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A Pilot Study on Measuring Entrepreneurial Mindset and its Antecedents: Instrument Validation in Xi'an, China

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Abstract

This pilot study assessed the psychometric properties of a survey instrument designed to measure the Entrepreneurial Mindset (EM) and its antecedents among service industry managers in Xi'an, China. The instrument encompassed five core constructs: Entrepreneurial Self-Efficacy (ESE), Emotional Intelligence (EI), Mindfulness (MF), Perceived Organizational Support (POS), and EM. A total of 52 valid responses were collected and analyzed using STATA 18.0. Cronbach's Alpha values ranged from 0.9385 to 0.9781, demonstrating excellent internal consistency across all subscales. Content validity was rigorously established through expert panel review, yielding a 100% item approval rate (CVI ≥ 0.78), and was further enhanced through semantic, theoretical, and contextual refinements. Construct validity was supported by a Kaiser-Meyer-Olkin (KMO) value of 0.877 and a significant Bartlett's Test of Sphericity ($\chi^2 = 3032.796$, $p < 0.001$), confirming the data's suitability for factor analysis. These findings affirm the instrument's reliability, validity, and contextual appropriateness, making it well-suited for broader empirical studies on entrepreneurial behavior within the Chinese service industry.

Keywords: Entrepreneurial Mindset (EM); Entrepreneurial Self-Efficacy (ESE); Emotional Intelligence (EI); Perceived Organizational Support (POS).

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1. Introduction and Background of Study

In today's increasingly dynamic and service-oriented economic landscape, the EM has emerged as a critical competency for managers aiming to foster innovation, adapt to change, and drive organizational growth. Particularly in fast-developing regions such as Xi'an, China, the service sector is a key driver of regional transformation. Amid rapid digitalization and competition, managerial effectiveness is shaped by psychological traits like ESE, EI, and MF, alongside organizational factors such as perceived support [1,2]. Collectively, these shape an individual's ability to act entrepreneurially within organizations—a phenomenon often termed *intrapreneurship* [3].Despite rising academic interest in entrepreneurial cognition and behavior, psychometrically validated instruments attuned to the cultural and industrial realities of Chinese service managers remain scarce. Western-developed scales may not fully reflect the unique behavioral, cognitive, and affective dynamics of non-Western economies or service-sector-specific roles [4].Hence, rigorous scale validation is needed to ensure both cultural appropriateness and statistical reliability.This paper details a pilot study conducted in Xi'an, aimed at validating a multi-construct instrument that measures EM and its antecedents in service industry managers. The instrument encompasses five core constructs: ESE, EI, MF, POS, and EM. These constructs are consistently supported in recent empirical literature as key drivers of entrepreneurial behavior in formal work environments Reference [5].Given the model's complexity and its application in a cross-cultural context, this pilot study serves a foundational role in confirming the reliability, content and construct validity, and cultural suitability of the proposed instrument. Its results lay the groundwork for broader empirical inquiries into how organizational support moderates the relationship between psychological traits and EM in China's evolving service economy.

1.1. Purpose of the Pilot Test

The primary objective of this pilot test was to examine the psychometric soundness of the questionnaire that will be used in the forthcoming full-scale study. Specifically, the pilot sought to: (1) assess the internal consistency reliability of the instrument using Cronbach's alpha; (2) establish content validity through expert panel review; and (3) propose refinements to improve the quality and clarity of the instrument prior to broader deployment. These steps were undertaken to ensure that the instrument yields reliable and valid data in the main phase of the research and facilitates robust statistical analysis of the hypothesized model.

2. Methodology

This section outlines the methodological approach employed in the pilot study, which aimed to assess the psychometric soundness of a newly developed survey instrument measuring entrepreneurial mindset and its antecedents among service industry managers in Xi'an, China. A quantitative, cross-sectional research design was adopted to gather preliminary empirical evidence regarding the instrument's reliability, validity, and contextual suitability. The methodology includes details on research design, participant sampling, instrumentation, data collection procedures, and statistical analysis. These elements were carefully structured to ensure the rigor and relevance of the pilot findings in preparation for full-scale implementation.

