

Factors Influencing The Genz Engineering Students' Training Needs And Employability Skills

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ABSTRACT

The wave of Baby Boomer retirements, coupled with pandemic-related hiring struggles, has created a talent gap for many employers across both public and private sectors. This comes at a time when five distinct cohort generations – Traditionalists, Baby Boomers, Gen X, Millennials, and Gen Z – are navigating the workplace for the first time in history.

This study investigated how to attract, hire, and retain a multigenerational GenZ workforce in 21st-century economy. Focusing on Gen Z STEM (Science, Technology, Engineering, Mathematics) students, researchers explored potential differences and similarities in learning styles, motivation, job satisfaction, and turnover intentions across generations (Baby Boomers, Gen X, Gen Y, and Gen Z). Gen Z's perceptions of learning and training with those of other generations Generational cohort theory, training theory, Kirkpatrick training model, and learning characteristics theory provided the theoretical foundation for the research.

The study surveyed over 126 engineering students and analyzed the data using SPSS software. Statistical techniques of factor analysis and multiple regression were used to compare Gen Z's perceptions of learning and training with those of other generations. Using Factor analysis, the study identifies that Digital learning, Project based learning, Flexible working, Organisational culture, Training, Skill development, Student Assessment and Examination are the key factors affecting learning and training. Multiple regression technique is used to identify which factor influenced more and identified that student assessment is directly proportional to flexible working, organisational culture and skill development, student assessment is indirectly proportional to project-based learning.

Keywords: Gen Z, Training, Skill development, Student assessment, Examination, Factor Analysis, Multiple regression

Introduction

Gen Z born between the mid-1990s and early 2010s is the digitally native generation, is rapidly entering the workforce and reshaping workplace dynamics. Their unique upbringing, steeped in technology and constant information access, has fostered distinct learning styles, work preferences, and expectations for development. Understanding these preferences is crucial for educators and employers who want to empower Gen Z to thrive.

This analysis delves into key findings about Gen Z, exploring their learning styles, work environment preferences, and desired approaches to training and development. While the focus is on digital and project-based learning, a collaborative and purpose-driven work culture, and continuous learning opportunities, it's important to acknowledge the limitations of this research. These findings may not represent the entirety of Gen Z, and further exploration is needed to capture the full spectrum of their diverse needs and aspirations. However, this analysis provides a valuable starting point for creating learning and work environments that resonate with Gen Z and unlock their full potential.

As Gen Z enters the workforce, it's crucial for managers to cultivate a work environment that fosters efficiency and inspires young employees to see their long-term future with the company. This shared vision fosters

mutual satisfaction, where collaboration thrives and everyone works towards a common goal: the company's success.

Literature review

Gen Z values speed and accuracy, but a study by Bencsik et al. (2016) suggests their overconfidence, communication styles, and low tolerance for criticism can lead to workplace conflict. An organization's culture, defined as the shared values and norms of its members, plays a crucial role in attracting and retaining Gen Z talent (Schein & Schein, 2017). Financial stability and professional success are important to Gen Z, but they reject the idea of sacrificing their personal lives for work. (Flippin, 2017).

The workforce is welcoming a new generation of employees: Generation Z. Born between 1996 and 2010, Gen Z is the first cohort to grow up entirely in the digital age, making them true digital natives (McNeil, 2018). A tidal wave of Gen Z graduates is poised to enter the workforce, filling a significant number of entry-level positions (Chillakuri & Mahanandia, 2018). Gen Z is quickly becoming the world's largest generation, surpassing millennials in population according to a Bloomberg article (Miller & Lu, 2018). Research by Gibbons (Gibbons, 2018) highlights Gen Z's entrepreneurial spirit. Employers who understand how to retain these future leaders will be at an advantage.

The digital industry faces a critical shift as Gen Z enters the workforce. Their unique experiences and tech-savvy nature demand a new approach to leadership and management (Leslie et al., 2021). While leadership remains crucial for success, the rapid pace of technological change necessitates a fresh perspective (Nguyen Ngoc et al., 2022). Understanding Gen Z's values, communication styles, and collaborative approaches is key to fostering a thriving work environment (Elayan, 2022). Gen Z brings a fresh set of experiences and viewpoints shaped by a constantly evolving digital landscape (Borg et al., 2020; Pınzaru et al., 2022). This necessitates a change from traditional leadership methods to foster a work environment that caters to their distinct needs.

