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All papers are published in their original form

For Publisher:

Karolj Skala

Publisher:

Croatian Society for Information, Communication and
Electronic Technology – MIPRO
Office: Kružna 8/II, P. O. Box 303, HR-51001 Rijeka, Croatia
Phone/Fax: (+385) 51 423 984

Printed by:

GRAFIK, Rijeka

ISSN 1847-3946

STEAM Students and Their Expectations from Future Business Life: a Values-driven Workplace

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Abstract - **In the last few decades, the global economy has been witnessing a shift from manufacturing to a service economy. Affected by that structural transformation, the service component of products and goods is rising. Companies are highly in need of young talents who can provide high-quality service for their customers. While providing new services and experiences for their customers, employees raise their expectations and demand an encouraging place to work, better working conditions, equality, and engagement, thereby to get satisfaction and have a sense of meaning in everyday life. The world of technologies no longer allows organizations to neglect these employee's needs and requirements. People no longer come to work just because they have to, but because they want to make an impact and be useful while proceeding with personal development. This paper's purpose was to investigate the values and conditions that STEAM students expect in their workplaces in the future and identify the differences in regards to workplace demands that previous generations had sought.**

Keywords – workplace, value-driven workplace, service economy, STEAM students

I. INTRODUCTION

In the second half of the 20th century happened a shift from production to the service economy. This resulted in the appearance of highly skilled and highly paid producer service jobs in information systems, marketing, design, and finance. Together with globalization, the new opportunities and knowledge appeared. From working harder physically, people were getting to know how to work smarter [1]. When it comes to work conditions, in the early 1960s until the late 1970s employees were dealing with insecurity at work, frightened to be the least wanted generation, but they had realistic views about the economy and employment rates. As fast as the global economy was developing, they were ready to increase their expertise in technology, and were self-reliant, though, people did not expect lifetime employment. At that time, family and work started to be seen as separate institutions, and Generation X started to center their interest around their own homes and was less likely to advance and assume more responsibility in their jobs. That is why children born in 1981 – 1996 were surrounded not only by radical changes in the world economy and social norms and values but also by incredible support and care from their parents. Positive tolerance, feeling of having a common win, togetherness, open possibilities, best

education, and technological revolution – these are the few things among dozen of changes, which impacted life choices and behaviors of new generations. Many employers can agree, that this generation has many more challenges, hence many more opportunities to become better and learn on the mistakes their parents and grandparents did. They understand the importance of having a balance between family and work while getting success, acknowledgment, and respect. From this arise the fact, that the current working-age generation is striving for meaning rather than a technical simple job, for value rather than a high salary, for happiness rather than everyday struggle. These are the notions that were not seen and spoken before, hence we can see it as a progressive mindset of modern people that will bring to a better future [2].

For the first time in the history of evolution, 4 the most progressive generations are working side by side: baby boomers, generation X, millennials, and generation Z. Each generation has its values, and unique experiences, coming from their critical life stages and historical changes in the world. Today, from the young generation we can hear completely different terms when it comes to values. The most valuable things among youth are truth, openness, freedom of speech and thoughts, personal impact, and sustainability. Even though none of the present generations is homogenous and amenable to diversity and adjustment, but the environment, social and cultural melting points, and global events – this is what should take into account when looking for a meaning and better quality of self-being in work ethic, expectations, and behavior [2].

Together with Millennials and Generation Z appeared a notion of STEAM. Science, Technology, Engineering, the Arts, and Mathematics – today progress is based on these fields. These students invent, lead, connect others, make things happen, and create orders of chaos. They figure out what to do and how to look at things differently, without a rule book. They are not following the path of their parents, though raising the plank of the quality of life, happiness from what they are doing, and satisfaction in all aspects of life.

Until recent times, the main task of employers was to ease the entry of the youngest generation in the workforce and helping them to engage in work, while providing the same amount of attention and respect to older generations. However, the time has changed, and the 21st century is a time for young and innovative generations, that show what

they are capable of while creating a happier life at home and work [3].

II. CHANGES IN WORKPLACE: TRANSFORMATIONS AND EXPECTATIONS

While a new generation is entering employment, companies are acting to attract and retain this new talent pool. The 'values revolution' was created and driven by the Millennials generation while others refer to a clash of values between different age groups. Business leaders are increasingly required to take these issues into account and develop tailored ways to encourage behaviors from each age group [4].

