DESIGN AND DEVELOPMENT OF A RIASEC-BASED INSTRUMENT FOR MANAGEMENT CONCENTRATION PREFERENCES AT UNIVERSITAS PENDIDIKAN GANESHA

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ABSTRACT

This study explores the development of a RIASEC-based interest inventory aimed at assisting undergraduate management students in selecting an academic concentration aligned with their personality profiles. The increasing need for personalized academic guidance in business education makes this topic both timely and relevant. Despite the availability of academic advising, many students still struggle to make informed decisions about their management concentration—often relying on intuition rather than a structured assessment of vocational interests. Unlike existing RIASEC instruments that are generally used for broad career counseling, this study introduces a tailored psychometric tool specifically designed to differentiate among intra-disciplinary concentrations in management education, a gap that remains underexplored, especially in the Indonesian higher education context. The research employed a quantitative approach using a survey instrument based on the RIASEC model. The development process followed DeVellis's instrument construction framework and included item generation, expert validation, pilot testing, and psychometric evaluation through Cronbach's Alpha, and Exploratory Factor Analysis (EFA). The resulting instrument demonstrated strong internal consistency ($\alpha = 0.819$) and a coherent five-factor structure aligning with RIASEC dimensions. Each factor corresponded to distinct vocational orientations relevant to management specializations, reinforcing its validity for educational use. This study provides a valid and theoretically grounded instrument to support student decision-making in management education. However, the tool's current scope is limited to a small sample within Universitas Pendidikan Ganesha, and further refinement is needed for broader application. The findings offer practical implications for enhancing academic advising and student development strategies in business schools.

Keywords: RIASEC model, management concentration preferences, interest inventory, psychometric instrument

INTRODUCTION

Choosing a specialization within the field of management is a routine yet pivotal academic decision for undergraduate students majoring in management at Universitas Pendidikan Ganesha (Undiksha). Typically offered in the later stages of the curriculum, this selection—whether in Finance, Human Resource Management (HRM), or Marketing—has significant implications for students' academic trajectories and future careers. Despite its importance, many students report confusion and uncertainty when faced with this decision. This difficulty is not unique to Undiksha, but represents a broader challenge in higher education: aligning educational choices with individual interests, aptitudes, and long-term goals (S. D. Brown & Lent, 2005; Lent et al., 2000).

At Undiksha, career guidance services are available through both the university's career center and academic advising by faculty mentors. However, these services have not been fully optimized in helping students choose their academic concentration. The career center, while valuable, has not yet developed targeted tools for differentiating between management specializations. Meanwhile, academic advisors face structural limitations, particularly when tasked with providing personalized guidance to large student cohorts. As a result, many students rely on intuition, peer influence, or superficial impressions of each field when making this critical decision—often without a deep understanding of their own vocational profile.

To address this gap, there is a growing need for a practical, accessible, and scientifically grounded tool that can assist students in identifying the management concentration most suited to their personality and interests. Psychological frameworks such as Holland's RIASEC model (Realistic, Investigative, Artistic, Social, Enterprising, Conventional) offer a promising foundation for such tools. Extensively validated across cultures and educational settings, the RIASEC model links personality types to vocational preferences and work environments (Nauta, 2010; Spokane et al., 2002). Previous studies have shown its robustness in predicting occupational alignment and satisfaction, making it a widely used instrument in career counseling and vocational psychology (Spokane et al., 2000).

Despite its popularity, the application of RIASEC in helping students choose academic specializations—especially within management education—remains limited. Existing RIASEC instruments are typically designed for broader career guidance rather than intra-disciplinary decisions. Given that each management concentration is associated with distinct psychological orientations and work-related competencies (e.g., analytical rigor in Finance, interpersonal sensitivity in HRM, creativity and persuasion in Marketing), a RIASEC-based instrument tailored for management education could fill an important gap. Yet to date, such a tool is either lacking or underdeveloped in the Indonesian context, particularly within the framework of public universities like Undiksha.

