

## The Public Value of embedding SDGs into management education curricula

**Genc Alimehmeti**

Università degli Studi di Bologna, Dipartimento di Scienze Aziendali,

**Magali Fia\***

Università degli Studi di Bologna, Dipartimento di Scienze Aziendali

**Angelo Paletta**

Università degli Studi di Bologna, Dipartimento di Scienze Aziendali

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*Questo articolo esamina il valore pubblico (Public Value, PV) generato dalle università attraverso la formazione manageriale orientata agli Obiettivi di Sviluppo Sostenibile (SDGs). A tale scopo, integriamo due filoni di ricerca: da un lato, la letteratura sulla formazione manageriale, che evidenzia la necessità di rafforzare la sustainability literacy dei futuri manager; dall'altro, gli studi sul Public Value nelle istituzioni di istruzione superiore. L'approccio sincretico adottato permette di mettere a fuoco il legame tra l'offerta di corsi di management ed economia con contenuti legati agli SDGs e la creazione di valore pubblico, in particolare rispetto alle opportunità di occupazione per gli studenti.*

*Approfondiamo questa relazione attraverso il caso dell'Università di Bologna, che offre una mappatura completa dei corsi economico-manageriali in base alla loro connessione con gli SDGs. Sulla base di un modello ipotetico-deduttivo, indaghiamo se i laureati in management ed economia esposti a un numero più elevato di crediti formativi (ECTS) su temi SDG-related abbiano accesso a maggiori e migliori opportunità professionali. I risultati mostrano che gli studenti con curricula più ricchi di contenuti sugli SDGs, soprattutto nella loro dimensione economica, hanno maggiori probabilità di trovare un'occupazione e di ottenere salari più elevati.*

*This paper aims to analyze the public value (PV) generated by universities concerning management education to provide students with sustainable development goals-related curricula (hereafter, SDGs-related curricula). To do that, we rely on two streams of literature: the literature on management education stressing the need to improve students' sustainability literacy to train tomorrow's managers and the PV literature concerning Higher Education Institutions (HEIs), underscoring the ongoing debate surrounding the operationalization of PV. Adopting a syncretic approach between these two streams permits conceptualizing the linkage between delivering management and economics courses with SDGs-related content and PV, particularly about students' employability opportunities. Also, we go further in exploring the relationship by analyzing the case of the University of Bologna, as it represents an exciting ground to investigate this*

Parole chiave: valore pubblico, SDG, formazione manageriale, sostenibilità, educazione superiore

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Mots clés: valeur publique, formation en management, ODD, durabilité, enseignement supérieur

issue, as it provides a complete map of management and economic courses according to their relatedness to SDGs. Based on a hypothetical-deductive model, we explore whether management and economics graduates with SDGs-related themes in the curricula have more and better employment opportunities. The results demonstrate that students who completed curricula with more SDG-related ECTS points, particularly in the economics dimension of the SDGs, are more likely to secure employment and have better odds of a higher salary.

Cet article étudie la valeur publique (Public Value, PV) générée par les universités à travers la formation en management intégrant les Objectifs de Développement Durable (ODD). Pour cela, nous mobilisons deux courants de recherche: la littérature sur l'éducation au management, qui insiste sur la nécessité de renforcer la sustainability literacy des futurs managers, et les travaux sur la valeur publique dans les établissements d'enseignement supérieur. L'approche syncrétique que nous adoptons permet de clarifier le lien entre l'offre de cours en management et économie intégrant des contenus liés aux ODD et la création de valeur publique, en particulier en ce qui concerne l'employabilité des étudiants.

Nous approfondissons cette relation à travers l'étude de cas de l'Université de Bologne, qui propose une cartographie complète de ses cours en fonction de leur degré d'intégration des ODD. Sur la base d'un modèle hypothético-déductif, nous examinons si les diplômés en management et économie ayant accumulé un nombre plus élevé de crédits ECTS liés aux ODD bénéficient de perspectives professionnelles plus nombreuses et de meilleure qualité. Les résultats montrent que les étudiants dont les cursus comprennent davantage de contenus en lien avec les ODD – en particulier dans leur dimension économique – ont plus de chances d'obtenir un emploi et d'accéder à des niveaux de rémunération plus élevés.

