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Designing Generation Z Future Career in Challenging Times through Digital Marketing Education in Romania-Serbian Cross-Border Vision

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Abstract

Hardly employable categories in rural areas (young people without university degrees or a high school diploma), are enabled to start new jobs using IT technologies and market skills.

The objective of the study was to identify and create a pilot program in a cross-border Romanian-Serbian region by following the labour market needs. Nevertheless, the research underlines the importance of improving the quality of teaching and developing digital and marketing skills for youngsters by creating extracurricular programs in partnership. We applied

80 online surveys in two high schools Timis and Vrsac and conducted five semi-structured interviews with companies.

The main result of the research is an extracurricular program “Digital U” which was created in accordance with the needs identified. The program will provide employment opportunities in the rural area of the cross-border region Timis-Vrsac by setting up personalized activities to promote employment by the market trends, implementing vocational training in digital and marketing skills, raising awareness regarding the importance of soft skills (teamwork, self-esteem, critical thinking) for youngsters with ages of 16-24 years from vulnerable groups to stay in their birthplaces, establish their businesses, and have families there.

Keywords: employability capability, cross-border cooperation, digital marketing training, need analysis, extracurricular program.

JEL Classification: I23, I25, L26, J24, I230, I250.

1. Introduction

In the context of a pandemic that immobilized cultural institutions and forced the government apparatus as well as the entire society to digitalize, the new generation of students called "Generation Z - born between 1990 and 2010" (Seemiller and Grace, 2017; Popova, 2017) have high expectations in terms of regarding the redefinition and adaptation of the educational system to their needs. In 1968, George Land administered a creativity test to 1,600 five-year-olds and found that noncreative thinking is learned. The study revealed that children ages 5 years old have a 98% children genius level on the creative scale, which in time decreases to 2% when they reach 19 years old. The creativity process implies two types of mental operations: divergent thinking and convergent thinking. Divergent thinking generates creative ideas by exploring many possible solutions, while convergent thinking identifies a particular set of logical steps to arrive at one solution. 5-year-olds were better at seeing alternative uses for objects and using approaches to

solve the overall problem. As we get older and gain more experience using objects, we lose this functional fluidity, and instead become fixated on their "proper" use.

In this sense, students belonging to the Z Generation are motivated by commitment and creativity, to have the right to decide not to be influenced by teachers (Popova, 2017). From the studies of Northeastern University (2014), it emerges that the way of learning of this generation has certain peculiarities never seen in their predecessors:

- observation for learning due to the habit of YouTube tutorials for any type of activity undertaken;
- the strong desire for information accessibility at any time of the day on platforms with known and appreciated functionalities;
- practical achievement in understanding and adapting learned concepts to very different situations.

According to Černíková and Šnýdrová (2023), academic extracurricular activities that implies creativity have the highest positive impact on higher education enrollment and overall best academic outcomes. The same research note argues that disadvantaged children may be more likely to benefit from participating in this type of activity. In addition, Neely and Vaquera (2017) express the fact that all extracurricular activities positively impact children's level of self-esteem. For youngsters' creativity is a needed skill in the era where all the information can be access through different platforms. (Badea et al., 2013; Diaconescu et al., 2020) Now creativity is a must in digital marketing environment by using different platforms to access consumers (Brocato et al., 2015). There is evidence in the literature of including creativity tools in the marketing curricula (Diaconescu et al., 2019; Dickey & Lewis, 2010) and also developing interdisciplinary marketing programs. (Parker, 2014) Analyzing 320 job announcements posted in 2019 and 2020, Elhajjar (2023) found that there is a real need for jobs in digital marketing. The digital native consumers nowadays need to shop 24/7 online. (Prensky, 2001) The future of digital marketing is the neuromarketing technique where digital images probe deeper into consumer reactions,

emotions and preferences by accessing more of their brain activity. Using neuromarketing allows researchers and practitioners to provide reliable and valid measures for cognitive and affective responses of consumers during the consumption process (Wang et al., 2008) and allows for discovering real thoughts and emotions which cannot be determined via traditional research methodologies such as surveys, interviews, and focus groups. (Fortunato et al., 2014) Neuromarketing tools like EEG (electroencephalography), fMRI (functional magnetic resonance imaging), and eye-tracking record consumers' physiological and neurological responses for objective data about consumer reactions. (Wedel and Pieters, 2017).