This study seeks to address this need by developing and statistically validating a RIASEC-based interest inventory specifically designed to assist management students at Universitas Pendidikan Ganesha in selecting their academic concentration. The instrument aims to provide a psychometrically sound method for mapping individual interests and personality profiles to the most compatible management track. Ultimately, this research contributes to both the theoretical advancement of vocational assessment tools and the practical improvement of academic advising practices in business education.

LITERATURE REVIEW

The RIASEC Vocational Model

John L. Holland's RIASEC model is one of the most influential psychological theories in vocational behavior and career development (Dierdorff & Wilson, 2003; Spokane et al., 2000, 2002). It classifies individuals into six primary personality types: Realistic (R), Investigative (I), Artistic (A), Social (S), Enterprising (E), and Conventional (C). Each type represents a distinct set of interests, values, and preferred working environments. Realistic individuals prefer hands-on, practical activities; Investigative types are analytical and enjoy problem-solving; Artistic individuals thrive in creative, unstructured environments; Social types seek interpersonal engagement; Enterprising personalities are oriented toward leadership and persuasion; and Conventional types favor structure, order, and data-driven tasks (Spokane et al., 2000, 2002).

The strength of the RIASEC framework lies in its dual application: it not only categorizes individual preferences but also characterizes occupational environments. A good match between personality and job environment is expected to enhance satisfaction, performance, and retention (Spokane et al., 2000). This model has been widely implemented in career counseling (S. D. Brown & Lent, 2005), human resource development (Rounds & Su, 2014), and educational guidance (McIlveen, 2009; Thamrin et al., 2023).

Applying RIASEC to Management Specialization Selection

While traditionally used to guide career decisions, the RIASEC model can also be applied to academic specialization, particularly within business and management education. Each management concentration tends to align with specific RIASEC profiles, offering a valuable framework to match students' vocational interests with suitable fields of study.

Finance and the Investigative–Conventional Profile

Finance demands precision, analytical reasoning, and the ability to work with structured data. Consequently, students with high Investigative (I) and Conventional (C) scores may find this field most compatible with their psychological orientation. Dierdorff and Wilson (2003) found that roles in finance and accounting significantly correlate with the Investigative type, while Gottfredson and Holland (1996) in (McDaniel & Snell, 1999) emphasized that the Conventional type thrives in environments requiring rule adherence and data management—core tasks in financial professions.

Human Resource Management and the Social–Enterprising–Investigative Profile

HRM emphasizes empathy, interpersonal communication, and talent development. These roles require a strong inclination toward the Social (S) personality type. However, elements of the Investigative (I) and Artistic (A) profiles are also relevant, especially in functions involving psychological assessment and employee engagement strategies. Nauta (2010) emphasized the dominance of social types in people-centered occupations, while Spokane et al. (2002) noted the role of investigative reasoning in HR analytics and training design.

Marketing and the Enterprising–Artistic Profile

Marketing blends creativity, strategic thinking, and persuasive communication—traits commonly associated with the Artistic (A) and Enterprising (E) types. Professionals in this field are often required to innovate, lead promotional campaigns, and influence consumer behavior. Rounds and Su (2014) found a

strong association between marketing roles and Enterprising interests, while Betz and Schifano (2000) highlighted the importance of Artistic traits in digital marketing, branding, and advertising.

Empirical Evidence Supporting RIASEC's Effectiveness

Empirical studies have demonstrated the utility of RIASEC-based instruments in improving decision-making in both academic and career contexts. McIlveen (2009) and Thamrin et al. (2023) reported high reliability of RIASEC assessments in predicting students' major selection and satisfaction. Similarly, a meta-analysis by Dierdorff & Wilson (2003) showed that RIASEC congruence significantly increases career satisfaction and reduces dropout rates. Moreover, Hoff et al. (2020) found that individuals whose career paths matched their RIASEC profiles tended to perform better and reported higher job satisfaction.