\*Corresponding author; email: magali.fia@unibo.it  
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## 1. Introduction

This paper investigates how the integration of Sustainable Development Goals (SDGs) into management and economics curricula contributes to the generation of public value (PV) by Higher Education Institutions (HEIs). In particular, we explore whether and how sustainability-oriented teaching content influences graduates' employability—an essential dimension of PV—thus offering empirical insight into the impact of curriculum design on societal outcomes.

Although there is widespread recognition of the strategic role of HEIs in promoting sustainability, there remains limited empirical evidence on how sustainability-oriented curricula translate into measurable PV. The PV literature has mainly been conceptual and normative (e.g., Moore, 1995; Bracci et al., 2019), and while it offers critical theoretical insights, it often lacks empirical studies that show how PV is concretely generated and assessed. This gap is particularly relevant for management education, where incorporating SDG content is increasingly encouraged but rarely evaluated in terms of real-world impact. Our study addresses this gap by offering an empirical operationalization of PV by analyzing SDG-related teaching content and its link to graduate employment outcomes.

To do that, we rely on two streams of literature. First, we introduce the growing importance of the UN Agenda 2030 within the university domain and the need for management and economics disciplines to improve students' sustainability literacy to train tomorrow's managers. Secondly, we present the latest findings in the PV literature concerning Higher Education Institutions (HEIs), underscoring the ongoing debate surrounding the operationalization of PV (among others, Broucker et al. 2018, Steccolini 2018; Bracci et al. 2019; Modugno et al. 2014, Salesman and Buding, 2021, Deidda et al. 2021).<sup>1</sup> Adopting a syncretic approach between these two streams permits the conceptualization the linkage between delivering management and economics courses with SDGs-related content and PV. Specifically, in this study, we consider employability, job-skill alignment, and salary to be key dimensions of the PV generated by HEIs through their teaching mission. This approach aligns with recent contributions in the PV literature (e.g., Deidda et al., 2021; Forum PA, 2020), highlighting that teaching activities generate PV when they contribute to social and economic outcomes for students and society.

Also, we explore this relationship by investigating the case of the University of Bologna, as it represents an exciting ground to investigate this issue. The University of Bologna had a pioneering role in implementing a new system of reporting institutional activities, highlighting its efforts to achieve the 17 and 169 targets of the 2030 Agenda for the United Nations (see Paletta and Bonoli, 2019). Specifically, based on a hypothetical-deductive model, we explore whether management and economics graduates with SDGs-related themes in the curricula have more and better employment opportunities.<sup>2</sup>

The data on 402 graduates in management and economics at a master's level from the University of Bologna in 2019/2020 were used to examine the likelihood of being employed after three years, depending on whether (or not) students have SDGs-related curricula.<sup>3</sup> As a dimension of SDGs-relatedness in curricula we develop a measure of SDGs-concentration, indicating whether the European Credit Transfer System (ECTS) points earned by students are concentrated on a specific subset of SDGs,

**1** For a broader discussion on the conceptual and measurement challenges of public value beyond the HEI context, see literature review, footnote 6.

**2** For a first attempt to study the relationship between curricula SDG-relatedness and employability see Alimehmeti, Fia, Paletta (2024). We here focus on management and economics curricula. Specifically, this study builds on our earlier research, which examined the relationship between SDG-related content in curricula and employability among master's graduates from a broad range of disciplines. That study found positive impacts of SDG-related coursework—especially in the economy category—on employment outcomes, job-skill match, and salary levels. While the previous study provided an overall perspective, the current analysis focuses specifically on economics and management graduates, offering deeper insights into how curriculum design in this field can be tailored to meet the evolving demands of the labor market.