The main changes include, as Ester Perel highlighted:

- *the rise of expectations* - never before have young people expected so much from their career or their partner. They want flexibility, they want their workplace to be attentive to the wellbeing and jobs to help them find a sense of meaning and purpose;

- *people now bring emotional capital into the workplace* - people are encouraging emotions at the workplace. Authenticity, trust, belonging, transparency, and psychological safety are common workplace discussions[5];

- *balance of short term instead of long-term sustainability* - companies must carefully balance the short term, such as quarterly profits, versus long-term sustainability as a successful company. This requires recognizing the value of work that each person contributes and devising a fair, and sometimes creative, compensation plan. To have proactive rather than reactive behavior is the ethical thing to do [5].

That is why younger people have attributes to bring and expectations to be fulfilled, that affect the development of workplace relationships with team and organizational members from other generations [6]. This generation is not motivated by feelings of duty-working hard is not virtuous in itself, but it is worth it if they are singled out and recognized. They appreciate directness rather than an abstraction. They do not have automatic respect for authority and will feel free to make suggestions if they think it will improve things When it comes to wages, managers must balance issues of compensation equity, employee morale, motivation, and profits—all of which may have legal, ethical, and business elements [7].

Today young employees are very flexible and used to dealing with diversity. If you need someone to meet clients who are from a different culture or background, a young person-even if he or she is not from the same background-will adapt to this situation well. Young people today often have colleagues from different backgrounds and have a desire to work in multicultural and diverse companies. The knowledge of languages became one of the significant features of young generations. This became a huge benefit for both sides, and organizations broadened the horizons of communication and made new international connections. On the other hand, young employees may need some guidance on how to deal with older people. They may come off as disrespectful when they are merely being friendly and informal. Some young employees might need to be taught to "clean up" when talking to older folks, using "Mr." and "Mrs." and speaking more formally. Today's young employees also appreciate flexible schedules and independence. They don't respond well to micromanagement and will find rigid schedules stifling [8].

III. STEAM STUDENTS AND IMPACT OF THE 'UNEXPECTED' ON JOB-RELATED VALUES

One of the reasons, why Millennials and Generation Z are valuable workers during any circumstances is because most of them are STEAM students and postgraduates. These students invent, lead, connect others, make things happen, and create orders of chaos. They figure out what to do and how to look at things differently, without a rule book. They want to love their work and make the best out of it. In today's world, these young people are the ones who get the best jobs and the most freedom.

For years, employers were creating engagement structures without any differentiation between generations. As the millennial generation of STEAM students grows in the workforce and baby boomers retire, managers and human resources professionals will need to develop new, more ethical, and socially conscious, managing models.

Both the private and public sectors report that 21st-century workers require skills that many of today's graduates don't have. Students need more in-depth knowledge of math and science, plus the ability to integrate and apply that knowledge to solve the challenges facing our nation. Children who study STEM also develop a variety of skills that are essential for success: critical thinking and problem solving, creativity and innovation, communication, collaboration, and entrepreneurship [9].

However, by the rapid technological and social revolution, young people were lacking something, that will involve creativity. As a creative economy became one of the leading in the western part of the world, Millennials were more and more interested in this sector. Adding Art to the notion of STEM was a revolutionary act. It offered learners and their teachers another way for meaning-making, problem-solving and expressing understanding. With STEAM, students naturally see the endless possibilities and intersection points as they choose – even create – their career paths. That is one of the main distinctions between the older and younger generation – creativity and universality.

It is a democratization of thinking and an unstoppable flow of ideas that will bring any organization a huge development. The STEAM student learns to be a critical and creative thinker and to communicate well in person, on the page, and on the screen. They build cultural understanding so that they can make sense of the increasingly interrelated world, and act upon it in imaginative ways. And these skills and knowledge will help Millennials succeed at jobs in business, education, the not-for-profit sector, or government, that may not yet

exist [10]. The late Steve Jobs famously said, "It is in Apple's DNA that technology alone is not enough—it's technology married with liberal arts, married with the humanities, that yields us the results that make our heart sing" [11].

The modern world makes us understand that we live in an ever-changing, increasingly complex times and our citizens must possess the knowledge and skills to solve problems while creating more meaning and rise a plank of good life possibilities and values. Too many are falling for false Internet narratives and social media conspiracy theories daily. STEAM is the gateway way to 21st-century skills like critical thinking, communication, creativity, collaboration, and a better future. Students are mobile and willing to take new opportunities, regardless of the situation. Promoting accessibility and openness during a difficult time will prevent them from job hunting on the extra downtime they have. Innovative decisions are magnified in times like these, and their comfort with technology allows them to interview quickly — something prospective employers could take advantage of [12].