These findings support the validity of the RIASEC model in diverse contexts and underscore its potential to enhance academic guidance. Yet, its application in aiding management students to select academic concentrations remains underexplored, especially in non-Western educational settings.

Implications for Instrument Development in Management Education

The RIASEC model, developed by John Holland, has been widely recognized for its psychometric strength and applicability in career counseling and educational guidance. This structured framework for categorizing personality types provides a solid theoretical foundation for developing a targeted instrument aimed at assisting management students in selecting an academic concentration that aligns with their personal attributes and career goals. Such an instrument could offer several benefits:

1) Help students align their academic choices with their vocational profiles. By understanding their RIASEC profiles, students are better equipped to make informed decisions about their academic paths, which may lead to increased satisfaction and improved performance in their chosen fields;
2) Enable advisors and faculty to provide more data-driven and personalized guidance;
3) Support institutions in fostering more informed academic decisions, thereby improving student satisfaction and performance.

Despite the model's strengths, existing RIASEC-based instruments are generally designed for broad career guidance, not for differentiating between intra-disciplinary academic paths such as finance, HRM, and marketing. This underscores the need for domain-specific tools that can bridge the gap between personality theory and academic advising in business education.

The RIASEC model offers a theoretically sound and empirically validated approach to career and academic planning. Within the context of management education, each concentration maps distinctly to specific personality traits described in the model. As such, the development of a RIASEC-based interest inventory tailored for management students could fill a critical gap in educational practice. To ensure its effectiveness, such a tool must undergo rigorous psychometric validation and be grounded in both psychological theory and the practical demands of each management concentration.

METHOD, DATA, AND ANALYSIS

This study employed a quantitative research approach with a focus on instrument development and statistical validation, aiming to construct a psychometric tool grounded in Holland's RIASEC model to assist management students in selecting academic concentrations aligned with their personality profiles. Two main components were developed: (1) the interest assessment instrument itself, which captures

students' inclinations toward management specializations based on RIASEC dimensions, and (2) a scoring and interpretation system that enables accurate mapping of RIASEC profiles to specific management concentrations through weighted analysis.

The development process followed the widely recognized framework proposed by DeVellis (2016), which consists of eight stages. First, the conceptual domain of the instrument was defined, focusing on vocational interest toward three core management domains: Finance, Human Resource Management (HRM), and Marketing. Second, the intended purpose of the instrument was articulated—to support students and professionals in identifying the most compatible management concentration based on their personality characteristics. Third, a 5-point Likert scale was chosen as the format for measuring responses, allowing participants to indicate their level of agreement with personality-relevant statements.

In the fourth stage, an initial pool of 30 items was generated, with each RIASEC type represented through targeted behavioral indicators. These items were reviewed in the fifth stage by a panel of experts in management education and industrial-organizational psychology to ensure content relevance and clarity. Following revisions based on expert feedback, a pilot test was conducted with a small group of participants to evaluate the instrument's comprehensibility and its preliminary psychometric performance sixth and seventh stages involved comprehensive statistical analyses. Reliability was tested using Cronbach's Alpha to assess internal consistency. Exploratory Factor Analysis (EFA) was conducted to examine the underlying structure and validate the instrument's construct alignment with RIASEC theory. Additionally, multiple linear regression analysis was applied to determine how strongly each RIASEC dimension predicts interest in each management specialization. This step was also crucial in developing the second key component: a weighted scoring system that translates RIASEC profiles into recommended concentrations, offering an interpretable framework for academic advising.

Finally, the instrument underwent a final revision to incorporate statistical findings, improving the accuracy and usability of both the measurement tool and its interpretative mechanism. The integration of psychometric development methods from DeVellis (2016) and validation procedures from Anastasi and Urbina (1997) provided a robust foundation for ensuring the reliability, validity, and practical application of the developed instrument.