**3** Note that we analyzed the relationship between SDGs-relatedness of curricula and employability, which refers to the relatedness of teaching programs with SDGs-themes or in other words to the presence of courses with SDGs-related content.

such as *well-being, economy, environment, and governance*.<sup>4</sup> Our study was not limited to assessing the PV generated by teaching strategies, including SDGs, in their curricula regarding the employment rate of management and economic disciplines' graduates. Instead, we aim to measure the PV generated in terms of a more comprehensive employment landscape. To understand the PV generated, we thus explored different aspects, such as having competitive wages and potential mismatches between the job and the skills acquired.

The results demonstrate that students who completed curricula with more SDG-related ECTS points, particularly in economics, are more likely to secure employment and have better odds of a higher salary. The contribution of this paper is twofold. First, this paper provides the basis for advancing the literature on PV measurement in HEIs by providing more evidence on the connection between sustainability literacy and the employability of management and economics graduates. Second, it contributes to the literature on the role of sustainability in management education by enriching the scholarly understanding of whether teaching strategies regarding sustainability relate to better opportunities.

## 2. Literature review

### *Management education and sustainable development*

The commitment of universities towards sustainable development (hereafter SD), namely "a development that meets the needs of the present without compromising the ability of future generations to meet their own needs" (UN, 2016), is not new, particularly in the field of management education (Figueiró & Raufflet, 2015). The head of United Nations Principles of Responsible Management Education (PRME), Manuel Escudero, interviewed by Alcaraz and Thiruvattal (2010), stated that the role of business schools and management education has been pivotal in accelerating sustainability literacy. Also, he noted that the introduction of PRME in 2007 has established a significant guideline for management education and business schools in general to incorporate SD-driven curricula. Since the introduction of the United Nations 2030 Agenda, universities and, particularly, business schools<sup>5</sup> have increased their commitment to teaching sustainability skills to their students to enhance their competencies towards sustainable development and market employability skills (Avelar et al., 2019; Fia, Ghasemzadeh, and Paletta, 2021). HEIs have introduced SDG-related courses in the form of new content, new pedagogies, and acquiring marketable skills that increase graduates' competencies in the job market (Aragon-Correa et al., 2017; Cajiao and Burke,

<sup>4</sup> SDGs 'four categories are: Well-Being (SDG:1,3,4,5,10); Governance (SDG:16,17); Economy (SDG:2,6,7,8,9,11,12); Environment (SDG:13,14,15).

<sup>5</sup> To the extent of this paper, we adopted the term business schools to broadly refer to management and economics curricula.

2016; Figueiró and Raufflet, 2015). Corporations are increasingly concerned about the quality of the labor force produced by higher education and the principles of responsible management education acquired by young graduates (Colombo, 2023; Fang and O'Toole, 2023), business graduates in particular (Burchell et al., 2014; Donald et al., 2018; Cai, 2013). In this context, the role of universities in supplementing their curriculum with SDG-related skills is paramount (Jelonek & Urbaniec, 2019).

The potential impacts identified so far about the development of sustainable competencies and employment opportunities for management students can also be interpreted in light of the PV literature.

#### *Public Value and Higher Education Institutions*

The concept of PV (Moore, 1995, 2013, 2014) has been applied to public administration institutions as a new concept overcoming the New Public Management (NPM) paradigm, which characterized the public administration reforms in the past decades, Higher Education Institutions (HEIs) included (Broucker et al., 2017; Steccolini, 2019; Bracci et al., 2019). In the post-NPM era, the PV concept highlights the transition from a narrow focus on efficiency and cost-cutting measures towards a broader emphasis on societal outcomes (see Steccolini, 2019; Broucker et al., 2018). In the university context, the concept of PV thus highlights the HEIs' role in society concerning teaching, research, and third mission (Modugno et al. 2014, Salesman and Budding, 2022, 2023). Despite this growing body of literature, the debate on operationalizing PV is still open (see Salesman et al. 2022, Deidda et al. 2021, Siboni et al. 2016; del Sordo et al. 2016).<sup>6</sup> Salesman et al. (2022) examined strategy plans and reports of 10 major Dutch universities. They found a mismatch between the aims of pursuing PV and how they measure it, resulting in too narrow a focus. Deidda et al. (2021) advance a PV measurement tool grounded in a Public Value Governance perspective and then investigate how PV has been measured at the University of Ferrara across the teaching mission. More specifically, they measured the PV generated in terms of "teaching expansions" and "improvement of student services". The performance dimensions considered were the external impact dimensions on students (social, economic), territory (social, economic, environmental), and the internal impact dimension on human resources (organizational and professional health), instrumental resources (digital, informational, infrastructural), and econo-

