Promoting the employability and entrepreneurship
of Higher Education graduates
through innovative ways in the Philippines

PATHWAY

Graduates' employability in the Philippines

Final report

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1. Presentation

This report presents a comprehensive analysis of the working conditions experienced by graduates from five distinguished Philippine universities: Polytechnic University of the Philippines, St. Paul University Philippines, Benguet State University, Ateneo de Manila University, and Lyceum of the Philippines University - Batangas.

Our study, conducted as part of the PATHWAY project and funded by the European Commission within the Erasmus Plus programme, focuses on evaluating the competencies deemed essential by employers and those that the graduates have developed through their academic journey.

Additionally, we explore various employment aspects, such as the prevalence of teleworking, pathways to employment, and the distribution between part-time and full-time work.

The insights derived from this survey aim to illuminate the alignment between academic training and the dynamic demands of the workforce. This report endeavours to provide valuable feedback to the academic institutions involved, offering a clearer perspective on how their curricula and extracurricular programs are shaping the professional readiness of their graduates.

By doing so, it seeks to contribute to the ongoing dialogue on enhancing educational outcomes and ensuring that graduates are well-equipped to thrive in their respective careers. This work runs in parallel with another interconnected survey on entrepreneurial intention, enhancing our understanding of the broader educational and career landscape.

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2. Objectives

The primary objective of this survey is to underscore the significance of cooperative statistical operations in enhancing the alignment between academic training and workforce demands. This activity, conducted in collaboration with European partners under the PATHWAY project funded by the Erasmus Plus programme, aims to initiate an open discussion on the importance of structured surveys within universities. Through this, we seek to establish a potential framework for creating regional or national networks to share methodologies, analysis instruments, scopes, and supra-institutional data collection structures. These efforts are designed to organize and streamline the process of gathering and analysing data in a more efficient and comprehensive manner.

2.1. Specific Objectives

The specific objectives of this survey are as follows:

Demonstrate the Value of Collaborative Surveys: Utilize this survey as an exemplary model of how partners in the Philippines can work together to implement a comprehensive analysis of working conditions and competencies. This model aims to serve as a benchmark for similar future initiatives.

Identify and Refine Variables: Through this survey, we aim to determine the set of variables that should be introduced in future surveys to effectively capture the necessary data. This involves identifying the pros, cons, weaknesses, and strengths associated with each variable.

Lay the Groundwork for Future Cooperation: Plan and establish a line of cooperative work with current partners, while remaining open to including new partners. This will ensure the sustainability and expansion of this collaborative effort, enhancing the quality and scope of data collection and analysis.

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By achieving these objectives, we intend to facilitate a more informed dialogue between academic institutions and the labour market, ultimately contributing to the development of educational programs that better prepare students for their future careers.

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3. Methodology

The methodology of this survey is designed to explore the transition from education to work among graduates from five selected Philippine universities. Given the focus on understanding and enhancing the alignment between academic preparation and labour market demands, a non-probabilistic sampling approach was employed. This approach involved the use of an online self-managed questionnaire, allowing us to gather detailed insights into the personal experiences and perceptions of the graduates.

3.1. Survey Design and Instrumentation

The questionnaire was meticulously developed to include the most common variables used in studies analysing the transition from education to work. These variables encompass a range of factors, including competencies developed during university studies, the extent of teleworking, pathways to employment, and the distinction between part-time and full-time work. Special attention was given to the role of graduates within their organizations, aiming to delve into how their competencies are applied in real-world settings.

3.2. Sample

The sample composition for the survey is diverse, encompassing a total of 582 respondents from five different higher education institutions (HEIs), providing a well-rounded view of the transition from education to work across these varied settings. Here is a detailed breakdown of the sample:

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Figure 3-1 Sample

Institution

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Polytechnic University of the Philippines (Philippines)	166	28,5	28,5	28,5
	St. Paul University Philippines (Philippines)	39	6,7	6,7	35,2
	Benguet State University (Philippines)	260	44,7	44,7	79,9
	Ateneo De Manila University (Philippines)	81	13,9	13,9	93,8
	Lyceum of the Philippines University - Batangas (Philippines)	36	6,2	6,2	100,0
	Total	582	100,0	100,0	

Polytechnic University of the Philippines: This institution had the participation of 166 graduates, comprising 28.5% of the total responses, offering significant insights into the experiences of its alumni in the workforce.

St. Paul University Philippines: With 39 responses, this university accounted for 6.7% of the sample, providing a unique perspective from its graduates.

Benguet State University: As the largest contributor, this university provided 260 responses, representing 44.7% of the sample. This substantial participation helps to highlight the transition patterns and competencies of its graduates.

Ateneo De Manila University: Contributing 81 responses, Ateneo De Manila accounted for 13.9% of the total, adding a valuable dimension to the analysis of graduates transitioning to professional environments.

Lyceum of the Philippines University - Batangas: The smallest group, with 36 responses, makes up 6.2% of the total, rounding out the dataset with additional insights into the regional academic impact on employment.

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This composition ensures that the survey covers a broad spectrum of educational backgrounds and experiences, although the distribution shows a heavier representation from Benguet State University. The results drawn from this diverse cohort are intended to provide general insights into the competencies developed by graduates and their applicability in the workplace, without allowing for comparative analysis between institutions due to varying sample sizes. This sample size is deemed adequate for a general scope study but highlights the variability in response rates across different institutions, which can influence the depth of insights per university.

3.3. Gender Perspective and Competence Analysis

Incorporating a gender perspective into the analysis was a priority to ensure that the survey results reflect potential differences and similarities in the experiences of male and female graduates. This approach facilitates a more nuanced understanding of how gender might influence the development of competencies and the transition to the workplace.

The in-depth analysis of competencies is a central feature of this survey. It focuses on identifying which competencies are deemed essential by employers and which are effectively developed during the academic journey. This part of the analysis seeks to highlight gaps and strengths in the current educational programs, providing actionable insights for curriculum enhancement.

3.4. Limitations and Scope

It is important to note that the results of this survey cannot be used to make comparative analyses among the institutions involved due to the limited number of cases from each university. However, this limitation also offers a unique opportunity to focus more deeply on the individual and collective experiences of graduates, rather than drawing broad institutional comparisons.

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3.5. Future Directions

Looking ahead, the methodology used in this survey sets the groundwork for future research and collaboration. The structured approach to selecting and analysing variables serves as a template for other institutions and regions considering similar studies. Additionally, the cooperative framework established through this project encourages the sharing of methodologies, instruments, and data collection strategies, promoting a more unified approach to understanding the educational-to-work transition.

By employing this methodology, the PATHWAY project aims to create a robust foundation for continuous improvement in educational outcomes and labour market readiness, fostering a dynamic and responsive educational ecosystem.

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4. Employability main results

This chapter presents the findings from a survey conducted as part of a capacity-building project within the Erasmus+ program, aimed at enhancing higher education in the Philippines. The survey involved graduates from five prestigious universities: Ateneo De Manila University, Polytechnic University of the Philippines, Lyceum of the Philippines University - Batangas, St. Paul University Philippines, and Benguet State University. Designed to assess the working conditions of graduates, the survey explored various dimensions including employment status, job satisfaction, skill utilization, and more.

The analysis herein is not merely a reflection of graduate outcomes but serves as a critical component of a broader strategy to improve higher education through the establishment of observatories within Higher Education Institutions (HEIs). These observatories are envisioned as pivotal mechanisms for continuous monitoring of graduate careers, thereby facilitating a dynamic feedback loop between educational experiences and employment realities.

By shedding light on the employment trajectories and satisfaction levels of graduates, this study underscores the value of such observatories in fostering strong alliances among stakeholders in employability, including universities, employers, and policymakers. These collaborations are essential for ensuring that higher education in the Philippines remains responsive and adaptive to the evolving needs of the labour market.

Through this analysis, the chapter aims to demonstrate the transformative potential of integrating observatories into HEIs, positioning them as key players in the nexus of education and employment, and highlighting the critical role they play in shaping a resilient and responsive higher education system in the Philippines.

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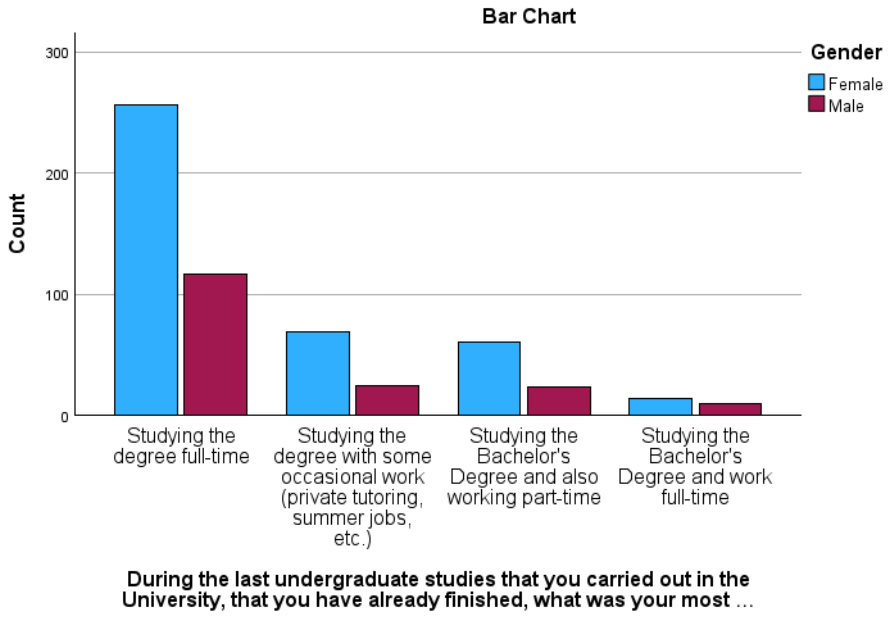
4.1. Combining studies with work

Table 4-1 Combining studies with work. Gender differences

During the last undergraduate studies that you carried out in the University, that you have already finished, what was your most common activity? * Gender Crosstabulation

			Gender		
			Female	Male	Total
During the last undergraduate studies that you carried out in the University, that you have already finished, what was your most common activity?	Studying the degree full-time		256	116	372
			64,2%	67,1%	65,0%
	Studying the degree with some occasional work (private tutoring, summer jobs, etc.)		69	24	93
			17,3%	13,9%	16,3%
	Studying the Bachelor's Degree and also working part-time		60	23	83
			15,0%	13,3%	14,5%
	Studying the Bachelor's Degree and work full-time		14	10	24
			3,5%	5,8%	4,2%
Total			399	173	572
			100,0%	100,0%	100,0%

Chart 4-1 Combining studies with work. Gender differences



The table provides a detailed gender-based cross tabulation of the most common activities undertaken by students during their last undergraduate studies at a university in the Philippines. It shows the distribution between female and male students across four different categories of activity.

Full-time Study: A majority of both female (64.2%) and male (67.1%) students focused on studying their degrees full-time, with slightly more males than females in this category. This suggests a strong dedication to academic pursuits among both genders.

Occasional Work: 17.3% of female students engaged in occasional work (such as private tutoring or summer jobs) alongside their studies, compared to 13.9% of male students. This indicates that while both genders participate in work to potentially support their studies financially, a slightly higher percentage of female students take up such activities.

Part-time Work: When it comes to combining part-time work with studying, 15% of female and 13.3% of male students reported this as their most common activity. The percentages are fairly close, showing a somewhat balanced approach to managing work and study loads among genders.

Full-time Work: Only a small fraction of students, 3.5% of females and 5.8% of males, managed to combine full-time work with their studies. The higher percentage of males in this category might suggest that male students are slightly more likely to take on full-time work, which could reflect broader socio-economic factors or cultural expectations.

