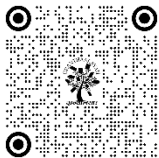# UNCONVENTIONAL OFFICES, WORKPLACE DESIGN AFFECTING MILLENNIALS & GEN-Z INVOLVEMENT IN OFFICE

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ABSTRACT

Attracting and retaining members of Generation Z and Millennials is crucial for organizations to flourish in today's competitive business climate. Published studies have shown that an employee's degree of engagement is directly correlated to their work performance (Cook, 2008; Brill et al., 2000). However, compared to previous generations, Millennials and Gen Z are the most disengaged workers today. Specifically, Gallup (2018) reports that out of all millennials, 55% are not interested in their employment, while 29% are actively disengaged. Based on these latest numbers, it's evident that not all companies are adapting to meet the needs of millennials and Gen Zers in the workplace. These generations are having an effect on company expenses owing to poor retention rates and high turnover, thus it is important to understand this topic. At the same time, they are rapidly becoming the biggest working generation in history. According to Markos and Sridevi (2010), organizations may gain a lot by creating a workplace that is millennial-friendly in terms of staff recruitment, retention, and revenue development. Understanding the design criteria of millennial and Gen Z workplaces helps enhance employee engagement, according to this doctoral research. Flexibility, especially with regard to work-life balance, is something that millennials value, according to important studies.

1. INTRODUCTION

Now, more than ever, it's crucial to prioritize employee engagement when designing the interior of workplaces. Despite being the biggest and most recent working generation, millennials (those born between 1980 and 2000) are the least invested in their jobs compared to previous generations (Tru space, 2017). U.S. Bureau of Labor Statistics(2017), Deloitte (2016), and Pew Research (2015) all predict that this generation will make up 75% of the world's employment by 2025. As members of this generation make up a larger and larger percentage of the workforce, it is imperative that companies comprehend the factors that inspire their active participation in the workplace. Similarly, interior designers are trying to figure out what effects, if any, workplace design decisions may have.

Even while employee engagement is mostly intangible and difficult to directly address, it may be enhanced via workplace interior design. Research suggests that millennial workers might be more satisfied and productive in the workplace if their workplaces are designed to be more flexible (Adkins & Rigoni, 2016; Augustin, 2013; Gilbert, 2011; Gensler, 2017; HoK 2017; Deloitte, 2018; CBRE, 2014). Employee engagement improves performance outcomes including retention, profitability, customer loyalty, and safety for an organization. Revenue growth outpaces the industry average as a consequence of this (Markos & Sridevi, 2010). Millennials' study on their own life experiences, traits, and

how it relates to their values is essential for paying special attention to interior design strategies in order to maintain their interest at work.

An advantage is enjoyed by employers who have engaged their workers. There is a huge window of opportunity to shape millennial involvement in the workplace because of the amount of time this generation spends there. The results show that out of 19,000 individuals surveyed in 25 countries, 73% of millennials work more than 40 hours a week (Manpower Group, 2016). Millennials are the most disengaged generation in the workforce, but innovative workplaces that take advantage of this potential and include valued design principles while maintaining the flexibility to meet their expectations might turn them into the most engaged.

1.1. RESEARCH GOAL AND OBJECTIVES

When employees' work reflects their values, they feel more connected to the company's prosperity. This research sheds light on prevalent challenges with millennial employee engagement, which might inform future workplace design. Understanding the adaptable and realistic interior design tactics that inspire millennial and Gen Z employees could be useful for workplace strategists, employers, and interior designers.

1.2. OBJECTIVE OF THE STUDY

- To study the influence of Design parameters on Employee Involvement.
- To study the influence of Gender on Employee Involvement.

1.3. HYPOTHESIS

H01- No significance impact on workplace design on employee involvement.

H02 - No significance impact on workplace design on employee involvement for Males.

H03- No significance impact on workplace design on employee involvement for Females.

H04- No significance impact on workplace design on employee involvement on Generation Z.