<sup>6</sup> This issue is echoed more broadly in the public value literature beyond the HEI context. As Faulkner and Kaufman (2018) observe, "Despite the substantial attention given to public value by academics and practitioners, there remains a lack of clarity about how to measure the extent to which an organization has created public value" (see also Meynhardt & Bartholomes 2011; Marcon 2014; Mendel & Brudney 2014). Likewise, Bracci et al. (2019, p. 113) note that the dominance of conceptual studies signals an ongoing lack of consensus on the definition, components, and measurement of public value, often resulting in exploratory case study designs to understand how PV works in practice.

mic and financial (eco-financial health). The model advanced by Deidda et al. (2021) aligns with the ongoing public discussion on how HEIs decline and measure the concept of PV in their missions. Such debate highlighted that “The administration creates public value when it pursues (and achieves) a joint and balanced improvement of impacts, which means an improvement in the level of social, economic, and environmental well-being.” (Forum PA, 2020).<sup>7</sup> Concerning teaching activities, some of the dimensions are related to impacts on students of both a social and economic nature. Among the social impacts, some examples are growth/reduction of student contributions, growth/reduction of outgoing ones, an increase/reduction in placement, and student satisfaction. Among the economic impact, some examples are related to economic income from renting, leisure activities, e.g., eating out, transporting, and so on) are also considered.

Given this scenario, we want to add empirical evidence to better understand how universities measure their public value and to go into depth about the connection between the strategy of implementing or reinforcing SDG-related content into teaching activities and the public value generated in terms of employability. In other words, besides identifying a set of performance dimensions measuring PV, little is known about the statistical relationship between those elements.

Accordingly, based on a hypothetical-deductive model, we aim to explore whether management and economics graduates with SDGs-related themes in the curricula have more and better employment opportunities. To do that, we rely on the case of the University of Bologna. The following section illustrates the case.

### 3. Methodology

#### *Context – the Alma Goals Project*

The University of Bologna (UNIBO) developed a new strategy for measuring its performance regarding Agenda 2030, the Alma Goals Project. The plan was first presented at the G7 Environment Ministerial Meeting held under the Italian presidency in Bologna in June 2017 (Paletta et al. 2020). Alma Goal Project supports sustainable development within higher education. The planning process for teaching and research activities to respond to Agenda 2030 was greatly influenced by this process (Paletta, 2019). The Alma Goal Project aligns higher education with UN SDGs. The project emphasizes the integration of sustainability in teaching,

<sup>7</sup> For a PV measurement model for the PA see Papi et al. 2018. Note that PV generation is also related not only to the tradeoff between social, economic, and environmental goals but also on the governance of PV, namely the so-called Public value governance (PVG). As fundamental part of PVG there are the tools of Performance Management and Risk Management concerned with the improvement of programming, measuring, evaluating, reporting, and risk-reduction measures (Forum PA, 2020).

research, governance, and community engagement. This project promotes collaboration between disciplines, sharing of knowledge, and innovation. The universities develop action plans and strategies to support the SDGs. The project includes curriculum integration, research, sustainable operations, community engagement, policy advocacy, and community involvement. This project encourages best practices and collaboration and gives students and researchers the power to make positive changes (See Paletta and Bonoli, 2019).

Concerning the value generated by AlmaGoals, the project provides several performance dimensions on which the PV generated could be evaluated. Pertaining to the teaching dimension, which is the focus of our paper, the Alma Goals Project already identified several performance measures such as the number of teachings delivered with attention to each Sustainable Development Goal (SDG), the number of students enrolled in courses containing at least one SDG-related class, the employment rate of university graduates one year after graduation, the number of academic collaboration agreements with other universities for teacher mobility, and the number of study courses and specializations specifically addressing SDGs, along with the corresponding number of registered students. Additionally, the project considers initiatives activated by the university about the SDGs.

