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Does gender influence career choices? Empirical evidence from business administration students in the Philippines

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Abstract: This study examined whether gender is associated with career choice motivations among business administration students in the Philippines. Using a quantitative cross-sectional design, data were collected from 446 students (94 males, 352 females) at Mindanao State University-Iligan Institute of Technology through a validated 20-item survey measuring intrinsic, extrinsic, institutional, and interpersonal factors. Independent-samples t-tests revealed statistically significant gender differences in intrinsic factors ($t[444] = -1.976$, $p = 0.049$, $d = -0.21$), extrinsic factors ($t[444] = -2.818$, $p = 0.005$, $d = -0.29$), and interpersonal factors ($t[444] = 2.595$, $p = 0.010$, $d = 0.29$), while institutional factors showed no significant difference ($t[444] = -1.031$, $p = 0.303$). Female students reported higher intrinsic and extrinsic motivation scores, whereas male students scored higher on interpersonal factors. Effect sizes were small, indicating that the differences, while statistically significant, do not represent large practical disparities. These findings suggest that gender-responsive career development programs that capitalize on intrinsic and extrinsic motivations for female students, and that strengthen interpersonal networking for male students, are warranted. The results contribute to career development research in Southeast Asian higher education and carry context-specific implications for career counseling practice. Because the evidence derives from a single, predominantly female cohort, the findings are preliminary and require replication across multiple Philippine institutions and regions before broader generalization.

Keywords: intrinsic motivation; extrinsic motivation; gender differences; business students; Philippines; higher education; career counseling

1. Introduction

Career decision-making is a multifaceted process shaped by personal, societal, and institutional forces that operate both independently and in dynamic interaction [1, 2]. Among the numerous determinants of career choice, gender has consistently emerged as one of the most pervasive influences, shaping individual aspirations as well as the range of opportunities available in the labor market [3, 4]. Gender-differentiated career patterns are observed globally, with women disproportionately represented in social, educational, and health-related professions, while men continue to dominate technical and leadership-oriented roles [5, 6].

Early socialization processes play a foundational role in these divergences. Bandura et al. [7] demonstrate that gendered occupational stereotypes are internalized during childhood and adolescence, predisposing individuals to consider career options consistent with socially defined gender roles. Women

are found to place greater value on intrinsic aspects of work, such as personal meaning, social contribution, and work-life balance, whereas men are more likely to prioritize extrinsic rewards, including salary, authority, and advancement [8, 9]. Beyond individual motivation, institutional factors such as access to education, mentorship programs, and career counseling also mediate gendered career pathways [3].

Despite a growing body of international literature on gender and career choice, empirical studies from Southeast Asian contexts, particularly the Philippines, remain limited. Cultural particularities such as Filipino familialism and strong parental authority may modulate the influence of gender on career decisions in ways not adequately captured by Western frameworks [10]. In the Philippine setting, career choice has been characterized as a family affair rather than an individual decision, with parental expectations, filial obligation, and financial dependence shaping which options young people treat as viable [11]. Because these familial pressures are themselves gendered, with daughters and sons often subject to different expectations regarding autonomy and the breadwinner role, Filipino familialism may amplify or redirect gender differences in career motivation rather than leaving them unchanged [12]. Clarifying how these cultural features modulate gender effects is therefore central to interpreting the present results. Understanding these locally situated dynamics is essential for developing culturally sensitive career guidance programs. The present study addresses this gap by investigating whether gender influences career choices among business administration students at a public university in Mindanao, the Philippines, examining four empirically grounded dimensions: intrinsic factors, extrinsic factors, institutional factors, and interpersonal factors. The purpose of this study is to determine whether gender significantly differentiates career choice motivations among Filipino business administration students, and to derive evidence-based implications for gender-responsive career development practice.

Accordingly, this study addresses two research questions. First, do male and female Filipino business administration students differ significantly in their career choice motivations? Second, if so, on which motivational dimensions, namely intrinsic, extrinsic, institutional, or interpersonal, are the differences most pronounced? Drawing on goal congruity theory and the broader literature, two directional hypotheses are advanced. H1 proposes that female students will report higher intrinsic motivation than male students. H2 proposes that male students will report higher extrinsic motivation than female students. Gender differences on institutional and interpersonal factors are examined on an exploratory basis, given the limited and mixed evidence for these dimensions in Southeast Asian settings.