Overall, the data highlights that the majority of students prioritize their education with a significant number still managing to incorporate some form of work, whether occasional or part-time. The variations between genders in the choice of activity while studying might reflect differing financial needs, time management skills, or available opportunities.

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The Chi-Square test results were calculated to assess whether there are statistically significant differences in the distribution of study and work activities between male and female students at a university in the Philippines, resulting in the following breakdowns.

Pearson Chi-Square Value: The Pearson Chi-Square value is 2.760 with 3 degrees of freedom. The p-value (Asymptotic Significance) for this test is 0.430. This p-value is greater than the typical alpha level of 0.05, suggesting that there is no statistically significant difference in the distribution of activities between genders based on this sample.

Likelihood Ratio: The Likelihood Ratio test gives a value of 2.707 with a p-value of 0.439, also with 3 degrees of freedom. This result further supports the finding from the Pearson Chi-Square test, indicating no significant difference between the activity distributions across genders.

Linear-by-Linear Association: This particular statistic tests for a linear trend between ordered categorical variables. The value here is 0.000 with a p-value of 0.991, suggesting that there is no linear association between gender and the type of activity undertaken by the students.

Sample Size: The tests are based on 572 valid cases. The note that none of the cells have an expected count less than 5 (the minimum expected count is 7.26) indicates that the data meets one requirement for the validity of a Chi-Square test, as low expected counts in cells can bias the test results.

Conclusion: Based on the statistical evidence from the Chi-Square and Likelihood Ratio tests, it appears that gender does not significantly influence the choice of academic and work-related activities among university students in this sample. This suggests that both male and female students tend to engage in similar activities during their studies, whether it be studying full-time, part-time, or combining studies with occasional or full-time work.

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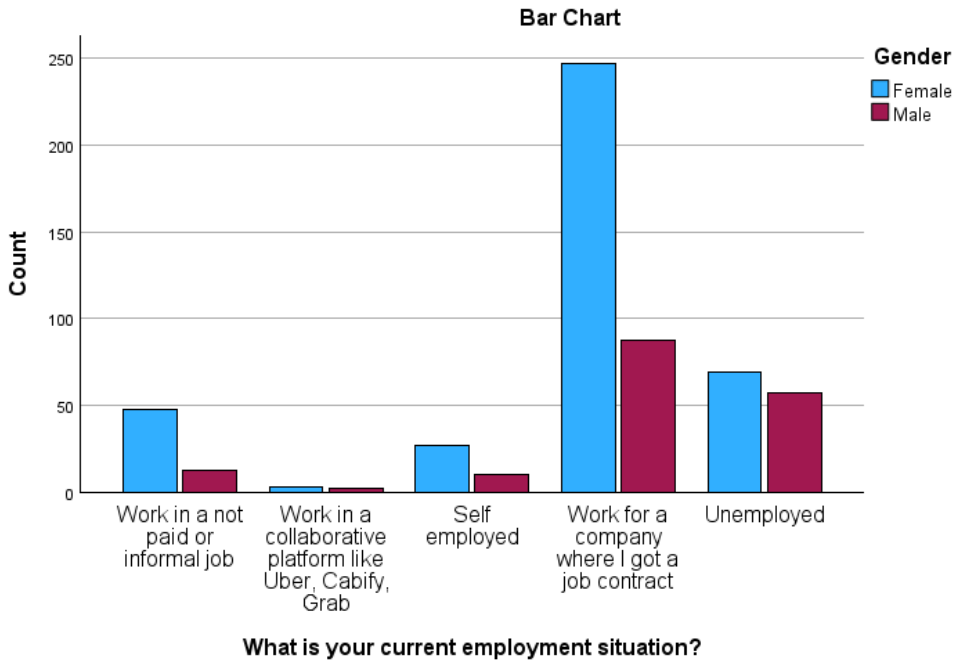
4.2. Current work situation

Table 4-2 Current work situation. Gender differences

What is your current employment situation? * Gender Crosstabulation

		Gender		
		Female	Male	Total
What is your current employment situation?	Work in a not paid or informal job	48	13	61
		12,2%	7,6%	10,8%
	Work in a collaborative platform like Uber, Cabify, Grab	3	2	5
		0,8%	1,2%	0,9%
	Self employed	27	10	37
		6,9%	5,9%	6,6%
	Work for a company where I got a job contract	247	88	335
		62,7%	51,8%	59,4%
	Unemployed	69	57	126
		17,5%	33,5%	22,3%
Total		394	170	564
		100,0%	100,0%	100,0%

Figure 4-2 Current work situation. Gender differences



The cross tabulation table displays the distribution of current employment situations among male and female graduates from universities in the Philippines. Here's a breakdown and interpretation of the data analysis:

Work in a not paid or informal job:

- Total: 61 graduates are in unpaid or informal employment, making up 10.8% of the total surveyed.
- Gender Distribution: 48 females (12.2% of all female respondents) and 13 males (7.6% of all male respondents) fall into this category, indicating a higher proportion of female graduates in unpaid or informal work compared to their male counterparts.

Work in a collaborative platform like Uber, Cabify, Grab:

- Total: Only 5 graduates work in gig economy platforms, accounting for just 0.9% of the total.
- Gender Distribution: This sector is slightly more male-dominated, with 1.2% of males compared to 0.8% of females.

Self-employed:

- Total: 37 graduates are self-employed, which is 6.6% of the total.
- Gender Distribution: More females (6.9%) are self-employed than males (5.9%), suggesting a marginally higher entrepreneurial inclination among female graduates.

Work for a company where I got a job contract:

- Total: 335 graduates are employed with a contract, making up the largest group at 59.4% of the total.
- Gender Distribution: A significant 62.7% of females have secured contractual employment compared to 51.8% of males, showing that female graduates are more likely to be in stable contracted positions.

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Unemployed:

- Total: 126 graduates are currently unemployed, comprising 22.3% of the total.
- Gender Distribution: Unemployment is notably higher among male graduates at 33.5%, compared to 17.5% for female graduates. This substantial difference highlights a significant gender disparity in post-graduation employment status.

Chi-Square Tests

The Chi-Square tests and symmetric measures calculated are useful for understanding the relationship between gender and current employment situation among university graduates in the Philippines:

Pearson Chi-Square Test:

- Value: 18.684
- Degrees of Freedom (df): 4
- Asymptotic Significance (2-sided): <0.001

This result is highly significant, indicating that there are statistically significant differences in the employment situations between male and female graduates. The low p-value (<0.001) strongly rejects the null hypothesis that there is no association between gender and employment situation.

Likelihood Ratio:

- Value: 17.945
- Degrees of Freedom (df): 4
- Asymptotic Significance: 0.001

Similar to the Pearson Chi-Square, the Likelihood Ratio also suggests a significant association between gender and employment situations, supporting the findings of the Pearson test.

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Linear-by-Linear Association:

- Value: 8.310
- Degrees of Freedom (df): 1
- Asymptotic Significance: 0.004

This test is used for ordinal data to test for a trend across categories. A significant result here (p = 0.004) suggests a significant linear trend in the relationship between gender and employment categories.

Note on Expected Counts: Two cells (20% of cells) have an expected count less than 5, with the minimum expected count being 1.51. While this might raise concerns about the robustness of the chi-square test, the overall number of cells with low expected counts is not overly problematic, and the test should still provide reliable insights.

Symmetric Measures

- Phi and Cramer's V:
    - Value: 0.182
    - Approximate Significance: <0.001

Both Phi and Cramer's V are measures of the strength of association between two nominal variables. A value of 0.182 indicates a weak to moderate association, but it is statistically significant, further supporting the existence of a relationship between gender and employment situation.

Contingency Coefficient:

- Value: 0.179
- Approximate Significance: <0.001

Similar to Phi and Cramer's V, this also suggests a weak to moderate association but significant nonetheless.

Conclusion

The statistical tests indicate a significant association between gender and employment situation among university graduates in the Philippines. Although the strength of this association is not strong (as indicated by the values of Phi, Cramer's V, and the Contingency Coefficient), the significance of these tests suggests that gender does indeed play a role in determining employment outcomes for these individuals. The data reveals different challenges and opportunities for male and female graduates,

Overall Insights:

The most common employment status for both genders is contractual work with a company, indicating that most graduates find structured employment post-graduation.

Female graduates tend to secure contracted jobs at a higher rate and participate more in self-employment and unpaid or informal jobs compared to male graduates.

Male graduates, however, face a significantly higher unemployment rate, which could point to broader economic or societal challenges.

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4.3. Job PATHWAY

To carry out the analysis of the different ways that graduates use to find a job we recoded the categories into new ones as follow:

Explanation of Groupings:

Personal Contacts: This category is now exclusive to finding a job through personal contacts such as family and friends, emphasizing informal networks that rely on close personal interactions.

Online Networks: Groups methods such as social and professional networks on the internet (e.g., LinkedIn), and job portals. This reflects a more formalized but still digitally based network approach.

Direct Employer Contact: This category includes proactive approaches such as contacting the employer directly or through internships, where the initiative comes directly from the job seeker.

Institutional Supports: Comprises methods facilitated by institutions, such as being contacted by the employer, using university employment services, and securing jobs through public competitions.

Self-Employment: Continues as its own category given its unique nature of creating one's own job opportunity.

Public or Temporary Agencies: Includes searching through public employment agencies and temporary employment agencies, maintaining its role as a category for formal employment support services.

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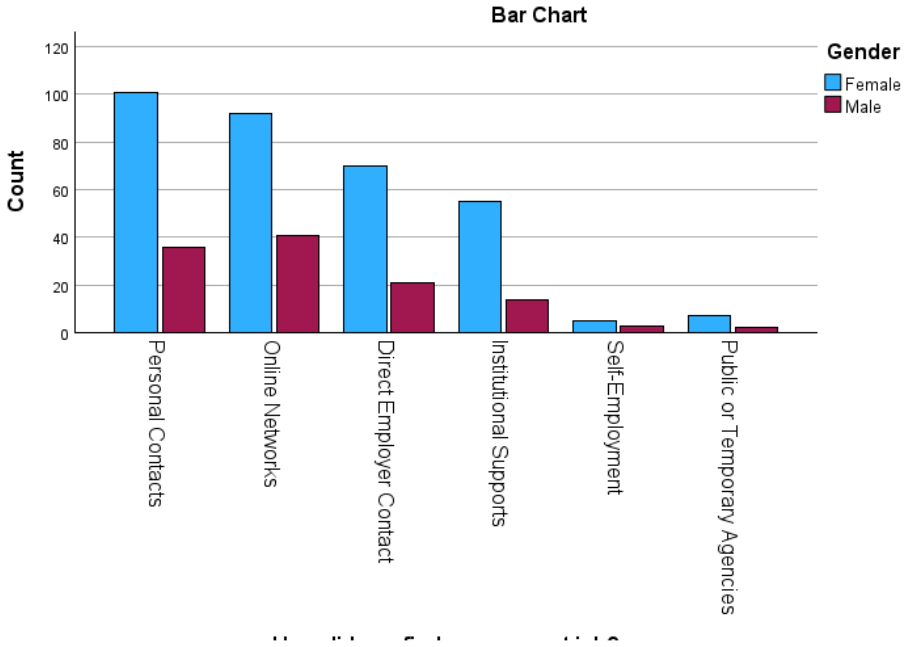
Table 4-3 Job PATHWAY

How did you find your current job? * Gender Crosstabulation

		Gender		
		Female	Male	Total
How did you find your current job?	Personal Contacts	101	36	137
		30,6%	30,8%	30,6%
	Online Networks	92	41	133
		27,9%	35,0%	29,8%
	Direct Employer Contact	70	21	91
		21,2%	17,9%	20,4%
	Institutional Supports	55	14	69
		16,7%	12,0%	15,4%
	Self-Employment	5	3	8
		1,5%	2,6%	1,8%
	Public or Temporary Agencies	7	2	9
		2,1%	1,7%	2,0%
Total		330	117	447
		100,0%	100,0%	100,0%

Figure 4-1 Job PATHWAY



Cross-tabulation summary

Personal Contacts:

- Total: 137 respondents found their job through personal contacts.
- Gender Distribution: 101 females (73.7%) and 36 males (26.3%).
- This method is the most popular overall and is particularly favored by female respondents.

