

STAFF EDUCATION SYSTEM FOR AGRIBUSINESS – CASE STUDY POZNAŃ UNIVERSITY OF LIFE SCIENCES, POLAND

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Abstract

The problem of adjusting the existing education system to the needs of the changing labor market concerns agriculture more and more. As a part of modern agribusiness, it must not only meet the requirements of the food processing and distribution cells, but also the conditions of growing competition of agriculture of other countries from the EU and beyond. The article presents the functioning of the personnel education system for agriculture in Poland as well as the results of opinion polls of students completing the first-cycle university degree. The aim of the study was to show students' expectations of ideal professional work and perception of agribusiness as a workplace. On the basis of the conducted research five top-rated (TOP 5) characteristics of ideal work after completing education at university and five least-important ones were determined. According to the respondents, ideal work should: (i) be in accordance with interests, (ii) give a sense of pride in performing duties, (iii) ensure respect among customers and other employees in the company, (iv) guarantee a high salary and (v) have a friendly working atmosphere. At the opposite pole there were issues related to irregular work time, its mobility and fast and high rate. Analyzing the students' opinion on the subject of working in agribusiness, it was found that for 3/5 of the respondents it would be an interesting stage of a professional career, for half it would be a very good place for permanent work. The readiness to start own business after the university education was declared by as much as 34.0% of students

Keywords: *agriculture, education system, work in agribusiness, students choices and attitudes*

JEL classification: *A22, A23, D83, I25, Q13*

1 Introduction

The problem of adjusting the current education system to the demands of the changing labour market also concerns universities which educate agribusiness employees. Individual sections of agribusiness compete for qualified employees whose work will ensure clients' maximum satisfaction. There is a growing demand for qualified staff due to the rising competition among the producers operating on the domestic, European and other markets (Klepacki, 2014). While searching for competent personnel, agribusiness entities and universities alike must consider a significant social factor which has an influence on the quality of students' perception and the accessibility of workers afterwards (Kozera-Kowalska & Uglis, 2017a). This particular factor is the fact of Generation Y entering the labour market. Potentially, the employees from this group are mostly young people, born after 1980, growing up in the market economy conditions, in the times when modern technologies were rapidly developing. For the Ys, the digital world is not only an obvious source of information, but also a way of spending time and building social relationships (Stachowska, 2012). In contrast to their predecessors, they are less fitted into the reality of the physical sphere of economic processes, but they are inclined to support their work with knowledge, which directly results in the increasing innovativeness of the sectors where they find employment. Their functioning on the labour market reflects the unavoidability of the socio-economic changes taking place not only in agribusiness, but in the whole economy (Rynkiewicz, 2014). It has become a challenge for universities responsible for the education of high quality employees, also for agribusiness (Orczykowska, 2006, Ciechanowska, 2014).

The author focused on the first-cycle university studies graduates. The aim of the analysis was to present opinions concerning ideal work environment, as well as to define the expectations from such work, especially the perception of agribusiness as the target employment sector. The qualifications that are required and the awareness of the labour market reality are important aspects of educating potential workers' (at the university level) and preparing employees for agribusiness. Therefore, when discussing the obtained results, the author also considered the characteristics of Generation Y entering the market with skills different from

those possessed by their predecessors, but also with expectations concerning, among other things, the comfort, atmosphere and difficulties of the future work.

2 Data and methods

In order to achieve the aim, the author prepared and conducted a survey, using an auditorium questionnaire. The advantages of such a questionnaire include the possibility of controlling the measurement and maintaining anonymity at the same time, an uncomplicated organization of the study, relatively low cost and a high response rate. Considering the object of study, while devising the survey, the author adapted a questionnaire used by Bednarska (2014) for a study concerning the HoReCa sector. A large part of the survey consisted of questions regarding the features of ideal work after completing the first cycle of university education. In another part of the questionnaire, the respondents were asked about work in agribusiness and their plans to start their own business activity after graduation. The evaluation concerned the total of 29 features of ideal work and 6 questions regarding work in agribusiness. They were evaluated using the 7-point scale (1 – strongly disagree, 4 – undecided, 7 – strongly agree), which made it possible to increase the accuracy of difference measurement in the evaluation of the features. The survey was conducted in 2017 and 2018 among animal science (zootechnics) students before their diploma exam, closing the first-cycle of studies.

The collected source materials underwent statistical analysis, using the Statistica 13.1 program. The Kruskal-Wallis test and the Mann-Whitney U test were used to assess the homogeneity of the distribution of the studied variables. While, the V Cramer coefficient was used to determine the strength of the relationship between the variables.