IV. THE RESEARCH METHODOLOGY

A. Purpose of the Research

The main purpose of research conducted among Algebra University College students was to investigate the values and conditions that STEAM students expect in their workplaces in the future and identify the differences in regards to workplace demands that previous generations had sought.

The main research objective was: *What values and conditions STEAM students expect in their workplaces in the future?*

To get a detailed insight the following sub-questions were defined:
1. *Are STEAM students already employed and in which type of organization, if so?*
2. *Which conditions STEAM students expect in their workplaces?*
3. *Which values STEAM students expect in their workplaces?*

B. The Research Population Sample

The research was conducted among the Algebra University College students during the winter semester of the academic year 2019/2020.

The total population sample was 83 participants (N=83) out of a total of 1393 students enrolled at the Algebra University College in the academic year 2019/2020 (almost 6 %). A sample of participants was pertinent. 47% (39) were females, and 53% (44) were males. Among 83 surveyed there are 32 (38,6%) full-time students, and 51 (61,4%) of part-time students. The majority of the participants (73%) were undergraduate students, which is 61 student, and 22 (26%) students of

them are graduate students. Participants were students from 7 different STEAM study programs: 17 students of Software engineering, 6 students of System engineering, 6 students of Multimedia Computing, 13 of Data Science, 7 of Digital marketing, and 34 of Visual communications design. The structure of all surveyed according to the study programs is shown in Table 1.

TABLE 1. THE STRUCTURE OF THE PARTICIPANTS BY STUDY PROGRAMS IN PERCENTAGE, N=83.

Study Program	Percentage of Students per Study Program
Data Science	16 %
Design & Communications Management	5 %
Digital Marketing	8 %
Multimedia Computing	2 %
Software Engineering	20 %
System Engineering	8 %
Visual Communication Design	41 %

As the research paper mainly stresses the difference in generations, it was important to research the age of the participants. The division was between 3 groups. 6 participants were born between the years 1971-1979, 36 were born between 1982 and 1996, and 41 were born between the years 1997-2001. The structure of all surveyed according to the age group is shown in Table 2.

TABLE 2. THE STRUCTURE OF THE PARTICIPANTS BY AGE GROUP, N=83.

Age group	Participants in percentages
Generation X (1971-1979)	7.2 %
Millennials (1982-1996)	43.4 %
Generation Z (1997-2001)	49.4 %

C. The Research Methods

An anonymous voluntary survey was conducted through a specially designed questionnaire in the Google Forms tool. The questionnaire had 11 questions, of which 4 were related to demographics. For 4 questions answers were defined with the 5 degrees of frequency according to the Likert scale. 2 questions had 8 statements related to the expectations of the participants of conditions and values from the workplace.

A quantitative method was used for the analysis of the research results. The data processing of the survey results was made through the Google Forms tool.

D. The Research Results

1. *Are STEAM students already employed and in which type of organization, if so?*

The research results have shown, that almost half of the surveyed students, 38 of them, are currently working for an employer. While 23 students currently are unemployed but were employed in the past. 12 participants have never had an occupation before, and 10 are working for themselves, which means they have their own business. All the data is shown in Table 3.

TABLE 3. THE STRUCTURE OF THE PARTICIPANTS BY THE EMPLOYMENT RATE, N=83

Employed at past	Students in percentages
Self-employed	12 %
Work for employer	45.8 %
Employed at past	27.7 %
Not been employed yet	14.5 %

When it comes to the place of employment, 33 participants are working in a private company, and 3 of them working in the trade sector. 3 participants are working for start-up companies, and 27 are not employed at all. All the data is shown in Table 4. below.

TABLE 4. THE STRUCTURE OF THE PARTICIPANTS BY THE PLACE OF EMPLOYMENT, N=83.

Place of employment	Students in percentages
Private company	40.2 %
Trade sector	4.9 %
Start-up companies	3.7 %
Not employed	32.9 %
State company / agency	8.5 %
Freelancer	6.1 %
None of the mentioned	3.7 %

One of the most important objectives of the research was to understand the level of satisfaction of the participants from their current workplace. 8 surveyed are completely satisfied with their work, and 28 students are satisfied. While 12 of the participants are neither satisfied nor unsatisfied, only 5 people are not satisfied. All the data can be seen in Table 5.

TABLE 5. THE STRUCTURE OF THE PARTICIPANTS BY THE LEVEL OF SATISFACTION FROM WORK. N=83.