Online Networks:

- Total: 133 respondents utilized online networks.
- Gender Distribution: 92 females (69.2%) and 41 males (30.8%).
- This method ranks as the second most utilized overall, with a higher preference shown by females.

Direct Employer Contact:

- Total: 91 respondents contacted their employer directly.
- Gender Distribution: 70 females (76.9%) and 21 males (23.1%).
- Although this ranks lower than personal contacts and online networks, it is still significantly chosen by females.

Institutional Supports:

- Total: 69 respondents found their job through institutional supports.
- Gender Distribution: 55 females (79.7%) and 14 males (20.3%).
- This method shows a strong preference among females, suggesting that institutional networks might be more accessible or utilized by them.

Self-Employment:

- Total: 8 respondents are self-employed.
- Gender Distribution: 5 females (62.5%) and 3 males (37.5%).

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- Although a small number overall, the slightly higher female participation might indicate a growing trend or preference for self-employment among women.

Public or Temporary Agencies:

- Total: 9 respondents found jobs through these agencies.
- Gender Distribution: 7 females (77.8%) and 2 males (22.2%).
- This method is least popular and predominantly chosen by females.

Key Interpretations:

Gender Preferences: Women tend to utilize all job-finding methods more than men, particularly personal contacts and online networks.

Most Popular Methods: Personal contacts and online networks are the dominant channels through which most respondents have secured employment, underscoring the importance of social and professional networks in the job search process.

Least Utilized Method: Public or temporary agencies are the least utilized method, which could suggest a perception of lower effectiveness or accessibility.

Statistical Significance: All p-values (asymptotic significance) are greater than 0.05, indicating that there is no statistically significant association between the gender of respondents and the methods used to find employment. This means that, based on the data from the sample, gender does not significantly influence how people find their current job.

Implications for Policy and Practice: These findings could guide career counselling and job placement services in universities and employment agencies to emphasize building and leveraging both personal and professional networks, especially for female graduates. Additionally, the data suggest the need for further investigation into the lower usage of direct contacts and institutional supports by male graduates, potentially indicating a gap in awareness or accessibility.

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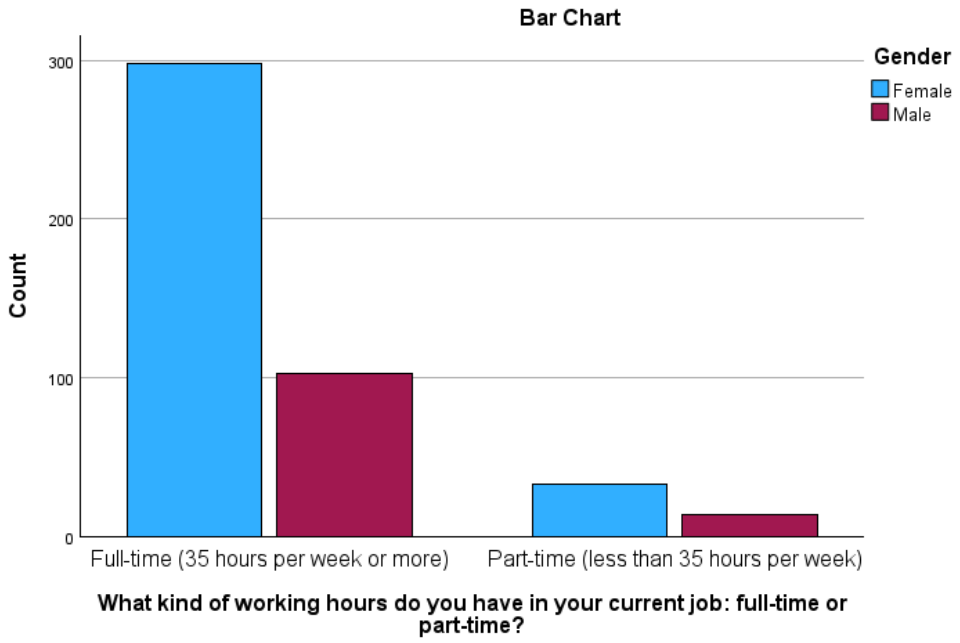
4.4. Partial vs full time working

Table 4-4 Partial vs full time working

What kind of working hours do you have in your current job: full-time or part-time? * Gender Crosstabulation

		Gender		
		Female	Male	Total
What kind of working hours do you have in your current job: full-time or part-time?	Full-time (35 hours per week or more)	298	103	401
		90,0%	88,0%	89,5%
	Part-time (less than 35 hours per week)	33	14	47
		10,0%	12,0%	10,5%
Total		331	117	448
		100,0%	100,0%	100,0%

Figure 4-4 Partial vs full time work



Cross-tabulation Summary:

Full-time Employment:

- Females: 298 (90.0%)
- Males: 103 (88.0%)
- Total: 401 (89.5%)

Part-time Employment:

- Females: 33 (10.0%)
- Males: 14 (12.0%)
- Total: 47 (10.5%)

Chi-Square Tests Results:

- Pearson Chi-Square: 0.367, df = 1, p-value = 0.545
- Continuity Correction: 0.185, df = 1, p-value = 0.667
- Likelihood Ratio: 0.358, df = 1, p-value = 0.550
- Fisher's Exact Test: Two-sided p-value = 0.599, One-sided p-value = 0.327
- Linear-by-Linear Association: 0.366, df = 1, p-value = 0.545

Statistical Significance: All the tests (Pearson, Likelihood Ratio, Continuity Correction, and Linear-by-Linear Association) show p-values well above 0.05, indicating that there is no statistically significant association between gender and the type of working hours (full-time or part-time). The results suggest that both genders are equally likely to be employed in full-time or part-time roles based on the sample data.

Expected Count Validation: All expected counts are above 5, which validates the appropriateness of the Chi-square test in this context. The minimum expected count noted is 12.27, indicating that the sample size is adequate for this analysis.

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Practical Implications: The lack of a significant difference between genders in working hours suggests that employment conditions (in terms of hours worked per week) are fairly equal for males and females among the respondents. This equality in employment conditions can be an indicator of non-discriminatory employment practices regarding hours worked, at least within the context of this survey.

Considerations for Future Studies: While no significant gender difference was found in this sample, organizations and policymakers might still benefit from monitoring these trends, especially in different sectors or regions, to ensure equitable employment conditions continue to prevail or to address any emerging disparities.

The analysis suggests that employment conditions in terms of full-time and part-time work are similarly distributed among male and female respondents, with no evidence of gender-based disparity in how employment is structured by hours.

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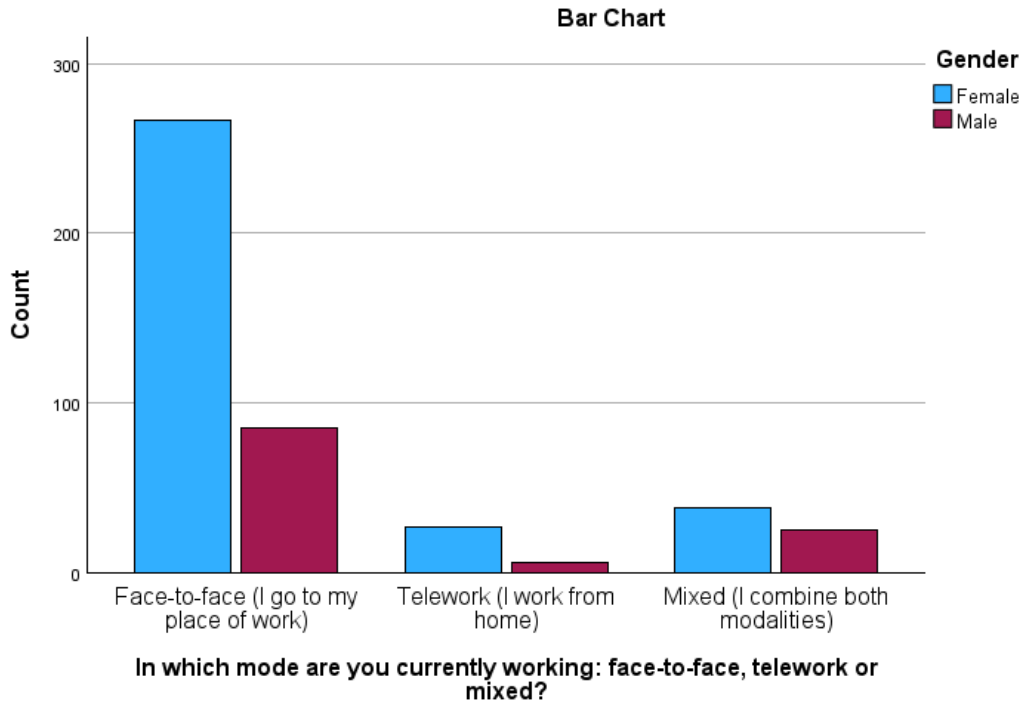
4.5. Teleworking

Table 4-5 Teleworking

In which mode are you currently working: face-to-face, telework or mixed? * Gender Crosstabulation

		Gender		
		Female	Male	Total
In which mode are you currently working: face-to-face, telework or mixed?	Face-to-face (I go to my place of work)	267	85	352
		80,4%	73,3%	78,6%
	Telework (I work from home)	27	6	33
		8,1%	5,2%	7,4%
	Mixed (I combine both modalities)	38	25	63
		11,4%	21,6%	14,1%
Total		332	116	448
		100,0%	100,0%	100,0%

Figure 4-5 Teleworking



Cross-tabulation Summary:

Face-to-Face:

- Females: 267 (80.4%)
- Males: 85 (73.3%)
- Total: 352 (78.6%)

Telework:

- Females: 27 (8.1%)
- Males: 6 (5.2%)
- Total: 33 (7.4%)

Mixed Modality:

- Females: 38 (11.4%)
- Males: 25 (21.6%)
- Total: 63 (14.1%)

Chi-Square Tests Results:

- Pearson Chi-Square: Value of 7.824 with df = 2 and p-value = 0.020
- Likelihood Ratio: 7.370 with a p-value of 0.025
- Linear-by-Linear Association: 5.004 with p-value = 0.025

Symmetric Measures:

- Phi and Cramer's V: Both are 0.132 with a significance level of 0.020.
- Contingency Coefficient: 0.131 with a significance level of 0.020.

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Interpretation:

Statistical Significance: The Chi-square test results show a statistically significant difference at the 0.05 level (p = 0.020), indicating a significant association between gender and the mode of working. Specifically, there are meaningful differences in how genders are distributed across different work modalities.

Strength of Association: The values of Phi, Cramer's V, and the Contingency Coefficient (all approximately 0.132) suggest a weak association, although statistically significant. This indicates that while there is a detectable difference between genders in the choice of work modality, the effect size is not strong.