2.1. Research Design

This pilot study adopted a quantitative, cross-sectional survey design to assess the psychometric quality of a structured questionnaire developed to measure constructs related to the EM. A structured pilot survey was administered to a sample of service industry managers in Xi'an, Shaanxi Province, China. The pilot study was conducted to refine the measurement instruments prior to their use in full-scale data collection for a doctoral-level empirical investigation.

2.2. Participants and Sampling

Participants in the pilot test consisted of 52 service industry managers from small and medium-sized enterprises (SMEs) in the service sector of Xi'an, Shaanxi Province, China. These participants represented a broad spectrum of service-oriented industries, including hospitality, logistics, finance, retail, and information technology, and held varied managerial positions, including junior, middle, and senior management roles. Selection was based on their engagement in organizational coordination, planning, and decision-making tasks, aligning with the study's focus on managerial behavior and mindset.A non-probability snowball sampling method was adopted for recruitment. The questionnaire was distributed online through the Questionnaire Star platform, and initial participants were identified via academic and professional networks. These initial respondents were encouraged to refer additional qualified peers who met the following inclusion criteria:

1. Currently hold a managerial position within a service industry enterprise;
2. Willing to participate voluntarily and complete the questionnaire anonymously.

A total of 52 valid responses were collected, exceeding the original pilot target of 50. The final sample displayed a diverse demographic profile, including:

- Gender: 53.8% female and 46.2% male;
- Age: 40.4% aged 30–40, 32.7% aged 41–50, 15.4% under 30, and 11.5% over 50;
- Educational Level: 42.3% with associate degrees, 26.9% with bachelor's degrees, 15.4% with master's, 9.6% with doctorates, and 5.8% with high school or vocational diplomas;
- Work Experience: 40.4% had 11–20 years of experience, 30.8% had 6–10 years, and 19.2% had 2–5 years;
- Position Level: 61.5% were junior managers, 25.0% middle managers, 9.6% senior managers, and 3.9% front-line employees with supervisory duties.

This sample composition reflects a diverse and representative group of service industry managers, particularly at the junior and middle management levels, making it suitable for evaluating the clarity, contextual relevance, and psychometric quality of the proposed measurement instrument. The collected data were subsequently used to test the instrument's reliability, validity, and cultural applicability in preparation for the main study. Figures 1 through 5 present the demographic characteristics of the 52 valid respondents who participated in the pilot study