1.1. Gender and career choice

The relationship between gender and career choice has been extensively theorized through frameworks that include Gottfredson's theory of circumscription and compromise [13], social cognitive career theory [14], and the expectancy-value model [15]. Together, these perspectives suggest that gender influences career self-efficacy, outcome expectations, and perceived opportunity. These frameworks are complementary rather than competing. Gottfredson's theory specifies how an early gendered self-concept narrows the range of occupations a person treats as acceptable, social cognitive career theory explains how self-efficacy and outcome expectations convert that range into concrete choices, and goal congruity theory [8] clarifies why communally framed options are appraised differently by women and men. For the collectivist, family-centered Philippine setting examined here, the social cognitive and goal congruity accounts are the most apposite, because both foreground the relational and social appraisal of career options that Filipino familial norms make especially salient. Empirical

studies consistently show that women are underrepresented in science, technology, engineering, and mathematics (STEM) careers and overrepresented in caregiving and education [16, 17], patterns that persist even when educational achievement is controlled [18]. In business programs, male and female students differ in their career aspirations and motivational profiles even within gender-neutral academic spaces [19].

1.2. Intrinsic and extrinsic motivations

Intrinsic motivation, encompassing personal interest, passion, and self-actualization, constitutes a primary driver of career choice [20]. Evidence indicates that female students frequently report higher intrinsic career motivation, valuing personal fulfillment, social contribution, and the opportunity to make a positive difference [21]. Diekmann et al. [8] attribute this pattern to communal goal affordances: careers that enable helping, connecting, and nurturing are evaluated more positively by women socialized to endorse communal values. Regarding extrinsic motivations such as salary, job security, and career advancement, conventional wisdom posits a stronger male orientation, yet recent research challenges this generalization, suggesting that women increasingly value career stability-related extrinsic rewards [22].

1.3. Institutional and interpersonal influences

Institutional factors, including educational quality, scholarship availability, mentorship, and career counseling, shape career aspirations by expanding or constraining the perceived opportunity set [23]. Universities that promote gender-inclusive policies tend to produce more equitable career outcome distributions [23]. Regarding interpersonal influences, women have been characterized as more susceptible to family and societal expectations in career choices, while men rely more on peer networks and professional mentors [24]. In the Philippine context, parental authority is especially pronounced, with many students reporting that parents significantly influence major career decisions.

2. Materials and methods

2.1. Research design

This study employed a quantitative cross-sectional research design using a structured self-report survey questionnaire. A cross-sectional approach was appropriate for simultaneously capturing career motivations and demographic variables, enabling efficient group comparisons [25, 26].

2.2. Participants and sampling

The target population comprised undergraduate students enrolled in the Bachelor of Science in Business Administration (BSBA) program at a leading university in Mindanao. A total of 446 usable responses were obtained: 94 males (21.1%) and 352 females (78.9%). The gender distribution reflects actual BSBA enrollment demographics, consistent with the feminization of business education observed across Philippine universities. Stratified random sampling ensured gender-proportional representation across all year levels [27]. The sample exceeds the minimum of 200 participants recommended for detecting small-to-medium effect sizes ($d \geq 0.20$) at $\alpha = 0.05$ with power ≥ 0.80 [28]. Beyond gender and year level, the survey did not capture additional demographic characteristics such as age, family income, parental education, urban or rural origin, or type of secondary school attended. These variables may be associated with both gender and career motivation, and their absence is acknowledged as a limitation and is revisited in Section 4.1.

2.3. Instrument

Data were collected using a 20-item Likert-scale questionnaire (1 = Strongly Disagree to 5 = Strongly Agree) organized into four subscales: Intrinsic Factors

(5 items: F1-F5), Extrinsic Factors (7 items: F6-F12), Institutional Factors (4 items: F13-F16), and Interpersonal Factors (4 items: F17-F20). The instrument was adapted from validated career motivation scales [14, 20] and contextually modified for the Philippine higher education environment. Content validity was established through expert review by three faculty specialists in organizational behavior and career development.

2.4. Data analysis

Descriptive statistics (means, standard deviations) were computed for each subscale by gender. Internal consistency was assessed using Cronbach's alpha ($\alpha \geq 0.70$ considered acceptable [29]). Levene's test confirmed variance assumptions, and Welch's correction was applied where these were violated. Independent-samples t-tests determined significant gender differences in mean subscale scores ($\alpha = 0.05$, two-tailed). Practical significance was evaluated using Cohen's d ($|d| = 0.20$ small, 0.50 medium, 0.80 large). All analyses were performed using Python 3.11 with the SciPy 1.11 and pandas 2.0 libraries. Figures were generated with Matplotlib 3.8. To support full reproducibility, the analysis scripts and the de-identified dataset are available from the corresponding author on reasonable request.