Detailed Observations:

- **Face-to-Face:** A higher percentage of females (80.4%) compared to males (73.3%) work in a face-to-face setting.
- **Telework:** Slightly more females (8.1%) work from home compared to males (5.2%).
- **Mixed Modality:** A significantly higher proportion of males (21.6%) compared to females (11.4%) use a mixed modality, combining face-to-face and telework.

Conclusion:

The analysis shows that there are gender differences in the preferences for work modalities. Males are more likely to employ a mixed working modality than females, who predominantly work in a face-to-face setting. Although the association is weak, the significance of these results could imply that workplace policies and flexibility might be perceived or utilized differently by different genders. This insight could inform organizational strategies around flexible working arrangements to accommodate and potentially attract a more diverse workforce.

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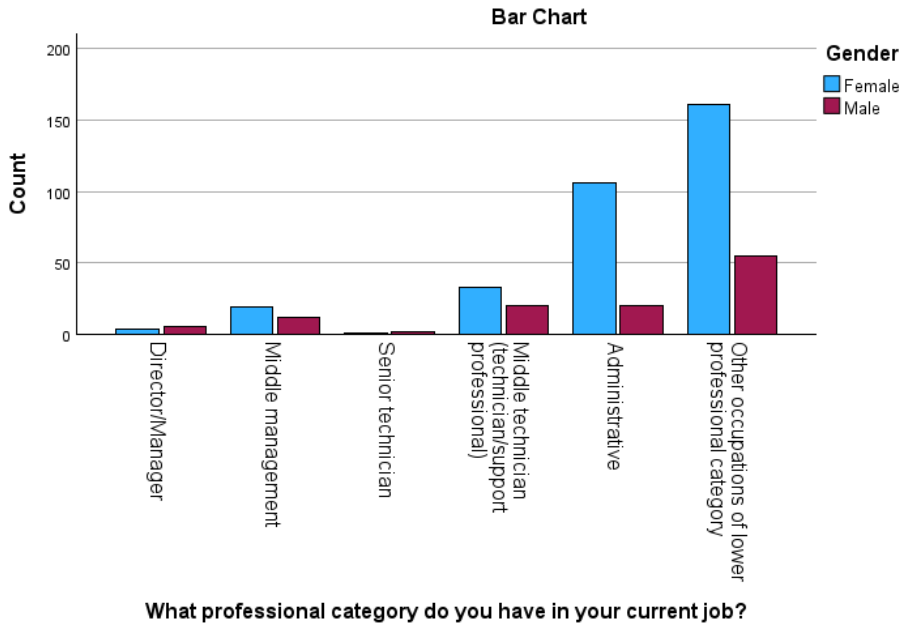
4.6. Position at job

Table 4-6 Position at job

What professional category do you have in your current job? * Gender Crosstabulation

			Gender		
			Female	Male	Total
What professional category do you have in your current job?	Director/Manager		4	6	10
			1,2%	5,2%	2,3%
	Middle management		19	12	31
			5,9%	10,4%	7,1%
	Senior technician		1	2	3
			0,3%	1,7%	0,7%
	Middle technician (technician/support professional)		33	20	53
			10,2%	17,4%	12,1%
	Administrative		106	20	126
			32,7%	17,4%	28,7%
	Other occupations of lower professional category		161	55	216
			49,7%	47,8%	49,2%
Total			324	115	439
			100,0%	100,0%	100,0%

Figure 4-6 Position at job



Summary of Professional Categories by Gender:

Director/Manager:

- Females: 4 (1.2% of females)
- Males: 6 (5.2% of males)
- This shows a higher proportion of males in top management roles compared to females.

Middle Management:

- Females: 19 (5.9% of females)
- Males: 12 (10.4% of males)
- Males are also more prevalent in middle management positions.

Senior Technician:

- Females: 1 (0.3% of females)
- Males: 2 (1.7% of males)
- Although the numbers are small, a higher percentage of males occupy senior technical roles.

Middle Technician (technician/support professional):

- Females: 33 (10.2% of females)
- Males: 20 (17.4% of males)
- Again, a greater percentage of males are found in this technical category.

Administrative:

- Females: 106 (32.7% of females)
- Males: 20 (17.4% of males)
- A significant gender disparity exists here, with females predominantly occupying administrative roles.

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Other Occupations of Lower Professional Category:

- Females: 161 (49.7% of females)
- Males: 55 (47.8% of males)
- The largest category for both genders, showing a roughly equal distribution in lower professional categories.

Chi-Square Test Analysis:

- Pearson Chi-Square: 21.618, df = 5, $p < 0.001$
- Likelihood Ratio: 20.656, $p < 0.001$
- Linear-by-Linear Association: 8.941, $p = 0.003$

Symmetric Measures:

- Phi and Cramer's V: 0.222
- Contingency Coefficient: 0.217
- All these statistics confirm a statistically significant association between gender and professional category with a small to moderate effect size, indicating that gender does play a role in the distribution of job categories.

Interpretation and Conclusion:

The analysis reveals distinct patterns in job roles between genders:

- **Higher-Level Roles:** Males are more likely to occupy higher-level managerial and technical roles. This could reflect existing gender biases in promotions and hiring for top-level positions.
- **Administrative Roles:** Females predominantly occupy administrative positions, which might suggest traditional gender roles influencing job segregation.
- **Technical and Support Roles:** Males also show higher representation in mid-level technical roles, which could indicate a gender preference or bias in the technical training and recruitment processes.

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Given the statistically significant results, organizations should consider these disparities when designing equality, diversity, and inclusion policies. It highlights the need for interventions to ensure equal opportunities across all professional categories, potentially addressing unconscious biases in hiring and promotions.

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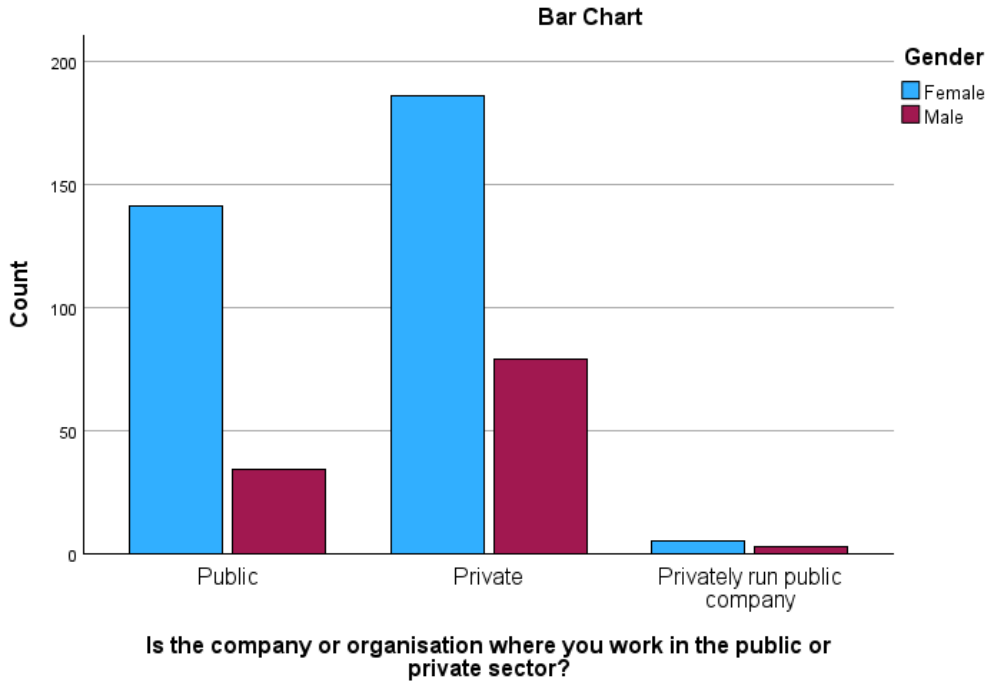
4.7. Sector

Table 4-7 Sector (Public / Private / Mixed economy)

Is the company or organisation where you work in the public or private sector? * Gender Crosstabulation

		Gender		
		Female	Male	Total
Is the company or organisation where you work in the public or private sector?	Public	141	34	175
		42,5%	29,3%	39,1%
	Private	186	79	265
		56,0%	68,1%	59,2%
	Privately run public company	5	3	8
		1,5%	2,6%	1,8%
Total		332	116	448
		100,0%	100,0%	100,0%

Figure 4-7 Sector (Public / Private / Mixed economy)



Cross-tabulation Summary:

Public Sector:

- Females: 141 (42.5% of females)
- Males: 34 (29.3% of males)
- Total: 175 (39.1%)

Private Sector:

- Females: 186 (56.0% of females)
- Males: 79 (68.1% of males)
- Total: 265 (59.2%)

Privately Run Public Company:

- Females: 5 (1.5% of females)
- Males: 3 (2.6% of males)
- Total: 8 (1.8%)

Chi-Square Tests Results:

- Pearson Chi-Square: 6.493, df = 2, p = 0.039
- Likelihood Ratio: 6.629, p = 0.036
- Linear-by-Linear Association: 6.453, p = 0.011

Symmetric Measures:

- Phi and Cramer's V: 0.120, indicating a very weak association.
- Contingency Coefficient: 0.120, with a significance level of 0.039.

Interpretation:

Statistical Significance: The Chi-square tests show that there is a statistically significant difference in the sector of employment based on gender. The p-values

are below the conventional threshold of 0.05, suggesting that the distribution of employment sectors is not independent of gender.

Strength of Association: Although the tests are statistically significant, the values of Phi and Cramer's V suggest a very weak association. This implies that while there is a detectable difference, it is not substantial in terms of effect size.

Detailed Observations:

- **Public Sector:** A larger percentage of females (42.5%) work in the public sector compared to males (29.3%). This might suggest a tendency or preference for public sector employment among females, or potentially better access to such opportunities.
- **Private Sector:** Conversely, males are more likely to work in the private sector (68.1% compared to 56.0% for females). This may reflect differing career paths or industry preferences between genders.
- **Privately Run Public Company:** Very small numbers are employed in this category, making it difficult to draw strong conclusions, though a slightly higher percentage of males are found in this sector.

Conclusion:

The analysis reveals gender differences in the sectors of employment, with females more prevalent in the public sector and males in the private sector. Given the very weak association, however, these findings should be interpreted with caution. They suggest a pattern but do not imply a strong influence of gender on sector employment. It may be beneficial for policymakers and organizations to further explore these trends to understand underlying factors and address any potential barriers to equitable employment opportunities across sectors.