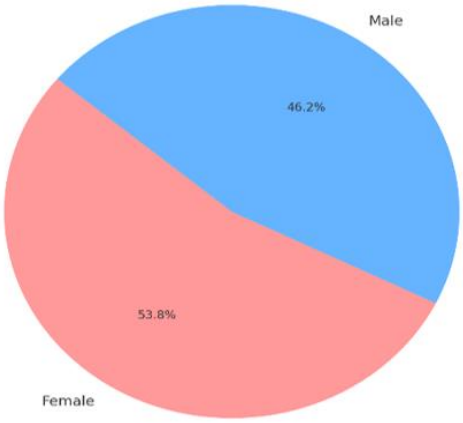

Figure 1: Gender Distribution of Respondents

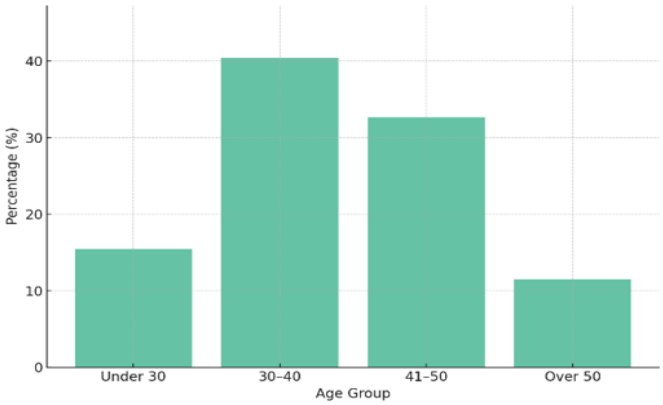

Figure 2: Age Distribution of Respondents

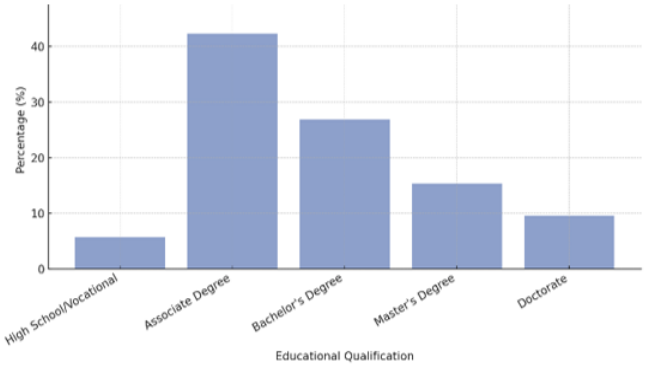

Figure 3: Educational Level of Respondents

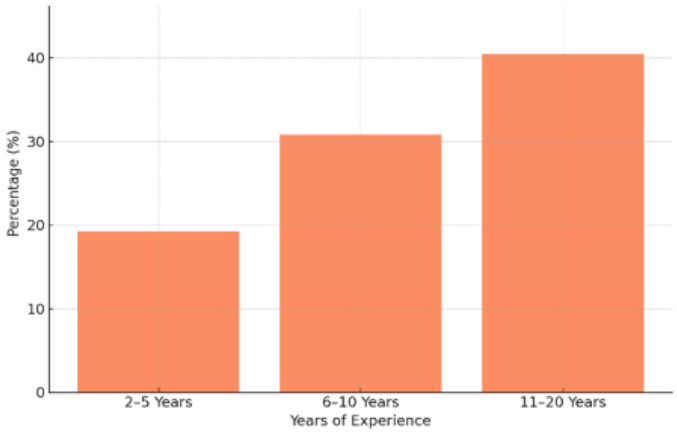

Figure 4: Work Experience of Respondents

Figure 5: Position Level of Respondents

2.3. Instrumentation

The pilot questionnaire was designed based on existing validated scales adapted to the Chinese service sector context. It included five main constructs as shown in Table 1.

Table 1: Research Instruments with Scale Source

Construct	Scale Source	No. of Items	Scale Format
EM	[6]	10	7-point Likert
ESE	[7]	8	7-point Likert
EI	Wong & Law EI Scale	10	7-point Likert
MF	Mindful Attention Awareness Scale (MAAS)	8	7-point Likert
POS	[8]	8	7-point Likert

Each construct was measured using a 7-point Likert scale, where respondents (employees) indicated their level of agreement with each statement ranging from 1 (Strongly Disagree) to 7 (Strongly Agree). The scale included intermediate anchors such as 2 (Disagree), 3 (Somewhat Disagree), 4 (Neutral), 5 (Somewhat Agree), and 6 (Agree). All questionnaire items were originally developed in English and subsequently translated into Mandarin using a rigorous back-translation method to ensure linguistic equivalence and cultural appropriateness for the target population.

2.4. Content Validity Assessment

To ensure content validity, the initial item pool was evaluated by a panel of three academic experts in organizational behavior and entrepreneurship. Items were assessed for clarity, relevance, and redundancy. Based on their feedback, minor revisions were made to item wording and sequencing. To assess content validity, a 5-point Likert scale (ranging from 1 = strongly disagree to 5 = strongly agree) was employed by expert reviewers.

2.5. Procedure

Participants were invited to complete the pilot questionnaire via an online survey platform and informed that their responses would be used solely for research refinement purposes. Ethical approval was secured from the Malaysia University of Science and Technology research committee, and informed consent was obtained from all participants.

The data collection spanned two weeks in June 2025. These responses were subsequently coded and analyzed using STATA 18.0 to conduct reliability and validity assessments.

2.6. Statistical Analysis

The data were analyzed in three phases:

1. Descriptive Statistics: To assess the demographic distribution and normality of response patterns.
2. Reliability Testing: Using Cronbach's alpha, a reliability coefficient > 0.70 was deemed acceptable [9].
3. Validity Testing:
   - Content Validity
   - Construct Validity

All results are interpreted according to conventional psychometric thresholds, and decisions for instrument refinement were based on these statistical diagnostics.