To ensure the psychometric robustness and practical applicability of the developed instrument, a series of quantitative data analysis techniques will be employed:

1) Reliability Analysis (Cronbach's Alpha):

   This analysis will be conducted to examine the internal consistency of the instrument's subscales corresponding to the six RIASEC personality dimensions. A Cronbach's Alpha value of 0.70 or higher will be considered acceptable for each subscale, indicating that the items consistently reflect their respective constructs (Taber, 2018).

2) Exploratory Factor Analysis (EFA):

   EFA will be used to investigate the construct validity of the instrument by assessing whether the designed items group themselves into factors that correspond to the six theoretical RIASEC categories: Realistic, Investigative, Artistic, Social, Enterprising, and Conventional. The analysis will apply principal axis factoring with oblique rotation, considering the potential intercorrelation among factors. Factor loadings greater than 0.40 will be considered meaningful (Costello & Osborne, 2005).

RESULT AND DISCUSSION

Findings

Reliability and Suitability for Factor Analysis

The reliability analysis using Cronbach's Alpha yielded a value of 0.819, indicating excellent internal consistency among the instrument items (Hair et al., 2019; Taber, 2018). This suggests that the items consistently measure coherent constructs across participants and reinforces the instrument's psychometric strength in educational contexts. Such reliability is crucial when instruments are used in career and academic counseling, where decisions based on test results can significantly impact student pathways.

Moreover, Bartlett's Test of Sphericity resulted in a statistically significant value ($\chi^2 = 60.70$, $p = 0.0005$), providing a solid justification for conducting Exploratory Factor Analysis (EFA). This outcome confirms sufficient correlations among items to validate the presence of latent constructs (Costello & Osborne, 2005). Together, these preliminary analyses validate the methodological robustness and appropriateness of the dataset for further factor extraction.

Factor Structure and Interpretation

The EFA uncovered a coherent five-factor solution, aligning closely with Holland's RIASEC framework (Spokane et al., 2002). Each factor represented a distinct vocational orientation relevant to management specialization, supporting the instrument's construct validity and practical relevance for student career guidance.

1) Factor 1: Analytical and Structured Orientation

   This factor is defined by strong negative loadings on items from the Investigative (I), Realistic (R), and Conventional (C) domains, as visualized through dark blue intensities in the heatmap (e.g., I1 = –0.74, I4 = –0.78, C1 = –0.73). These patterns indicate a clear cognitive preference for analytical problem-solving, practical implementation, and rule-based environments. The configuration of this factor is consistent with career roles in finance, auditing, logistics, and operations—fields characterized by systematic procedures and technical precision (Dierdorff & Wilson, 2003; McDaniel & Snell, 1999). The convergence of these domains under a single factor underscores the compatibility of structured competencies within certain management tracks, particularly financial or operational management.

2) Factor 2: Creative and Social Orientation

   Items from Artistic (A), Social (S), and some Enterprising (E) domains loaded moderately to strongly on this factor (e.g., A1 = –0.41, S3 = –0.44, E1 = –0.28), reflected by reddish hues in the heatmap. This dimension suggests a combination of creativity, expressiveness, and interpersonal engagement. The alignment with marketing, communications, and human resource management is evident, reinforcing earlier studies showing that Enterprising and Artistic personalities often thrive in people-centered and innovative environments (Betz & Schifano, 2000; Rounds & Su, 2014). The inclusion of E1, E3, and S3 within the same factor further supports the interpretation that individuals with these profiles may be especially adept in roles requiring persuasion and social sensitivity.