Despite this complete set of performance dimensions, little is known about the actual relationship between the SDGs-relatedness of curricula and PV in terms of employment opportunities for management students; we address this gap in the following sections.

#### *Data source*

Our database initially covered 1,303 students with a degree in economics and management who graduated from UNIBO in 2020. For the academic year 2019/2020, all UNIBO lecturers used their syllabi to indicate how their courses related to one or more SDGs, according to the UN's format (UNIBO, 2017). This information allowed us to determine the number of exams associated with each SDG. In addition, we included background and working data from the Italian Survey on graduates' employment status from Alma Laurea Inter-university Consortium. The data on the working position was collected in 2023 and captured those who graduated in the academic year 2019/2020. Therefore, we have a three-year lag from graduation to the employability measures. After merging the data, we achieved a dataset of 402 students with their relative achievements with SDGs, background, personal characteristics, and occupational information. The working outcomes measured during the pandemic might have altered the results. Therefore, our results should be interpreted in the context of this exogenous shock, which may have temporarily influenced employment prospects, particularly in specific SDG-related fields.

*Model setup*<sup>8</sup>

To evaluate the effect of an SDG-related curriculum on employment, salary, and skill mismatch of management and economic students, we adopted the following logit model:

$$Y_i = \beta_0 + \beta_1 SDG_{ENV} + \beta_3 SDG_{EC} + \beta_4 SDG_{WELL} + \beta_5 SDG_{GOV} + T_j (\beta_2 Marks + \beta_3 Regular + \beta_4 Internship + \beta_5 Working\_studies) + P_j (\beta_6 Gender + \beta_7 FamilyStatus + \beta_8 OffSiten + \beta_{10} ParentsStudies)$$

The dependent variable  $Y_i$  stands for employment status three years after graduation (in 2023); it is captured by employment (Y1), skills match (Y2), and higher compensation (Y3).

The independent variable **SDG** stands for the SDG-relatedness of a curriculum, specifically SDGs' four categories are: Well-Being (SDG: 1, 3, 4, 5, 10); Governance (SDG: 16, 17); Economy (SDG: 2, 6, 7, 8, 9, 11, 12); Environment (SDG: 13, 14, 15). We grouped controls into two categories: **T** stands for training characteristics (academic performance, study regularity, internships, and work experience), and **P** stands for personal characteristics. (gender, family background, study mode: resident or non-resident student, and parental education). The selection of the control variables is informed by a robust body of literature on graduate employability, specifically including the main control variables commonly used in quantitative studies of employment outcomes. The training characteristics, such as academic performance (Becker, 1952; Stiglitz, 1975; Soon et al., 2020), internship experience (Jackson, 2015; Teichler, 2011), work experience (Daniels & Brooker, 2014), are often proxied through indicators such as gender, socio-economic background, family status and parental education (Tomlinson et al., 2013; Burke, 2015; Hebson, 2009; De Iaco et al., 2019). This allows to account for the educational, and demographic influences that shape employability, allowing us to isolate the specific contribution of SDG-related curriculum content.

#### 4. Results

This section presents the empirical findings on the relationship between SDG-related curricula and graduates' employment outcomes, including employment status (Y01), job-skills match (Y02), and higher compensation (Y03). Table 2 shows the results of SDGs' relation with personal and training characteristics, which contribute differently to employment outcomes (for descriptive statistics, see Table 1). The results are expressed in odds ratios, which indicate the likelihood of each outcome occurring relative to a reference category. An odds ratio greater than 1 suggests a positive association, while an odds ratio less than 1 indicates a negative association.