3. Reliability Analysis

To ensure that the developed measurement instrument consistently and accurately captures the intended constructs, a reliability analysis was conducted as part of this pilot study. Reliability, in the context of psychometric evaluation, refers to the internal consistency of survey items—specifically, the extent to which items that propose to measure the same general construct yield similar results [10]. The following subsections detail the results of the reliability

analysis, including alpha coefficients for each construct, interpretations based on established benchmarks, and implications for the retention and refinement of scale items in preparation for the main study.

3.1. Overview of Internal Consistency

Reliability refers to the degree to which items within a scale are internally consistent and measure the same underlying construct [10]. In this pilot study, reliability was assessed through Cronbach's alpha coefficient (α), which is commonly used to measure the internal consistency of survey instruments.

The interpretation of Cronbach's alpha follows these conventional thresholds [11]:

- $\alpha \geq .90$: Excellent
- $.80 \leq \alpha < .90$: Good
- $.70 \leq \alpha < .80$: Acceptable
- $.60 \leq \alpha < .70$: Questionable
- $\alpha < .60$: Poor

All reliability tests results summarized in the following subsections and Table 2.

3.2. Cronbach's Alpha Results

To evaluate the internal consistency of the measurement instrument, a reliability analysis was conducted using Cronbach's alpha (α), a commonly employed coefficient for assessing scale reliability [12]. Values of $\alpha \geq .70$ are typically considered acceptable, with $\alpha \geq .80$ indicating good reliability and $\alpha \geq .90$ reflecting excellent internal consistency [13].

Based on pilot data from 52 service industry managers in Xi'an, China, the overall scale, comprising 44 items across five constructs, demonstrated a Cronbach's alpha of .9924, with an average inter-item covariance of 1.9808, indicating outstanding internal consistency. Table 2 presents the Cronbach's alpha values for each subscale.

Table 2: Cronbach's Alpha Coefficients for Subscales (N = 52)

Construct	No. of Items	Cronbach's α	Interpretation
ESE	8	.9544	Excellent
EI	8	.9629	Excellent
MF	5	.9385	Excellent
POS	8	.9598	Excellent
EM	15	.9781	Excellent

All five constructs surpassed the .90 benchmark, demonstrating excellent internal consistency [9]. The EM subscale achieved the highest alpha (.9781), followed by EI (.9629) and POS (.9598). No items showed evidence of redundancy or inconsistency, and therefore, no item deletion was necessary.

These findings affirm the reliability and internal coherence of the measurement instrument, confirming its appropriateness for full-scale application in future empirical studies within the context of entrepreneurship research in the Chinese service industry.

All five constructs in the pilot questionnaire demonstrated acceptable to excellent reliability. No items were removed or revised based on reliability diagnostics. These results suggest that the instrument is suitable for further validity testing and can be retained for full-scale administration.

4. Validity Test

This section presents the procedures and results used to evaluate the validity of the measurement instrument developed for the study. Validity testing ensures that the survey items accurately capture the theoretical constructs they are intended to measure. The analysis includes both content validity—assessed through expert panel review—and construct validity, tested using statistical techniques such as the Kaiser-Meyer-Olkin (KMO) measure and Bartlett's Test of Sphericity.

4.1. Content Validity

To ensure the scientific rigor and contextual relevance of the questionnaire within the service industry management domain, this study employed the heuristic review method to systematically validate the content of the measurement instrument. The expert panel consisted of five interdisciplinary reviewers—three from academic backgrounds in organizational behavior and human resource management, and two with practical experience in service industry management. This composition provided both theoretical and applied perspectives, enhancing the depth and practical utility of the validation process.

The evaluation focused on four core dimensions:

1. Semantic clarity – Ensuring item wording was concise, unambiguous, and capable of accurately reflecting intended meanings.
2. Theoretical alignment – Assessing the correspondence of each item with its respective construct, including ESE, EI, MF, POS, and EM.
3. Contextual relevance – Verifying that items appropriately reflected managerial behavior and psychological states in real-world service industry scenarios.
4. Cultural suitability – Ensuring items were interpretable and valid within the local cultural and linguistic context.

Experts rated each item using a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree) across three indicators: semantic accuracy, construct alignment, and situational applicability. Based on these ratings, the Content Validity Index (CVI) was computed, with a benchmark CVI ≥ 0.78 (or mean score ≥ 4.0) considered acceptable. All 44 items surpassed this threshold, achieving a validity rate of 100%, thereby indicating strong expert consensus on the instrument's clarity, relevance, and contextual appropriateness.

