

ARTICLE

## **Gender Differences in Personality Traits Using FIKR (Facet, Insight, Knowledge, and Resilience) Personality Assessment Tool: Implications for Leadership Development**

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### **Abstract**

This study examines gender differences in personality traits and their implications for leadership development and job exploration using Principal Component Analysis (PCA). Data were obtained from 409 respondents in Malaysia, comprising 121 males and 288 females, using the FIKR (facet, insight, knowledge, and resilience) personality assessment tool. PCA was conducted for the overall sample as well as separately for male and female respondents to identify underlying personality structures and gender-specific trait configurations. Fourteen components were retained for the overall sample, eleven for males, and thirteen for females, based on eigenvalues greater than one, scree plot inspection, and conceptual interpretability. The results reveal distinct gender-related patterns in personality traits. Male respondents were more strongly associated with analytical, intellectual, control, and achievement-oriented traits, whereas female respondents exhibited higher loadings on emotional, nurturing, supportive, and relational traits. Demographic variables such as age, marital status, and religion emerged as independent or co-loading components, indicating that personality expression is shaped by intersecting social and life-stage factors rather than gender alone. These findings highlight the importance of adopting an intersectional perspective when interpreting gender differences in personality. The study contributes empirical evidence to leadership development and job exploration frameworks by demonstrating how gender and sociocultural context jointly influence personality traits. The findings support the design of more inclusive, context-sensitive leadership development strategies and career alignment practices that better reflect the complexity of individual differences in contemporary organizational settings.

**Keywords:** Gender Differences; Personality Traits; Leadership Development; Job Exploration; Principal Component Analysis

### **1. INTRODUCTION**

Gender differences in personality traits play a significant role in shaping leadership styles and career pathways. Previous research has shown that men and women often differ in trait configurations related to analytical reasoning, emotional regulation, and interpersonal orientation, which in turn influence leadership effectiveness and job satisfaction [6,38]. Understanding these differences is essential for designing leadership development and job exploration strategies that are both equitable and effective.

Traditional leadership models have tended to prioritize analytical and strategic competencies, traits more frequently emphasized in male leadership profiles. However, contemporary organizational environments increasingly recognize the value of emotional intelligence, relational skills, and adaptability, attributes commonly associated with female leadership styles [10,32]. A balanced

understanding of these complementary strengths is therefore critical for inclusive leadership development.

Job exploration strategies benefit substantially from a nuanced understanding of gender-related personality tendencies, particularly when such tendencies are interpreted probabilistically rather than deterministically. Empirical evidence suggests that traits related to analytical reasoning, cognitive structure, and task-oriented problem solving are more frequently emphasized among male respondents, which may align well with roles in data analysis, engineering, information technology, and strategic management [19,38]. Conversely, traits associated with emotional awareness, nurturance, and relational sensitivity are often more prominent among female respondents, supporting their effectiveness in occupations that require interpersonal engagement, conflict resolution, and emotional labour, such as human resources, counselling, education, and customer relations [10,32]. When organizations recognize these tendencies while avoiding rigid gender stereotyping, they can improve person–job fit and enhance both individual satisfaction and organizational performance.

Beyond task alignment, job exploration must also account for the psychological implications of personality traits that are salient across genders but expressed differently. Traits such as self-criticism and control emerged as prominent dimensions in both male and female respondents, albeit with distinct functional roles. Among men, self-criticism has been shown to manifest as performance monitoring and accountability, potentially supporting continuous improvement in high-responsibility roles [38]. Among women, similar tendencies are often linked to resilience, perseverance, and adaptive coping in emotionally demanding or high-stress work environments [32,34]. Without appropriate organizational support, however, these traits may increase vulnerability to chronic stress and burnout, underscoring the need to integrate psychological well-being considerations into career guidance and job placement strategies.

Effective job exploration frameworks should therefore move beyond surface-level skill matching and incorporate personality-informed support mechanisms. Career counselling and human resource practices that explicitly address self-regulation, emotional management, and stress coping can help individuals leverage their dominant traits without incurring adverse mental health outcomes. Research has shown that employees whose roles align with both their cognitive strengths and emotional capacities report higher engagement, lower turnover intentions, and greater occupational well-being [2,17]. Gender-sensitive but individualized career guidance can thus function as a preventive strategy against burnout while supporting sustainable career development across different occupational pathways.

