

Contents lists available at [ScienceDirect](https://www.sciencedirect.com)

The International Journal of Management Education

journal homepage: www.elsevier.com/locate/ijme

Food sustainability perception at universities: Education and demographic features effects

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ARTICLE INFO

Keywords:

Generation Y

Clusters

Scientific vs. socio-economic education

Sustainability

ABSTRACT

The 2030 Agenda of the United Nations merged in 17 goals the strong need to change the pattern of human life on the planet in a path of strengthening sustainability especially in an era that is widely defined as Anthropocene. The Global Action Program (GAP) on Education and Sustainable Development was adopted based on the power of education and knowledge with the idea of 'green universities' aimed at improving the perception of sustainability for future policy decisions. Based on a Best-Worst (BW) scaling methodological approach, in this study we quantified the preferences of generation Y at University of Turin as they relate to issues explicitly connected to the ordinary consumption of food and the relationship between this and the perception of a sustainable approach.

Data show that sustainability definitions belonging to the environmental and policy dimensions were the most closely related to the sustainability concept by the students interviewed while the economic and socio-cultural spheres were the least appreciated. In relation to food issues, students generally don't attribute high value to the assessment of local production. Few but significant differences were found in some specific topics between male and female groups with women perceiving sustainability consistently linked to the concept of local/territory and to the protection of the environment.

1. Introduction

In modern society, the academic education plays a relevant role as it contributes significantly to the higher education of students who will be the policy and strategic decision makers of the future (Yuan et al., 2013). Furthermore, from Universities come citizens who should be appropriately aware of sustainability issues, in whatever field they have developed skills (Lewis, 2014). Brundtland in 1987 (WCED, 1987) had already highlighted the need for a pragmatism shift by emphasizing the need to change the development model of society towards a greater sustainable approach. From then, on sustainable development has matured an extremely diverse vision, often misleading, which has caused an abuse of terminology with a substantial departure from the original theme (Elliott, 2012). With this approach, it is increasingly evident the need to change the paradigm especially in an era that is called Anthropocene precisely to highlight the weight of the human footprint on a development model that is no longer acceptable (Peano et al., 2019).

The 2030 Agenda of the United Nations merged in 17 goals the strong need to change the pattern of human life on the planet in a

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<https://doi.org/10.1016/j.ijme.2022.100653>

Received 8 November 2021; Received in revised form 1 April 2022; Accepted 1 May 2022

Available online 11 May 2022

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path of strengthening sustainability. These sustainable development goals (SDGs), in fact, have been identified precisely to bring the theme of sustainability in a dimension coherent with the needs of the planet and fully respecting of natural resources and critical issues that have emerged in the last century. It is, ultimately, a collaborative plan through a common action and starts from the awareness of what needs to be done (Ki-Mon, 2015; Adams, 2016).

In this context, the concept of sustainability has also spread widely within universities around the world (Ávila et al., 2017) with the aim of improving both the internal choices of the structures and the contribution to the political choices of the different territories. All this has occurred through the creation of specific academic courses as well as through specialization paths aimed at the dissemination of skills directly related to the different issues that revolve around sustainable development (Dagiliūtė et al., 2018).

There are several public interventions that have found their way into international initiatives that have used sustainability and the role of universities as a tool for analysis. At the beginning of this century, the Decade of Education for Sustainable Development was established by UNESCO, which determined, in the years 2005–2014, a series of initiatives aimed at asking governments to integrate sustainability principles into their educational systems.

This resulted in the Global Action Program (GAP) on Education and Sustainable Development and consequently the Aichi-Nagoya Declaration on Education for Sustainable Development (<https://www.unesco.emb-japan.go.jp/pdf/Aichi-Nagoya-Declaration.pdf>) was adopted based on the power of education and knowledge to develop in students a systemic and analytical awareness adequate to address the global challenges of sustainability also from the perspective of the Agenda 2030 Goals (Corridoni et al., 2014).