The paper fulfills the gap in the literature on how to adapt the curricula of students to the current needs of the society and actual labor market. The are no studies performed regarding the labor competences of youngsters in the cross-border region. Vrsac and Timisoara are at a relatively small distance of only 60 km. Timisoara is a developed center at the border area, with a growing economy, low unemployment rate, significant educational and scientific structure, which attracts workforce from other regions of Romania. Vrsac as a region has the potential for industrial development, especially in IT, technology parks and so on, which provides employment opportunities for specific workforce types. On the other hand, a substantial number of people is commuting and working in major cities in the area at the same or greater distance from the region of Vrsac (Pancevo, Belgrade, Zrenjanin). There is a high level of youth unemployment in the region. But the increasing number of companies with high level of competitiveness at the cross border and the COVID-19 online working opportunities triggered the emergence of an impressive number of jobs in the digital marketing sphere.

The objective of the papers was to identify the needs of high school students from cross-border regions and create an extracurricular educational program DIGITAL U. These skills are extremely valuable in today’s changing environment and the eye-tracking experience will help them engage in an innovative learning environment, where the practical part is real, where they can really feel the equipment and are invited to work together as creatively as possible. The new

program will give students the confidence that they can attain whatever they set in their minds to do and will provide incentives for continuing their studies and working hard for a successful career. The added value of the pilot program is given by the investments in new neuromarketing equipment (Eye tracking, brain imaging Electroencephalography, with adequate software for market research) and used in identifying the best teaching methods for the new generation of students and in the vocational training for youngsters. The usage of this type of neuromarketing equipment with a double focus on advancing educational teaching and research in Eastern Europe represents the main added value of the project, with a high regional impact in the long term. The approach we plan to take refers to vocational training in IT and digital marketing for high school youngsters ages 16-24 years, who do not have the incentives or possibility to continue their studies and need to find a job to maintain themselves. The cross-border approach is needed because the high schools from Timis-Vrsac counties have youngsters with dropout problems and financial problems and need help to find a job. In the project, each partner organizes activities that complement the activities of the other partners.

2. Methodology

2.1. Sample size

The quantitative data was acquired using a Kano questionnaire survey in the cross-border Timis-Vrsac region and the qualitative data was gathered acquired by semi-structured interviews with companies. This work extended the research by Pop et al. (2022), by using the Kano methodology to identify the characteristics of the new extracurricular program.

Before starting the quantitative surveys, the project team talked with five different companies from Romania and Serbia working in the marketing & PR (three companies) and IT operations and development (two companies) fields. Three of the questioned firms are in the Western part of Romania (namely Timiș and Caraș-Severin County), one is in Bucharest (but has expressed the desire to hire young employees who can work for them online) and one is from Serbia (South

Banat district). When asked if they have job offers in their domain for youngsters without university studies, 80% of them responded positively and 20% considered this option. This openness towards hiring youngsters without a degree but with adequate skills was particularly encouraging for writing the project. Nevertheless, we were eager to understand if university studies were necessary for a career in their field or if knowledge and skills were more important. Four of the five company representatives have been sure that knowledge and skills are far more important than university studies, and one considered both as important. However, his idea was that "university studies can be overlooked if the knowledge and skills are quantifiable". Their responses matched the current trends in the European Union and confirmed the studies from Romania and Serbia regarding the importance of skills for future employment opportunities. Four of the five companies emphasized the importance of digital skills matched with teamwork and self-management skills. Relevant information about the training needs of the two technical partner high schools has been collected: one from Timișoara and one from Vrsac. In line with this reasoning, one questionnaire has been constructed. The platform used was Google Forms and each questionnaire was sent to be completed online by the target group between January 2023 and April 2023 (Youngsters questionnaire link: https://docs.google.com/forms/d/e/1FAIpQLScvLxLhduZHsuIEuRTtt8inmAlC61LFFWXwI3utPqyD72zaoQ/viewform). Each questionnaire had closed personal, specialized, and Kano-type (with a functional and a dysfunctional form) questions. From their answers, we could determine relevant information regarding their country, age interval, sex, domain expertise, desire for lifelong learning and specifically the extension of knowledge and skills in the research area through doctoral studies. In the case of pupils, 80 youngsters have completed the online questionnaire. From the offered feedback, we obtained important information regarding their age, sex, high school domain, specific desired skills, and digital marketing training needs.

