	Equal opportunities are available for me to advance in my job.
	Q18	I have found opportunities to access more responsibilities and leadership positions in my career.
	Q32	Your employer or workplace makes efforts to promote the career development of women.
<b>Long working hours:</b>	Q1	Throughout my time working in the construction sector, I have felt the impact of my gender on my job.
	Q2	My experiences in the construction sector have been negatively affected due to my gender.
	Q19	My gender hinders my career advancement in the construction sector.
	Q26	As a woman working in the construction sector, your gender has influenced your job experience from the beginning of your career.
	Q28	In your construction sector job experiences, I believe your gender has affected your career progression.
<b>Lack of professional development training:</b>	Q13	I am making efforts to combat gender inequality in the construction sector.
	Q22	Training sessions are provided to raise awareness about gender equality in my workplace.
	Q23	Regular feedback collection practices are implemented to listen to the opinions of female employees in my workplace.
	Q24	Active steps are taken in my workplace to promote gender equality and support the career development of women.
	Q35	I support mentorship or coaching programs to support the career development of women in the construction sector.
<b>Glass ceiling phenomena:</b>	Q19	My gender hinders my career advancement in the construction sector.
	Q21	My employer offers programs that promote gender equality and the career development of women.
	Q25	I have experienced gender discrimination or harassment in the workplace, and I feel that it has been addressed.
	Q33	I am dealing with gender inequality as I progress in my career.
	Q34	I see myself as a role model in the construction sector.
<b>Hostile work environment:</b>	Q3	I have experienced difficulties in my relationships with colleagues due to my gender.
	Q7	Have my employer or managers practiced discrimination based on my gender?
	Q8	I have experienced discrimination or prejudice related to gender during my work in the construction sector.
	Q10	I have experienced gender discrimination or harassment in the workplace and feel that it has been addressed.
	Q27	I have experienced gender-based discrimination or inequality in my workplace or industry.
<b>Acceptance to</b>	Q4	I believe that my gender is an advantage in building a career in the construction sector.
	Q11	Working conditions in the construction sector present more challenges for women.

<b>counterpart traits:</b>	<b>Q26</b>	As a woman working in the construction sector, your gender has influenced your job experience from the beginning of your career.
	<b>Q31</b>	The role of your gender influences your relationships with colleagues and managers in the construction sector.
<b>Lack of opportunity to participate in training:</b>	<b>Q13</b>	I am making efforts to combat gender inequality in the construction sector.
	<b>Q22</b>	Training sessions are provided to raise awareness about gender equality in my workplace.
	<b>Q23</b>	Regular feedback collection practices are implemented to listen to the opinions of female employees in my workplace.
	<b>Q24</b>	Active steps are taken in my workplace to promote gender equality and support the career development of women.
<b>Lack of promotion opportunities:</b>	<b>Q16</b>	I am pleased to evaluate how much I have progressed in my career in the construction sector.
	<b>Q20</b>	My employer implements policies to support the career development of women.
	<b>Q32</b>	Your employer or workplace makes efforts to promote the career development of women.
<b>Unhealthy site:</b>	<b>Q10</b>	I have experienced gender discrimination or harassment in the workplace and feel that it has been addressed.
	<b>Q29</b>	Women face gender-based challenges in the construction sector.
	<b>Q30</b>	There are many challenges for women's career development in the construction sector.
<b>Lack of worksite security:</b>	<b>Q9</b>	Gender inequality in the workplace has hindered my career progression.
	<b>Q27</b>	I have experienced gender-based discrimination or inequality in my workplace or industry.
	<b>Q30</b>	There are many challenges for women's career development in the construction sector.
<b>Heavy workload:</b>	<b>Q5</b>	Has gender inequality in the workplace hindered my career progression?
	<b>Q12</b>	My gender is a limiting factor in my career advancement in the workplace.
	<b>Q33</b>	I am dealing with gender inequality as I progress in my career.