Overall, this study reinforces the importance of integrating personality traits into job exploration strategies in a manner that is evidence-based, flexible, and ethically grounded. Rather than prescribing specific roles to men or women, organizations should use personality insights to broaden career possibilities, challenge implicit biases, and design adaptive career pathways that evolve across life stages. By acknowledging both shared and gender-differentiated trait patterns, employers can create more inclusive work environments that support long-term performance, psychological well-being, and equitable career advancement [7,38]. Such an approach aligns job exploration not only with organizational efficiency but also with human development and workforce sustainability.

This study aims to explore these gender differences using Principal Component Analysis (PCA) to identify key traits and their implications for leadership and job exploration.

## **2. METHODOLOGY**

Each individual provided a whole set of results on all items included on a 200 item. This version of the questionnaires is characterized as using relatively simple vocabulary, which is appropriate for a broad range of industry groups. It is a quantitative type, which is a dichotomous survey scale, “yes” 1, “no” 0, allowing respondents to quickly give answers on all questions through a choice of either of two answers. For the purpose of data analysis, a Principal Components Analysis (PCA) using the NCSS package, version 2024, is conducted on all data, then on male respondents, as well as females, separately, to obtain the principal components that represent the important personality qualities of the aforementioned groups of respondents, which is later compared to identify gender differences of

considerable importance, the results of which are analyzed from the perspective of their impact on leadership role development, as well as profession/career investigation.

For this study, PCA was used to find the similarities between the personality traits of female and male respondents. For this study, a total of 409 participants were involved; 121 were males, while 288 were female participants. They were drawn from the entire sample of the 460 participants used in the original study. These participants were sampled randomly via location sampling to represent a sample of participants based on their marital status (Married - 35.21%, Single - 63.08%, Divorced - 0.98%, and Widow - 0.73%); religion (Muslim - 87.04%, Buddhist - 0.98%, Christian - 5.13%, and Hindu - 6.85%); ages 20 to 53 years, with the female sample at 70.4% while the males were 29.6%. Age 21 to 36 years, with 84.6% of the sample.

Principal component retention was guided by multiple criteria. Components with eigenvalues greater than 1.0 were initially retained following the Kaiser criterion. Scree plot inspection was subsequently used to confirm points of inflection and avoid over-extraction. Final component solutions were selected based on interpretability and conceptual coherence after varimax rotation. Using these criteria, fourteen components were retained for the overall sample, eleven components for male respondents, and thirteen components for female respondents.

### 3. RESULTS

#### 3.1. Overall Component Structure Summary

Prior to interpretation, the adequacy of the PCA solution was confirmed by eigenvalue examination and variance decomposition. For the combined sample of 409 respondents, fourteen principal components were retained based on the Kaiser criterion (eigenvalues > 1.0). The retained components collectively explained a substantial proportion of the total variance in personality traits and demographic variables. PC1 accounted for the largest share of variance, followed sequentially by PC2 and PC3, indicating a clear hierarchical structure in trait clustering. Eigenvalues by each principal component are reported in Table S1, while the rotated factor loadings are presented in Table S2.

**Table 1.** Component Structure Summary after Varimax Rotation using Principal Component Analysis based on 409 respondents (121 of male and 288 of female).

PC1	Intellectual	Analytical	Control	Aggressive	
PC2	Support	Emotional	Aggressive	Dependent	Self-criticism
PC3	Marital	Age			
PC4	Introvert	Extrovert	Self-criticism		
PC5	Gender				
PC6	Self-concept				
PC7	Religion				
PC8	Lie Scale	Endurance			
PC9	Nurturance	Extrovert			
PC10	Variety				
PC11	Structure				
PC12	Achievement	Endurance			
PC13	Autonomy	Intuition			
PC14	Perceiver				

The PCA with varimax rotation on the combined sample of 409 respondents (121 males and 288 females) revealed a complex structure of personality traits and demographic variables (Table 1). Fourteen principal components (PCs) were identified, each representing unique clusters of traits and variables. PC1 was characterized by intellectual, analytical, control, and aggressive traits, suggesting a potential link between cognitive abilities and assertive behaviours. PC2 included support, emotional, aggressive, dependent, and self-criticism traits, highlighting the interplay between emotional regulation and interpersonal support. PC3 focused on demographic variables, specifically marital status and age, indicating the influence of life stage and relationship status on personality traits.