3 Results and Discussion

The study included 94 animal science (zootechnics) students from the Poznań University of Life Sciences (PULS), in regarded by the Polish Accreditation Committee as the best in Poland. The study sample made up 70% of the statistical population. The participation in the study was free and anonymous. The majority of respondents (final year BA students) were female. The respondents were aged 22-23, which made them members of Generation Y, consisting of people born in 1980-1990 (Zagórska, 2012). Their attitude to life had been strongly influenced by globalization, which softens the borders between countries, makes it possible to internationalize enterprises, as well as leads to the filtering and merging of cultures. The factors which improve Generation Y's skills, and partly also increase

their expectations from the future work include computerization, the Internet and access to global information resources (Kachniewska & Para, 2014). It was assumed that these processes had an influence on the decisions taken by the graduates participating in the study, which is confirmed by some descriptions of this population. It turned out, for example, that over half of the respondents had some working experience – they purposefully combined education with work. Nevertheless, the remaining 44% opted for gaining knowledge and skills in accordance with the studied subject, without working during studies (table 1).

Table 1 Sample structure

Specification	Category	(%)
Sex	women	76.6
	men	23.4
Work experience – total length of service	none	44.7
	up to 12 months	33.0
	over 12 months	22.3
Readiness to start own business activity after finishing studies	yes	34.0
	no	66.0

Source: Author's research results.

Many authors point out that the educational process during university studies should prepare students to demonstrating enterprising initiative by starting their own business activity. It is also assumed that higher education encourages people to take the risk of running a private business, especially after finishing studies (Jelonek, 2011, Piróg, 2013, Kozera-Kowalska & Uglis, 2017b). Although research showed that 34% of the respondents were planning to start their own economic activity, a part of them do not do it after passing the diploma exam but take up the second cycle university studies. These results correspond to the general description of Generation Y, particularly as regards the life-work balance, the career target and the sense of freedom, the latter being the key feature of the generation (Smolbik-Jęczmień, 2013). Taking the above into account, it seems interesting to analyse the respondents' expectations as regards ideal work (table 2). A detailed analysis of the results showed a considerable diversification of ratings with reference to individual features, which was indicated by the calculated changeability coefficients.

Table 2 Perception of the image of ideal work

No	Specification	Ideal work	
		Average	Standard deviation
X ₁	Work according to interests	6.65	0.67
X ₂	Work which is challenging	5.76	1.18
X ₃	Gives an opportunity to fully use the acquired knowledge and skills	6.30	1.07
X ₄	Ensures a considerable diversity of tasks	6.18	1.05
X ₅	Gives an opportunity to decide how you wish to perform your duties	5.99	1.21
X ₆	Involves a large number and fast pace of performing duties	5.11	1.33
X ₇	Involves flexible working hours	3.72	2.19
X ₈	Involves mobility	3.72	2.05
X ₉	Easy access by transport	5.89	1.45
X ₁₀	Is done in an attractive destination	5.19	1.82
X ₁₁	Guarantees high remuneration	6.37	0.98
X ₁₂	Offers a wide range of social benefits	5.69	1.48
X ₁₃	Provides modern equipment necessary to perform work duties	5.95	1.16
X ₁₄	Offers stable employment conditions	6.34	1.13
X ₁₅	Gives the employee the possibility to influence the decisions important for the company	5.52	1.43
X ₁₆	Ensures a clearly set career / promotion path	6.06	1.19
X ₁₇	Gives the possibility to raise qualifications	6.31	1.01
X ₁₈	Provides the possibility of long-term professional development at a given company	6.02	1.24
X ₁₉	Guarantees learning skills useful at other workplaces	5.98	1.18
X ₂₀	Allows the employee to combine work duties with private life	5.79	1.59
X ₂₁	Friendly atmosphere at the place of work	6.35	1.05
X ₂₂	Ensures respectful treatment by clients and co-workers	6.45	0.96
X ₂₃	Gives a sense of support from co-workers	6.17	1.20
X ₂₄	It is performed together with competent co-workers	6.16	1.20
X ₂₅	Gives a sense of belonging and integration with the team	6.10	1.23
X ₂₆	Involves offering high quality products/services	5.93	1.42
X ₂₇	Enjoys considerable social prestige	5.65	1.34

No	Specification	Ideal work	
		Average	Standard deviation
X ₂₈	Gives a sense of pride with performing work duties	6.56	0.78
X ₂₉	Work is done at an enterprise which serves the local community	4.68	1.69

Source: Author's research results.