Need for the study

Due to the lack of skill development, many engineering students are unable to receive the campus placements. This study was undertaken to understand how Gen Z learns, what motivates them to learn, how do they learn, which is the best way to train and teach them, how to assess their learning and skills, to understand their work preferences and culture preferences. This study bridges the gap between academia and industry.

Objectives of the study

1. To identify key factors that influence learning of Gen Z students
2. To find out which factor is more effective for training students
3. To find which is the best way to assess student training effectiveness

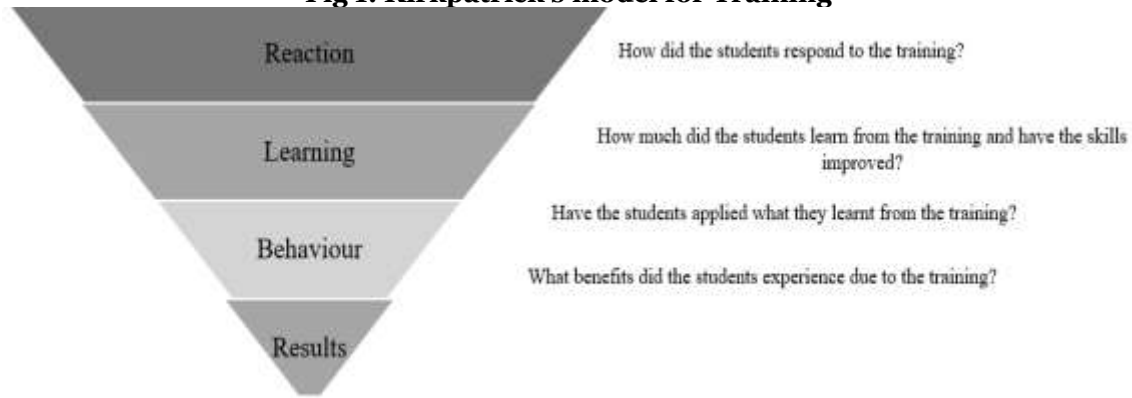
Hypotheses

- H1: There is a relationship between Digital learning and Student Assessment
- H2: There is a relationship between Project-based learning and Student Assessment
- H3: There is a relationship between Flexible working and Student Assessment
- H4: There is a relationship between Organization culture and Student Assessment
- H5: There is a relationship between Training and Student Assessment
- H6: There is a relationship between Skill development and Student Assessment
- H7: There is relationship between Digital learning and Examination
- H8: There is a relationship between Project-based learning and Examination
- H9: There is a relationship between Flexible working & Examination
- H10: There is a relationship between Organization culture & Examination
- H11: There is a relationship between Training and Examination
- H12: There is a relationship between Skill development and Examination

Assumptions

Like any study using secondary data, this research relies on assumptions about the original data's quality and the prior study's credibility (Bennett, 2018). In this case, I assumed the truthfulness of student responses, sufficient representation of Gen Z engineers, and participant honesty regarding their learning styles and career aspirations. Additionally, I assumed the questionnaire followed proper survey design with validated items and ensured student confidentiality.

Finally, I built upon the assumptions that the collected data would illuminate Gen Z's training needs and placement goals, and that the chosen survey items would offer insights into their job satisfaction, motivation, and potential turnover. The study adopted a theoretical framework encompassing generational cohort theory, Herzberg's two-factor theory, job characteristics theory, and Kirkpatrick's model. This framework was chosen to analyse how generational differences impact learning styles, training needs, and factors influencing job satisfaction, motivation, and employee retention.

Fig 1: Kirkpatrick's model for Training

Methodology of the study

After the survey closed, data from the questionnaires was exported to SPSS for analysis. To ensure data quality, incomplete responses were excluded.