With this awareness, the idea of ‘green universities’ is developed in many parts of the world (Wang et al., 2013) with the aim of improving the perception of sustainability within the structures and of developing more conscious skills towards for future policy decisions. The UNESCO GAP has intended to strengthen a network policy among these universities in order to enable and facilitate the exchange of experiences and knowledge for a greater spread of awareness on the process of strengthening sustainable development models. Green universities develop, therefore, differentiated protocols contextualized to the needs of the territory and the specific sensitivities of administrators and faculty working closely with the student community (Ragazzi & Ghidini, 2017).

Starting in July 2015 in Italy, the Network of Universities for Sustainable Development was born, which is a first attempt at coordination among Italian universities that have decided to commit to sustainability issues in order to spread a culture of good practices, both internally and externally, taking into strong consideration the 17 SDGs (Sonetti et al., 2020).

The Italian network has developed activities on several themes. First of all, the creation of a permanent observatory on the state of sustainability of universities to monitor environmental, social, and economic performance in order to develop best practices aimed at achieving the SDGs. This approach has been developed through training actions on sustainable development issues for staff, with initiatives to raise awareness and dissemination and with the activation of relationships between different institutions, both public and private. The approach to sustainability naturally passes through multiple aspects. Sustainable mobility, the dynamics linked to green resources, carbon credits, but also everything connected with actions aimed at mitigating the waste of natural resources and promoting circular economy policies. In this broader context, food-related issues also become extraordinarily relevant, given the role that food production and consumption patterns play in terms of environmental, social and economic sustainability, contribution to climate change and preservation of natural resources (Springmann et al., 2018).

In the University of Turin, more recently, an internal network of faculty and stakeholders for the development and strengthening of environmental sustainability policies has emerged, which has taken its steps through an extended community that has worked to build a Regional Strategy for Sustainable Development in Piedmont’s universities. This approach represents a way to intensify relations between university and civil society, while respecting the evolution of scientific and technological knowledge. Within the University of Turin, the network operates through working groups that deal with specific issues. Food issue is one of these working groups, not only in terms of internal consumption through the university catering but also in terms of approach to the issues of sustainable production and consumption as related to the SDG #12 of Agenda 2030.

With these pathways, students can become noteworthy stakeholders who can significantly demonstrate sustainability impact for all aspects that can be studied. Generation Y (age 18–31) refers to a large segment of society composed of young people who play a decisive role as stakeholders in everyday choices with significant economic repercussions (Waters, 2006). This is a generation that is extremely computer-prone and tech-savvy and, therefore, very demanding in terms of speed of reaction to the world around them (Lago et al., 2020; Neuborne & Kerwin, 1999, pp. 46–50).

In this logical trait, it seemed interesting, within the University of Turin, to analyze the level of perception reached by a part of this generation divided by different age, year of study and background related to different paths of study. The conceptual framework incorporated information related to perception in relation to aspects of environmental, social, and economic sustainability, with particular reference to aspects concerning the link between food and the territory of origin.

With this research carried out at university facilities, we proceeded to quantify the preferences of students understood as consumers (numerical index of priority) on a qualitative concept (definition of sustainability) related to issues explicitly connected to the ordinary consumption of food and the relationship between this and the perception of a sustainable approach. This research model was conducted with Best-Worst (BW) scaling methodological approach that allows the exploration of the priorities reported by the individuals interviewed in relation to the food sector. The priority given by individuals was also analysed by grouping definitions of sustainability into the four dimensions (economic, governance, social, and environmental) and considering socio-demographic variables of consumers.