3) Factor 3: Mixed Interpersonal and Analytical Orientation
   This factor presented blended moderate loadings (e.g., S5 = –0.36, I3 = 0.41, E4 = 0.3, R4 = 0.33), suggesting a hybrid of analytical precision and interpersonal adaptability. The mixed color intensity in the heatmap illustrates this multidimensional trait structure. Such profiles may be particularly valuable in strategic roles—like consulting, product management, or organizational analysis—where both critical thinking and collaboration are essential (S. D. Brown & Lent, 2005; Tracey et al., 2005). The emergence of this factor also speaks to the fluidity of vocational identities in modern work environments, where hybrid skills are increasingly demanded (Savickas, 2005)
4) Factor 4: Individual Social Expression
   Defined primarily by S1 (–0.59) and C5 (–0.42), this smaller factor highlights a preference for structured interpersonal roles. While its representation is limited to a narrow item range, it nonetheless points to an important subgroup of respondents whose competencies align with roles in training, administrative support, or regulated client-facing functions. Though not as broad as other factors, this pattern is consistent with Holland's emphasis on environment-person fit and reflects an underrepresented yet meaningful vocational type (Spokane et al., 2002).
5) Factor 5: Enterprising Orientation
   Prominently defined by E2 (0.48), this factor indicates a strong leaning toward leadership and persuasive roles. Although represented by a single high-loading item, the factor's conceptual clarity aligns with entrepreneurial and executive career pathways. This finding suggests a developmental opportunity for the instrument—specifically, expanding the representation of the Enterprising dimension to better capture diverse leadership-related expressions (Rounds & Su, 2014).

Insights from the Heatmap

The visual representation of factor loadings through a heatmap has provided valuable insights into the internal structure and psychometric robustness of the developed RIASEC-based instrument. Heatmaps are especially effective for visualizing high-dimensional factor solutions, as they enable rapid identification of strong associations and problematic items (S. D. Brown & Lent, 2005; Osborne et al., 2014).

The heatmap visualization enhances interpretation by offering a multidimensional view of how each item relates to the extracted factors. Heatmaps are recognized tools for identifying:

1) Item-factor alignment, shown via high saturation red/blue zones (S. D. Brown & Lent, 2005),
2) Cross-loadings, which can signal construct ambiguity (Worthington & Whittaker, 2006),
3) Underperforming items, whose loadings are near zero (e.g., E5, R2).

The heatmap clearly illustrates the magnitude and direction of loadings:

1) Strong loadings ($\geq |0.4|$) are visually apparent through deeper color saturation and serve as primary indicators of factor membership.
2) Moderate loadings (0.2 – 0.4), while still valuable, indicate that certain items may play a supporting role in defining a factor.

Weaker loadings (closer to 0), shown as pale shades, suggest items with limited contribution and potentially lower psychometric relevance.