The first model focuses on the employment status (Y01): being employed or not. The likelihood of being employed three years after gradua-

<sup>8</sup> The model has been adapted from Alimehmeti, Fia, Paletta (2024)

tion is significantly influenced by the SDG concentration in the curriculum. The strongest predictor of employment is *SDG-economy* content in a student's curriculum (OR = 10.42,  $p < 0.05$ ), meaning that graduates with a strong emphasis on economic sustainability are 10.42 times more likely to be employed than those without such a focus. This finding underscores the high demand for economic and financial sustainability skills in the labor market. In contrast, *SDG-well-being* appears to have a negative but statistically significant effect (OR = 0.123,  $p < 0.05$ ), suggesting that students specializing in well-being-related sustainability topics are less likely to secure employment. This could be attributed to a potential misalignment between well-being-focused courses and the immediate needs of employers. Examining *SDG-governance*, the results indicate that it is also negatively associated with employment (OR = 0.149,  $p < 0.10$ ), indicating that students with a strong focus on governance-related content may face more challenges in the workforce. This result suggests that governance-oriented curricula require additional career support mechanisms to facilitate employment transitions. Lastly, *SDG-environment* does not significantly affect employment, suggesting that environmental sustainability content neither enhances nor hinders immediate job prospects. Regarding the control variables, among the training variables, regular students who completed their degree within the standard timeframe are 2.50 times more likely to be employed (OR = 2.501,  $p < 0.10$ ). Other factors, such as level of marks, working while studying, and completing an internship, do not significantly affect employment probability.

The second model assesses whether graduates' jobs align with their acquired skills. The findings reveal that students strongly emphasizing *SDG-well-being* are 44.3% more likely to secure a job that matches their skills (OR = 0.443,  $p < 0.05$ ). This suggests that well-being-related courses provide students with competencies that align well with labor market needs. However, *SDG-economy* does not significantly impact job-skills match (OR = 1.225, n.s.), indicating that while economic-related content enhances employment chances, it does not necessarily lead to better alignment between skills and job roles. Neither *SDG-governance* nor *SDG-environment* exhibit significant effects on job-skills matching. Regarding training characteristics, students who graduated on time (OR = 1.450, n.s.) have slightly higher odds of securing a job that matches their skills, though this result is not statistically significant. Similarly, working while studying and internships do not show substantial effects on job-skills match, suggesting that these experiences do not necessarily guarantee employment in roles well aligned with graduates' academic training.

The third model evaluates the likelihood of earning higher wages based on SDG-related curricula. The results indicate that students with *SDG-economy* content in their curriculum are 2.63 times more likely to earn a higher salary (OR = 2.631,  $p < 0.05$ ). This confirms the strong correlation between financial and economic sustainability competencies and

improved salary prospects. *SDG-well-being* has a negative but only marginally significant effect on salary levels (OR = 0.287,  $p < 0.10$ ), indicating that well-being-related courses may not increase the likelihood of earnings as other SDG-related courses. *SDG-governance* shows no statistically significant effects over higher compensation. Among training and personal variables, no characteristics show statistically significant effects. Students who complete their degree within the standard timeframe (OR = 3.586, n.s.) are more likely to earn a higher salary, reinforcing previous findings that early career wages are driven more by academic credentials and skill specialization than by work experience during studies.

Table 1 – Descriptive Statistics

Variable	Observations	Mean	Std. dev.	Min	Max
Y01	471	.9214437	.269331	0	1
Y02	404	.5841584	.4934776	0	1
Y03	385	.1142857	.318572	0	1
WELL BEING	898	.1202673	.3254551	0	1
ECONOMY	898	.2538976	.4354822	0	1
ENVIRONMENT	898	.0924276	.28979	0	1
GOVERNANCE	898	.0679287	.2517638	0	1
MARKS	898	.6982183	.4592869	0	1
REGULAR	898	.8329621	.3732175	0	1
INTERNSHIP	795	.6603774	.4738793	0	1
WORK_STUDIES	796	.7236181	.4474891	0	1
GENDER	898	.5233853	.4997312	0	1
SES (socio-economic status)	788	.2956853	.45664	0	1
offsite	898	.5534521	.4974117	0	1
parents_studies	790	1.598734	.4904652	1	2