4.8. Employer business activity

For the analysis we proceeded to recode the categories of this variable as there are more than 20 in the original design. This is the recodification result:

Proposed Grouping Based on Frequency and Category:

1. Service and Public Sector:
   - Administrative and support service activities
   - Human health and social work activities
   - Public administration and defence
   - Education (since it is a major category, combining it here might unbalance this group, but it's grouped based on service nature)
2. Science and Technical Sector:
   - Professional, scientific and technical activities, retail
   - Information and communications
3. Finance and Real Estate:
   - Financial and insurance activities
   - Real estate activities
   - Activities of households as employers of domestic personnel (due to low frequency)
4. Industry and Agriculture:
   - Manufacturing industry
   - Agriculture, forestry, fishing and fishing
   - Electricity, gas, steam, and air conditioning supply
   - Water supply, sewerage, waste management
   - Construction
5. Commerce and Other Services:
   - Trade; repair of vehicles
   - Arts, entertainment, and recreation
   - Hotels and restaurants
   - Other services
   - Transport and storage

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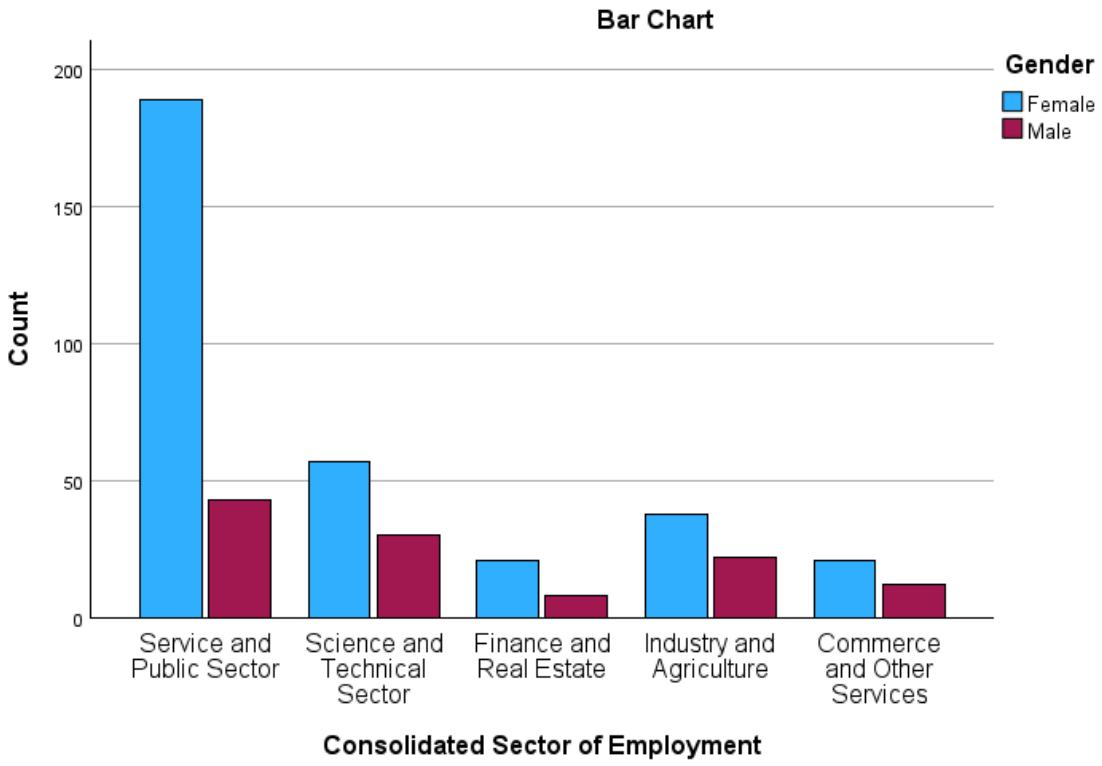
Table 4-8 Employer business activity

Consolidated Sector of Employment * Gender Crosstabulation

		Gender		
		Female	Male	Total
Consolidated Sector of Employment	Service and Public Sector	189	43	232
		58,0%	37,4%	52,6%
	Science and Technical Sector	57	30	87
		17,5%	26,1%	19,7%
	Finance and Real Estate	21	8	29
		6,4%	7,0%	6,6%
	Industry and Agriculture	38	22	60
		11,7%	19,1%	13,6%
	Commerce and Other Services	21	12	33
		6,4%	10,4%	7,5%
Total		326	115	441
		100,0%	100,0%	100,0%

Figure 4-8 Employer business activity



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Cross-tabulation Summary:

Service and Public Sector:

- Females: 189 (58.0% of females)
- Males: 43 (37.4% of males)
- This sector shows a significantly higher percentage of females compared to males.

Science and Technical Sector:

- Females: 57 (17.5% of females)
- Males: 30 (26.1% of males)
- Males are relatively more represented in this sector than females.

Finance and Real Estate:

- Females: 21 (6.4% of females)
- Males: 8 (7.0% of males)
- Representation in this sector is fairly balanced between genders.

Industry and Agriculture:

- Females: 38 (11.7% of females)
- Males: 22 (19.1% of males)
- Higher male representation is observed in this sector.

Commerce and Other Services:

- Females: 21 (6.4% of females)
- Males: 12 (10.4% of males)
- Males are slightly more prevalent in this sector.

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Chi-Square Tests Results:

- Pearson Chi-Square: 15.372, df = 4, p = 0.004
- Likelihood Ratio: 15.332, p = 0.004
- Linear-by-Linear Association: 10.819, p = 0.001

Symmetric Measures:

- Phi and Cramer's V: 0.187, indicating a weak to moderate association between gender and sector of employment.
- Contingency Coefficient: 0.184, confirming the statistical significance of the observed associations.

Interpretation:

Statistical Significance: The Chi-square test indicates a statistically significant association between gender and the consolidated sector of employment. This suggests that gender distribution varies significantly across different sectors.

Sector Analysis:

- Service and Public Sector: The dominance of females in this sector could reflect traditional employment patterns where public and service-oriented roles have higher female participation.
- Science and Technical Sector: The higher percentage of males may indicate ongoing gender disparities in STEM fields, which are traditionally male-dominated.
- Industry and Agriculture: Again, a traditionally male-dominated area shows higher male participation, possibly reflecting historical trends and possibly ongoing barriers for female entry or advancement in these fields.
- Commerce and Other Services: The slight male dominance could be influenced by specific sub-sectors within this category that traditionally favour male employment.
- Strength of Association: The values for Phi and Cramer's V, though statistically significant, suggest that while gender does play a role in sector

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employment, the effect size is not strong. This indicates that other factors besides gender may also significantly influence employment sector distribution.

Conclusion:

The analysis underscores the presence of gender-based employment sector disparities. Although the association is not very strong, it is statistically significant, pointing to underlying societal and economic factors that influence gender representation in various employment sectors. These findings can inform policy decisions and initiatives aimed at promoting gender equality and diversity in the workplace. This analysis should be considered in strategic planning, especially for organizations and industries aiming to enhance gender balance within their workforce.

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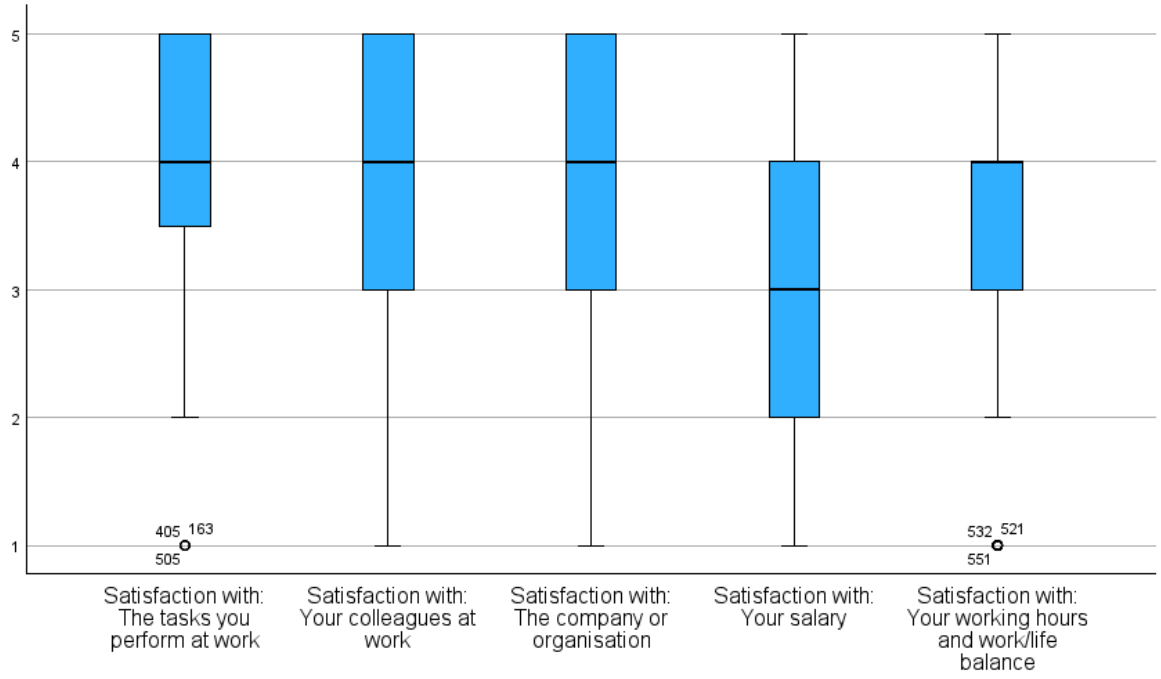
4.9. Satisfaction

Figure 4-9 Satisfaction with different aspects of work



Analysis of Satisfaction Levels

Satisfaction with the tasks you perform at work:

- Mean Score: Approximately 4.6
- This is the highest satisfaction score among the categories, indicating that graduates feel positively about the tasks they perform at work.

Satisfaction with your colleagues at work:

- Mean Score: Approximately 4.5
- Graduates also report high satisfaction with their colleagues, suggesting a good interpersonal environment at the workplace.

Satisfaction with the company or organization:

- Mean Score: Approximately 4.0
- This score is slightly lower than for tasks and colleagues, indicating some areas for improvement in organizational aspects or corporate culture.

Satisfaction with your salary:

- Mean Score: Approximately 3.6
- Salary satisfaction is notably lower, suggesting concerns about compensation among graduates.

Satisfaction with your working hours and work-life balance:

- Mean Score: Approximately 3.5
- The lowest scores relate to working hours and work-life balance, pointing to potential issues with long working hours or the inability to maintain a healthy balance between work and personal life.

Next Steps: Factor Analysis

To create an overall satisfaction measure, we could use factor analysis, a statistical method used to identify variables that are correlated with each other and group them into underlying factors.

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4.9.1. Factorising satisfaction

STEP 1: Evaluating consistency of scale with Cronbach Alfa test

Table 4-9-1-a Cronbach Alfa Test

Reliability Statistics

Cronbach's Alpha	N of Items
,799	5

Table 4-9-1-b Cronbach Alfa Item – Total Statistics

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Satisfaction with: The tasks you perform at work	14,63	10,274	,543	,772
Satisfaction with: Your colleagues at work	14,54	10,128	,502	,784
Satisfaction with: The company or organisation	14,70	9,057	,673	,730
Satisfaction with: Your salary	15,43	8,779	,618	,749
Satisfaction with: Your working hours and work/life balance	15,00	9,220	,577	,762

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Overview of Cronbach's Alpha

- Cronbach's Alpha for the Scale: 0.799
- Number of Items: 5

Interpretation:

A Cronbach's Alpha of 0.799 indicates good internal consistency for the scale, suggesting that the items are well-correlated and form a reliable measure of the overall concept, which in this case is job satisfaction.

An alpha value close to 0.8 is considered acceptable and indicates that the scale items are sufficiently related to be used together to measure a single construct.

Item-Total Statistics Analysis

This section reviews each item's contribution to the overall scale reliability and whether any item's removal would increase the scale's internal consistency.

Satisfaction with the tasks you perform at work:

- Corrected Item-Total Correlation: 0.543
- Cronbach's Alpha if Item Deleted: 0.772

Interpretation: Removing this item would decrease the overall alpha slightly, indicating that it is a valuable component of the scale. The item correlates moderately with the overall scale.

Satisfaction with your colleagues at work:

- Corrected Item-Total Correlation: 0.502
- Cronbach's Alpha if Item Deleted: 0.784

Interpretation: This item has the lowest item-total correlation, suggesting it is the least related to the other items. Despite this, removing it would also slightly decrease the alpha, indicating it still adds value to the overall consistency.