3. Results

3.1. Reliability analysis

Table 1 presents Cronbach's alpha coefficients for each subscale. Intrinsic Factors ($\alpha = 0.815$) and Institutional Factors ($\alpha = 0.843$) demonstrated good internal consistency. Extrinsic Factors ($\alpha = 0.786$) exhibited acceptable reliability. The Interpersonal Factors subscale yielded a comparatively lower alpha ($\alpha = 0.372$), suggesting that the four items may not constitute a unidimensional construct; findings for this subscale are therefore interpreted with caution.

Table 1. Internal consistency of career choice factor subscales

Construct	No. of Items	Cronbach's α	Interpretation
Intrinsic Factors	5	0.815	Good
Extrinsic Factors	7	0.786	Acceptable
Institutional Factors	4	0.843	Good
Interpersonal Factors	4	0.372	Poor (see note)

Note. Cronbach's $\alpha \geq 0.70$ is considered acceptable [29]. The Interpersonal Factors subscale ($\alpha = 0.372$) fell below this threshold, warranting interpretive caution.

3.2. Gender differences in career choice factors

Table 2 summarizes means, standard deviations, t-statistics, degrees of freedom, two-tailed p-values, and Cohen's d for each career choice factor by gender. **Figure 1** provides a visual comparison with error bars representing one standard deviation.

Table 2. Gender differences in career choice factor scores: independent-samples t-test results

Career Choice Factor	n (Male)	M (Male)	SD (Male)	n (Female)	M (Female)	SD (Female)	t	df	p	Cohen's d
Intrinsic Factors	94	4.25	0.74	352	4.39	0.56		444	0.049*	
Extrinsic Factors	94	4.12	0.73	352	4.30	0.52		444	0.005**	

Continued table:

Career Choice Factor	n (Male)	M (Male)	SD (Male)	n (Female)	M (Female)	SD (Female)	t	df	p	Cohen's d
Institutional Factors	94	3.74	0.79	352	3.83	0.78		444	0.303	N/A
Interpersonal Factors	94	2.98	0.78	352	2.77	0.68	2.595	444	0.010**	0.29

Note. Scores are on a 5-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree). Cohen's d not reported for non-significant comparisons. * $p < 0.05$. ** $p < 0.01$.

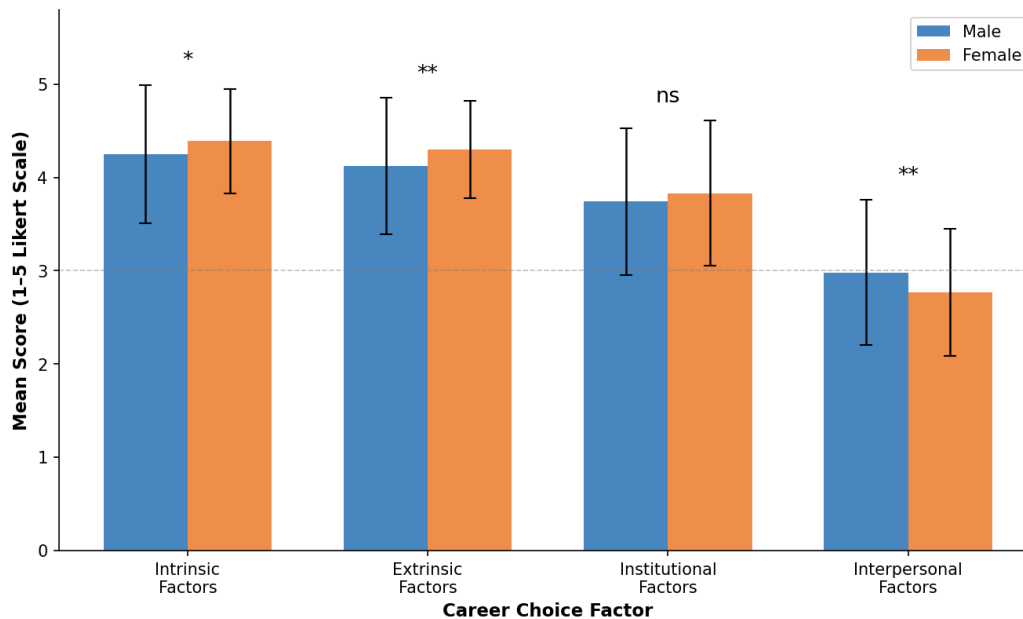


Figure 1. Mean career choice factor scores by gender with standard deviation error bars (N = 446).

Note. Error bars represent ± 1 SD. Significance annotations: * $p < 0.05$; ** $p < 0.01$; ns = not significant ($p > 0.05$).