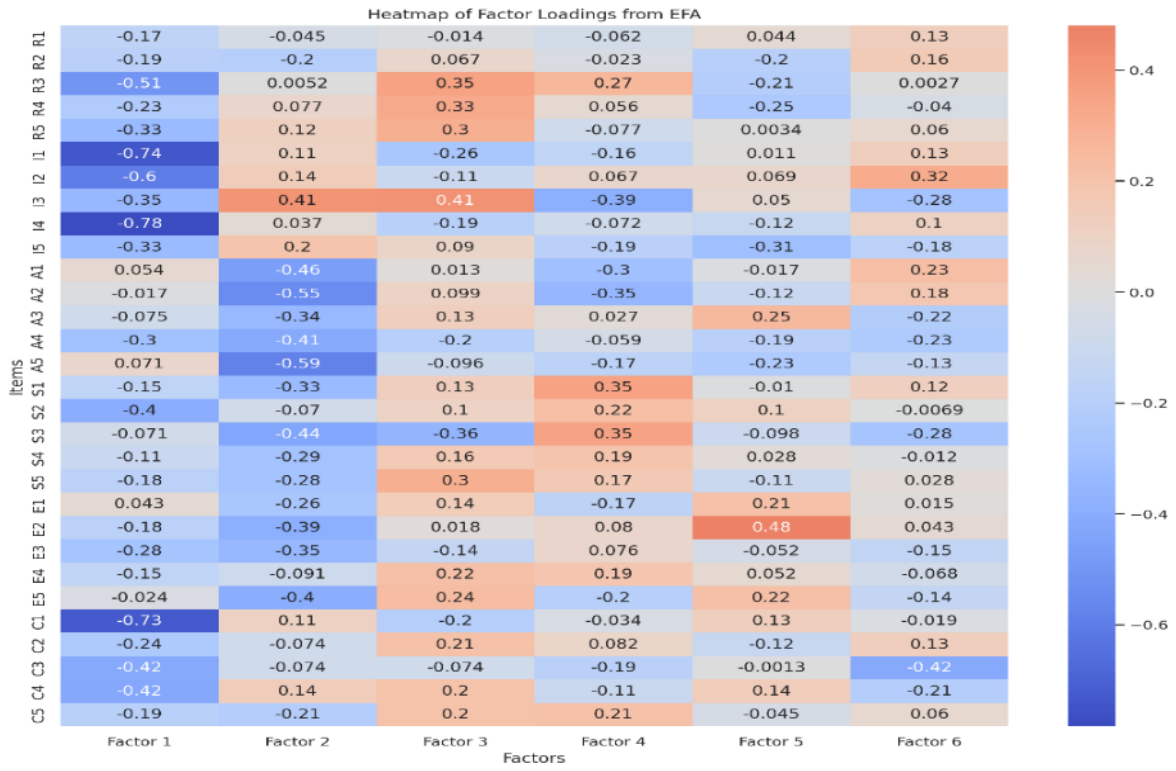

Figure 1. Heatmap of Factor Loadings from EFA

This visual clarity supports the recommendations of Tabachnick and Fidell (2019), who emphasized the utility of graphical representations in factor analysis to detect anomalies, redundancies, or poorly performing items.

In summary, the findings present compelling evidence of the instrument's structural validity, psychometric soundness, and practical applicability for guiding students in selecting suitable management specializations. The use of EFA, confirmed by reliability and correlation measures, ensures that the tool not only reflects theoretical constructs but also resonates with real-world student preferences. The inclusion of heatmap analysis elevates the interpretive process, offering stakeholders—including academic counselors, career advisors, and curriculum designers—a visually intuitive and theoretically robust diagnostic resource.

Discussion

The results obtained in this study demonstrate that the developed RIASEC-based instrument possesses strong psychometric properties, notably high internal consistency (Cronbach's Alpha = 0.819) and a clearly interpretable factor structure aligned with Holland's theoretical framework (Nauta, 2010; Spokane et al., 2002). The reliability achieved surpasses the recommended threshold ($\alpha \geq 0.80$), indicating that the items consistently measure the intended vocational constructs (Hair et al., 2019; Taber, 2018). This finding aligns with earlier psychometric validations of RIASEC instruments, which typically exhibit high internal consistency, confirming their utility and dependability in educational and occupational counseling settings (McIlveen, 2009; Spokane et al., 2000; Thamrin et al., 2023).

Bartlett's test of sphericity ($\chi^2 = 60.70$, $p = 0.0005$) further affirmed the data's suitability for factor analysis, confirming adequate correlations among items. Such statistical justification is essential, as noted

by Costello and Osborne (2005), to validate the appropriateness of EFA in assessing underlying latent variables. The significant Bartlett's test result strengthens confidence in the subsequent factor interpretation and underscores the instrument's statistical rigor.

Factor Interpretation and Theoretical Alignment

The exploratory factor analysis yielded distinct factors that align closely with Holland's RIASEC dimensions, providing a meaningful basis for guiding management students' specialization decisions:

Factor 1 (Analytical and Structured Orientation) combined primarily Investigative, Realistic, and Conventional items, reflecting preferences for structured, precise, and analytical tasks. Such orientations are fundamental in fields such as finance, accounting, and administrative management, where analytical rigor and procedural compliance are paramount (Dierdorff & Wilson, 2003; McDaniel & Snell, 1999). The emergence of this factor suggests that the instrument effectively identifies students inclined toward careers involving analytical precision and structured environments.