H05- No significance impact on workplace design on employee involvement on Millennials.

H06 -   No significance difference in perception related to workplace design between Gen Z Male & Millennials Male.

H06 - No significance difference in perception related to workplace design between Gen Z Female & Millennials Female.

2. RESEARCH METHODS
2.1. LITERATURE REVIEW

Literature reviews on millennial employee engagement in contemporary workplaces (Creswell, 2014; Merriam et al., 2016) helped establish the topic's applicability, insights, and gaps in knowledge. Creswell (2014) states that... Prior research on millennials in the workforce was reviewed by me. The sources used to compile the literature review included academic monographs, Google Scholar, and databases such as EBSCOhost, ProQuest, and Sage. Included in this dissertation was a survey of practice-based white papers issued by design firms such as Gensler, Hok, and Truspace, as well as professional services firms like Deloitte, CBRE, and PwC. Search terms included: millennial workplace design methods, millennial work ideals, generational disparities in the workplace, ways to engage millennial workers, and elements of a disengaged millennial employee.

2.2. RESEARCH METHODOLOGY

The information is gathered methodologically via the use of a standardized questionnaire. Workers in the technology sector are the focus of this research. Our sample size is 100 workers, and we employed the convenience sampling approach, a subset of non-probability sampling, to get their responses. The effect of employee design factors and employee engagement was assessed using a variety of tools. Questions about the workers' backgrounds are the first to come up. Second, it's a 5-point scale item that pertains to total employee engagement. Microsoft Excel was used for

the purpose of data analysis. For this, we resorted to a Likert scale, where 1 indicates a strong agreement and 5 a strong disagreement. In this scale, 1 indicates Strongly Agree, 2 agree, 3 are neutral, 4 disagree, and 5 are Very Disagree. Statistical methods such as the Z-test for hypothesis analysis and the correlation and coefficient test for testing were used in this research to examine the survey data and replies.

3. PRECEDENT ANALYSIS

The definition of a precedent in the field of design is "a prior or past design solution that has some interesting architectural or engineering formal, structural, syntactic, semantic or systematic features that may provide partial or total exemplars of new design solutions" (Eilout, 2009, para. 1). The contemporary interior design techniques for workplaces that aim to engage millennial and Gen Z workers are highlighted in every precedent that my dissertation reviews. To help designers better grasp whether interior design tactics have the ability to increase employee engagement, precedent analyses primarily look at the triumphs and tribulations of each workplace. The results showed that across all occupations, millennials preferred those in the technology industry (Thurman, 2016). Additionally, by 2025, millennials will constitute 75% of the workforce worldwide in the technology industry (Dib, 2016). These results suggest that big giants like Amazon and Microsoft are the most common examples. Additionally, I included the instances of 3M and WeWork, two examples of smaller organizations, as well as a start-up and a co-working firm.

4. PRECEDENT ANALYSIS

Amazon, 3M, Microsoft, and Facebook are the four tech corporations whose workspaces are investigated in this study. Companies like these are leaders in their industries, and they've tried to apply strategies that are both trendy and necessary to increase employee engagement. These particular organizations were selected using the Millennial Career Survey (Thurman, 2016). In addition, a coworking space's office designs were shown to show that smaller firms may also benefit from the design concepts that millennials appreciate. WeWork, a coworking facility, has had remarkable success in recruiting, keeping, and exciting young workers. One such example is Amazon, headquartered in Seattle, Washington, USA, which offers its employees a wide variety of interesting jobs and has a biophilic architecture. In the second case, 3M (Saint Paul, Minnesota) shows how hierarchy is being eliminated. Lastly, we have Microsoft, a small company based in Redmond, Washington, USA, that has embraced remote employment. The fourth case study comparing the design and construction of Building 20 with Building 21 is Facebook, located in Menlo Park, California. Last but not least, the millennial-founded and -led company WeWork (with headquarters in Boston, Massachusetts and Toronto, Ontario) shows promise for a new generation of workplace design.