3.3. Intrinsic factors

Female students ($M = 4.39$, $SD = 0.56$) reported significantly higher intrinsic motivation than male students ($M = 4.25$, $SD = 0.74$), $t(444) = -1.976$, $p = 0.049$, $d = -0.21$. The small effect size indicates a modest practical difference. Because this result was significant at a value close to the conventional alpha threshold ($p = 0.049$) and was accompanied by a small effect ($d = -0.21$), it should be regarded as provisional and interpreted with corresponding caution. At the item level, differences were most pronounced for F1 (personal interest and passion; $p = 0.001$) and F3 (sense of personal fulfillment; $p = 0.046$), suggesting that female students are particularly driven by passion-aligned and fulfillment-oriented motivations.

3.4. Extrinsic factors

Extrinsic factor scores were significantly higher for female students ($M = 4.30$, $SD = 0.52$) than for males ($M = 4.12$, $SD = 0.73$), $t(444) = -2.818$, $p = 0.005$, $d = -0.29$. Item-level analysis revealed that career advancement (F8, $p < 0.001$), recognition and prestige (F9, $p = 0.001$), promotion prospects (F11, $p = 0.001$), and external rewards (F12, $p = 0.001$) were the items most strongly associated with this difference, while salary (F6) and job security (F7) did not differ significantly by gender.

3.5. Institutional factors

No statistically significant gender difference was found for institutional factors, $t(444) = -1.031$, $p = 0.303$. Both male ($M = 3.74$, $SD = 0.79$)

and female students ($M = 3.83$, $SD = 0.78$) rated institutional influences at moderate levels with comparable variability. None of the four individual items (F13-F16) yielded significant gender differences, suggesting that students perceive institutional resources as relatively equitable at the university.

3.6. Interpersonal factors

Male students ($M = 2.98$, $SD = 0.78$) scored significantly higher on interpersonal factors than female students ($M = 2.77$, $SD = 0.68$), $t(444) = 2.595$, $p = 0.010$, $d = 0.29$. This small effect was primarily driven by role models (F19, $p < 0.001$) and societal expectations (F20, $p = 0.046$), indicating that male students are more influenced by role models and societal norms in career decision-making. Parental guidance (F17) and peer influence (F18) did not differ significantly by gender.

The item-level descriptive statistics and gender-difference tests for all 20 indicators are presented in **Table 3**.

Table 3. Item-level descriptive statistics and gender difference tests ($N = 446$)

Item	Factor	Male M (SD)	Female M (SD)	t	p
F1: Career based on personal interest & passion	Intrinsic	4.15 (0.91)	4.45 (0.76)		0.001**
F2: Aligns with personal values	Intrinsic	3.73 (1.07)	3.75 (0.94)		0.881
F3: Gives sense of personal fulfillment	Intrinsic	4.50 (0.79)	4.67 (0.62)		0.046*
F4: Intrinsically motivated to pursue career	Intrinsic	4.54 (0.79)	4.64 (0.64)		0.246
F5: Allows skill development	Intrinsic	4.33 (0.87)	4.44 (0.74)		0.241
F6: Salary and financial benefits	Extrinsic	3.46 (1.18)	3.43 (1.08)	0.19	0.854
F7: Job security	Extrinsic	3.63 (1.17)	3.82 (0.97)		0.095
F8: Career advancement opportunities	Extrinsic	4.32 (0.89)	4.66 (0.61)		< 0.001**
F9: Recognition and prestige	Extrinsic	4.52 (0.73)	4.77 (0.52)		0.001**
F10: Benefits package	Extrinsic	3.97 (0.92)	3.99 (0.88)		0.860
F11: Promotion prospects	Extrinsic	4.48 (0.82)	4.73 (0.58)		0.001**
F12: External rewards motivation	Extrinsic	4.44 (0.84)	4.71 (0.61)		0.001**
F13: Quality of education	Institutional	3.79 (1.01)	3.89 (0.93)		0.350
F14: Scholarship/financial aid availability	Institutional	3.59 (1.13)	3.59 (1.07)		0.961
F15: University reputation	Institutional	3.62 (1.07)	3.73 (1.01)		0.298
F16: Career counseling services	Institutional	3.96 (0.99)	4.11 (0.88)		0.140
F17: Parents' guidance	Interpersonal	3.96 (0.90)	3.99 (0.80)		0.818
F18: Peer influence	Interpersonal	3.02 (0.88)	2.96 (0.87)	0.39	0.698
F19: Role models	Interpersonal	2.62 (0.96)	2.05 (0.91)	5.23	< 0.001**
F20: Societal expectations	Interpersonal	2.32 (1.01)	2.07 (0.96)	2.00	0.046*

Note. Values are mean (SD) on a 5-point Likert scale. All t-tests are two-tailed. * $p < 0.05$; ** $p < 0.01$.