Factor 2 (Creative and Social Orientation) prominently included Artistic, Social, and Enterprising items, capturing students who prefer creative endeavors and interpersonal interactions. This orientation mirrors professional roles in marketing, communications, and human resources, which consistently require creativity, persuasion, and teamwork (Betz & Schifano, 2000; Rounds & Su, 2014). The clarity of this factor underscores the relevance of creativity and interpersonal dynamics within management education, reinforcing the notion that students who identify strongly with this factor might excel in roles that demand innovative thinking and collaborative capabilities.

Factor 3 (Mixed Interpersonal and Analytical Orientation) presented an intriguing combination of Investigative, Social, Enterprising, and Realistic items. Such versatility is characteristic of adaptive roles in organizational settings, such as consulting, strategic planning, or managerial positions that demand both analytical competencies and effective interpersonal communication skills (S. D. Brown & Lent, 2005; Tracey et al., 2005). This factor highlights the importance of nurturing interdisciplinary skills within management education to prepare students for the evolving demands of modern organizational environments.

Factor 4 (Individual Social Expression) and Factor 5 (Enterprising Orientation), while represented by fewer items, highlight specific niche dimensions—structured interpersonal interactions and leadership potential, respectively. These findings are consistent with Holland's emphasis on capturing nuanced vocational traits, suggesting the need for educational programs to acknowledge specialized personal attributes in academic advising (Nauta, 2010; Rounds & Su, 2014; Spokane et al., 2002).

The heatmap revealed that Factor 1 was dominantly loaded by items from the Investigative (I), Realistic (R), and Conventional (C) dimensions. The consistently strong negative loadings across these items (depicted in dark blue) suggest a latent factor representing preferences for structured, analytical, and systematized tasks—characteristics typically associated with finance, data management, or operational roles. This aligns with previous literature indicating that Investigative and Conventional types thrive in structured environments that demand logical reasoning and procedural accuracy (Dierdorff & Wilson, 2003; McDaniel & Snell, 1999).

Factor 2, comprised predominantly of Artistic (A) and Social (S) items, with a few Enterprising (E) items, displayed moderate to strong loadings. The red hue gradients in this factor reflect positive

associations with creative, expressive, and interpersonal competencies. This combination represents individuals who favor roles in marketing, communication, and human resources—fields that demand both innovation and emotional intelligence (Betz & Schifano, 2000; Rounds & Su, 2014). The emergence of this factor reaffirms the multidimensional nature of management roles, particularly those requiring both artistic ideation and people-centered execution.

Factor 3 displayed more diffuse loadings with moderate intensity across Investigative, Social, and Enterprising items. This distribution suggests a hybrid factor capturing a blend of analytical and interpersonal traits. Prior research has recognized this combination as increasingly relevant in modern organizational settings, especially for roles in strategic consulting, business analysis, and team-based leadership, where versatility across technical and soft skills is essential (S. D. Brown & Lent, 2005; Tracey et al., 2005).

Factors 4 and 5 showed fewer and less intense item loadings. These may represent niche dimensions or substructures within the broader RIASEC framework. Their presence, although not strongly defined, reflects the nuanced personality profiles that exist in real populations and supports the theoretical proposition that individuals often embody blended vocational types (Nauta, 2010; Spokane et al., 2002). However, their interpretability is currently limited due to low item count and moderate loadings, necessitating further refinement.

The heatmap analysis provides a basis for targeted refinement. Items with cross-loadings or weak loadings should be closely reviewed. Ambiguous items may cause construct contamination and reduce overall instrument clarity (Worthington & Whittaker, 2006). Factors 4 and 5 require reinforcement through the addition of new items or modification of existing ones. Ideally, each factor should be defined by at least three high-loading items to ensure structural stability (Fabrigar et al., 1999). Items should be pilot-tested and re-validated using Confirmatory Factor Analysis (CFA) in future iterations, which will provide a stricter test of construct validity and model fit (Hair et al., 2019).