5. RESEARCH METHODOLOGY
5.1. THE STUDY

Employee participation will serve as the dependent variable in this "observational study," with design parameters serving as the independent variables.

Design Parameters (PART-A)	Employee Involvement (Part B)
• A1-Quiet Zone	• B1- Health & Wellbeing
• A2- Lounges	• B2- Work Performance
• A3- Flexible design	• B3- Environmental & Job satisfaction
• A4-Entertainment Zone	• B4- Work Life Balance
• A5- Ergonomic Furniture	• B5- Productivity
• A6- Biophilic Design (Nature)	• B6- Loyalty
• A7- Amenities (Gym & Retreat)	• B7- Motivation
• A8- WFH	• B8- Creativity & Innovation
• A9- Collaborative Spaces	• B9- Energised & Active
A10- Natural Light	• B10- Communication

Table 2 Design Parameters & Employee Involvement

5.2. THE DESIGN

To determine how different independent factors affected the dependent variables, the research used a multi-variate design. Each of the 10 design characteristics serves as an independent variable in my research. Office participation by employees is an example of a dependent variable.

Two distinct generations are recognized: Millennials and Generation Z.

The following is the study paradigm:

			Generation	
			Millennials	Generation -Z
Gender	Male		A	B
	Female		C	D

Table 3 The research paradigm

5.3. THE SAMPLE

Personnel from Generation Z and Millennials are sourced from various IT businesses throughout India. The total number of participants was limited to 100. Split into two groups of twenty-five.

	Millennials	Generation- Z
Male	25	25
Female	25	25
TOTAL	50	50

Table 4 The Sample Size

5.4. PROCEDURE

The information is gathered methodologically via the use of a standardized questionnaire. Workers in the technology sector are the focus of this research. Our sample size is 100 workers, and we employed the convenience sampling approach, a subset of non-probability sampling, to get their responses. The effects of employee participation and design characteristics were evaluated using a variety of tools. Questions about the workers' backgrounds are the first to come up. Furthermore, it is associated with the total employee engagement rating, which is based on a 5-point scale. Microsoft Excel was used for the purpose of data analysis. For this, we resorted to a Likert scale, where 1 indicates a strong agreement and 5 a strong disagreement. In this scale, 1 indicates Strongly Agree, 2 agree, 3 are neutral, 4 disagree, and 5 are Very Disagree. Statistical methods such as the Z-test for hypothesis analysis and the correlation and coefficient test for testing were used in this research to examine the survey data and replies.

5.5. DATA COLLECTED

The data was entered into MS-Excel after being digitally obtained. Parts A and B's Likert scale preferences are shown in the following table.

Participant's Demography		
Age Range (Generation)	Gender	
	Male	Female
Generation Z	a	b

		25	25
Millennials		c	d
		25	25

Correlations

Descriptive Statistics			
	Mean	Std. Deviation	N
Total Workplace Design	41.34	5.180	100
Total Involvement	42.71	6.167	100

Correlations			
		Total Workplace	Total Involvement
Total Workplace Design	Pearson Correlation	1	.506**
	Sig. (2-tailed)		.000
	N	100	100
Total Involvement	Pearson Correlation	.506**	1
	Sig. (2-tailed)	.000	
	N	100	100
**. Correlation is significant at the 0.01 level (2-tailed).			

Workplace design and employee participation have a computed correlation value of 0.506.
It indicates a very significant positive relationship.

Correlations- [Males]

Descriptive Statistics			
	Mean	Std. Deviation	N
Total Workplace Design	41.52	5.388	50
Total Involvement	43.56	6.270	50

Correlations			
		Total_Workplace	Total Involvement
Total Workplace Design	Pearson Correlation	1	.593
	Sig. (2-tailed)		.000
	N	50	50
Total Involvement	Pearson Correlation	.593**	1
	Sig. (2-tailed)	.000	
	N	50	50

**. Correlation is significant at the 0.01 level (2-tailed).

There is a determined correlation value of 0.593 between workplace design and employee participation for males.