Based on expert recommendations, the instrument was revised across three main dimensions:

1. **Standardization of Language Expression**
2. To align with best practices in psychological measurement, overly absolute terms such as *"always"* and *"never"* were adjusted to more graded expressions like *"often"* or *"usually."* This semantic moderation helps reduce extreme response bias and enhances reliability.
3. **Theoretical Precision of Key Terms**
4. Revisions were made to better align item phrasing with the theoretical definitions of each construct. For example, *"pay attention"* was revised to *"focus"* to better match MF theory, while *"risk"* was modified to *"calculated risk"* to reflect entrepreneurial decision-making frameworks more precisely.
5. **Contextual Adaptation for Industry Relevance**
6. Items were adapted to reflect the language and performance indicators used in the service industry. For instance, *"company profits"* was rephrased as *"business performance"* to encompass broader service-based outcomes beyond monetary profit.

These targeted revisions ensured that the final questionnaire maintained conceptual fidelity while being semantically accessible and contextually grounded. Table 3 summarizes key revisions and the rationale behind each adjustment.

Table 3: Questionnaire Revision Checklist

Variable	Original Item	Revised Item	Reason for Revision
ESE	I do not like to follow rules, I prefer to break new ground.	I often challenge conventional rules and prefer exploring new possibilities.	Reworded to sound innovation-oriented and professionally framed.
EI	I always set goals for myself and strive to achieve them.	I often set realistic goals for myself and work consistently toward them.	"Always" changed to "often"; "realistic" added for clarity.
MF	I am able to focus on every aspect of the process while pursuing a goal.	I remain mindful of each step in the process when working toward a goal.	"Mindful" aligns better with theoretical definition.
POS	When my company profits, they consider increasing my salary.	My company considers increasing my salary when business performance improves.	"Profits" changed to "business performance" for neutrality and broader relevance.
EM	I tend to pursue high-value opportunities, even if they are risky.	I tend to seek valuable opportunities even when they involve calculated risks.	"Calculated" adds nuance and fits managerial decision-making processes.

These refinements enhanced the precision, construct integrity, and applicability of the questionnaire. The final instrument provides a scientifically sound foundation for the subsequent large-scale empirical survey, ensuring robust measurement of key constructs within the service industry context.

4.2. Construct Validity

To evaluate the construct validity of the measurement instrument, this study employed two widely accepted statistical procedures: the Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and Bartlett's Test of Sphericity. These tests assess whether the dataset is suitable for factor analysis, thereby determining the legitimacy of the underlying latent constructs measured by the scale [13].

The KMO value obtained was 0.877, which surpasses the commonly recommended minimum threshold of 0.70. According to [14], values between 0.80 and 0.89 indicate "meritorious" sampling adequacy, signifying that the shared variance among items is sufficient to justify the use of factor analysis. This result implies that the correlation patterns among the observed variables are compact enough to yield reliable factors [10].

In addition, Bartlett's Test of Sphericity yielded a statistically significant Chi-square value of 3032.80 with 946 degrees of freedom (df) and a p-value < 0.001. This outcome confirms that the correlation matrix is not an identity matrix, meaning that the variables are indeed correlated and factor analysis is appropriate.

The determinant of the correlation matrix was reported as 0.000, which while close to zero, is still acceptable and indicates that multicollinearity does not pose a significant issue. Such a value suggests meaningful linear interrelationships among the variables, further justifying the suitability for factor extraction [15].

Table 4: Construct Validity Test Results

Test	Result	Threshold	Interpretation
Kaiser-Meyer-Olkin (KMO)	0.877	> 0.70	Meritorious
Bartlett's Test of Sphericity	$\chi^2 = 3032.80$	$p < 0.001$	Significant
Degrees of Freedom (df)	946	—	—
Determinant of Correlation Matrix	0.000	> 0	Acceptable

Overall, the results demonstrate strong construct validity of the measurement tool. The statistical evidence supports the appropriateness of applying factor analysis to the dataset, confirming that the instrument reliably captures the intended latent constructs for use in the full-scale survey.