Satisfaction with the company or organisation:

- Corrected Item-Total Correlation: 0.673
- Cronbach's Alpha if Item Deleted: 0.730

Interpretation: This item has the highest item-total correlation, making it a strong contributor to the scale. Its removal would significantly reduce the scale's reliability, underlining its importance.

Satisfaction with your salary:

- Corrected Item-Total Correlation: 0.618
- Cronbach's Alpha if Item Deleted: 0.749

Interpretation: This item also correlates strongly with the overall scale and is crucial for maintaining the reliability of the scale.

Satisfaction with your working hours and work/life balance:

- Corrected Item-Total Correlation: 0.577
- Cronbach's Alpha if Item Deleted: 0.762

Interpretation: This item's removal would lower the scale's reliability, emphasizing its significance in assessing overall job satisfaction.

Conclusions:

Scale Reliability: The scale is reliable for assessing job satisfaction, with all items contributing positively to its internal consistency.

Item Contributions: Each item contributes to the overall reliability, with 'Satisfaction with the company or organisation' being the most influential.

Next Steps: To enhance job satisfaction assessment, it is recommended to retain all current items. Further, conducting factor analysis may reveal underlying dimensions

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of job satisfaction, allowing for a more nuanced understanding and targeted interventions.

The analysis confirms the appropriateness of these items for measuring job satisfaction comprehensively, justifying their combined use in subsequent analyses that could link job satisfaction with other workplace factors or demographic variables.

STEP 2: KMO & Bartlett's Test of Sphericity

Table 4-9-1-c KMO & Bartlett's Test

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		,813
Bartlett's Test of Sphericity	Approx. Chi-Square	639,104
	df	10
	Sig.	<,001

KMO

- Kaiser-Meyer-Olkin Measure of Sampling Adequacy: 0.813
- This value suggests that the partial correlations among items are relatively low, indicating that the items share something in common, making PCA a suitable method for this data.

Bartlett's Test of Sphericity

- Approx. Chi-Square: 639.104
- Degrees of Freedom: 10
- Significance: < 0.001
- This test is significant, indicating that the correlation matrix is not an identity matrix and is suitable for PCA.

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STEP 3: PCA

Table 4-10 Principal Components Analysis

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2,782	55,642	55,642	2,782	55,642	55,642
2	,726	14,511	70,153			
3	,627	12,532	82,685			
4	,449	8,980	91,665			
5	,417	8,335	100,000			

Extraction Method: Principal Component Analysis.

Table 4-9-1-e Component Matrix

Component Matrix[a]

	Component 1
Satisfaction with: The company or organisation	,819
Satisfaction with: Your salary	,775
Satisfaction with: Your working hours and work/life balance	,738
Satisfaction with: The tasks you perform at work	,713
Satisfaction with: Your colleagues at work	,676

Extraction Method: Principal Component Analysis.

a. 1 components extracted.

PCA Results: Total Variance Explained

One major component extracted explains 55.642% of the total variance in the data, indicating that one underlying factor (component) largely captures the essence of job satisfaction across various dimensions considered in the survey.

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The steep drop in explained variance after the first component (from 55.642% to 14.511% for the second component) justifies focusing on the first component as a comprehensive measure of overall job satisfaction.

Component Matrix

Loadings on the first component:

- Satisfaction with the company or organization: 0.819
- Satisfaction with your salary: 0.775
- Satisfaction with your working hours and work/life balance: 0.738
- Satisfaction with the tasks you perform at work: 0.713
- Satisfaction with your colleagues at work: 0.676

These loadings represent the correlation between each item and the extracted component, suggesting that all items are positively and substantially related to the first principal component.

Interpretation of the PCA

Single Dimension of Job Satisfaction:

- The PCA results suggest that job satisfaction, as measured across these five different aspects, can be effectively understood as a single dimensional construct in this dataset.
- High loadings across all variables on this single component imply that respondents who are satisfied in one area (e.g., with their tasks) are likely to be satisfied in others (e.g., with salary and colleagues).

Next Steps

Creating a Composite Score:

- Given that PCA identified one predominant component, we will calculate a composite score for each respondent by taking a weighted average of their scores on the five items, using the component loadings as weights.

Usage of Composite Score:

- This composite score can be used as a single measure of job satisfaction in further analyses to explore its relationship with other independent variables in the survey (such as age, education level, tenure at the company, etc.).

Further Statistical Analysis:

We will proceed to use this overall job satisfaction score in regression analyses, to see how job satisfaction varies across different groups within survey dataset.

This PCA has effectively simplified the multi-dimensional job satisfaction measure into a single, comprehensive index that can facilitate deeper and more streamlined analyses.

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4.9.2. Regression of satisfaction with dependent variable

For a deeper understanding of satisfaction, we proceed analysing different patterns of satisfaction we use the Automated Linear Modelling technic of analysis.

Automated Linear Modelling is a statistical technique that facilitates regression analysis, especially useful for exploring relationships between a dependent variable and multiple independent variables. This approach is particularly valuable when dealing with complex datasets where selecting the right model parameters and understanding the impact of various predictors can be challenging.

I. STEPS:

a. Variable Selection:

Automated linear modelling algorithms employ techniques to automatically select the most relevant variables for the model. This process involves evaluating various combinations of independent variables to determine which ones have the most significant impact on the dependent variable. Techniques like stepwise regression, which iteratively adds or removes variables based on specific criteria (like AIC, BIC, or p-values), are common.

b. Model Building:

The algorithm constructs multiple models using different subsets of the selected variables. It assesses the performance of each model based on a predefined criterion, such as the coefficient of determination (R^2) or the root mean squared error (RMSE). This process helps in identifying the model that best explains the variation in the dependent variable.

c. Diagnostics:

Once the best model is selected, automated linear modeling conducts diagnostic checks to validate the model assumptions. This includes checks

for multicollinearity, homoscedasticity, and normality of residuals. These diagnostics are crucial for verifying the reliability and validity of the model's predictions.

d. Optimization:

The technique also optimizes the model parameters to enhance the accuracy and interpretability of the results. This may involve tuning the regression coefficients to balance the trade-off between bias and variance, thus improving the model's generalizability.

II. Applying ALM to Job Satisfaction Study in the Philippines

In the context of studying job satisfaction, automated linear modelling can be effectively utilized to analyse how different factors such as combining studies with work, current work situation, job pathway, working hours (partial vs full time), teleworking, position at the job, sector, and employer business activity influence overall job satisfaction. Here's how the approach can be tailored for this study:

a. Defining the Dependent Variable:

The dependent variable would be the composite job satisfaction score derived from PCA or another method that consolidates various aspects of job satisfaction into a single measure.

b. Independent Variables:

The independent variables would include:

- **Gender:** Analyse the effect of gender in the satisfaction.
- **Combining Studies with Work:** Examines if balancing studies with work affects satisfaction.
- **Current Work Situation:** Looks at whether the nature of the current job (e.g., permanent, contractual) influences satisfaction.

- **Job PATHWAY:** Considers the career progression and its impact on satisfaction.
- **Working Hours:** Analyses how part-time vs full-time employment status affects satisfaction.
- **Teleworking:** Assesses the effect of teleworking on job satisfaction.
- **Position at Job:** Investigates how different roles or positions within the company impact satisfaction.
- **Sector:** Studies the sector of employment and its influence on satisfaction.
- **Employer Business Activity:** Looks at the type of activities the employer is engaged in and their effect on satisfaction.

c. Analysis:

Automated linear modelling will use these variables to determine their individual and combined impact on job satisfaction, adjusting the model automatically to account for the most significant predictors and providing insights that can help in making informed decisions to enhance job satisfaction.

This approach not only streamlines the modelling process but also ensures that the conclusions drawn are based on statistically robust analysis, providing clear insights into which factors are most critical in determining job satisfaction.

III. Results

a. Information Criterion

Table 4-9.2.a Information criterion

Target	Satisfaction Index
Automatic Data Preparation	On
Model Selection Method	Forward Stepwise
Information Criterion	-11,967

The information criterion is used to compare to models. Models with smaller information criterion values fit better.

Information Criterion: -11.967

The Information Criterion (likely AIC or BIC) is a measure used to compare different models, with a lower (more negative) value generally indicating a better fit of the model to the data.

The value of **-11.967** suggests that the final model achieved a reasonably good fit, balancing model complexity and goodness of fit.

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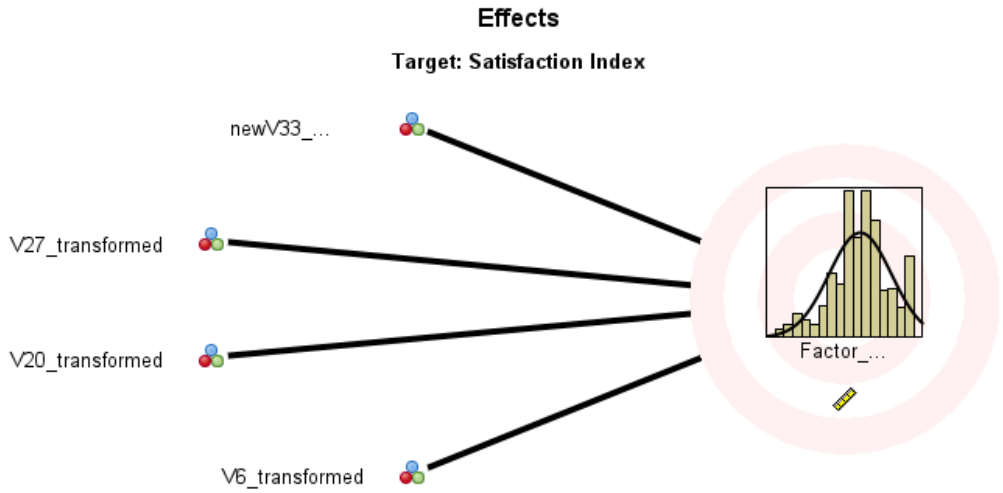
b. Variables effects on satisfaction

Figure 4-9-2-a Effectos on satisfaction



V33 = Consolidated Sector of Employment

V27 = In which mode are you currently working: face-to-face, telework or mixed?

V20 = What is your current employment situation?

V6 = During the last undergraduate studies that you carried out in the University, that you have already finished, what was your most common activity?