Based on the research, five highest rated (TOP 5) and five least significant features of ideal work for a university graduate were established. In the researchers' opinion, ideal work should display the following features:

1. conformity with one's interests (6.7),
2. giving a sense of pride with the duties one performs (6.6),
3. ensuring the respects of clients and other workers in the company (6.4),
4. guaranteeing high remuneration (6.4),
5. creating friendly atmosphere at the workplace (6.4).

At the other end, there are issues related to the flexible time of work (3.7), its mobility (3.7), as well as its fast pace (5.1). The other less important features of ideal work included the attractiveness of the location (5.2) and the company's acting for the benefit of the local community (4.7). All the selected features, both prohibitive and negative, coincide with the Generation Y's expectations, observed in other studies (Irlbeck & Akers, 2009, Briers, et al. 2010, Chou, 2012).

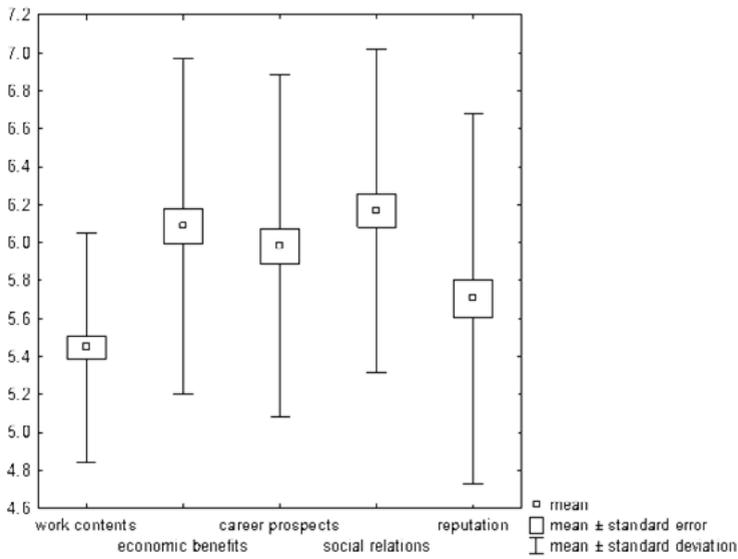
Due to the construction of the research (its repeatability in subsequent years), the ratings can be compared to the earlier ones. It was found out that depending on the year in which the study was conducted, the TOP 5 list changed. The first two features (work according to interests and work giving a sense of pride with the duties) had not changed their ranking position. However, the order of the next features differed: for the respondents from 2018, features like guaranteeing high remuneration, friendly atmosphere and the possibility to make full use of the acquired knowledge and skills, play a much more important role than for those from 2017. It also turns out that in the case of the least desired features, the ranking did not change. In order to define the differences in the ranking of all 29 features, the Mann-Whitney U test was additionally run (the year of research, respondents' sex, place of residence). The researchers confirmed a statistically significant diversification of responses ($p < 0.05$), with reference to the year of study, for four features: X₂, X₁₃, X₁₉, and X₂₆. The place of residence variable turned out to be significant in the case of three features: X₁₆, X₁₈ and X₂₀. However, there was no significant diversification with respect to the respondents' sex ($p > 0.05$).

In order to highlight the features of ideal work, they were grouped into five categories:

- work contents (X_1 - X_{10}),
- economic benefits (X_{11} - X_{14}),
- career prospects (X_{15} - X_{19}),
- social relations (X_{20} - X_{25}),
- reputation (X_{26} - X_{29}).

The results for the categories listed above are presented in Figure 1, the analysis of which points to the diversification of expectations with respect to individual aspects, as it was confirmed with the Kruskal-Wallis test, with $H = 55.77$ and $p = 0.000$, confirming a statistically significant diversification of opinions among the respondents.

Figure 1 Expectations from an ideal workplace



Source: Author's calculations.

Undoubtedly, the most desired attributes of future work they indicated included: positive social relations, economic benefits and possibilities of professional self-development. These opinions correspond to the Generation Y profile – when the relations are good, the respondents take up work willingly, when bad – they quit; they change work when they consider its conditions to be unsatisfactory; they follow their own career plan which does not always comply with the

traditional model; they are their own bosses and create their own professional reality (Pikuła, 2016). The possibility to observe the development of one's own career was the object of further studies.