Other components demonstrated further diversity in trait combinations. For instance, PC4 included introversion, extroversion, and self-criticism, showcasing the coexistence of contrasting social traits and self-evaluative tendencies. PC5 was solely linked to gender, emphasizing its standalone significance in the analysis. PC6 centred on self-concept, while PC7 was associated with religion, reflecting personality's personal and spiritual dimensions. The remaining components, such as PC8 (lie scale and endurance), PC9 (nurturance and extroversion), PC10 (variety), PC11 (structure), PC12 (achievement and endurance), PC13 (autonomy and intuition), and PC14 (perceiver traits), further illustrated the multifaceted nature of personality traits and their complex interrelationships within the combined sample.

### 3.2. Male Respondents Component Structure Summary

For male respondents ( $n = 121$ ), eleven principal components met the eigenvalue  $> 1.0$  criterion and were retained for interpretation. The first principal component explained the highest proportion of variance, reflecting the dominance of analytical and intellectual traits among male respondents. Subsequent components accounted for progressively smaller proportions of variance, together capturing the multidimensional nature of male personality profiles. Eigenvalues by each principal component are reported in Table S3, while the rotated factor loadings are presented in Table S4.

The PCA results for the 121 male respondents identified eleven principal components, revealing distinct patterns compared to the combined sample (Table 2). PC1 was defined by analytical, intellectual, control, and extroversion traits, suggesting a strong association between cognitive abilities and outgoing behaviours in males. PC2 encompassed self-criticism, introversion, emotional, marital status, and extroversion traits, indicating a complex interplay between self-evaluative tendencies, social orientations, and relationship status. PC3 focused on demographic variables, specifically age and marital status, highlighting the influence of life stage on male personality traits.

The male-specific analysis also revealed unique clusters, such as the combination of achievement, endurance, and intuition in PC4, suggesting a link between goal-oriented behaviours and cognitive flexibility. PC5 was associated with religion, underscoring the spiritual dimension of male personality. PC6 included the lie scale, while PC7 combined support, variety, and aggression traits, reflecting the interplay between social support and assertive behaviours. Other components, such as PC8 (autonomy, intuition, and self-concept), PC9 (perceiver, dependent, and introvert traits), PC10 (structure and self-concept), and PC11 (nurturance), further highlighted the diverse and complex nature of personality traits among male respondents.

**Table 2.** Component Structure Summary after Varimax Rotation using Principal Component Analysis based on 121 male respondents.

PC1	Analytical	Intellectual	Control	Extrovert	
PC2	Self-criticism	Introvert	Emotional	Marital	Extrovert
PC3	Age	Marital			
PC4	Achievement	Endurance	Intuition		
PC5	Religion				
PC6	Lie scale				
PC7	Support	Variety	Aggressive		
PC8	Autonomy	Intuition	Self-concept		
PC9	Perceiver	Dependent	Introvert		
PC10	Structure	Self-concept			
PC11	Nurturance				

### 3.3. Female Respondents Component Structure Summary

Among female respondents ( $n = 288$ ), thirteen principal components were retained based on eigenvalues exceeding unity. The variance structure differed from that observed in male respondents, with emotional, self-critical, and nurturing traits contributing strongly to early components. Together, the retained components explained a high proportion of total variance, supporting the stability and

interpretability of the female-specific PCA solution. Eigenvalues by each principal component are reported in Table S5, while the rotated factor loadings are presented in Table S6.

The PCA results for the 288 female respondents identified thirteen principal components, showcasing different configurations compared to the combined sample and male respondents (Table 3). PC1 was characterized by analytical, intellectual, and aggressive traits, suggesting a potential association between cognitive abilities and female assertiveness. PC2 included emotional, self-criticism, and perceiver traits, highlighting the relationship between emotional regulation, self-evaluative tendencies, and perceptual orientations. PC3 focused on the lie scale and endurance, indicating the role of truthfulness and persistence in female personality.