It indicates a very significant positive relationship.

Correlations-[Females]

Descriptive Statistics			
	Mean	Std. Deviation	N
Total Workplace Design	41.16	5.012	50
Total Involvement	41.86	6.003	50

Correlations			
		Total_Workplace	Total Involvement
Total Workplace Design	Pearson Correlation	1	.410**
	Sig. (2-tailed)		.003
	N	50	50
Total Involvement	Pearson Correlation	.410**	1
	Sig. (2-tailed)	.003	
	N	50	50

**. Correlation is significant at the 0.01 level (2-tailed).

The correlation coefficient between Workplace Design & employee involvement for females is calculated to be 0.410.

Its signifies positive correlation.

TABLE- correlating coefficient - part A & part B for Gen Z

Correlations- [Millennials1]

Descriptive Statistics			
	Mean	Std. Deviation	N
Total Workplace Design	42.52	4.473	50
Total Involvement	43.64	5.848	50

Correlations			
		Total_Workplace	Total Involvement
Total_Workplace	Pearson Correlation	1	.512**
	Sig. (2-tailed)		.000
	N	50	50
Total Involvement	Pearson Correlation	.512**	1
	Sig. (2-tailed)	.000	
	N	50	50
**. Correlation is significant at the 0.01 level (2-tailed).			

The correlation coefficient between Workplace Design & employee involvement for millennials is calculated to be 0.512.

Its signifies strong positive correlation.

Correlations- [Gen Z]

Descriptive Statistics			
	Mean	Std. Deviation	N
Total_Workplace	40.16	5.600	50
Total Involvement	41.78	6.393	50

Correlations			
		Total_Workplace	Total Involvement
Total_Workplace	Pearson Correlation	1	.476
	Sig. (2-tailed)		.000
	N	50	50
Total Involvement	Pearson Correlation	.476**	1
	Sig. (2-tailed)	.000	
	N	50	50
**. Correlation is significant at the 0.01 level (2-tailed).			

The correlation coefficient between Workplace Design & employee involvement for Gen Z is calculated to be 0.476. Its signifies positive correlation.

6. RESULT

Details of statistical analysis of data acquired by employees of both generations make up the bulk of this study. After using the Z-test and the T-test, many results were observed. A total of eight hypotheses are tested in the experiment.

H01-   No significance impact on workplace design on employee involvement for Gen Z & Millennials.

z-Test: Two Sample for Means

z-Test: Two Sample for Means		
	Millennials	Gen Z
Mean	42.52	40.16
Known Variance	20.01	31.36
Observations	50	50
Hypothesized Mean Difference	0	
z	2.328317607	
P(Z<=z) one-tail	0.009947623	
z Critical one-tail	1.644853627	
P(Z<=z) two-tail	0.019895245	
z Critical two-tail	1.959963985	

As, Z critical > Z statistical. therefore Null Hypothesis is Rejected

H02 - No significance impact on workplace design on employee involvement for Males & Females

z-Test: Two Sample for Means

z-Test: Two Sample for Means		

	MALE	FEMALE
Mean	41.52	41.16
Known Variance	29.03	25.12
Observations	50	50
Hypothesized Mean Difference	0	
z	0.345930036	
P(Z<=z) one-tail	0.364697647	
z Critical one-tail	1.644853627	
P(Z<=z) two-tail	0.729395295	
z Critical two-tail	1.959963985	

As, Z critical > Z statistical . therefore Null Hypothesis is Rejected

H03-   No significance impact on workplace design on employee involvement for Gen Z males and Gen Z females.

t-Test: Two-Sample Assuming Unequal Variances		
	a	b
Mean	42.8	40.24
Variance	29.16666667	26.69
Observations	25	25
Hypothesized Mean Difference	0	
df	48	
t Stat	1.712665156	
P(T<=t) one-tail	0.046613905	
t Critical one-tail	1.677224196	
P(T<=t) two-tail	0.093227809	
t Critical two-tail	2.010634758	

As, T critical > T statistical . therefore Null Hypothesis is Rejected.