2. Materials and methods

2.1. Sustainability definitions and survey design

In order to assess the relative importance and priority that students belonging to the Z generation place on different sustainability definitions, a BWS experiment was designed considering the face-to-face interviews as data collation method. The choice experiment was conducted using a paper questionnaire, from September to December 2019, from Monday to Sunday, over two time slots (8 a.m.–12 a.m. and 3 p.m.–8 p.m.) by randomly intercepting respondents in the out space of 2 selected university campus of Turin (North-West Italy). The interviews were conducted at the Luigi Einaudi Campus, home to the degree programs in social and legal disciplines, and at the AGROVET Campus, home to the degree programs of the Departments of Agricultural and Veterinary Sciences. Both selected university campuses were in the metropolitan city of Turin (North-West Italy). Similar to Peano et al. (2019), the choice of locations stemmed from the concept of transformative niches or arenas of transition which describes the spaces where social innovations (Grin et al., 2010) are tested and developed (Smith & Raven, 2012).

These “protected” spaces provide support for developing new paths (ideas, project visions) and for supporting a process of experimentation. In addition, Loorbach and Rotmans (2010) already showed in 2010 how such places can play a key role in facilitating transformative change.

The questionnaire was structured in 2 main sections: the first about the socio-demographic characteristics of the individuals and their academic career and the second dedicated to the implementation of the Best-Worst scaling (BWS) methodology scheme. This multivariate and quantitative method, derived from traditional discrete choice methodologies, is now well established in research dedicated to consumers study and allows to define the degree of stated preference of individuals toward a set of attributes describing a product/concept/argument. The theoretical properties of the BWS are explained in (Louviere et al., 2015; Massaglia et al., 2019). In our research, to create the experimental BWS design we selected 12 sustainability definitions, included in Table 1, following the suggestion described in Peano et al. (2019) proposing attributes belonging to four sustainability dimensions: the environmental; (ii) the economic; (iii) the socio-cultural and (iv) the policy (Belz & Bilharz, 2005).

By using the Sawtooth MaxDiff Designer software (v.2.0.2; Sawtooth Software, Orem, UT, USA), the 12 items were allocated in the last part of the questionnaire within 9 attribute sets (BW questions), each containing 4 different items according to the Balanced Incomplete Block Scheme (BIBD) (Dekhili et al., 2011; Mori & Tsuge, 2017). The single attribute appeared 3 times within the experimental design ($r = 3$). The order of the definitions within BW question changed in the 4 different versions of the questionnaire created for the experiment. During the interviews, respondents were asked to indicate, for each set of definitions, the alternative that was most (BEST) and the least (WORST) relevant to them for defining the sustainability concept. By asking respondents to repeatedly choose the pair of maximum difference for each attribute subset (the best and the worst alternative), the answers were analysed to obtain a quantitative score (Average Raw Score - ARS) obtained from the individual levels of preference declared by the respondents, which were then defined and assigned to each considered qualitative attribute (Umberger et al., 2010). The latter, was calculated with the Sawtooth software (v.2.0.2; Sawtooth Software, Orem, UT, USA; <http://www.sawtoothsoftware.com/>) following formula (a):

$$ARS = \frac{(COUNT_{best} - COUNT_{worst})}{r - n} \quad (a)$$

Where:

COUNT_{best}, represents the number of times the single attribute/definition has been chosen as best;

COUNT_{worst}, represents the number of times the single attribute/definition has been chosen as worst;

r = number of time each item appear in the experimental design;

n = simple size.

The ARS was used to rank the sample preferences towards the 12 sustainability definitions, as well as variable, in the relative version of the score (the Relative Rescaled score, which the sum is equal to 100) in the Latent Class Analysis. This latter method was

Table 1

The 12 selected sustainability definitions (items in the BWS scheme) belonging to the 4 considered sustainability dimensions.