Further unique patterns emerged in the female-specific analysis. PC4 was solely associated with nurturance, emphasizing its standalone importance in female personality. PC5 was linked to structure, while PC6 centred on religion, reflecting personality's organizational and spiritual dimensions. PC7 combined age and achievement, indicating the influence of life stage on goal-oriented behaviours. PC8 included introversion and extroversion traits, showcasing the coexistence of contrasting social orientations. Other components, such as PC9 (variety and perceiver traits), PC10 (self-concept), PC11 (marital status), PC12 (autonomy, intuition, and control), and PC13 (dependent, support, and achievement traits), further illustrated the multifaceted nature of personality traits among female respondents, highlighting the complex interrelationships within their personality structure.

**Table 3.** Component Structure Summary after Varimax Rotation using Principal Component Analysis based on 288 female respondents.

PC1	Analytical	Intellectual	Aggressive
PC2	Emotional	Self-criticism	Perceiver
PC3	Lie scale	Endurance	
PC4	Nurturance		
PC5	Structure		
PC6	Religion		
PC7	Age	Achievement	
PC8	Introvert	Extrovert	
PC9	Variety	Perceiver	
PC10	Self-concept		
PC11	Marital		
PC12	Autonomy	Intuition	Control
PC13	Dependent	Support	Achievement

## 4. DISCUSSION

### 4.1. Leadership Development Between the Gender

The findings from the PCA results reveal significant gender differences in personality traits that have crucial implications for leadership development. For male respondents, the most prominent traits include analytical thinking and intellectual orientation, suggesting a natural inclination towards leadership roles that require problem-solving and strategic thinking [38]. These strengths should be further enhanced in leadership development programs for men while also incorporating emotional intelligence training to balance their leadership style and improve interpersonal skills [10].

In contrast, female respondents exhibit prominent emotional and nurturing traits, indicating strengths in relational and supportive behaviours. These are increasingly recognized as valuable in contemporary leadership contexts where empathy and team cohesion are prioritized. Leadership development programs for women should focus on enhancing these relational skills while also providing opportunities to develop assertiveness and decision-making capabilities. This balanced approach will help female leaders broaden their leadership repertoire and prepare them for a wider range of leadership roles [10]. Moreover, recognizing and promoting these traits can help organizations develop a more inclusive and diverse leadership pipeline [9,12,23,24,38].

The presence of self-criticism and aggressive behaviours in multiple components for both genders suggests a need for addressing mental health and self-perception issues in leadership development. For men, self-criticism can be harnessed to drive self-improvement and accountability, but it should be managed to prevent negative impacts on mental health [38].

#### **4.2. Gender Differences in Job Exploration**

The principal component analysis results provide valuable insights for job exploration, highlighting the suitability of different roles based on gender-specific traits. For male respondents, the strong analytical traits suggest a natural fit for roles in data analysis, engineering, and strategic management, where these skills are paramount [1,11]. Additionally, the emphasis on self-criticism and control traits in men indicates potential for high performance in roles requiring meticulous attention to detail and regulatory oversight. However, it is essential to recognize that such traits may also have psychological impacts, and organizations should implement support mechanisms to ensure that men can maintain their performance without compromising their mental health [33].

For female respondents, the prominent emotional and nurturing traits suggest a natural fit for human resources, counselling, and customer relations roles, where empathy and interpersonal skills are crucial [11]. Women's significant presence of self-criticism and endurance highlights their potential for resilience in high-stress environments such as healthcare and social services. Providing adequate support to manage stress and avoid burnout is essential in these roles [32].

Furthermore, recognizing women's variety and intuition traits can lead to successful careers in creative industries and innovation management, where these attributes are highly valued [38].

Acknowledging these gender differences can refine job exploration strategies. For instance, male respondents' analytical skills can be further developed through targeted training and certification programs, preparing them for advanced roles in data science and engineering [3,11,13]. Organizations can also design career pathways that align with these strengths, ensuring that men have opportunities to advance into leadership positions that require strategic thinking and problem-solving [13].