Figure 2 complements the item-level analysis by comparing the overall mean scores of male and female students across the four career-choice dimensions relative to the Likert-scale midpoint.

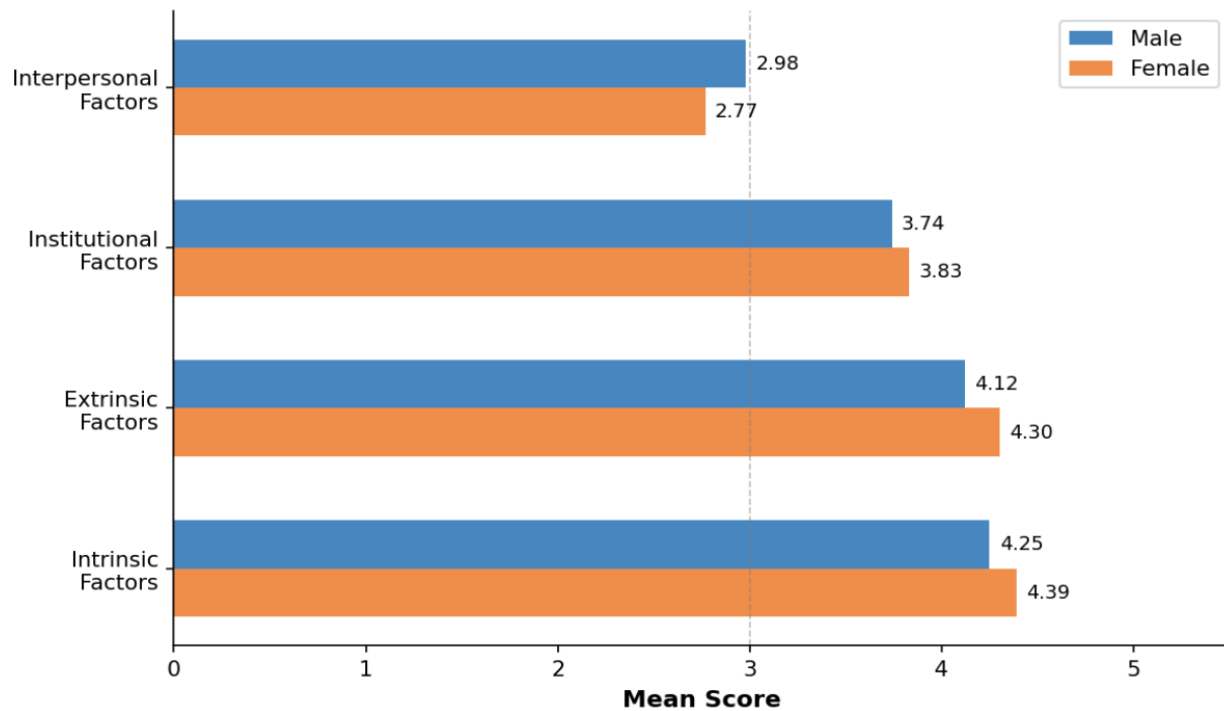


Figure 2. Horizontal comparison of mean career choice factor scores by gender.

Note. Values at the end of bars represent mean scores. The vertical dashed line at 3.0 indicates the Likert scale midpoint.

4. Discussion

The findings of this study provide nuanced empirical support for the proposition that gender is associated with career decision-making among Filipino business students, while simultaneously underscoring the modest magnitude of these differences. Consistent with the predictions of social cognitive career theory [14] and goal congruity theory [8], female students exhibited higher intrinsic and extrinsic motivation scores, whereas male students scored higher on interpersonal factors. However, the small effect sizes ($|d|$ ranging from 0.21 to 0.29) indicate that, while gender differences are statistically robust, they do not represent profound practical disparities in career motivation.

The finding that female students score higher on intrinsic factors extends the work of Wang et al. [30], who document women's heightened emphasis on personal fulfillment and societal impact in career decisions. Item-level analysis reveals that this difference is most concentrated around passion-driven (F1) and fulfillment-oriented (F3) motivations, pointing to affective-motivational rather than cognitive-evaluative pathways through which gender relates to career preference. This carries implications for career counseling: advisors working with female students may benefit from framing career options in terms of personal meaning and passion alignment.

The counterintuitive finding that female students also score higher on extrinsic factors, particularly career advancement (F8), recognition (F9), and promotion prospects (F11), challenges the conventional portrayal of women as primarily intrinsically motivated [22]. This result aligns with the observation of Diekmann et al. [8] that women increasingly value career stability-related extrinsic rewards, reflecting socioeconomic realities in which financial independence and upward mobility are salient concerns. The absence of gender differences in salary (F6) and job security (F7) suggests that, when it comes to fundamental economic security, male and female students are equally motivated.