Table 2 – Logit models results

		Y01. Employment	Y02. Skills Match	Y03. Higher Compensation
SDG	<b>WELL BEING</b>	<b>0.123**</b>	<b>0.443**</b>	<b>0.287*</b>
		(-2.36)	(-1.97)	(-1.76)
	<b>ECONOMY</b>	<b>10.42**</b>	1.225	<b>2.631**</b>
		(2.37)	(0.63)	(2.07)
	<b>ENVIRONMENT</b>	1	1.668	0.265
		(.)	(1.07)	(-1.52)
	<b>GOVERNANCE</b>	<b>0.149*</b>	1.722	3.105

▶▶

		Y01. Employment	Y02. Skills Match	Y03. Higher Compensation
T	<b>marks</b>	0.916	1.240	0.658
		(-0.19)	(0.85)	(-0.99)
	<b>regular</b>	<b>2.501*</b>	1.450	3.586
		(1.76)	(1.05)	(1.62)
	<b>work_studies</b>	1.522	1.416	1.000
		(0.97)	(1.41)	(-0.00)
P	<b>internship</b>	1.581	1.179	0.590
		(1.10)	(0.67)	(-1.37)
	<b>gender</b>	0.856	1.061	1.502
		(-0.34)	(0.23)	(1.05)
	<b>SES</b>	0.765	1.021	1.774
		(-0.61)	(0.09)	(1.52)
	<b>offsite</b>	1.107	0.847	0.807
		(0.24)	(-0.69)	(-0.56)
	<b>parents_studies</b>	0.856	1.061	1.502
		(-0.34)	(0.23)	(1.05)
	<b>r2_p</b>	0.0917	0.0899	0.0673
	<b>N</b>	391	402	355
	<b>aic</b>	216.2655	518.2872	255.277
	<b>bic</b>	263.8899	569.1979	305.6082

## 5. Discussion

This study provides insight into the influence of incorporating SDG-related content into university curricula on the employability of economics and management graduates. Concerning management education and sustainability, we build on the established literature that calls for improved sustainability literacy among business students (e.g., Figueiró & Raufflet, 2015; Avelar et al., 2019). Our study adds to this field by providing new empirical evidence of the employment outcomes associated with different SDG-related curriculum contents, showing how specific clusters of SDGs (particularly economic sustainability) are linked to employability, job-skill match, and salary of students in financial and management disciplines. Moreover, concerning the operationalization of PV in higher education, we contribute to the ongoing debate (e.g., Deidda et al., 2021; Salemans & Budding, 2022) by proposing and implementing a novel empirical linkage between SDG-related curricula and PV in terms of labor market outcomes.

Specifically, the SDGs are grouped into four categories: Well-Being (SDGs 1, 3, 4, 5, 10), Governance (SDGs 16, 17), Economy (SDGs 2, 6, 7, 8, 9, 11, 12), and Environment (SDGs 13, 14, 15). Recognizing these distinctions is key to understanding how different aspects of sustainable development can shape graduates' career prospects.

The results show that students with higher exposure to *SDG-economy* are over 10 times more likely to be employed than those without such content in their curricula. This proves that integrating economic sustainability content into management education enhances employability and aligns with the labor market demand for financial and economic competencies. In doing so, these curricula support the objectives of sustainable economic growth (SDG 8).

In contrast, *SDG-well-being* lowers employment likelihood, job-skills match, and higher compensation. This suggests that while well-being-related knowledge does not necessarily align graduates' competencies with job requirements, it may not lead to immediate employment opportunities or higher compensation opportunities. Future curriculum designs might explore ways to integrate well-being content with practical skills development to better improve its direct impact on employment outcomes.

The negative association between *SDG-governance* content and employment suggests that governance-focused courses may not adequately prepare students for immediate labor market demands. This gap might be addressed by incorporating additional career support mechanisms, such as practical projects, internships, or partnerships with industry, to help translate theoretical insights into actionable skills.

*SDG-environment* did not significantly affect employment-related outcomes, suggesting that environmental sustainability courses may not directly influence employability in the short term.