Similarly, organizations should recognize women's inherent strengths, such as empathy and resilience, and create supportive environments that foster their professional development and advancement, particularly in fields where these traits are valuable [16,29]. By embracing and leveraging gender-based insights, organizations can cultivate a more diverse and inclusive workforce where individuals of all genders can thrive and contribute to the organization's success.

#### **4.3. Comparative Gender Analysis and Implications for Practical Application**

The study of personality traits and their implications for leadership and career success has been an area of increasing interest in organizational psychology [32,38]. Research has revealed that certain personality traits, such as intellectual and analytical abilities, are universally valued in leadership roles. In contrast, others, like emotional and social support skills, may be more pronounced in specific gender groups [10].

The findings of this study suggest that while intellectual and analytical traits consistently dominate the first principal component across male, female, and overall respondents, there are notable differences in the prominence of other personality characteristics. Emotional and social support traits are more pronounced among female respondents, while self-criticism and control are more significant among male respondents [10,18,19,20,34]. These gender-specific differences in personality trait distributions underscore the need for tailored approaches to leadership development and job exploration to maximize individual potential and organizational effectiveness [32,38].

To address these differences, organizations can implement mentorship programs that facilitate cross-gender learning and development, promoting a balanced and inclusive leadership culture [32]. For example, pairing male leaders with strong analytical skills with female leaders who excel in emotional intelligence can foster mutual growth and enhance leadership effectiveness. Additionally, recruitment and job placement strategies can be designed to align individuals' inherent traits with job roles that maximize their potential and satisfaction, ensuring that employees are placed in roles where they can thrive, leading to higher performance and job satisfaction [10].

Furthermore, recognizing and addressing the psychological impacts of certain traits, such as self-criticism and control, is crucial for maintaining employee well-being. Support mechanisms, such as



counselling services and stress management programs, should be integrated into organizational practices to help employees manage these traits effectively [2]. For men, focusing on developing emotional intelligence alongside their analytical skills can lead to more well-rounded leaders. At the same time, for women, enhancing assertiveness and decision-making capabilities while leveraging their relational strengths can contribute to their success [6].

By acknowledging and addressing these gender-specific differences in personality trait distributions, organizations can create more personalized and effective career development strategies, fostering a balanced and inclusive leadership culture that empowers individuals to reach their full potential [9,33].

The PCA results provide a comprehensive understanding of gender-specific personality traits and their implications for leadership development and job exploration. Tailoring development programs and job roles to align with these traits can lead to more effective and inclusive workplaces. Future research should continue to explore these dynamics, incorporating longitudinal studies to track the long-term impact of such tailored strategies on organizational success and employee well-being.

#### **4.4. Intersectionality of Gender, Age, and Socio-cultural Context**

While gender emerged as a salient dimension in the PCA results, the findings clearly indicate that personality traits are shaped through intersecting influences rather than gender operating as an isolated determinant. This pattern is consistent with intersectionality theory, which argues that individual attributes, behaviors, and life outcomes arise from the combined and mutually reinforcing effects of multiple social positions, such as gender, age, culture, and social roles, rather than from single categorical identities [4,5]. From this perspective, personality traits should be understood as dynamic expressions situated within broader social and developmental contexts, rather than as fixed or purely gender-driven characteristics.

Age and marital status consistently formed distinct components or co-loaded with personality traits across the PCA solutions, highlighting the moderating role of life stage in personality expression. Traits such as achievement orientation, variety seeking, and exploratory behavior were more strongly associated with younger respondents, reflecting developmental phases characterized by career building, identity exploration, and goal pursuit. In contrast, older age groups showed closer associations with endurance, emotional regulation, and self-concept, traits that are often linked to accumulated life experience, role stability, and adaptive coping mechanisms. Longitudinal and cross-cultural personality research supports this interpretation, demonstrating systematic age-related shifts in personality traits across adulthood, with increases in emotional stability, conscientiousness, and self-reflection over time [22,30]. Marital status further intersects with age by shaping responsibility structures, emotional commitments, and social expectations, which may reinforce traits related to nurturance, self-control, and endurance.