Level of satisfaction with the place of employment	Students in percentages
Completely satisfied	9.8 %
Satisfied	34.1 %
Neither satisfied, neither unsatisfied	14.6 %

2. *Which conditions STEAM students expect in their workplaces?*

Participants were offered to choose from several conditions, that should be satisfied while people are working. One of the most important conditions appeared to be a fair salary (68 participants strongly agree), respect for employees (70 participants strongly agree), and no harassment at a workplace (69 participants strongly agreed). Which can highlight, that people these days are demanding at least safety and respect and good payment for their work. The structure that represents the student's degree of preferences in conditions according to the Likert frequency scale is presented in Table 6. The statements represented by letters in the table are as following:

A. *A fair salary*
B. *Respect for employer and employee*
C. *A workplace where there is no harassment and abuse*
D. *Safe working conditions*
E. *Transparency*
F. *Freedom to make decisions concerning my scope of work*
G. *Education and development (that we are provided with additional education)*
H. *The right to privacy (eg. without employee supervision if the information does not explicitly relate to the work we do).*

TABLE 6. DISTRIBUTION OF THE DEGREE OF PREFERENCES IN WORKPLACE CONDITIONS ACCORDING TO THE LIKERT FREQUENCY SCALE.

STATEMENT	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
A.	0 %	0 %	0 %	18 %	82 %
B.	1 %	0 %	0 %	15 %	84 %
C.	0 %	0 %	0 %	17 %	83 %
D.	0 %	0 %	2 %	24 %	74 %
E.	0 %	1 %	2 %	29 %	68 %
F.	0 %	0 %	12 %	45 %	43 %
G.	1 %	1 %	5 %	46 %	47 %
H.	1 %	0 %	5 %	33 %	61 %

3. *Which values STEAM students expect in their workplaces?*

According to the values chosen, the biggest amount of participants gave their preference to a sense of purpose at work (61 participants strongly agree), trust between employers and employees (53 participants strongly agree), emotional well-being (39 strongly agreed), respect for the customer (37 strongly agreed) and quality of service/ product of the company (56 strongly agreed). The

structure that represents the students' preferences in values according to the Likert frequency scale is presented in Table 7. The statements represented by letters are as following:

- A. *Personal fulfillment*
- B. *Ethical decision making*
- C. *Sense of purpose (that our work makes sense)*
- D. *Trust between employers and employees*
- E. *Loyalty to the employer*
- F. *Emotional well-being*
- G. *Respect for the customer*
- H. *Quality of service/product of the company*.

TABLE 7. DISTRIBUTION OF THE DEGREE OF PREFERENCES IN VALUES ACCORDING TO THE LIKERT FREQUENCY SCALE.

STATEMENT	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
A.	1 %	0 %	7 %	33 %	59 %
B.	0 %	2 %	5 %	41 %	52 %
C.	0 %	1 %	4 %	22 %	73 %
D.	0 %	1 %	4 %	31 %	64 %
E.	0 %	2 %	18 %	37 %	43 %
F.	1 %	2 %	10 %	40 %	47 %
G.	0 %	0 %	2 %	41 %	57 %
H.	0 %	0 %	4 %	29 %	67 %

As the final question, participants were offered to vote for their decision, whether they would like to change jobs if they were not satisfied with any of the conditions or values. As a result, 51 of the surveyed would fist negotiate with their employers, while 16 students would stay at the workplace if their limits are not disrupted. And only 13 students would change their workplace straightaway. Detailed data in Table 8.

TABLE 8. THE STRUCTURE OF THE PARTICIPANTS BY A PROPENSITY TO CHANGE THE WORKPLACE. N=83.

Change of workplace	Students in percentages
Would rather negotiate with their employers.	62.2 %
Would stay at the workplace, if their limits are not disrupted.	19.5 %
Would change their workplace straightaway.	15.9 %
Would adjust because of no interest in the change of workplace.	0 %
Would stay because they have no other choice.	2.4 %

E. Limitations and recommendations for future researches

It is important to emphasize the difficulties encountered during the research and ultimately its limiting elements; the method of distributing the survey was limited to sampling, In future research, it would be advisable to conduct a research an equal sample of students of each study field so that more relevant data can be acquired.

Also, it would be advisable to conduct longitudinal research when every surveyed student will be employed to check whether their workplaces have met their expectations or have their expectations changed.

V. CONCLUSION

As a conclusion of the researches, it is visible that a proactive young generation is willing to be treated better, be more productive while keeping the borders of equality and fair treatment. They appreciate sustainability and are against harassment. Their main objectives are to make a workplace their life because they find an acknowledgment in it.