2.1. **Student needs**

In the present study, 80 youngsters have been involved. Of the whole group, 60% were male and

40% female. Regarding the age limits, we did not have respondents younger than 14 or over 19 years, the majority being between 15 and 16 years (45%) or between 17 and 18 years of age (55%).

Because we were interested in assessing the domain the high school students have a background in, the third question of the questionnaire focused on this aspect. Thus, the social sciences and economics domain prevailed with 45% of responses, the IT domain totaled 43%, the engineering field only 11% and one answer checked the other field. The need analysis helps the project manager in the design stage of the activities to understand what basic knowledge the respondents start the training with. High school students who learn about economics and social sciences have had at least one marketing class. Digital marketing skills would be a great added value for their training. IT students, even if focused more on the computer coding part, have the basic knowledge to understand digital marketing and a certain curiosity for interconnected disciplines. Nevertheless, this outcome determines a split in activities for the two main domains. The IT students will probably need more specific website analytics skills, instead, the social sciences students will like more entrepreneurial skills to complete their high school training.

The fourth question starts the specific project-related inquiries. Pupils are asked if they like the idea of taking digital marketing training for beginners, which can enhance their opportunities for a better job after graduation. As shown in Figure 1, 88% responded positively, 11% were not sure but were not excluding it and only 1% responded negatively.

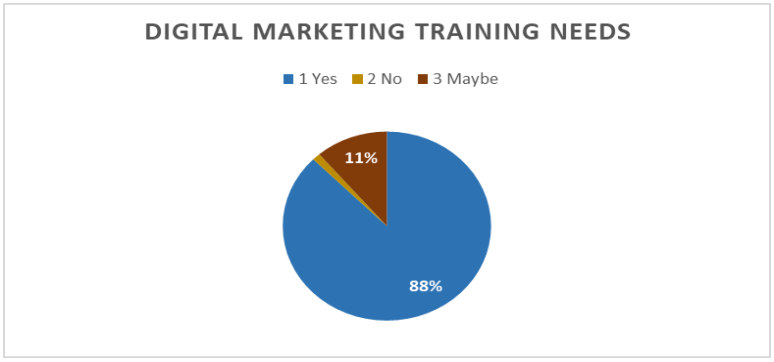

Figure 1. The student respondents' openness towards digital marketing training

When asked if they consider that the marketplace needs specialists in the digital marketing field, 84% responded affirmatively, 14% were not sure and only 2% did not agree with this statement. (**Figure 2**)

Figure 2. The respondents agreed upon the marketplace's need for digital marketing specialists

In the open question where the respondents were asked to write what they associate with the digital marketing field and what tools they think they will learn/develop in such training; we received a lot of different answers. Student needs and expectations are diverse. Some respondents probably from the IT field envisaged programming, web design, SEO, computer skills, online store creation, web traffic, internet ads, and social networks. But others (probably from the social sciences field) considered it useful to learn about market needs, customer communication, copywriting, Microsoft Office tools, product promotion, entrepreneurial information, teamwork, and critical thinking. Many specifically wrote that they expect to learn something new, useful, and amazing. Their answers motivate the project team to design innovative courses and practical new technology usage for these youngsters. Additionally, the need for new teaching methods arose. Students in this generation have different learning habits

and teachers should determine what kind of approach best suits them. In the following section, the main training needs have been assessed with Kano questions. **Table 1** will present the main results of the ten training needs we have proposed.

no.	Training needs student requirements	A	O	M	I	R	Q	Total	Kano category
1	Multicultural experience (visiting the neighboring region)	39	24	1	7	1	8	80	A
2	Workshops and experiments	19	26	10	14	5	6	80	O
3	SQL and Google Analytics	23	18	8	24	1	6	80	I-A
4	Adobe Illustrator online	17	24	6	25	2	6	80	I-O
5	Google/Facebook adds & Social media	13	27	11	19	2	8	80	O
6	WordPress, e-commerce & e-mail marketing	11	23	11	25	1	9	80	I-O
7	SAP (Systems Applications and Programs)	22	20	6	26	1	5	80	I-A
8	Bootcamp – additional information for career development	19	26	11	16	2	7	80	O
9	Jobs database platform & Bootcamp	18	21	8	26	0	7	80	I-O
10	Neuromarketing equipment use	17	21	6	24	4	8	80	I-O