Religion emerged as an independent principal component in both the overall and gender-specific analyses, underscoring the cultural embedding of personality expression within belief systems. Extensive cross-cultural research has shown that religious affiliation and practice are closely intertwined with moral values, behavioral norms, and social expectations, particularly in societies where religion plays a central role in everyday life [14,31]. In collectivist contexts such as Malaysia, religion is not merely a private belief system but a social institution that shapes family relations, gender roles, and community responsibilities. As a result, traits such as nurturance, self-criticism, obedience, and control may be reinforced through religious teachings and culturally sanctioned behaviors, interacting with gender in complex ways.

For example, emotional expressiveness and nurturing tendencies observed among female respondents may reflect not only individual personality differences but also culturally reinforced expectations surrounding caregiving, relational responsibility, and emotional labor. Social role theory suggests that such patterns arise from gendered divisions of labor and social expectations that shape behavioural norms over time [8]. Similarly, higher levels of self-criticism or control among certain groups may reflect internalized moral standards and role obligations derived from religious and cultural frameworks, rather than dispositional tendencies alone [31].

Taken together, these findings underscore the importance of adopting an explicitly intersectional perspective in leadership development and job exploration. Gender-based interpretations that overlook

age, marital status, and sociocultural context risk oversimplifying personality dynamics and reinforcing essentialist assumptions about men's and women's capabilities. Instead, leadership and career development frameworks should recognize that individuals navigate multiple, overlapping identity dimensions that jointly influence trait expression, motivation, and workplace behaviour across different life stages and cultural settings. Such an approach allows organizations to design more nuanced, inclusive, and context-sensitive development strategies that better reflect the complexity of real-world leadership trajectories and career pathways [4,14,30].

Beyond individual traits, intersectionality also shapes how leadership potential is perceived, evaluated, and rewarded within organizational settings. Research in organizational psychology has shown that age and gender jointly influence leadership expectations, with younger individuals often evaluated on potential and innovation, while older individuals are assessed based on reliability, experience, and emotional regulation [26]. These evaluative frameworks may advantage or disadvantage individuals depending on how their personality traits align with age- and gender-based expectations embedded in organizational cultures. For instance, assertiveness and ambition may be positively interpreted in younger male employees but perceived differently when expressed by older female employees, reflecting implicit biases rather than objective differences in capability. Such dynamics highlight that personality traits do not operate in a neutral evaluative space; instead, their expression and interpretation are filtered through intersecting social identities and institutional norms [28].

In addition, socio-cultural context influences how individuals regulate, suppress, or amplify particular personality traits across different professional environments. In collectivist societies, traits such as compliance, emotional restraint, and relational harmony may be more strongly reinforced than overt individualism or assertiveness, even among individuals with high achievement orientation [21,35]. This cultural modulation may explain why traits like self-criticism and control emerged as salient components in the present analysis, as these traits can function as adaptive mechanisms within socially interdependent contexts. From a leadership development perspective, this suggests that effective interventions should move beyond universal trait-based models and instead account for culturally embedded expressions of personality. Programs that recognize how gender, age, and culture jointly shape leadership behavior are more likely to foster sustainable leadership effectiveness and career satisfaction across diverse organizational contexts [15].

#### **4.5. Connection to the United Nations Sustainable Development Goals (UNSDGs)**

The present findings have direct relevance to the United Nations Sustainable Development Goals, particularly UNSDG 5 (Gender Equality), UNSDG 8 (Decent Work and Economic Growth), and UNSDG 4 (Quality Education). By empirically demonstrating that personality traits related to leadership and job exploration are shaped by intersecting influences of gender, age, and socio-cultural context, this study challenges simplified gender binaries that often underpin workforce policies. UNSDG 5 emphasizes the need to ensure women's full and effective participation and equal opportunities for leadership at all levels. The observed prominence of emotional, nurturing, and relational traits among female respondents should therefore be recognized as leadership assets rather than limitations, aligning with global calls to broaden leadership criteria beyond traditionally masculine norms [7,37].