The main research interests included issues referring to the evaluation of the possibilities to develop one's professional career in agribusiness. As it was stressed by Uglis and Kozera-Kowalska (2016), the animal science (zootechnics) course provides specialists for enterprises representing an economic sector with a narrow but varied scope of activity. Zootechnical entities include companies specialized in supplying animal raw materials (e.g. milk, meat) and means of agricultural production which provide services, as well as companies providing specialist counselling and educational activity. The awareness of the diversity of the potential employment sector seems to have had an impact on the study results. The students participating in the study agreed with the statement that work in agribusiness would be an interesting stage in their professional career. In the opinion of half of the respondents, the agribusiness sector would be perfect for permanent, long-term employment. However, only every fourth respondent planned to connect their career with agribusiness permanently (table 3).

Table 3 **The attractiveness of work in the agribusiness sector**

Specification	Average	Standard deviation
I think work in agribusiness would be an interesting stage in my professional career	4.86	1.49
I think that connecting my professional career permanently with agribusiness is an interesting option	4.36	1.75
I want to permanently connect my professional career with agribusiness	3.36	1.91
I often speak positively about agribusiness as work environment	4.19	1.80
I think that I will have no problems finding work outside agribusiness, on similar or better conditions	4.70	1.47
I am going to take up the job of a business representative in agribusiness	2.62	1.74

Source: Author's research results.

The last issue approached in the study was the declaration of readiness to start one's own economic activity after graduating. The analyses that were conducted showed that 34.0% of the respondents declared an intention to start their own business. At the same time, positive attitudes to entrepreneurship were declared

by 31.9% of female and 40.9% of male respondents. However, the chi square test did not indicate a statistically significant impact of the respondents' sex on their readiness to start individual economic activity. On the other hand, the researchers found a relationship between the willingness to start own economic activity and work experience. V Cramer's coefficient calculated for this purpose (0.273) indicates a positive relationship of medium intensity. The regularity is also confirmed in other authors' studies (Kunasz, 2008, 2013).

4 Conclusions

The research that was conducted fits into the discussion on taking up work by university graduates and the standard of education systems, as well as the demand for specialized employees in the economic sector. The research also concerned the problem of entering the labour market by representatives of Generation Y, whose system of values and the way they perceive gainful work differs considerably from those represented by the previous generation. Moreover, deliberations were directed towards the complex system of agribusiness. In this broad context, the author analysed the awareness of the labour market reality and the perception of work by the graduates of the first cycle university studies, specialized in the very narrow sector of animal sciences.

The research results seems to be optimistic, as regards verifying the educational activity conducted by the PULS and satisfying the demand of the agribusiness labour market, especially the companies that employ animal science specialists. It turns out that working in this sector is not only described as interesting, but it may also become the area of starting own economic activity for nearly 1/3 of the respondents. Such opinions are expressed by the respondents, regardless of their experience and sex. This is consistent with the Generation Y's profile, represented by the respondents. As regards the model of ideal work, they stress the conformity of work and interests (and expertise), the sense of pride with performing one's duties, and the possibility to gain respect among friends and clients. It is also important that despite the passing time (repeatability of research in time), the respondents do not significantly modify their opinions. The features they mention correspond with such features of Generation Y, such as predilection for the freedom of decision, independence and individually shaping one's own career path.

Although the study results presented herein are fragmentary, because they regard the graduates of only one university course, they still give an idea of the respondents' situation, attitudes to and interest in their future professional work. In conclusion, we may say that specialist university education prepares future

employers who not only represent a high level of knowledge, but are also fully aware of the labour market reality, which bodes well for the future of the economy.