Table 1. Training needs for youngsters

As we can see from **Table 1**, the multicultural experience is attractive for our young respondents, being a need covered by different trips to the neighboring country for learning and new experiences. They particularly expect workshops and experiments in their training through the project, as the second training need is O-one dimensional (expected, its performance triggers student satisfaction). Regarding the computer-based digital programs proposed like SQL, Google Analytics, Adobe Illustrator online, and SAP, the respondents are split into two groups: one that considers these programs A-attractive or O-one dimensional and the other group who is indifferent to learning them. Only Google/Facebook ads and social media are O-one dimensional

but with high I – Indifferent answers as well. The same counts for WordPress, e-commerce, and e-mail marketing training, which is I-indifferent for 25 of the respondents but O – one-dimensional for 23 of them. These results are somewhat expected due to the respondent's high school domains. The IT students are probably expecting computer-software training in the marketing domain, whereas the social sciences students prefer e-commerce, and emotional intelligence training (the boot camp with emotional intelligence and additional information for career development has been O- one dimensional for 26 respondents). Thus, the project should offer different courses and experiences for these two main groups and not force them to attend training that is not considered interesting or relevant for them. The job database platform and final boot camp as O-one dimensional for 21 of the students, A – attractive for 18 of them, whereas 26 are I – indifferent to it. This outcome is also due to not understanding the added value for their career of such a platform. The project should therefore communicate and determine awareness through university students for it. The use of neuromarketing equipment is expected by 21 of the students but indifferent for 24 of them. The young respondents expect something new but they probably do not understand what neuromarketing is all about and they are skeptical towards learning it. Again, an awareness campaign that focuses on explaining these particularities would probably determine a higher number of students being part of such an approach. Nevertheless, this result helps the project management team to design alternative courses and activities for both groups.

3. Results and Discussions

The research focuses on assessing the Z Generation's needs regarding digital marketing education. Regarding the youngsters, their openness towards digital marketing skills is particularly encouraging: 88% respond positively, 11% are not sure but are not excluding it and only 1% respond negatively. They considered as important to have the opportunity to receive formation in the digital marketing field: 84% of students argued that they see themselves

working in such a field because the marketplace needs specialists in the digital marketing field, 14% were not sure and only 2% did not agree with this statement. The students have stated the following needs in the digital marketing field: forming specialists in the digital marketing field and the need for soft skills.

At the open question where the respondents were asked to write with what they associate the digital marketing field and what tools they think they will learn/develop in such training; we received a lot of different answers. Student needs and expectations are diverse. Some respondents probably from the IT field envisaged programming, web design, SEO, computer skills, online store creation, web traffic, internet ads, and social networks. But others (probably from the social sciences field) considered it useful to learn about market needs, customer communication, copywriting, Microsoft Office tools, product promotion, entrepreneurial information, teamwork, and critical thinking. Many specifically wrote that they expect to learn something new, useful, and amazing. Thus, the need for digital and soft skills is essential for them. The KANO survey showed that experimental studies (learning to use eye tracking) and assessing the voice of the pupil were considered attractive. In times that undergo seismic changes in consumer behavior, it is important to introduce in high schools' extracurricular programs in digital marketing. In line with Rhom et al. (2019) the new program will be based on Experiential Learning, Project-Based Learning, Skill Development Transdisciplinary Agile Teamwork.

4. Conclusions

Our findings from this research led us to create the "Digital U program" focusing on:

- 2 digital courses of 30 h/each for 2 months: "Web application development and social media communication"- 30 h and "Computer application development"- 30 h;
- Innovative marketing course of 50 h by using Eye tracking equipment.

The face-to-face activities proposed in the pilot program will provide valuable insights into a real neuromarketing lab for the students. The investments in infrastructure and neuromarketing

equipment will be exploited during the four days for each group of 25 students. They will be able to see and touch the equipment, but the pick of their neuromarketing experience will be a small group project done in mixed teams of four or five students from both high schools. They will be guided to select a specific eye-tracking use based on their hobbies, passions, or interests and plan an experiment during the first day of the face-to-face activities. With the eye-tracking expert, they will go through a real experiment on themselves, and their colleagues and they will be presented with the way results can be analysed during the second and third days. On the last day, each team will finalize their results and present them in the neuromarketing classroom. They will be able to use classroom laptops during the four days (8 h/day) and will be provided with guidance during this time. At the end of the four days of face-to-face activities, the students will develop eye tracking, presentation, multicultural, and teamwork skills.