To investigate the research hypothesis, a quantitative study using statistical methods was conducted. The researchers employed Judgemental sampling approach, targeting engineering graduates from their affiliated universities. The researchers invited graduates to participate via WhatsApp and Google forms utilizing university alumni databases. Participation was voluntary and contingent upon completing a questionnaire distributed after responding to the study announcement

Fig 2: Demographic Environment

Theme	Characteristics		Frequency
Age	18 years	20%	25
	19 years	20%	25
	20 years	20%	25
	21 years	40%	51
Gender	Male	80%	101
	Female	20%	25
Qualifications	B.Tech	100%	126

Table:1 Descriptive statistics

Descriptive Statistics			
	Mean	Std. Deviation	Analysis N
Digital learning 1	3.54	1.143	126
Digital learning 2	3.63	1.033	126
Digital learning 3	3.50	.919	126
Digital learning 4	3.52	1.026	126
Project based learning 1	3.26	.981	126
project based learning 2	3.29	.895	126
Project based learning 3	3.17	.964	126
Project based learning 4	3.40	.821	126
Flexible working 1	3.39	1.058	126
Flexible working 2	3.27	1.023	126
Flexible working 3	3.29	.962	126
Flexible working 4	3.33	1.026	126
Organisational culture 1	3.19	.969	126
Organisational culture 2	3.14	.836	126
Organisational culture 3	3.25	.826	126
Organisational culture 4	3.16	.933	126
Training 1	3.26	.981	126
Training 2	3.33	.820	126
Training 3	3.23	.859	126
Training 4`	3.15	.840	126
Skill development 1	3.32	.960	126
Skill development 2	3.20	.810	126
Skill development 3	3.24	.871	126
Skill development 4	3.29	.997	126
Student assessment 1	3.10	1.141	126
student assessment 2	3.26	.997	126

student assessment 3	3.17	.939	126
student assessment 4	3.31	1.084	126
Examination 1	3.20	.645	126
Examination 2	3.30	.610	126
Examination 3	3.26	.622	126
Examination 4	3.26	.622	126

Majority of the respondents have preferred online learning to classroom learning and the mean score is 3.63. Gen Z students highlighted that preference is low to be at work with a mean score of 3.14.

Table 2: Cronbach’s alpha

Cronbach’s alpha	Cronbach's Alpha if Item Deleted
Digital learning 1	.825
Digital learning 2	.822
Digital learning 3	.828
Digital learning 4	.825
Project based learning 1	.824
project based learning 2	.829
Project based learning 3	.826
Project based learning 4	.830
Flexible working 1	.814
Flexible working 2	.819
Flexible working 3	.819
Flexible working 4	.818
Organisational culture 1	.819
Organisational culture 2	.821
Organisational culture 3	.819
Organisational culture 4	.820
Training 1	.829
Training 2	.827
Training 3	.825
Training 4`	.828
Skill development 1	.822
Skill development 2	.818
Skill development 3	.819
Skill development 4	.817
Student assement1	.815
student assessment 2	.814
student assessment 3	.815
student assessment 4	.816
Examination 1	.823
Examination 2	.821
Examination 3	.821
Examination 4	.823

It is observed from Cronbach’s alpha, that reliability is available for all the items.

Table 3: Relativity Test - KMO and Bartlett's Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.747
Bartlett's Test of Sphericity	Approx. Chi-Square	1908.230
	df	276
	Sig.	.000

From KMO and Bartlett’s test, score greater than 0.747 is achieved, therefore the factor analysis test is accepted.

Table 4 - Communalities

Communalities	Initial	Extraction
Digital learning 1	1.000	.839
Digital learning 2	1.000	.854
Digital learning 3	1.000	.740
Digital learning 4	1.000	.723
Project based learning 1	1.000	.795

project based learning 2	1.000	.710
Project based learning 3	1.000	.730
Project based learning 4	1.000	.736
Flexible working 1	1.000	.857
Flexible working 2	1.000	.812
Flexible working 3	1.000	.790
Flexible working 4	1.000	.834
Organisational culture 1	1.000	.745
Organisational culture 2	1.000	.705
Organisational culture 3	1.000	.671
Organisational culture 4	1.000	.762
Training 1	1.000	.788
Training 2	1.000	.735
Training 3	1.000	.720
Training 4	1.000	.753
Skill development 1	1.000	.769
Skill development 2	1.000	.743
Skill development 3	1.000	.717
Skill development 4	1.000	.718
Extraction Method: Principal Component Analysis.		