Although these courses might not directly boost immediate employability, they are likely to be increasingly important as businesses and governments enhance their focus on sustainability. The long-term benefits of such knowledge may become more apparent as the labor market evolves to prioritize environmental considerations.

Concerning salary outcomes, *SDG-economy* significantly increased the likelihood of earning a higher salary (OR = 2.63), reinforcing that economic and financial literacy provides competitive advantages in the job market. *SDG-governance* and *SDG-well-being* showed weakly positive but not statistically significant effects on higher compensation, suggesting that their benefits may manifest over longer career trajectories rather than immediately after graduation.

The analysis also revealed interesting patterns regarding training, personal characteristics, and their impact on employment outcomes. Among training-related factors, students who completed their degrees within the standard timeframe ("regular students") were 2.5 times more likely to be employed, highlighting the potential role of academic efficiency in labor market integration. Conversely, working while studying and completing internships did not statistically affect employment, job-skills match, or salary levels. This suggests that while work experience during studies is generally encouraged, its direct impact on early-career employment may be limited.

In conclusion, the findings demonstrate the potential benefits of aligning

higher education with SDGs in enhancing graduates' employability and earnings. The substantial impact of SDG-economy on employment and salary outcomes suggests that integrating economic and financial sustainability into curricula is particularly valuable. However, the adverse employment effect of SDG-governance and SDG-well-being implies that universities may need to align these areas with labor market needs better or provide additional career support.

These findings underscore the need for universities to carefully design SDG-related curricula to maximize their public value and prepare students for competitive labor markets. By implementing well-integrated SDG content, universities can contribute to the global sustainable development agenda while enhancing the career prospects of their graduates.

This paper has some limitations. The outcomes were measured for graduates during the COVID-19 pandemic, which may have influenced employment prospects and hiring trends. Additionally, the data are limited to graduates from the University of Bologna in the 2019/2020 academic year, restricting generalizability to other institutions or cohorts.

Future research could expand this study to other universities and examine different academic cohorts to determine whether these trends persist across diverse educational contexts. Furthermore, while this study primarily focuses on PV regarding employability, future work could explore other dimensions of PV, such as social impact, sustainability-driven innovation, and long-term career progression for graduates with SDG-related education.

In summary, the study demonstrates that aligning higher education with SDG principles, particularly through integrating economic sustainability content, can significantly enhance graduate employability and earnings. However, the mixed results for SDG-well-being and SDG-governance highlight the need for a balanced approach that also considers how to translate non-technical skills into labor market advantages effectively. These results also suggest that the explanatory power of SDG-related variables is meaningful but not in all cases, demonstrating that sustainability can contribute to generating public value when closely aligned with labor market demands. However, the limited significance of other SDG clusters (such as well-being, governance, and environment) indicates that SDG-related curricula explain only a portion of the variance in employment outcomes. At the same time, some of the training and personal characteristics demonstrate statistical significance. This reinforces the idea that employability is a complex and multifactorial outcome, calling for further refinement in how sustainability education is embedded into management programs.

By carefully designing SDG-related curricula, universities can boost graduates' immediate career prospects and contribute meaningfully to the broader sustainable development agenda. Specifically, beyond indi-

vidual outcomes, our findings invite reflection on the implications for curriculum governance. The different effects of the different SDG groups on employability suggest that academic departments may benefit from assessing how specific sustainability themes are integrated and supported, e.g., through practical learning and/or career services. Further research, particularly qualitative studies, could explore how institutions perceive and use curriculum planning as a governance tool.

This also connects to the broader debate on how HEIs generate PV. While employability represents a concrete and measurable dimension of PV, curriculum planning may also contribute to other forms of value creation, such as fostering democratic participation, promoting environmental responsibility, and supporting inclusive knowledge dissemination, civic participation, and local development (Salemans & Budding, 2022; Modugno et al., 2014). Future studies could complement this individual-level analysis with broader evaluations of PV to understand how it can be operationalized and supported through curriculum design and academic governance aligned with the SDGs.

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