Ultimately, combining the current needs of the labor market with equipment research can help change the curricula of high school students, highlighting experimental learning.

The paper presents several limitations: one consists of a small database of students from Serbia and Romania. Another limitation was the access to companies to identify the necessary skills for the available jobs for students (we obtained only five interviewees).

In future research, we will focus in targeting at least three high schools from each country. Moreover, future studies should refer to the perception of teachers regarding the employability competencies students need and ways to adapt the current curricula to the labor market needs.

5. References

Badea, A., Prostean, G., Adam, A., and Giuca, O. (2013) Knowledge Management and Creative Thinking Framework Integrated in Training of Future Students. In European Conference on Knowledge Management (p. 825). Academic Conferences International Limited.

Bakracheva, M., Pavlov, D., Gudkov, A., Diaconescu, A., Kostov, A., Deneva, A., ... &

Blazheva, V. (2020). The Intergenerational Family Businesses as a Stress Management Instrument for Entrepreneurs Vol.

Brocato E. D., White N. J., Bartkus K., Brocato A. A. (2015). Social media and marketing education: A review of current practices in curriculum development. *Journal of Marketing Education*, 37, pp. 76-87.

Černíková, I., & Šnýdrová, I. (2023). Motivation for Online Education of Members of Gen Z Based on their Gender. Lifelong Learning.

Dickey I. J., Lewis W. F. (2010). The evolution (revolution) of social media and social networking as a necessary topic in the marketing curriculum: A case for integrating social media into marketing classes. In Management and Marketing Faculty Publications (Paper 32).

Diaconescu, A., Tamasila, M., Prostean, G., (2019) Adding a Blue Ocean in Higher Education: Collaboration through IT Technologies as Part of the Engineering Skills Set, Proceedings of the 33rd International Business Information Management Association Conference, IBIMA 2019: Education Excellence and Innovation Management through Vision 2020, pp. 9162-9173.

Diaconescu A., Prostean G., Atanasescu D., Reisz A., (2020) Engaging creative thinking techniques to support students in higher education RMEE 2020, 17-19 septembrie Review of Management and Economic Engineering 7th International Management Conference" Management Challenges Within Globalization" September 2020, Cluj-Napoca, Romania

Elhajjar., S. (2023). The current and future state of the marketing management profession. *Journal of Marketing Theory and Practice* 0:0, pp 1-18.

Fortunato, V. C. R., Giraldi, J. D. M. E., & De Oliveira, J. H. C. (2014). A review of studies on neuromarketing: Practical results, techniques, contributions, and limitations. *Journal of Management Research*, 6(2), 2014.

Neely S.R. and Vaquera E.(2017) Making It Count: Breadth and Intensity of Extracurricular Engagement and High School Dropout, Sociological perspectives

Seemiller, C., & Grace, M. (2017). Generation Z: Educating and Engaging the Next Generation of Students. About Campus: Enriching the Student Learning Experience, 22, pp. 21 - 26.

Parker B. J. (2014). Innovating the marketing curriculum: Establishing an academic major in Internet marketing. Atlantic Marketing Journal, 3(2), Article 13.

Pop, M.-D.; Pugna, A.P.; Cretu, V.-I.; Potra, S.A. Two Years of Hybrid Education in Romania: A Comparative Overview of the Students' Expectations for the Online Educational Platforms. Sustainability 2022, 14, 14241

Popova, S. (2017). Teaching Generation Z: Methodological Problems and Their Possible Solutions. Training, Language and Culture, Vol. 1, No. 4, pp. 28–46.

Prensky M. (2001). Digital natives, digital immigrants Part 1. On the Horizon, 9(5), 1-6.

Rohm, A. J., Stefl, M., & Saint Clair, J. (2019). Time for a Marketing Curriculum Overhaul: Developing a Digital-First Approach. Journal of Marketing Education, 41(1), pp. 47-59.

Wang, Y.J., and Minor, M.S (2008). Validity, Reliability, and Applicability of psychophysiological techniques in marketing research, Psychology & Marketing, 25 (2), pp. 197-232.

Wedel, M., & Pieters, R. (2017). A review of eye-tracking research in marketing. Review of marketing research, pp. 123-147.