Communalities values are varying from 0.6 to 0.9

Table 5: Variance

Total Variance Explained									
Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.244	17.682	17.682	4.244	17.682	17.682	3.329	13.873	13.873
2	3.571	14.880	32.562	3.571	14.880	32.562	3.136	13.068	26.940
3	3.198	13.326	45.888	3.198	13.326	45.888	3.013	12.556	39.496
4	2.834	11.808	57.696	2.834	11.808	57.696	2.959	12.331	51.827
5	2.538	10.574	68.270	2.538	10.574	68.270	2.907	12.113	63.940
6	1.859	7.747	76.018	1.859	7.747	76.018	2.899	12.078	76.018
7	.619	2.579	78.597						
8	.590	2.460	81.057						
9	.465	1.939	82.996						
10	.451	1.879	84.875						
11	.426	1.775	86.650						
12	.389	1.620	88.270						
13	.382	1.591	89.861						
14	.359	1.497	91.358						
15	.318	1.326	92.684						
16	.307	1.277	93.962						
17	.275	1.145	95.107						
18	.238	.992	96.099						
19	.226	.942	97.041						
20	.187	.779	97.821						
21	.183	.763	98.584						
22	.156	.648	99.232						
23	.099	.413	99.645						
24	.085	.355	100.000						
Extraction Method: Principal Component Analysis.									

Total Variance that has been observed is 76% which highlights model is fit.

Table 6: Rotated Component Matrix

Rotated Component Matrix ^a	Component					
	1	2	3	4	5	6
Flexible working 1	.897					
Flexible working 2	.891					
Flexible working 4	.886					
Flexible working 3	.861					
Digital learning 1		.909				
Digital learning 2		.908				
Digital learning 4		.839				
Digital learning 3		.838				
Project based learning 1			.869			
Project based learning 3			.852			
Project based learning 4			.847			
project based learning 2			.838			
Training 1				.879		
Training 2				.853		
Training 3				.830		
Training 4`				.829		
Organisational culture 4					.869	
Organisational culture 1					.847	
Organisational culture 2					.837	
Organisational culture 3					.798	
Skill development 1						.866
Skill development 2						.832
Skill development 3						.826
Skill development 4						.792
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.						
a. Rotation converged in 5 iterations.						