Sustainability dimensions	Sustainability definitions
Environmental (E)	1. Biodiversity preservation
	2. Local products promotion
	3. Protection and good management of natural resources
Socio-cultural (SC)	4. Active involvement of different stakeholders in territory management
	5. Greater cooperation between the different actors involved in the supply chain
	6. Transfer of knowledge to future generations
Economic (Ec)	7. Right income for producers
	8. Short food chain
Policy (P)	9. Fair price to the consumers
	10. Respectful working conditions
	11. Increase, improvement and update of sustainability regulations
	12. Accessibility for everyone to healthy and safe food

employed to examine the students' heterogeneity and identify homogeneous individual groups in the sample population with respect to the expressed preferences for each sustainability definition (Casini et al., 2009). The rescaled score in the cluster analysis allows groups to be compared, and the individual preferences to be analysed and interpreted (Cohen, 2009). The theoretical properties of the Latent Class Analysis are explained in Umberger et al. (2010). In general, this clustering methodology allows the sample to be divided into k latent classes, whose number and size are unknown a priori: in our research, the best segmentation was chosen by selecting the lowest values of the Log-Likelihood (LL) and the relative Bayesian Information Criterion (BIC) for each model, according to Dekhili et al. (2011). In accordance with this criterion, the five-cluster model was chosen based on parsimony and interpretability to describe the heterogeneity of the selected student sample. An HSD ANOVA was conducted in SPSS 27.0 for Windows, using Tukey's test to examine whether there were significant differences in individual preferences among the five clusters (Umberger et al., 2010). The standard deviation was used as a raw indicator of variability for the preference definition of the whole sample.

3. Results

3.1. Students' preferences results

The demographic details, as well as the university career information of the considered students' sample are described in Table 2. In total, 684 individuals were considered in the survey.

The preferences level (ARS) for each sustainability definition determined by the analysis of the student's responses are ranked in Table 3.

In general, the definitions referring to the environmental and policy dimensions were those with positive ARS scores, thus with a higher number of consensuses. In contrast, both dimensions of economic and socio-cultural sustainability were not rated as important in defining the investigated concept. In particular, the considered sample chose, above all, the "Accessibility for everyone to healthy and safe food", the "Protection and good management of natural resources", and "Respectful working conditions" as the definitions best attributable to the concept of sustainability. On the contrary, all three definitions belonging to the socio-cultural sustainability dimension ("Transfer of knowledge to future generations", "Greater cooperation between the different actors involved in the supply chain" and "Active involvement of different stakeholders in territory management") have been chosen most frequently as WORST by the individuals.

From the results shown in Table 4, most individuals belonging to the cluster "Men-environment balance" (23.5% of the total sample) thought that the statements "Biodiversity preservation", "Respectful working conditions", "Protection and good management of natural resources" (belonging to the environmental and policy dimensions) were the most appropriate for the definition of the concept of sustainability. On the contrary, they did not give importance to definitions within the economic and social dimensions (Short food chain, Active involvement of different stakeholders in territory management, Greater cooperation between the different actors involved in the supply chain). These individuals belonged mainly to courses of study in the disciplinary scientific field and were mostly men (Table 5).

The cluster "Social welfare sensitive" (22.7%) was very sceptical towards the definitions inherent to the socio-cultural sustainability dimension (evaluating all 3 definitions as less relevant) and instead exalted policy aspects such as "Accessibility for everyone to healthy and safe food" and "Respectful working conditions", together with "Biodiversity preservation" for the definition of sustainability. Within this cluster, there were no distinctive demographic or educational traits.

The cluster "Global vision of sustainability" (21.4%) stands out from the other groups for its low contrasting evaluations (comparable levels of Rescaled Score) of the various statements attributable to the sustainability definition. However, it also stands out for being the only one to have rated as irrelevant the definition "Respectful working conditions", together with "Increase, improvement and update of sustainability regulations" and "Active involvement of different stakeholders in territory management". The evaluation for this last statement agrees with all the clusters, considering it irrelevant for the definition of the concept of sustainability.

The cluster "Trust in the policy" (19.9%) recognize a high importance of governance actions in the sustainability guarantee; however, at the same time, these individuals stand out for the positive perception of the attribute "Transfer of knowledge to future generations", for which the highest Rescaled score is found in comparison with the other clusters, and for "Right income for producers". In this cluster there is a slight majority of males, 16% of under 21% and a balance between the proportions of students belonging to the two considered disciplinary areas.