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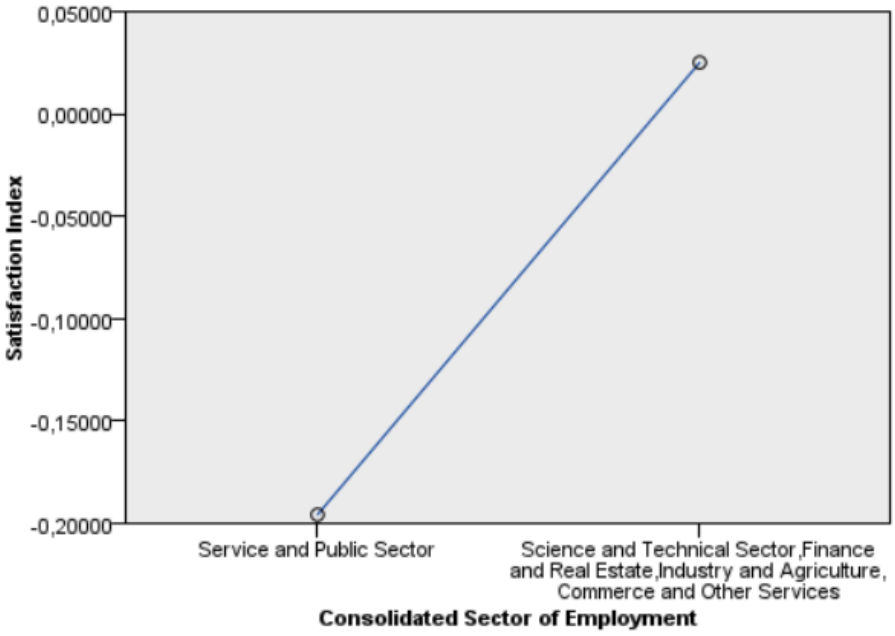
Figure 4-9-2-b Economic actiity of employer & telework



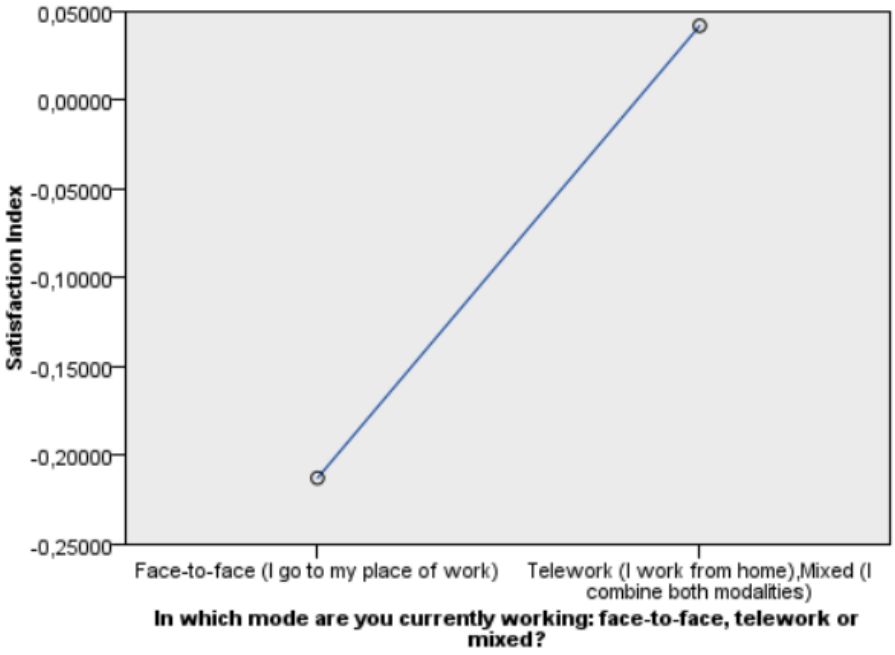


Chart 4.9.1.c. Work situation & Combining work when studying

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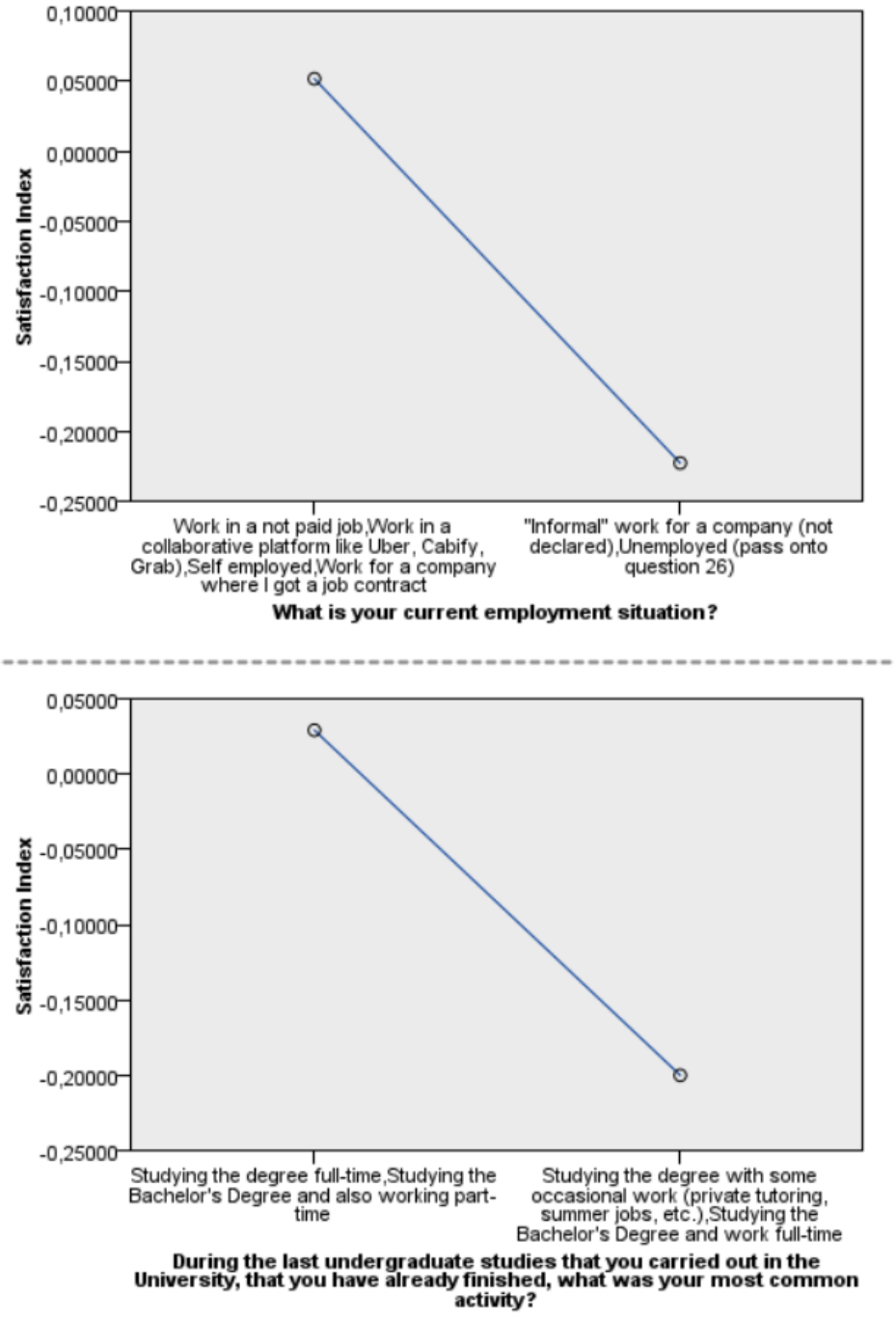
Figure 4-9-2-c Work situation & Combining work when studying xshh



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1. Consolidated Sector of Employment

- Graph Analysis:
  - Service and Public Sector: Shows a significant negative impact on the Satisfaction Index.
  - Science and Technical Sector, Finance and Real Estate, Industry and Agriculture, Commerce and Other Services: These sectors show a positive relationship with the Satisfaction Index, with satisfaction increasing from the service sector to commerce and other services.
- Interpretation:
  - Employees in the Science and Technical sectors, along with those in Commerce and Other Services, tend to have higher satisfaction levels compared to those in the Service and Public Sector. This could reflect varying working conditions, growth opportunities, and job security across these sectors.

2. Mode of Working

- Graph Analysis:
  - Face-to-face: Lowest satisfaction levels.
  - Telework: Moderate satisfaction.
  - Mixed (Combining both modalities): Highest satisfaction levels.
- Interpretation:
  - This suggests that employees who have a mixed work mode, combining telework and face-to-face, are the most satisfied. This could be attributed to flexibility and balance that mixed modalities provide, improving work-life balance.

3. Current Employment Situation

- Graph Analysis:
  - Shows a descending trend in satisfaction from those in collaborative platform jobs like Uber, Cabify (potentially higher because of perceived flexibility and autonomy) to those unemployed or in informal work.

- Interpretation:
    - Formal employment situations provide more satisfaction compared to informal work, which might be less stable and secure. Unemployment shows the lowest satisfaction, understandably.

4. Activity During Last Undergraduate Studies

- Graph Analysis:
    - Satisfaction decreases from those studying full-time only, through those combining study and part-time work, to those who also did occasional work.
- Interpretation:
    - Students who focused solely on their studies without the pressure of work seem to have had higher satisfaction levels, possibly reflecting less stress and more time to focus on academic and personal growth.

Overall Insights and Recommendations

Work Flexibility and Sector: These results underscore the importance of flexible work arrangements and sector-specific characteristics in influencing job satisfaction. Companies might consider these factors in designing roles and responsibilities to boost employee satisfaction.

Employment Stability: Formal and stable employment conditions are crucial for higher job satisfaction, suggesting policies aimed at improving job security and formalizing work arrangements could be beneficial.

Balanced Work-Study Approach: For current students, universities and employers could collaborate to create balanced work-study programs that support both academic success and financial needs without compromising on either.

These findings provide valuable insights into what factors significantly influence job satisfaction and can guide targeted interventions to improve employee well-being and productivity. The use of automated linear modelling has effectively highlighted

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the significant predictors of satisfaction, allowing for a focused approach to improving employee experiences based on empirical data.

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5. Conclusions

The PATHWAY project's comprehensive survey, conducted across five notable Philippine universities and supported by the Erasmus Plus programme, has provided substantial insights into the current landscape of graduate employability and work conditions. This analysis has bridged the gap between academic preparation and actual job market demands, providing a clearer understanding of the effectiveness of current educational strategies and workplace realities.

5.1. Key Findings:

- Competency Development and Employment Readiness:

Graduates demonstrated a strong acquisition of competencies deemed crucial by employers. However, there are noticeable disparities in the perceived application and relevance of these skills within the workplace, highlighting areas for potential enhancement in curriculum design and career preparation services offered by educational institutions.

- Work Modalities and Job Satisfaction:

The data revealed significant differences in job satisfaction levels based on the mode of work. Graduates engaging in mixed modalities of telework and face-to-face interactions reported higher satisfaction, suggesting that flexibility in work arrangements could lead to improved job satisfaction and overall work-life balance.

- Impact of Employment Sector on Satisfaction:

Job satisfaction varied significantly across different employment sectors, with graduates in the Science and Technical, and Commerce and Other Services sectors generally expressing higher satisfaction. This suggests that sector-specific characteristics such as work environment, innovation opportunities, and job security play crucial roles in influencing overall job satisfaction.

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- Gender Disparities in Employment Outcomes:

The survey results indicated gender disparities in certain employment outcomes, with females more likely to find themselves in public sector roles and males more prevalent in the private sector. These findings call for a continuous evaluation of gender inclusivity and equality policies within recruitment and career development processes.

- Challenges of Work-Study Balance:

Graduates who combined work with studies tended to experience varied levels of job satisfaction post-graduation. Those who managed a balance between work and academics without overcommitting to either were more likely to report higher satisfaction, highlighting the need for supportive policies that facilitate work-study arrangements.

5.2. Strategic Recommendations:

- Enhanced Career Services:

Universities should strengthen their career services to offer more tailored guidance and support, helping students and recent graduates navigate the transition from education to employment more effectively. This includes better alignment of educational programs with market needs and providing more opportunities for practical experience through internships and part-time roles.

- Expansion of Flexible Work Arrangements:

Employers and policymakers should consider advocating for and implementing more flexible work arrangements. The positive correlation between job satisfaction and flexible working conditions suggests that such practices could enhance productivity and employee well-being across various sectors.

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- Continuous Gender Equality Monitoring:

Institutions should intensify efforts to monitor and address gender disparities in employment outcomes. This involves not only ensuring equal opportunities but also addressing subtler aspects of job satisfaction and sector-specific biases that may affect career trajectories.

- Sector-Specific Interventions:

Tailored interventions should be designed to address sector-specific challenges and opportunities. For sectors where job satisfaction is comparatively lower, targeted initiatives to improve working conditions and professional growth opportunities could be beneficial.