A meaningful and value-driven workplace means having and building trustful, ethical relationships with the work provider, while being interested and passionate about the process so in the end to receive powerful feedback, thus, create a balance between work-home relations. It is a completely new curve in business ethics and economic development, powered by a massive shift to the service economy and globalization. STEAM students no longer wait until the possibility will arise - they create these possibilities. It is a powerful movement of modern society that cannot be mistreated by work provide and participants in the professional world.

By research methodology, we could analyze what are the perceptions and believes modern students have about the situation in the professional worlds of their fields of occupation. We were able to see that they are aware of the challenges and morals inequalities that are present these days at work, as well as they are aware of the possibility of choice and advantages of education and knowledge they get in schools and universities. It is proving, that to become a leader it is not enough just to be able to manage and give orders. People of the modern young generation clearly define borders of their sense of importance, value, and respect, while striving to provide and build a good quality, trustful and ethical products or services. It is a very important thing to notice for employers while identifying values and main goals before creating a company and building a sustainable surrounding for the workers.

To reach a high level of future well-being and balance in life STEAM students these days are learning from the experience of previous generations, from up-to-day world economical and environmental crisis, technological progress, and diverse globalization. Surrounded by a huge flow of information and innovations, young people become more adaptable, flexible, experienced, and smarter than any other generation. However, under such a great pressure of world challenges, today young people are willing to find more than a job and a high salary, they want to have a life-long goal and purpose.

The Millennial workforce is already mobile and with that can bring positives income to an organization during difficult times. Now is the time to capitalize on fresh thinking and new ideas and not inadvertently leave the door open for your best employees to leave. The main benefit of having the younger generation engaged in work is that only this generation combines in themselves all possible knowledge of the past and present, their open-

mindedness and wide overlook on hard cases, that can take any organization on the new level.

REFERENCES

[1] "Living and working in the new economy", OpenLearn, 2020. Available at: https://www.open.edu/openlearn/people-politics-law/politics-policy-people/sociology/living-and-working-the-new-economy/content-section-2.2, [accessed: 31.08.2020].

[2] M. A. Paludi, C.A. Paludi, E. DeSouza, "Praeger Handbook on Understanding and Preventing Workplace Discrimination", Praeger, 2011.

[3] R. Stuart, "Developing the Next Generation", CIPD Learning to Work, Research report, June 2015. Available at: https://www.cipd.co.uk/Images/developing-next-generation_tcm18-10268.pdf [accessed: 18.05.2020].

[4] "Business Ethics across Generations", Business Ethics Briefing, IBE, Issue 48, 2015. Available at: https://static1.squarespace.com/static/518dd156e4b0829608e93ca3/t/5aa1c9aa53450ad3c962e6b6/1520552363963/B48+Ethics+Across+Generations.pdf [accessed: 15.05.2020].

[5] T. Lechner, "Overview of Ester Perel lecture on Workplace Dynamics", Positive Minds International, 2019. Available at: https://positivemindsinternational.com/esther-perels-solved-organizational-relationships/, [accessed: 10.05.2020].

[6] K. K. Myers, K. Sadaghiani, "Millennials in the Workplace: A Communication Perspective on Millennials' Organizational Relationships and Performance", Journal of Business and Psychology, 2010. Available at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2868990/, [accessed: 18.05.2020].

[7] J. M. Twenge, "Generation Me: Why Today's Young Americans Are More Confident, Assertive, Entitled - and More Miserable Than Ever Before", Free Press, New York, 2006.

[8] E. Perel, "Relationship Dynamics in the Workplace", Esther Perel, 2020. Available at: https://estherperel.com/blog/letters-from-esther-4, [accessed: 10.05.2020].

[9] A. Jolly, "STEM vs. STEAM: Do the Arts Belong?", Education Week Teacher, 2014. Available at: https://www.edweek.org/tm/articles/2014/11/18/ctq-jolly-stem-vs-steam.html [accessed: 12.05.2020].

[10] The SHARE Team, "More Than a Trend: Crucial Ways in Which STEAM Shapes Student Thinking". Available at: https://blog.sharetolearn.com/leaders-link/steam-shapes-student-thinking/ [accessed: 12.05.2020].

[11] K. Kee, "From STEM to STEAM: The Future of the Liberal Arts", Faculty of Arts, Ottawa, 2016. Available at: https://arts.uottawa.ca/en/stem-steam-future-liberal-arts6, [accessed: 10.05.2020].

[12] C. Mackie, "STEM And Coronavirus: The Crisis Within The Crisis", Forbes, 2020. Available at: https://www.forbes.com/sites/calvinmackie/2020/04/21/stem-and-coronavirus-the-crisis-within-the-crisis/#19d689aee662 [accessed: 12.05.2020].