The last cluster "Local relationship with the territory", the little one (12.6% of the total sample), shows a clear conviction in the

Table 2
Demographic details and university career information of the considered students' sample (n = 684).

Sample characteristics	Percentage	
Gender	Women	49.71%
	Men	49.42%
	Do not respond	0.88%
Age groups	<21	13.04%
	21–30	88.88%
	>30	5.09%
University programme	Scientific	52.00%
	Socio-economic-juridical	48.00%

Table 3

Preferences ranking in function of the ARS of the 12 sustainability definitions in accordance to the sample responses (number of observations = 684).

Sustainability dimension ^a	Rank	Sustainability definitions	Average raw score	St. dev.
P	1	Accessibility for everyone to healthy and safe food	2.105	1.366
E	2	Protection and good management of natural resources	1.639	1.028
P	3	Respectful working conditions	1.61	1.345
E	4	Biodiversity preservation	1.238	1.364
P	5	Increase, improvement, and update of sustainability regulations	0.295	1.511
Ec	6	Right income for producers	-0.069	1.178
E	7	Local products promotion	-0.375	1.548
Ec	8	Fair price to the consumers	-0.723	1.392
Ec	9	Short food chain	-0.779	1.768
SC	10	Transfer of knowledge to future generations	-1.062	1.645
SC	11	Greater cooperation between the different actors involved in the supply chain	-1.555	1.456
SC	12	Active involvement of different stakeholders in territory management	-2.328	1.410

^a E = environmental dimension; Ec = economic dimension; P = policy dimension; SC = socio-cultural dimension.

Table 4

Relative Rescaled scores for each sustainability definition emerged in the defined students' clusters. For each group, the cluster name and size are indicated.

Cluster name	Men-environment balance	Social welfare sensitive	Global vision of sustainability	Trust in the policy	Local relationship with the territory					
Cluster size	23.5%	22.7%	21.4%	19.9%	12.6%					
Sustainability definitions	Average Raw scores									
Biodiversity preservation	16.508	c	15.215	c	6.662	a	10.739	b	10.573	b
Short food chain	1.569	a	3.357	b	9.898	c	2.840	a,	15.759	d
Respectful working conditions	14.561	b	16.049	c	7.624	a	17.325	c	14.374	b
Protection and good management of natural resources	14.427	c	15.502	c	9.509	a	18.790	d	13.112	b
Active involvement of different stakeholders in territory management	0.951	a	0.883	a	4.194	b	3.766	b	0.975	a
Transfer of knowledge to future generations	7.477	c	0.547	a	6.586	c	5.427	b,c	3.697	b
Accessibility for everyone to healthy and safe food	19.266	c	20.024	c	11.250	a	12.451	b	14.916	b
Increase, improvement, and update of sustainability regulations	4.975	a	13.120	b	4.973	a	14.496	b	4.935	a
Right income for producers	10.009	c	5.918	b	10.740	c	3.518	a	3.334	a,
Fair price to the consumers	5.475	c	4.884	c	9.799	d	1.665	a	2.998	b
Local products promotion	3.034	a	2.965	a	11.179	b	4.312	a	13.874	c
Greater cooperation between the different actors involved in the supply chain	1.743	a	1.530	a	7.579	c	4.665	b	1.448	a

^{a,b,c,d} The preference averages (rescaled scores) within a row with the same letters are statistically different ($\alpha = 0.05$, Tukey's post-hoc test).

Table 5

Basic demographics and university career subject area of the individuals belonging to the 5 considered clusters.