The study also contributes to UNSDG 8 by highlighting how aligning individual personality profiles with appropriate job roles can enhance job satisfaction, productivity, and long-term workforce sustainability. Decent work is not only defined by employment availability but also by meaningful engagement and psychological well-being. The PCA results suggest that mismatches between personality traits and occupational expectations may undermine employee motivation and performance. By incorporating personality-based, gender-sensitive, and context-aware job exploration frameworks, organizations can reduce workplace stress, improve retention, and support inclusive economic growth. Such approaches are consistent with international evidence showing that diverse and psychologically aligned workforces contribute to organizational resilience and economic sustainability [27,39].

From an educational and capacity-building perspective, the findings are closely aligned with UNSDG 4, which calls for inclusive and equitable quality education and lifelong learning opportunities. Personality traits related to achievement, endurance, and self-concept varied across age groups,



underscoring the importance of developmentally appropriate leadership education and career guidance. Integrating personality assessment into education and professional training can support learners in making informed career decisions and developing leadership competencies that evolve across the life course. Such personalized learning pathways are increasingly recognized as essential for preparing individuals to navigate complex and changing labor markets [30,36].

Finally, the intersectional nature of the findings supports a broader UNSDG agenda that emphasizes reducing inequalities (UNSDG 10) through context-sensitive policy and organizational practices. Recognizing that personality expression is shaped by cultural norms, religious values, and life stage reinforces the need for leadership development models that are locally grounded yet globally informed. Rather than imposing universal leadership templates, organizations and policymakers should adopt flexible frameworks that respect cultural diversity while promoting equity and inclusion. In this way, personality-informed leadership development and job exploration can function as practical mechanisms for advancing multiple UNSDGs simultaneously, linking individual well-being with organizational effectiveness and sustainable societal development [14,37].

#### **4.6. Limitations**

Several limitations of the present study should be acknowledged. First, although the sample size was adequate for PCA, the gender distribution was uneven, with a higher proportion of female respondents. This imbalance may influence the stability and salience of certain components, particularly in gender-comparative interpretations.

Second, the cross-sectional design limits causal inference. Personality traits and their associations with leadership and job exploration are dynamic and may evolve across the lifespan. Longitudinal designs would be better suited to capture developmental changes and the temporal stability of the identified components.

Third, the data were collected within a single national and cultural context. Malaysian sociocultural norms, including religious values, collectivist orientations, and gender role expectations, may shape personality expression in ways that differ from other cultural settings. As a result, caution should be exercised when generalizing the findings to non-Malaysian or highly individualistic contexts.

Finally, the use of a dichotomous response format, while practical for large-scale assessment, may constrain response variability and subtle trait differentiation. Future studies could benefit from mixed-scale approaches and cross-cultural validation to strengthen generalizability.

### **5. CONCLUSION**

The PCA results provide significant insights into gender-specific personality traits and their implications for leadership development and job exploration. For male respondents, the strong analytical and intellectual traits suggest a natural fit for strategic and problem-solving roles. Leadership programs focusing on enhancing emotional intelligence can further develop these traits. In contrast, female respondents exhibit prominent emotional and nurturing traits, highlighting their strengths in relational and supportive behaviours. Women's Leadership development programs should balance these strengths with assertiveness and decision-making capabilities.

The gender-specific traits identified by the PCA results can guide career development strategies in job exploration. Men may excel in roles requiring analytical skills and meticulous attention to detail, while women may find fulfilment in roles that leverage their empathy and interpersonal skills. Organizations can design career pathways and support mechanisms aligning with these traits, ensuring employees can thrive in their respective roles. The comparative gender analysis underscores the importance of recognizing and leveraging these differences in organizational practices. Tailored mentorship programs, recruitment strategies, and support systems can create a more inclusive and effective workplace. Addressing the psychological impacts of traits like self-criticism and control is essential for maintaining employee well-being and performance.

Therefore, understanding and leveraging gender-specific personality traits can lead to more effective leadership development and job exploration strategies. Organizations can foster a more diverse, motivated, and engaged workforce by aligning development programs and job roles with these traits. Future research should continue to explore these dynamics, focusing on the long-term impacts of

such tailored strategies on organizational success and employee well-being. Implementing these insights into practical applications will create a balanced and inclusive organizational culture.

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