- Longitudinal Studies and Data Collection:

To sustain the impact of these findings, ongoing research and longitudinal studies are recommended. Establishing continuous data collection mechanisms, such as graduate tracking systems within universities, can provide dynamic insights into the evolving relationship between higher education and employment markets.

By addressing these areas, stakeholders across the educational and employment sectors can better equip graduates to meet the demands of the modern workforce, ultimately enhancing the quality of higher education and its alignment with the economic and social needs of the Philippines.

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7. Annexes

7.1. Questionnaire

1. **Year of birth:** _ _ _ _

2. **Gender**
   - ☐ *Male*
   - ☐ *Female*
   - ☐ *Other*

3. **Name of the University where you stadied the last undergraduate program that you have finished.**

   - ☐ Ateneo De Manila University (Philippines)
   - ☐ Polytechnic University of the Philippines (Philippines)
   - ☐ Lyceum of the Philippines University - Batangas (Philippines)
   - ☐ St. Paul University Philippines (Philippines)
   - ☐ Benguet State University (Philippines)

4. **During the last undergraduate studies that you carried out in the University, that you have already finished, what was your most common activity?**

   - ☐ *Studying the degree full-time*
   - ☐ *Studying the degree with some occasional work (private tutoring, summer jobs, etc.)*
   - ☐ *Studying the Bachelor's Degree and also working part-time*
   - ☐ *Studying the Bachelor's Degree and work full-time*

5. **Degree 1. Please, indicate the name of the first Degree program the you have studied in the University**

   _____

6. **Degree 1. Year of completion of undergraduate studies:**

   _____

7. **Degree 2. Please, indicate the name of the second Degree program the you have studied in the University**

   _____

8. **Degree 2. Year of completion of undergraduate studies:**

   _____

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9. **Degree 3. Please, indicate the name of the third Degree program the you have studied in the University**

_____

10. **Degree 3. Year of completion of undergraduate studies:**

_____

11. **Are you studying a degree program at this moment?**
    - ☐ Yes
    - ☐ No (pass onto question 13)

12. **Name of the degree program that you are currently enrolled**

_____

13. **Academic year of the current degree program you are enrolled in?**

    - ☐ **1**
    - ☐ **2**
    - ☐ **3**
    - ☐ **4**
    - ☐ **5**
    - ☐ **6**

14. **How many paid jobs have you had since completing the LAST undergraduate program that you have finished in the University?**

    - ☐ **Never worked since I finished the studies**
    - ☐ **I had a work before finishing my studies and carried out with after the end of the studies**
    - ☐ **1 job that I got after finishing the studies**
    - ☐ **2 jobs**
    - ☐ **3 jobs**
    - ☐ **4 jobs**
    - ☐ **5 jobs**
    - ☐ **More than 5 jobs**

15. **What is your current employment situation?**

    - ☐ **Work in a not paid job**
    - ☐ **"Informal" work for a company (not declared)**
    - ☐ **Work in a collaborative platform like Uber, Cabify, Grab)**
    - ☐ **Self employed**
    - ☐ **Work for a company where I got a job contract**
    - ☐ **Unemployed (pass onto question 26)**
    - ☐ **Retired (pass onto question 26)**

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16. **How did you find your current job?**

(If you have more than one job, please think of the main one)

- ☐ **Through personal contacts (family, friends...)**
- ☐ **Through internships in companies or institutions**
- ☐ **Through social and/or professional networks on the Internet (e.g. Linkedin)**
- ☐ **I was contacted by the employer**
- ☐ **By setting up my own company or professional office (Self-employment)**
- ☐ **I contacted the employer on my own initiative (I sent my CV)**
- ☐ **I contacted public employment agencies**
- ☐ **Through temporary employment agencies**
- ☐ **Through Internet portals, company websites, advertisements in digital press, etc...(Not social networks) (e.g. Infojobs)**
- ☐ **Through university employment services**
- ☐ **By public competition**
- ☐ **Advertisements in the written press**

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17. **What kind of working hours do you have in your current job: full-time or part-time?**

- ☐ **Full-time (35 hours per week or more)**
- ☐ **Part-time (less than 35 hours per week)**

18. **In which mode are you currently working: face-to-face, telework or mixed?**

- ☐ **Face-to-face (I go to my place of work)**
- ☐ **Telework (I work from home)**
- ☐ **Mixed (I combine both modalities)**

19. **What professional category do you have in your current job?**

- ☐ **Director/Manager**
- ☐ **Middle management**
- ☐ **Senior technician**
- ☐ **Middle technician (technician/support professional)**
- ☐ **Administrative**
- ☐ **Other occupations of lower professional category**

20. **Is the company or organisation where you work in the public or private sector?**

- ☐ **Public**
- ☐ **Private**
- ☐ **Privately run public company**

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21. And, what does the company or organisation where you work do?

- ☐ Administrative and support service activities
- ☐ Arts, entertainment and recreation
- ☐ Activities of households as employers of domestic personnel
- ☐ Activities of extraterritorial organisations and bodies
- ☐ Financial and insurance activities
- ☐ Real estate activities
- ☐ Professional, scientific and technical activities
- ☐ Human health and social work activities
- ☐ Public administration and defence
- ☐ Agriculture, forestry, fishing and fishing
- ☐ Trade; repair of vehicles
- ☐ Construction
- ☐ Education
- ☐ Hotels and restaurants
- ☐ Manufacturing industry
- ☐ Mining and quarrying
- ☐ Information and communications
- ☐ Other services
- ☐ Water supply, sewerage, waste management
- ☐ Electricity, gas, gas, steam and air conditioning supply
- ☐ Transport and storage
- ☐ Others

22. Approximately what is your net monthly salary in euros in your current job, excluding overtime and overtime payments?

_____ Philippine Pesos

23. Please rate your overall satisfaction with your current job on a scale of 1 to 5, where 1 is Not at all satisfied and 5 is Very satisfied.

- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5

24. Indicate your level of satisfaction from 1 to 5 with the following specific aspects of your current job, where again 1 means "Not at all satisfied" and 5 means "Very satisfied".

	1	2	3	4	5
The tasks you perform at work					
Your colleagues at work					
The company or organisation					
Your salary					
Your working hours and work/life balance					

25. **Next I will read you a list of skills and you have to rate two things for each one: first, how important each one is in your current job (or in the last job you had if you are not working now) and, second, to what extent your Bachelor's degree enabled you to develop them. The ratings range from 1 (not at all) to 5 (very much):**

	1	2	3	4	5
Analytical thinking and innovation					
Active learning and learning strategies					
Complex problem solving skills					
Critical thinking and analytical skills					
Creativity, originality and initiative					
Leadership and social influence					
Use of technologies, monitoring and control					
Technology design and programming					
Resilience, stress management and flexibility					
Reasoning, problem solving and ideation					
Commitment to the company					

26. **To what extent do you think these skills were developed during your last studies at the University through the programme and teaching activities? The ratings range from 1 (not developed at all) to 5 (totally developed):**

	1	2	3	4	5
Analytical thinking and innovation					
Active learning and learning strategies					
Complex problem solving skills					
Critical thinking and analytical skills					
Creativity, originality and initiative					
Leadership and social influence					
Use of technologies, monitoring and control					
Technology design and programming					
Resilience, stress management and flexibility					
Reasoning, problem solving and ideation					
Commitment to the company					

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27. **How satisfied are you personally with the last studies you have completed at the University?**
    - ☐ **Very satisfied**
    - ☐ **Satisfied**
    - ☐ **Dissatisfied**
    - ☐ **Very dissatisfied**

28. **How likely would you be to go back to the last studies you took and completed at university?**
    - ☐ **Very likely**
    - ☐ **Probably**
    - ☐ **Unlikely**
    - ☐ **Very unlikely**

29. **Finally, regardless of your current employment situation, how likely do you think it is that you will be entrepreneurial (start your own business or become self-employed) in 3 years' time, or if you are already entrepreneurial, will you still be entrepreneurial in 3 years' time?**

    - ☐ **Very likely 1**
    - ☐ **Fairly likely 2**
    - ☐ **Likely 3**
    - ☐ **Unlikely 4**
    - ☐ **Quite unlikely 5**
    - ☐ **Very unlikely 6**

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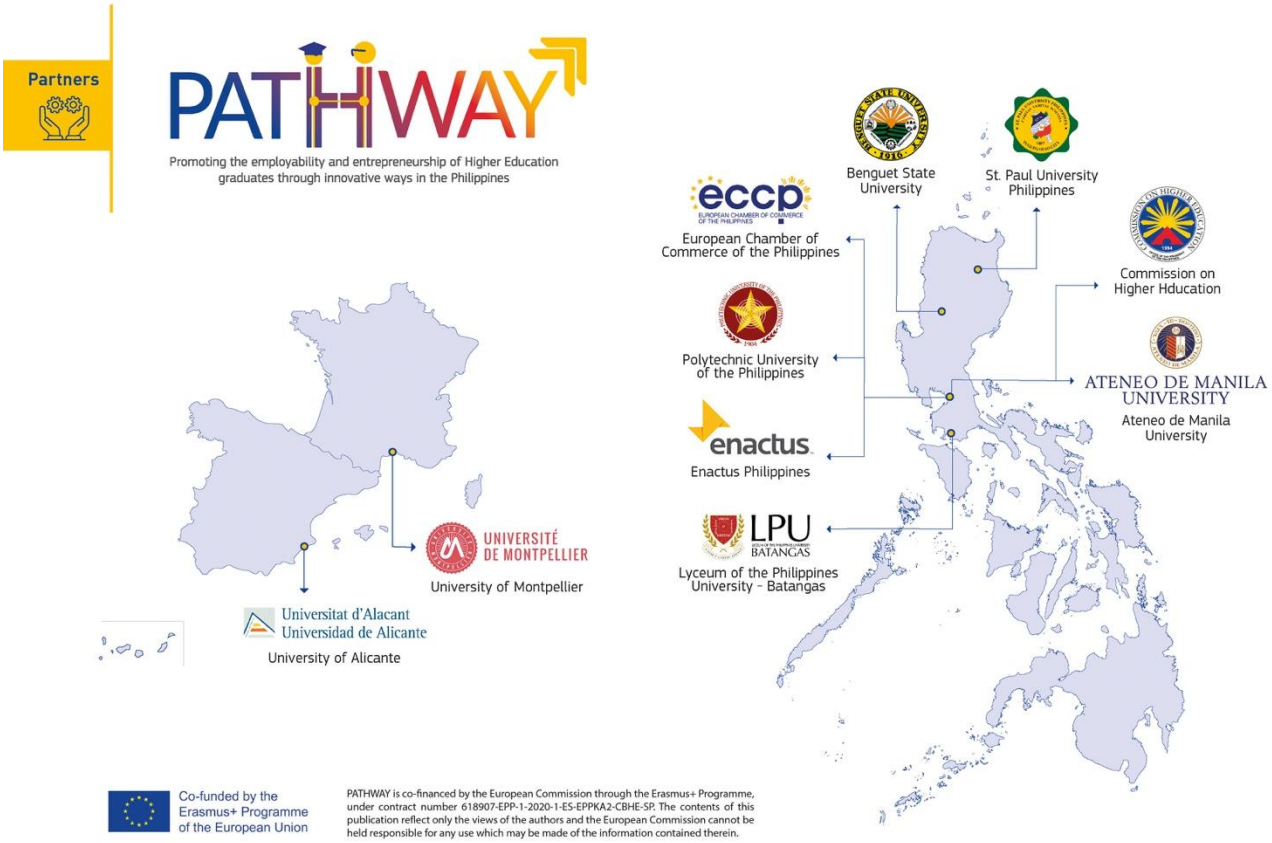
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