Cluster	Gender		Age Groups			Subject Career Area	
	Male	Female	<21	21-30	>30	Socio-Economic	Scientific
Global vision of sustainability	59.59%	36.99%	8.22%	89.73%	2.05%	35.62%	64.38%
Social welfare sensitive	47.74%	52.26%	12.26%	87.10%	0.65%	50.32%	49.68%
Local relationship with the territory	42.53%	57.47%	8.05%	90.80%	1.15%	42.53%	57.47%
Men-environment balance	40.99%	59.01%	16.77%	81.37%	1.86%	55.90%	44.10%
Policy	54.81%	44.44%	16.30%	82.96%	0.74%	51.11%	48.89%

relation between the environmental and policy dimensions (all the attributes considered important belong to these two dimensions) for the sustainability definition. At the same time, these group showed an aversion in the choice of the other proposed definitions belonging, instead, to the socio-cultural and economic dimensions. This result can be seen by evaluating the extent of the numerical gap between the first 6 attributes considered important for the definition of sustainability (all) and the rest of the proposed items. These individuals were majorly women, belonging to the scientific subject area.

4. Discussion

This research explored the opinions and perceptions of sustainability among young university students from different disciplinary

areas, the scientific and socio-economic-juridical ones. The research shows how the sustainability definitions belonging to the environmental and policy dimensions were the most closely related to the sustainability concept by the young students interviewed. In contrast, definitions in the economic and socio-cultural spheres were the least chosen by the sample surveyed as being important for describing the sustainability. A surprising result, however, was the assessment of local production, which was chosen as not very relevant for the definition of sustainability by the entire sample. In fact, in the literature the responsible attitude of young consumers can often be translated into a food choice behaviour oriented towards local products in which they recognize not only high quality and safety, but also products that contribute to the sense of community, the regional sustainability economies and identity (Navrátilová et al., 2020; Torres, 2020; Vermeir & Verbeke, 2006). From the cluster analysis, 5 different groups of individuals were defined according to their homogeneous preferences towards the 12 definitions of sustainability. The “Man-environment balance” and “Social sensitive” clusters were characterised by the highest values of the attributes related to environmental and policy sustainability (on decent working conditions and the right to food for all), which were statistically equal and statistically different from the other groups. However, the first group also rated positively the attributes related to fair income for farmers and the importance of knowledge transfer to future generations. This last result could be related to a higher percentage in this group of under 20s than in the other clusters for which the sense of responsibility, the importance of traditional knowledge and the responsible attitude towards future societies might be more emphasised (Güreşçi, 2021). Moreover, within this cluster it seems that gender (especially women) and cultural background (socio-economic-legal studies) (Torres, 2020) determine a greater sensitivity to the issues of socio-environmental sustainability and human rights, outlining a positive attitude towards the association future = rights/human/environment (Akdogan et al., 2020; Perry, 2020). In the “Social welfare sensitive” group, there does not seem to be an influence of socio-demographic characteristics in the definition of the perception towards sustainability, which appears to be based on social, policy and environmental attributes, but it is distinguished from the other groups by the statistically lower evaluation of the factor transfer to future generations. The correlation between the perceptions of social welfare sensitive individuals and their purchasing behaviour towards green and sustainable products has also been studied by Piper et al. (2021), showing how these individuals reflect their attitude on their actual purchasing choices, orienting them only towards the usefulness of the product, without being influenced by either price or quality. Therefore, this consumer will buy a sustainable product for the benefit of consumption, also for future generations, and environmental impacts, rather than for price or quality. The “Global perception of sustainability” group was composed of a majority of men from the university science programme: this profile showed no obvious preference towards the proposed set of definitions providing a rating of importance of almost all attributes in the median of the rescaled score values, except in the case of the attributes “Active involvement of different stakeholders in territory management” and “Increase, improvement and update of sustainability regulations”. This cluster showed also the statistically higher value of importance for the attribute about the cooperation between the supply chain stakeholders, in comparison to the other clusters. This result could be translated into an attitude of scepticism towards policies, as well as towards the active involvement of the supply chain actors in ensuring a sustainable supply chain, but a hope in self-efficacy towards the cooperation between the stakeholders. Often, this attitude and scepticism are associated in the literature with lower risk perceptions, in particular, in the environmental climate change issue (Hidalgo & Pisano, 2010; Maltby et al., 2021). However, the fact that they consider almost all factors to be equally important for the definition of sustainability might suggest that these individuals have not yet found a definite orientation of thinking. The “Trust in the policy” group, on the other hand, placed great emphasis on regulation to ensure sustainability, particularly related to social aspects and working conditions. The literature shows a well-established link between risk perception and the definition of the level of trust. Reviews of the literature on trust also suggest that when it comes to social trust, it is based on the perception of similarities in value, and people tend to trust institutions with values similar to their own and distrust institutions whose values differ from their own. These statements, therefore, could relate the attitudes of this group to individuals with legal expertise or direct experience in sustainability regulation (Earle & Cvetkovich, 1995; Siegrist & Hartmann, 2020). This group, in addition, was represented majorly by men. In studies by Hillman et al. (2002) and Singh et al. (2008) on gender differences in managing social relations and sustainability practices in companies, it was found that men tend to have more leadership experience in large companies, while women tend to have more experience in community and service organisations. These differences may lead men to be more attuned to traditional practices and policies, whereas women may be more attuned to policies that focus on awareness-raising and community. This last statement is reflected in the description of the cluster “Local relationship with the territory” which was represented mainly by women with an educational background in science. These individuals, mainly women, perceived sustainability as being linked to the concept of local/territory and linked to the protection of the environment and of the territory resources with a vision of care for one’s own territory. In Frias-Aceituno et al. (2013) has been studied how gender diversity can influence the management of sustainability issues in companies. It has been found that women receive more positive rewards than men do for altruistic behaviour, including care and concern for others and the land (Gilligan, 1982) and that the greater presence of women in sustainability management is associated with greater transparency in the management of practices with environmental effects. On the contrary, men tend to be more individualistic and competitive (Chodrow, 1974; Gilligan, 1982). As a result, women tend to be more aware and concerned than men about the links between environmental damage and personal well-being (Stern et al., 1993), also in an active way for the sustainability assurance for the future societies (Chang et al., 2021). This attitude could be associated with the concept of the “smart city” in which the environmental sustainability and social well-being in a perspective of climate change adaptation and mitigation policies coexist in the same environment (Obringer & Nateghi, 2021). This system, from the perspective of territorial preservation, might be more restricted to the female gender, as our results suggest.