The non-significant result for institutional factors is consistent with the argument of Gottfredson [1] that well-established universities with equitable resource distribution tend to minimize gender-based disparities in institutional

career support. The university in this study provides uniform access to scholarships, career counseling, and academic programs regardless of gender. Nonetheless, Blustein [3] cautions that surface-level equity may mask subtle biases in mentoring relationships that differentially affect women's trajectories. Two further interpretations warrant consideration before this null result is read as evidence of equity. First, a non-significant difference does not by itself establish institutional equity. It may instead reflect characteristics specific to this university, which provides comparatively uniform access to scholarships and counseling, rather than a pattern that would generalize to private or smaller regional institutions. Second, the four institutional items (F13 to F16) may not capture the dimensions of institutional support on which gender differences are most likely to surface, such as sponsorship, access to influential mentors, or differential treatment within mentoring relationships. From a developmental standpoint, equitable access is most effective when it is paired with growth-oriented support that helps students of both genders approach career exploration in a learning mode [31].

The finding that male students score higher on interpersonal factors, particularly role models (F19) and societal expectations (F20), departs from the common assumption that women are more susceptible to interpersonal career pressures [24]. This pattern may reflect gender-specific occupational socialization in the Philippine context, where men may experience heightened pressure to fulfill the breadwinner role. The relatively low absolute scores on interpersonal factors for both groups (approximately 2.77 to 2.98) suggest that students in this sample exercise considerable personal career agency overall. Because the interpersonal subscale showed low internal consistency ($\alpha = 0.372$), this gender difference should be treated as exploratory rather than confirmatory. The item-level results for role models (F19) and societal expectations (F20), which were estimated independently of the composite, are accordingly more informative than the subscale score itself.

Situating these results within the limited Southeast Asian evidence helps clarify what is locally distinctive. The present finding that women report higher extrinsic motivation is broadly consistent with the cross-cultural pattern reported by Nguyen et al. [10], in which women in collectivist economies attach strong value to advancement and security as routes to financial independence, and it diverges from the older Western generalization of women as predominantly intrinsically motivated. The more unexpected result, that male students score higher on role models and societal expectations, aligns with emerging Philippine evidence that career decisions are appraised through a gendered familial lens. Fabella et al. [12] report that Filipino respondents perceive daughters to have greater latitude than sons in resisting parental career nudges, a pattern consistent with the heavier role-conformity pressure that the present male students reported. Read alongside Salazar-Clemeña [11], who characterizes Filipino career choice as a family affair structured by filial obligation, these convergences suggest that the interpersonal results reflect culturally specific breadwinner expectations rather than a universal gender difference. Such culturally embedded pressures may be attenuated in more individualistic settings and in more gender-balanced cohorts, which underscores the need for replication beyond the present context.

4.1. Limitations

Several limitations qualify these findings and bound their generalizability. First, the data were drawn from a single public university and from a cohort that was predominantly female (78.9%). The findings are therefore preliminary and require replication across multiple institutions and regions, including private universities and smaller regional colleges, before they can be generalized. The skewed gender ratio also means that female scores were estimated with greater

precision than male scores, and the observed differences could be either amplified or attenuated in a more gender-balanced sample. Second, the cross-sectional design supports statements of association rather than causation, so the results should be read as relationships between gender and motivation rather than as gender producing motivation. Third, the survey recorded only gender and year level, leaving age, socioeconomic status, parental education, geographic origin, and secondary-school type unmeasured. These variables may be associated with both gender and career motivation, and the analysis could not control for them or test interactions between gender and year level, socioeconomic status, or academic performance. Future work using a more comprehensive analytical framework, such as factorial analysis of variance (ANOVA) or regression with interaction terms, would clarify whether the present main effects are conditioned by these covariates. Fourth, the intrinsic-factor difference was significant only marginally ($p = 0.049$) with a small effect ($d = -0.21$) and should be regarded as provisional pending replication. Fifth, the interpersonal subscale showed low internal consistency ($\alpha = 0.372$), so conclusions involving that dimension are exploratory and await a revised, validated measure.

5. Conclusion

This study contributes to the growing empirical literature on gender and career decision-making by providing evidence from a Southeast Asian university context that is underrepresented in international research. The results confirm that gender is a statistically significant predictor of career choice motivations in three of the four dimensions examined, namely intrinsic, extrinsic, and interpersonal factors, among Filipino business administration students. Female students demonstrate higher intrinsic and extrinsic motivations, while male students place greater emphasis on interpersonal influences. These findings, though of small effect size, carry meaningful implications for the design of gender-responsive career development programs.