In terms of rotated component matrix values are varying between 0.7 to 0.9

Table 7 – Correlation Matrix: Correlation values vary from -1 to +1

		Correlation Matrix*																							
		Digital learning 1	Digital learning 2	Digital learning 3	Digital learning 4	Project based learning 1	project based learning 2	Project based learning 3	Project based learning 4	Flexible working 1	Flexible working 2	Flexible working 3	Flexible working 4	Organisational culture 1	Organisational culture 2	Organisational culture 3	Organisational culture 4	Training 1	Training 2	Training 3	Training 4`	Skill development 1	Skill development 2	Skill development 3	Skill development 4
Correlation	Digital learning 1	1.000	.869	.832	.866	.180	.024	.044	-.030	.090	-.002	-.032	.013	.116	.069	.095	.002	-.041	-.091	-.046	-.194	-.048	-.056	.055	.021
	Digital learning 2	.869	1.000	.853	.866	.144	.033	.050	-.009	.097	-.010	-.037	.032	.111	.090	.071	.095	-.100	-.116	-.038	-.193	-.017	.041	.153	.107
	Digital learning 3	.832	.853	1.000	.867	.004	-.102	-.117	-.080	-.095	-.136	-.181	-.123	.054	.010	.058	.019	.022	-.021	.076	-.036	-.183	-.091	-.100	.013
	Digital learning 4	.866	.866	.867	1.000	.040	-.053	-.003	-.041	.042	-.057	-.045	-.039	.182	.147	.170	.064	-.024	-.054	.019	-.063	-.021	-.009	-.040	.031
	Project based learning 1	.180	.144	.004	.040	1.000	.613	.679	.691	.240	.176	.039	.137	.174	.081	.088	.050	-.064	-.070	-.157	-.019	-.021	.025	.160	-.047
	project based learning 2	.024	.033	-.102	-.053	.613	1.000	.645	.620	.098	.000	-.033	-.018	-.028	.061	-.012	-.028	-.088	.051	-.109	.036	-.128	-.004	-.008	-.124
	Project based learning 3	.044	.050	-.117	-.003	.679	.645	1.000	.597	.153	.098	-.028	.104	.058	.018	.066	-.076	-.125	-.034	-.078	.066	.000	-.024	.064	-.020
	Project based learning 4	-.030	-.009	-.080	-.041	.691	.620	.597	1.000	.048	.002	-.127	-.053	.073	.032	.041	-.001	-.123	-.048	-.156	-.020	-.073	-.074	.065	-.146
	Flexible working 1	.090	.097	-.095	.042	.240	.098	.153	.048	1.000	.737	.699	.855	.052	.090	.173	.115	-.022	-.022	.024	-.175	.208	.217	.255	.323
	Flexible working 2	-.002	-.010	-.136	-.057	.176	.000	.098	.002	.737	1.000	.766	.723	.061	.114	.157	.164	-.047	-.089	.020	-.197	.132	.138	.152	.251
	Flexible working 3	-.032	-.037	-.181	-.045	.039	-.033	-.028	-.127	.699	.766	1.000	.699	.121	.128	.233	.136	-.038	-.041	.036	-.143	.195	.204	.166	.321
	Flexible working 4	.013	.032	-.123	-.039	.137	-.018	.104	-.053	.855	.723	.699	1.000	.058	.020	.112	.054	-.133	-.158	-.040	-.206	.211	.201	.253	.320
	Organisational culture 1	.116	.111	.054	.182	.174	-.028	.058	.073	.052	.061	.121	.058	1.000	.568	.630	.692	-.002	-.020	.033	.043	.072	.155	.088	.116
	Organisational culture 2	.069	.090	.010	.147	.081	.061	.018	.032	.090	.114	.128	.020	.568	1.000	.574	.668	-.085	.012	-.002	.015	-.097	.182	-.003	-.003
	Organisational culture 3	.095	.071	.058	.170	.088	-.012	.066	.041	.173	.157	.233	.112	.630	.574	1.000	.561	.019	.043	.066	.061	-.008	.130	-.015	.086
	Organisational culture 4	.002	.095	.019	.064	.050	-.028	-.076	-.001	.115	.164	.136	.054	.692	.668	.561	1.000	-.037	.035	.054	-.041	-.048	.138	-.017	.053
	Training 1	-.041	-.100	.022	-.024	-.064	-.088	-.125	-.123	-.022	-.047	-.038	-.133	-.002	-.085	.019	-.037	1.000	.686	.677	.651	.098	.156	.142	.133
	Training 2	-.091	-.116	-.021	-.054	-.070	.051	-.034	-.048	-.022	-.089	-.041	-.158	-.020	.012	.043	.035	.686	1.000	.583	.647	.037	.141	.101	.104
	Training 3	-.046	-.038	.076	.019	-.157	-.109	-.078	-.156	.024	.020	.036	-.040	.033	-.002	.066	.054	.677	.583	1.000	.594	.114	.129	.161	.201
	Training 4`	-.194	-.193	-.036	-.063	-.019	.036	.066	-.020	-.175	-.197	-.143	-.206	.043	.015	.061	-.041	.651	.647	.594	1.000	.059	.203	.071	.061
	Skill development 1	-.048	-.017	-.163	-.021	-.021	-.128	.000	-.073	.208	.132	.195	.211	.072	-.097	-.008	-.048	.098	.037	.114	.059	1.000	.548	.607	.646
	Skill development 2	-.056	.041	-.091	-.009	.025	-.004	-.024	-.074	.217	.138	.204	.201	.155	.182	.130	.138	.156	.141	.129	.203	.648	1.000	.613	.611
	Skill development 3	.055	.153	-.100	-.040	.160	-.008	.064	.065	.255	.152	.166	.253	.088	-.003	-.015	-.017	.142	.101	.161	.071	.607	.613	1.000	.582
	Skill development 4	.021	.107	.013	.031	-.047	-.124	-.020	-.146	.323	.251	.321	.320	.116	-.003	.086	.053	.133	.104	.201	.061	.646	.611	.582	1.000