References

1. BEDNARSKA, M. (2014). Kariera zawodowa w hotelarstwie w opinii studentów - implikacje dla współpracy praktyki gospodarczej z systemem edukacji. *Studia Oeconomica Posnaniensia*, vol. 2, no. 1(262), p. 152-167.
2. BRIERS, G. E., SHINN, G. S., NGUYEN, A. N. (2010). Through Students' Eyes: Perceptions and Aspirations of College of Agriculture and Life Science Students Regarding International Educational Experiences. *Journal of International Agricultural and Extension Education*, Volume 17, Number 2, p. 5-20
3. CHOU, S. Y. (2012). Millennials in the Workplace: A Conceptual Analysis of Millennials' Leadership and Followership Styles, *International Journal of Human Resource Studies*, Vol. 2, No 2, p. 71-83.
4. CIECHANOWSKA, D. (2014). Akademickie kształcenie pokolenia Y w perspektywie zmian w dydaktyce szkoły wyższej, Retrieved from <https://depot.ceon.pl/bitstream/handle/123456789/5895/9%20art.pdf?sequence=1>.
5. IRLBECK, E., AKERS, C. (2009). Employers' perceptions of recent agricultural communications graduates' workplace habits and communication skills. *Journal of Agricultural Education*, vol. 50, no. 4, p. 63-71.
6. JELONEK, M. (2011). Studenci-przyszłe kadry polskiej gospodarki. Raport z badań studentów i analizy kierunków kształcenia realizowanych w 2010 r. w ramach projektu „Bilans Kapitału Ludzkiego”. Warszawa: Wydawnictwo PARP.
7. KACHNIEWSKA, M., PARA, A. (2014). Pokolenie Y na turystycznym rynku pracy: fakty, mity i wyzwania. *Rozprawy Naukowe Akademii Wychowania Fizycznego we Wrocławiu*, 45, p. 153-166.
8. KLEPACKI, B. (2014). Zmiany - ich nieuchronność oraz konsekwencje społeczno-gospodarcze. *Problemy Drobnych Gospodarstw Rolnych* Nr 4, p. 25-34.
9. KOZERA-KOWALSKA, M., UGLIS, J. (2017a). Differentiation of employment in agriculture - case study the Visegrad Group countries. In P. Jedlička, P. Marešová & I. Soukal (Eds.), *Hradec Economic Days*, vol. 7(1) (pp. 469-477), *Double-blind peer reviewed proceedings of the International Scientific Conference Hradec Economic Days*, Hradec Králové: University of Hradec Kralove.
10. KOZERA-KOWALSKA, M., UGLIS, J. (2017b). Postrzeganie kariery zawodowej w agrobiznesie przez studentów Uniwersytetu Przyrodniczego w Poz-

naniu – studium przypadku. *Roczniki Naukowe SERiA*, tom XIX, zeszyt 3, p. 143-149. doi: 10.5604/01.3001.0010.3237

11. KUNASZ, M. (2008). Zachowania przedsiębiorcze studentów w świetle badań ankietowych. *Gospodarka Narodowa*, (3), p. 65-86.
12. KUNASZ, M. (2014). Analiza determinant wyboru momentu rozpoczęcia własnej działalności gospodarczej. *Management and Business Administration. Central Europe*, 22(2), p. 65-79.
13. ORCZYKOWSKA, A. (2006): Szkolnictwo wyższe a wymagania rynku pracy. *Nauka i Szkolnictwo Wyższe*, nr 2/28, p. 49-64.
14. PIKUŁA, R. (2016). Milenialsi idą do pracy. Czy jest się czego bać? Retrieved from: <http://biznes.onet.pl/wiadomosci/kraj/milenialsi-ida-do-pracy-czy-jest-sie-czego-bac/hswvd9>
15. PIRÓG, D. (2013): Absolwenci szkół wyższych na rynku pracy w warunkach kryzysu. *Przedsiębiorczość – Edukacja*, Nr 9/2013, p. 302-316.
16. RYMKIEWICZ, D. (2014). Rola pokolenia Y w tworzeniu innowacji otwartych. *Education of Economists & Managers/Edukacja Ekonomistów i Menedżerów*, 34(4).
17. SMOLBIK-JĘCZMIENIŃ, A. (2013). Rozwój Kariery Zawodowej Wśród Przedstawicieli Pokolenia X I Y – Nowe Wyzwania. *MODERN MANAGEMENT REVIEW*, vol. XVIII, 20 (4/2013), p. 191-202.
18. STACHOWSKA, S. (2012). Oczekiwania przedstawicieli pokolenia Y wobec pracy i pracodawcy. *Zarządzanie zasobami ludzkimi*, 2, p. 33-56.
19. UGLIS, J., KOZERA-KOWALSKA, M. (2016). Kariera zawodowa w agrobiznesie w opinii studentów Uniwersytetu Przyrodniczego w Poznaniu - przyczynek do badań. In R.G. Nowicki, J. Kosmaczewska & M. Barczak (Eds.), *Przedsiębiorczość na obszarach wiejskich - koncepcje, realizacje, kierunki rozwoju* (pp. 107-120). Bydgoszcz: Wydawnictwo Uczelniane Wyższej Szkoły Gospodarki.
20. ZAGÓROWSKA, A. (2012). Konflikt generacyjny wokół pracy. In A. Zagórska (Ed.) *Perspektywy młodzieży. Młodzież w perspektywie. Region – Polska – Europa – Świat, Część I: Młodzież a edukacja i rynek pracy*. Opole: Wydawnictwo Politechnika Opolska.