For the theoretical frameworks that guided the study, the results offer qualified support with one notable refinement. The higher intrinsic motivation reported by female students is consistent with goal congruity theory and with the communal-affordance emphasis of social cognitive career theory, supporting H1. The higher extrinsic motivation also reported by female students, however, runs counter to the conventional expectation encoded in H2, suggesting that in this Philippine setting communal and agentic motivations are not opposed but coexist, such that advancement and recognition are themselves read as means of contributing to family welfare. The interpersonal result, in turn, indicates that the relational pressures these theories typically associate with women may, under Filipino breadwinner norms, bear more heavily on men. Taken together, the findings support the broad architecture of social cognitive career theory and goal congruity theory while refining their gendered predictions for a collectivist, family-centered context.

Universities and career counseling centers are encouraged to develop differentiated support mechanisms that acknowledge gender-linked career motivation profiles. Programs for female students may emphasize career meaning, advancement potential, and achievement recognition, while those targeting male students may focus on expanding interpersonal networking opportunities and challenging limiting societal expectations about career trajectories. The negligible gender difference in institutional factors suggests that institutional access is largely equitable; however, universities should remain vigilant about subtle biases in mentoring quality. More concretely, these recommendations can be anchored to the items with the largest gender gaps. Because female students already place strong emphasis on career advancement (F8) and promotion prospects (F11), counselors should ensure that this high aspiration is matched by concrete access

to advancement-pathway information, sponsorship, and transparent promotion criteria, so that motivation is not later frustrated by structural barriers. Because male students rely more heavily on role models (F19) and report greater sensitivity to societal expectations (F20), counseling for male students should widen exposure to diverse career role models and create space to examine restrictive breadwinner scripts. Given the context-specific nature of the sample, these measures are offered as institution-level practices to be adapted and validated locally rather than as universal prescriptions.

Building on the limitations detailed in Section 4.1, future research should pursue three priorities. First, a revised and validated measure of interpersonal influences in career choice is needed, given that the current subscale yielded $\alpha = 0.372$. Second, longitudinal and multi-institution designs would clarify whether the observed gender differences persist into post-graduation career trajectories and hold beyond this single, predominantly female cohort. Third, examining intersectional factors, including socioeconomic status, regional origin, and cultural background, would enrich understanding of how gender interacts with other social categories to shape career motivations in the Philippine context.

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References

- [1] Gottfredson LS. (2019). Applying Gottfredson's theory of circumscription and compromise in career development. *Journal of Career Development*. 46(2): 90–103. <https://doi.org/10.1177/0894845318793776>
- [2] Hirschi A. (2020). The fourth industrial revolution: Issues and implications for career research and practice. *Journal of Vocational Behavior*. 119: 103411. <https://doi.org/10.1016/j.jvb.2020.103411>
- [3] Blustein DL. (2013). *The Psychology of Working: A New Perspective for Counseling, Career Development, and Public Policy*. Routledge.
- [4] Stoet G, Geary DC. (2019). A simplified approach to measuring national gender inequality. *PLOS ONE*. 14(1): e0205349. <https://doi.org/10.1371/journal.pone.0205349>
- [5] Charles M, Bradley K. (2019). A matter of degrees: Female underrepresentation in computer science programs cross-nationally. In: Cohoon JM, Aspray W (editors). *Women and Information Technology*. MIT Press. pp. 183–203.
- [6] Su R, Rounds J. (2015). All STEM fields are not created equal: People and things interests explain gender disparities across STEM fields. *Frontiers in Psychology*. 6: 189. <https://doi.org/10.3389/fpsyg.2015.00189>
- [7] Bandura A, Barbaranelli C, Caprara GV, Pastorelli C. (2001). Self-efficacy beliefs as shapers of children's aspirations and career trajectories. *Child Development*. 72(1): 187–206. <https://doi.org/10.1111/1467-8624.00273>
- [8] Diekmann AB, Steinberg M, Brown ER, Belanger AL, Clark EK. (2017). A goal congruity model of role entry, engagement, and exit: Understanding communal goal processes in STEM. *Personality and Social Psychology Review*. 21(2): 142–175. <https://doi.org/10.1177/1088868316642141>
- [9] Vinkenburg CJ. (2020). Career success and gender: A theoretical and empirical review. *Annual Review of Organizational Psychology and Organizational Behavior*. 7: 273–296. <https://doi.org/10.1146/annurev-orgpsych-031019-025328>
- [10] Nguyen QT, Yan W, Larson M. (2022). Gender and career aspirations: A cross-cultural study. *International Journal of Gender Studies in Education*. 14(1): 45–62.
- [11] Salazar-Clemeña RM. (2002). Family ties and peso signs: Challenges for career counseling in the Philippines. *The Career Development Quarterly*. 50(3): 246–256. <https://doi.org/10.1002/j.2161-0045.2002.tb00900.x>
- [12] Fabella M, Seki M, Kakinaka M. (2025). General perceptions of career decision-making autonomy among youth in rural Philippines: An experimental study examining cultural and gender dynamics. *The Developing Economies*. Advance online publication. <https://doi.org/10.1111/deve.12453>