Table 8: Multiple Regression results

		Correlation Matrix ^a																							
		Digital learning 1	Digital learning 2	Digital learning 3	Digital learning 4	Project based learning 1	project based learning 2	Project based learning 3	Project based learning 4	Flexible working 1	Flexible working 2	Flexible working 3	Flexible working 4	Organisational culture 1	Organisational culture 2	Organisational culture 3	Organisational culture 4	Training 1	Training 2	Training 3	Training 4	Skill development 1	Skill development 2	Skill development 3	Skill development 4
Sig. (1-tailed)	Digital learning 1		.000	.000	.000	.022	.396	.310	.369	.159	.489	.360	.444	.098	.220	.144	.493	.323	.155	.304	.015	.297	.266	.271	.406
	Digital learning 2	.000		.000	.000	.053	.357	.290	.459	.140	.456	.341	.359	.107	.158	.215	.145	.132	.097	.338	.015	.426	.323	.044	.116
	Digital learning 3	.000	.000		.000	.480	.128	.095	.188	.146	.064	.021	.085	.274	.454	.260	.418	.403	.407	.199	.343	.034	.154	.133	.442
	Digital learning 4	.000	.000	.000		.330	.278	.487	.325	.320	.261	.308	.332	.021	.051	.029	.237	.395	.274	.418	.241	.406	.462	.328	.367
	Project based learning 1	.022	.053	.480	.330		.000	.000	.000	.003	.024	.333	.063	.026	.184	.165	.288	.240	.219	.039	.416	.408	.392	.036	.302
	project based learning 2	.396	.357	.128	.278	.000		.000	.000	.137	.499	.356	.422	.377	.248	.447	.380	.163	.286	.111	.343	.077	.483	.463	.083
	Project based learning 3	.310	.290	.095	.487	.000	.000		.000	.044	.138	.376	.124	.258	.419	.231	.200	.082	.354	.193	.231	.499	.384	.237	.410
	Project based learning 4	.369	.459	.188	.325	.000	.000	.000		.298	.490	.078	.277	.208	.363	.326	.496	.086	.299	.041	.414	.209	.207	.233	.051
	Flexible working 1	.159	.140	.146	.320	.003	.137	.044	.298		.000	.000	.000	.282	.157	.026	.099	.404	.405	.395	.025	.010	.007	.002	.000
	Flexible working 2	.489	.456	.064	.261	.024	.499	.138	.490	.000		.000	.000	.250	.103	.039	.033	.300	.161	.413	.014	.070	.062	.045	.002
	Flexible working 3	.360	.341	.021	.308	.333	.356	.376	.078	.000	.000		.000	.088	.077	.004	.064	.338	.326	.345	.055	.014	.011	.031	.000
	Flexible working 4	.444	.359	.085	.332	.063	.422	.124	.277	.000	.000	.000		.260	.412	.105	.273	.069	.038	.327	.010	.009	.012	.002	.000
	Organisational culture 1	.098	.107	.274	.021	.026	.377	.258	.208	.282	.250	.088	.260		.000	.000	.000	.489	.411	.355	.316	.211	.041	.164	.099
	Organisational culture 2	.220	.158	.454	.051	.184	.248	.419	.363	.157	.103	.077	.412	.000		.000	.000	.172	.448	.493	.435	.141	.021	.486	.488
	Organisational culture 3	.144	.215	.280	.029	.165	.447	.231	.326	.026	.039	.004	.105	.000	.000		.000	.418	.315	.231	.247	.462	.074	.432	.168
	Organisational culture 4	.493	.145	.418	.237	.288	.380	.200	.496	.099	.033	.064	.273	.000	.000	.000		.340	.349	.275	.324	.298	.062	.424	.279
	Training 1	.323	.132	.403	.395	.240	.163	.082	.086	.404	.300	.338	.069	.489	.172	.418	.340		.000	.000	.000	.138	.041	.057	.068
	Training 2	.155	.097	.407	.274	.219	.286	.354	.299	.405	.161	.326	.038	.411	.448	.315	.349	.000		.000	.000	.339	.058	.131	.122
	Training 3	.304	.338	.199	.418	.039	.111	.193	.041	.395	.413	.345	.327	.355	.493	.231	.275	.000	.000		.000	.101	.075	.036	.012
	Training 4	.015	.015	.343	.241	.416	.343	.231	.414	.025	.014	.055	.010	.316	.435	.247	.324	.000	.000	.000		.255	.011	.215	.247
	Skill development 1	.297	.426	.034	.406	.408	.077	.499	.209	.010	.070	.014	.009	.211	.141	.462	.298	.138	.339	.101	.255		.000	.000	.000
	Skill development 2	.266	.323	.154	.462	.392	.483	.394	.207	.007	.062	.011	.012	.041	.021	.074	.062	.041	.058	.075	.011	.000		.000	.000
	Skill development 3	.271	.044	.133	.328	.036	.463	.237	.233	.002	.045	.031	.002	.164	.486	.432	.424	.057	.131	.036	.215	.000	.000		.000
	Skill development 4	.406	.116	.442	.367	.302	.083	.410	.051	.000	.002	.000	.000	.099	.488	.168	.279	.068	.122	.012	.247	.000	.000	.000	