The heatmap's visual findings confirm that the instrument possesses practical diagnostic power. It supports advisors in making individualized, evidence-based recommendations for management students based on their dominant RIASEC orientations. By linking personality traits to academic specialization paths—such as analytical roles in finance, creative social roles in marketing, and leadership roles in HRM—the instrument enables a more personalized and precise approach to career planning (Nauta, 2010; Savickas, 2005). Such an approach aligns with 21st-century educational demands for learner-centered guidance, helping to reduce misalignment between student interests and academic pathways, which is a known contributor to disengagement and attrition (McIlveen, 2009; Thamrin et al., 2023; Tracey et al., 2005).

Contribution to Theoretical and Practical Knowledge

This study significantly contributes to both vocational psychology literature and management education practice by demonstrating the efficacy of a RIASEC-based instrument tailored explicitly to intra-disciplinary decisions within management programs. Unlike generic career assessments, this instrument precisely aligns personality dimensions with specific management specializations, addressing a notable gap identified in previous research (Jansen & Vinkenburg, 2006; Sultana, 2013; Weer & Greenhaus, 2020). Consequently, this facilitates targeted educational strategies and enhances institutional capacity to deliver effective academic counseling, ultimately optimizing student outcomes and satisfaction.

The robust psychometric properties revealed through this analysis reinforce the instrument's suitability as an academic advising tool within management education contexts. Its factor structure clearly aligns with theoretical expectations, validating its applicability in guiding students towards appropriate academic and vocational paths. Further refinement and longitudinal validation are recommended to maximize its effectiveness and generalize its utility across broader educational settings.

CONCLUSION

This study successfully developed and validated a RIASEC-based interest inventory designed to assist undergraduate management students in selecting appropriate academic concentrations aligned with their vocational profiles. The instrument demonstrated strong internal consistency (Cronbach's Alpha = 0.819) and a theoretically coherent factor structure based on Holland's RIASEC model. The empirical evidence confirms that the tool can meaningfully distinguish between interest orientations relevant to Finance, Human Resource Management, and Marketing concentrations. Its alignment with established vocational psychology theories suggests its potential utility in enhancing academic advising practices and promoting more informed educational decision-making among management students.

IMPLICATION/LIMITATION AND SUGGESTIONS

The clarity of these identified factors suggests significant practical implications for management education. The developed instrument can serve as a foundational tool for academic advisors, enabling personalized guidance by matching student personality profiles to management concentrations. Aligning educational pathways with student interests not only fosters academic success but also enhances career satisfaction and long-term professional engagement (Savickas, 2005; Spokane et al., 2000). Institutions adopting such targeted assessments can improve student retention rates, performance, and alignment with career outcomes (Tracey et al., 2005).

While findings clearly support the instrument's reliability and construct validity, certain limitations should be acknowledged. Items with weaker loadings (e.g., E4, R4, C5, S1) and items demonstrating cross-loadings indicate room for further refinement. Future research should employ confirmatory factor analysis (CFA) to rigorously test and confirm the factor structure derived in this exploratory phase. Moreover, expanding the sample size and diversity could further enhance the generalizability of findings (Hair et al., 2019). Additional studies should also investigate the predictive validity of the instrument regarding academic performance and subsequent career success, providing empirical evidence of its longitudinal utility.

Despite the strengths, the study has several limitations that warrant further research. First, the instrument was tested within a limited sample drawn exclusively from Universitas Pendidikan Ganesha, with a relatively small number of respondents. As such, the generalizability of the findings to other institutions or broader populations remains uncertain. Second, while the instrument development included psychometric validation, the interpretative framework—particularly the weighting system and result classification—has not yet been fully elaborated or tested in practical advising contexts. Future studies should aim to expand the participant base across multiple universities, refine the interpretation and scoring models, and assess the instrument's effectiveness in real-time academic counseling settings.

In conclusion, while the instrument demonstrates strong theoretical and psychometric foundations, its broader application requires continued validation. Nonetheless, it represents an important step toward enhancing educational practices in management education by empowering students to make informed, interest-aligned academic decisions.

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