- [13] Gottfredson LS. (2005). Applying Gottfredson's theory of circumscription and compromise in career guidance and counseling. In: Brown SD, Lent RW (editors). *Career Development and Counseling*. John Wiley and Sons. pp. 71–100.
- [14] Lent RW, Brown SD, Hackett G. (1994). Toward a unifying social cognitive theory of career and academic interest, choice, and performance. *Journal of Vocational Behavior*. 45(1): 79–122. <https://doi.org/10.1006/jvbe.1994.1027>
- [15] Eccles JS. (2011). Gendered educational and occupational choices: Applying the Eccles et al. model of achievement-related choices. *International Journal of Behavioral Development*. 35(3): 195–201. <https://doi.org/10.1177/0165025411398185>
- [16] Blickenstaff JC. (2005). Women and science careers: Leaky pipeline or gender filter? *Gender and Education*. 17(4): 369–386. <https://doi.org/10.1080/09540250500145072>
- [17] Wang MT, Degol JL. (2017). Gender gap in science, technology, engineering, and mathematics (STEM): Current knowledge, implications for practice, policy, and future directions. *Educational Psychology Review*. 29(1): 119–140. <https://doi.org/10.1007/s10648-015-9355-x>
- [18] Stoet G, Geary DC. (2022). Gender inequality and sex differences in personality are related to the prevalence of traditional values. *PLOS ONE*. 17(2): e0264887. <https://doi.org/10.1371/journal.pone.0264887>
- [19] Kim Y, Sax LJ. (2022). The impact of college experiences on gender differences in STEM careers. *Research in Higher Education*. 63(3): 323–345. <https://doi.org/10.1007/s11162-021-09645-x>
- [20] Ryan RM, Deci EL. (2000). Intrinsic and extrinsic motivations: Classic definitions and new directions. *Contemporary Educational Psychology*. 25(1): 54–67. <https://doi.org/10.1006/ceps.1999.1020>
- [21] Lent RW, Ireland GW, Penn LT, Morris TR, Sappington R. (2017). Sources of self-efficacy and outcome expectations for career exploration and decision-making. *Journal of Vocational Behavior*. 99: 107–117. <https://doi.org/10.1016/j.jvb.2017.01.002>
- [22] Wright BE, Moynihan DP, Pandey SK. (2012). Pulling the levers: Transformational leadership, public service motivation, and mission valence. *Public Administration Review*. 72(2): 206–215. <https://doi.org/10.1111/j.1540-6210.2011.02496.x>
- [23] Fouad NA, Santana MC. (2021). Institutional support and career choice in STEM. *Journal of Vocational Behavior*. 130: 103620. <https://doi.org/10.1016/j.jvb.2021.103620>
- [24] Nguyen QT, Larson M. (2023). Interpersonal influences on career decision-making: A cross-cultural study. *International Journal of Career Development*. 28(1): 45–61.
- [25] Bryman A. (2022). *Social Research Methods*, 6th ed. Oxford University Press.
- [26] Creswell JW, Creswell JD. (2023). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*, 6th ed. SAGE Publications.
- [27] Etikan I, Bala K. (2017). Sampling and sampling methods. *Biometrics and Biostatistics International Journal*. 5(6): 215–217. <https://doi.org/10.15406/bbij.2017.05.00149>
- [28] Cohen J. (1988). *Statistical Power Analysis for the Behavioral Sciences*, 2nd ed. Lawrence Erlbaum Associates.
- [29] Nunnally JC, Bernstein IH. (1994). *Psychometric Theory*, 3rd ed. McGraw-Hill.
- [30] Wang X, Wang X, Ye R. (2022). Gender differences in intrinsic career motivation: Evidence from a longitudinal sample. *Journal of Career Development*. 49(5): 1041–1055. <https://doi.org/10.1177/08948453211056893>
- [31] Heslin PA, Keating LA, Ashford SJ. (2020). How being in learning mode may enable a sustainable career across the lifespan. *Journal of Vocational Behavior*. 117: 103324. <https://doi.org/10.1016/j.jvb.2019.103324>