a. Determinant = 7.345E-008

1. Student Assessment: Dependent variable

Model Summary

Model	R	R Square	Adjusted Square	R	Std. Error of the Estimate
1	.568 ^a	.323	.288		.84353092

a. Predictors: (Constant), REGR factor score 6 for analysis 1, REGR factor score 5 for analysis 1, REGR factor score 4 for analysis 1, REGR factor score 3 for analysis 1, REGR factor score 2 for analysis 1, REGR factor score 1 for analysis 1

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	40.326	6	6.721	9.446	.000 ^b
	Residual	84.674	119	.712		
	Total	125.000	125			

a. Dependent Variable: REGR factor score 1 for analysis 2

b. Predictors: (Constant), REGR factor score 6 for analysis 1, REGR factor score 5 for analysis 1, REGR factor score 4 for analysis 1, REGR factor score 3 for analysis 1, REGR factor score 2 for analysis 1, REGR factor score 1 for analysis 1

Coefficients ^a								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	1.537E-16	.075		.000	1.000		
	Flexible working	.260	.075	.260	3.448	.001	1.000	1.000
	Digital learning	.099	.075	.099	1.318	.190	1.000	1.000
	Project based learning	-.169	.075	-.169	-2.241	.027	1.000	1.000
	Training	.074	.075	.074	.976	.331	1.000	1.000
	Organisational culture	.378	.075	.378	5.009	.000	1.000	1.000
	Skill development	.261	.075	.261	3.462	.001	1.000	1.000

a. Dependent Variable: REGR factor score 1 for analysis 2

2. Examination: Dependent variable

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.446 ^a	.199	.158	.91754271

a. Predictors: (Constant), REGR factor score 6 for analysis 1, REGR factor score 5 for analysis 1, REGR factor score 4 for analysis 1, REGR factor score 3 for analysis 1, REGR factor score 2 for analysis 1, REGR factor score 1 for analysis 1

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	24.816	6	4.136	4.913	.000 ^b
	Residual	100.184	119	.842		
	Total	125.000	125			

a. Dependent Variable: REGR factor score 2 for analysis 2

b. Predictors: (Constant), REGR factor score 6 for analysis 1, REGR factor score 5 for analysis 1, REGR factor score 4 for analysis 1, REGR factor score 3 for analysis 1, REGR factor score 2 for analysis 1, REGR factor score 1 for analysis 1

Coefficients ^a								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	3.729E-18	.082		.000	1.000		
	Flexible working	.279	.082	.279	3.405	.001	1.000	1.000
	Digital learning	.105	.082	.105	1.276	.204	1.000	1.000
	Project based learning	.220	.082	.220	2.675	.009	1.000	1.000
	Training	.051	.082	.051	.617	.538	1.000	1.000
	Organisational culture	.080	.082	.080	.972	.333	1.000	1.000
	Skill development	.229	.082	.229	2.788	.006	1.000	1.000

a. Dependent Variable: REGR factor score 2 for analysis 2

Multiple regression analysis:

Student Assessment - R Square highlights 32.3 where the significance level indicates the F square value is 9.4. The student assessment supports flexible learning with a significance of 0.001 with t value of 3.448. The student assessment is indirectly proportional to Project based learning with a significance of 0.027. Student assessment is directly proportional to organizational culture with a significance of 0.00 with t values of 5.009. Student assessment is directly proportional to skill development with a significance of 0.001 and t value of 3.462.

Examination– The R Square significance value is 19.9 with f value of 4.913. Flexible working is directly related to Examination. Project based learning is directly proportional to Examination with a significance value of 0.009 and t value of 2.675. Skill development is directly proportional to examination with a t value 2.78 and significance of 0.006.

Findings

The following are the key findings:

1. Digital Learning: Gen Z thrives in digital learning environments. They are comfortable with online resources, interactive platforms, and mobile learning. Traditional lectures may not hold their attention as well as engaging simulations, gamified learning experiences, and readily available online tutorials. However, Digital learning is not supported for Student assessment and examination

2. Project-Based Learning: Gen Z learns best by doing. Project-based learning, where they can apply their knowledge to solve real-world problems, resonates strongly with them. This approach cultivates essential skills for the modern workforce, including collaboration, critical thinking, and problem-solving. However, Project based learning is indirectly supported to the student assessment and it is supported to the examination.