H04-   No significance impact on workplace design on employee involvement on Generation Z males and Millennial males.

t-Test: Two-Sample Assuming Unequal Variances		
	a	c
Mean	42.8	42.24
Variance	29.16666667	11.52333333
Observations	25	25
Hypothesized Mean Difference	0	
df	40	
t Stat	0.438949124	
P(T<=t) one-tail	0.331530214	
t Critical one-tail	1.683851013	
P(T<=t) two-tail	0.663060429	
t Critical two-tail	2.02107539	

As, T critical > T statistical . therefore Null Hypothesis is Rejected.

H05- No significance impact on workplace design on employee involvement on Millennials female and genZ male.

t-Test: Two-Sample Assuming Unequal Variances		
	a	d
Mean	42.8	40.08

Variance	29.16666667	37.32666667
Observations	25	25
Hypothesized Mean Difference	0	
df	47	
t Stat	1.667822606	
P(T<=t) one-tail	0.051000594	
t Critical one-tail	1.677926722	
P(T<=t) two-tail	0.102001189	
t Critical two-tail	2.011740514	

As, T critical > T statistical . therefore Null Hypothesis is Rejected.

H06 - No significance difference in perception related to workplace design between Gen Z female & Millennials Male.

t-Test: Two-Sample Assuming Unequal Variances		
	b	c
Mean	40.24	42.24
Variance	26.69	11.52333333
Observations	25	25
Hypothesized Mean Difference	0	
df	41	
t Stat	-1.617679711	
P(T<=t) one-tail	0.056700254	
t Critical one-tail	1.682878002	
P(T<=t) two-tail	0.113400509	
t Critical two-tail	2.01954097	

As, T critical > T statistical . therefore Null Hypothesis is Rejected.

H07 - No significance difference in perception related to workplace design between Gen Z Female & Millennials Female.

t-Test: Two-Sample Assuming Unequal Variances		
	b	d
Mean	40.24	40.08
Variance	26.69	37.32666667
Observations	25	25
Hypothesized Mean Difference	0	
df	47	
t Stat	0.099986982	
P(T<=t) one-tail	0.460389973	
t Critical one-tail	1.677926722	
P(T<=t) two-tail	0.920779946	
t Critical two-tail	2.011740514	

As, T critical > T statistical . therefore Null Hypothesis is Rejected.

H08 - No significance difference in perception related to workplace design between Millennials male and millennial female.

t-Test: Two-Sample Assuming Unequal Variances		
	c	d
Mean	42.24	40.08
Variance	11.52333333	37.32666667
Observations	25	25
Hypothesized Mean Difference	0	
df	38	
t Stat	1.545224095	
P(T<=t) one-tail	0.065290193	
t Critical one-tail	1.68595446	
P(T<=t) two-tail	0.130580385	
t Critical two-tail	2.024394164	

As, T critical > T statistical . therefore Null Hypothesis is Rejected.

7. DISCUSSIONS, CONCLUSION & IMPLICATION
7.1. DISCUSSION

Millennials' work-life balance and preferred work-style layouts should be considered while designing their workplace. Nevertheless, the primary goal of the design is to promote well-being. Adaptable approaches that improve the emotional, psychological, and social health of this age are fondly appreciated.

According to my findings on millennials' preferences in the workplace, any design that takes into account the generation's values and expectations might boost engagement among millennial workers. The most effective design tactics for millennial engagement include biophilic design, locations that show constant learning, an inclusive workplace culture, and facilities that promote unique experiences via flexible work-life integration.

7.2. CONCLUSION

Employees' perceptions of their own productivity at work are positively impacted by the physical architecture of their workplace, according to this research. Office employees in enclosed areas were more productive because they had greater privacy and fewer interruptions. Workers with open floor layouts, on the other hand, were more productive since they could easily gather informally. Enclosed shared offices were more prone to congestion and disruptions, even while working close together boosted interactions and information exchange. No matter the workplace design, employees were still negatively and positively impacted by perceived levels of internal noise and proximity to colleagues. There is sufficient evidence from these results to suggest that workplace design influences employee engagement for the better.