5. Conclusions

This research defined the perception of university students from two different subject areas towards the concept of sustainability.

The results on the degree of preference towards the different definitions of sustainability showed that this broad concept is mostly related to environmental and policy dimensions by the sample considered. However, the cluster analysis revealed 5 different heterogeneous groups in which the perception towards sustainability changed, also according to the demographic characteristics and the field of study of the subjects involved. Gender differences defined more attitudes of thought more related to the social perception of sustainability, while young male students conceived sustainability in a more concrete vision supported by policies. Given the important resource of the generation Y, for whom academic imprinting has a strong influence on the definition of attitudes and behavioural profiles, this study confirms the importance of the driving force of the university system and of the university students themselves, given the great attention they pay to food policy. The results of this research could therefore contribute to the development of future food policies within the many universities nationwide. However, it would be important to expand the study by involving other university cities and study areas in order to obtain a more complete picture of the perception of the younger generations towards the concept of sustainability.

Author statement

Conceptualization. M.S., S.F., P.C.; methodology. V.M.M, G.A and G.C; formal analysis. M.V.M.; data curation. V.M.M, M.S., P.C., F.S.; writing—original draft preparation. V.M.M, M.S., P.C., F.S.; writing—review and editing. V.M.M, M.S., P.C., F.S.; visualization. V.M.M, M.S., P.C., F.S, G.A and G.C; supervision. M.S, P.C. and S.F.

All authors have read and agreed to the published version of the manuscript.

Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.ijme.2022.100653>.

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