3. Flexible Working: Gen Z values work-life balance and purpose in their careers. They seek flexible work arrangements and opportunities to contribute to a larger cause. They are attracted to companies with strong social responsibility initiatives and a focus on innovation. However, Flexible working is directly supported to the student assessment and examination

4. Organization Culture: Gen Z responds well to authentic and transparent leadership. They value open communication, feedback, and opportunities for growth. A collaborative and inclusive company culture where their voices are heard is crucial for attracting and retaining Gen Z talent. However, Organisational culture is supported for student assessment where as examination is not supported for organisational culture

5. Training: Gen Z seeks continuous learning and development opportunities. They are comfortable with online training modules, micro learning experiences, and mentorship programs. Training should be tailored to their specific needs and career aspirations, focusing on practical skills and on-going development. Training is not supported for Student assessment and examination

6. Skill Development: GenZ enter the workplace without critical soft skills, it can hinder effective communication, collaboration and relationship building. This often impacts engagement, productivity and performance, not only of GenZ but also their teams. However, Skill development is supported for student assessment and examination

7. Student Assessment: Traditional assessment methods may not fully capture Gen Z's strengths. Moving beyond standardized tests, incorporating project-based assessments, peer evaluations, and self-reflection allows for a more holistic evaluation of their skills and knowledge.

8. Examination: Facing a rapidly evolving job market, Gen Z students in higher education demand a diverse range of technology courses to be included in their curriculum. These courses will equip them with the skills needed to thrive in the workplace of tomorrow.

Understanding these preferences is key to creating a successful learning and work environment for Gen Z. By embracing digital learning, project-based approaches, and a focus on purpose and development, educators and employers can empower Gen Z to thrive in the digital age.

Limitations

While the paper highlights key findings about Gen Z's learning, working, and development preferences, it's important to consider some potential limitations of the research this summary might be based on:

Sample Bias: The study may have relied on a specific sample group, like engineering graduates or those recruited through university databases. This might not represent the broader Gen Z population, potentially overlooking the preferences of Gen Z from other educational backgrounds or geographical locations.

Generational Stereotypes: The summary avoids generalizations, but the research might have focused on pre-existing notions of Gen Z. It's important to acknowledge that Gen Z is a diverse group, and individual preferences within the generation can vary significantly.

Self-Reported Data: If the study relied on surveys or questionnaires, the findings may be influenced by self-reported information. Participants might not always be accurate in their responses about learning styles, work preferences, or motivations.

Limited Generalizability: The findings might be specific to the context of the study (e.g., a particular country or industry). It's important to be cautious about generalizing these findings to all Gen Z populations across different contexts.

By acknowledging these limitations, we can interpret the findings with a critical eye and recognize the need for further research to gain a more comprehensive understanding of Gen Z's diverse needs and preferences.

Conclusion

With their tech-savvy backgrounds and distinct communication, learning, and social preferences, Gen Z is transforming college campuses. Understanding their needs and expectations is crucial, as they will shape the future of higher education. This includes how technology and digitalization influence their leadership and management styles. Gen Z employees prefer less visionary and more practical leaders. Managers must strive to understand, find common ground with this generation, and value their ideas and opinions. Employers

should focus on providing professional development and mentoring opportunities to foster loyalty from Gen Z employees and provide immediate feedback through meaningful conversation and constant validation without unintentionally micromanaging them. Engagement thrives on impactful work. These generations seek rewarding, meaningful projects that challenge them. They also value a supportive leader who acts as a guide, provides feedback, and "has their back." Financial security (fair pay and benefits) is a baseline, but retention hinges on continuous learning opportunities and participation in projects with intrinsic value. Training equips students with the specific knowledge and skills they'll need to perform their jobs effectively. Development, on the other hand, focuses on broader growth, providing experiences that enhance their overall capabilities and prepare them for future challenges. A crucial responsibility lies in equipping students with both technological competence and computer literacy. This training should be distinct from job-specific skill development and can be integrated into the curriculum. It should cover the evolving landscape of hiring organizations and equip students with essential soft skills for success in the online world. Corporations can reap significant advantages from this approach, including time savings, improved brand image, and cost reductions.

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