8. LIMITATIONS AND FUTURE RESEARCH

This study, like many others, has its limitations. One limitation of this study is that it relies on convenience sampling to collect data, which may lead to non-specific confounding issues that make the results less applicable to a broader population.

Second, just like in any study using conjoint analysis, the strength of the research results is heavily dependent on the design parameters used. Although this study took extensive measures to guarantee the finest choices were picked, other choices may have been just as crucial. The results of this poll will hopefully pave the way for future research on retention strategies for millennials and members of generation Z. Researchers should find out whether the characteristics that were essential in this study can be repeated in other studies since there is a lack of empirical research on the preferences of generation Z and millennials when it comes to workplace issues (Kowske et al., 2010). Participants in future research may potentially come from a variety of industries, countries, and areas. To further understand if these

findings have evolved over time, future research using companies with different baby boomer compositions than those in this study might provide more context and insights.

9. IMPLICATIONS
9.1. IMPLICATIONS FOR PRACTICE

This research uses conjoint methods to find out which job-related traits millennials are ready to compromise on. Using this data, businesses may provide millennials with a more personalized set of benefits that are relevant to their jobs. In the end, the company would be able to make the most of its resources by focusing on the aspects of the work that millennials value most, while cutting down on the aspects that they don't. The organization can save money on turnover costs, including separation pay and benefits, lost productivity, recruiting and training new employees, and more, by offering millennials job attributes that are more valuable to them. This will increase their satisfaction and, in the long run, their tenure with the organization. Additionally, a reduction in turnover may have a good effect on an organization's overall performance (Hancock et al., 2013; Hausknecht and Trevor, 2011).

Similarly, in terms of practical implications, it's safe to assume that the work-related qualities that encourage millennials to seek employment also impact their desire to remain with an organization. When looking for a new job, people will seek out information on firms that they think may provide the most desirable set of work-related elements. This study's results can help businesses gain an economic competitive edge by lowering recruitment costs and increasing the number of qualified millennials they hire. The study's findings also provide insights into how to improve the recruiting process. The results of this research may also be used to the field of leadership development. Leadership training programs may be supplemented or added to by companies to highlight the need of connecting with millennials on a personal level and working together to solve problems. The importance of strong connections between millennials and their managers may be enhanced via emotional intelligence training, which focuses on relationship-building abilities. According to this survey, millennials strongly value having a voice, and contributing to collaborative problem-solving is a great way to give them that opportunity. In the long run, this research may help improve practice, which benefits society at large. Recruitment and retention of skilled workers with the desired mix of work qualities will become more important for companies in light of the shrinking available workforce and organizations' reliance on millennials to fill most positions.

9.2. IMPLICATIONS FOR PRACTICE

In the long run, this research may help improve practice, which benefits society at large. Recruitment and retention of skilled workers with the desired mix of work qualities will become more important for companies in light of the shrinking available workforce and organizations' reliance on millennials to fill most positions.

Using a conjoint analysis, this research found that millennials are willing to accept concessions when it comes to job-related attributes. Companies may use this information to deliver millennials a tailored package of job-related perks. The business would ultimately be able to maximize its resources by catering to millennials' priorities and eliminating their dislikes. Organizations may cut expenses associated with employee turnover by providing millennials with job traits that are more desirable to them. This includes separation compensation and benefits, lost productivity, recruiting and training new workers, and more. Their happiness and, eventually, their longevity with the company, will be enhanced by this. Similarly, practically speaking, it's reasonable to suppose that millennials' motivation to seek employment is influenced by the same work-related attributes that make them want to stay with an organization. People who are in the market for a new job often research companies that they believe might provide the best benefits package.

CONFLICT OF INTERESTS

None.

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