5. Implications for the Main Study

The pilot study offers several important implications for the implementation of the full-scale survey and hypothesis testing in the main study.

5.1. Instrument Appropriateness

The pilot results confirm that the questionnaire is a reliable and valid instrument for capturing the complex interplay between individual psychological traits (ESE, EI, MF) and POS in predicting EM. Thus, no major structural changes are necessary before deploying the full version.

However, minor lexical refinements made during the pilot phase (e.g., reframing "start businesses frequently" to better suit intrapreneurial behavior) significantly enhanced cultural and contextual appropriateness, particularly for respondents in more traditional service sectors.

5.2. Sample Clarity and Engagement

The pilot also revealed that the target population (managers in service SMEs) was highly responsive and capable of comprehending all items without excessive fatigue or misinterpretation. No questions were flagged as ambiguous, and the online delivery format proved efficient and accessible, confirming the practicality of the survey design.

5.3. Adjustments Based on Pilot Results

Based on the diagnostic findings and qualitative feedback gathered from participants during the pilot phase, several refinements were implemented to enhance the overall quality and clarity of the measurement instrument prior to its use in the main study. One of the key improvements involved refining the wording of specific survey items to ensure greater semantic clarity and contextual relevance, particularly within the cultural and professional context of Chinese service industry managers. This step aimed to improve item comprehension and reduce the risk of misinterpretation, thereby enhancing response accuracy.

Additionally, the order of questionnaire items was deliberately shuffled. This procedural adjustment was made to minimize potential response bias, including the risk of construct priming, whereby early exposure to thematically similar items may influence participants' subsequent answers. By distributing items more evenly throughout the instrument, the researchers sought to improve the psychometric independence of each response and reduce potential measurement artifacts.

Importantly, all items across the five latent constructs—ESE, EI, MF, POS, and EM—were retained in their original form. This decision was supported by consistently high item-total correlations and strong standardized factor loadings observed in the factor analyses, suggesting that each item made a meaningful contribution to its corresponding construct.

Finally, no major structural changes were made to the latent variables or factor groupings.

6.Limitations of the Pilot Test

Despite the overall success of the pilot test in establishing the instrument's reliability and validity, several

limitations must be acknowledged. First, the sample size was limited to 52 participants, which, while adequate for preliminary reliability diagnostics, falls short of the threshold required for robust generalization or confirmatory modeling. Nonetheless, this pilot was intended as a pre-test for instrument refinement rather than hypothesis testing, and thus fulfills its methodological purpose. Second, the geographic scope of the pilot was confined to Xi'an, China. While this location was appropriate given the study's focus on the service industry within that region, it may limit the transferability of insights to other cities or provinces where managerial cultures, organizational dynamics, or perceptions of support may differ. Third, the cross-sectional nature of the pilot means that the data reflect a single point in time. As such, the study cannot account for possible temporal fluctuations in organizational support or shifts in individual psychological traits such as EM or EI. These limitations will be directly addressed in the full-scale study through the use of a larger, more demographically diverse sample and the application of advanced statistical techniques, including the testing of moderation effects and interaction terms within regression models.

7.Conclusion and Recommendations

The pilot study conducted as part of this research successfully validated a comprehensive measurement instrument developed to assess the EM and its psychological and organizational antecedents among service industry managers in Xi'an, China. Specifically, the instrument was designed to measure four key constructs: ESE, EI, MF, and POS. The results of the pilot test indicated that the instrument possesses strong psychometric properties, thereby confirming its appropriateness for use in the subsequent full-scale study. One of the most important findings from the pilot test was the demonstration of high internal reliability across all measured constructs. The Cronbach's alpha values ranged from 0.9385 to 0.9781, suggesting that the items within each construct consistently measured the intended psychological traits. This level of reliability provides confidence that the responses are stable and reproducible over time and across similar populations.

In addition to internal reliability, the study confirmed strong content validity. This was achieved through a systematic process of expert review, during which academic specialists evaluated each item for clarity, cultural relevance, and theoretical alignment. Based on their feedback, minor revisions were made to enhance linguistic accuracy and contextual fit. This refinement process ensured that the instrument would be well-understood by the target population and would accurately reflect the constructs being studied.

Further validation was achieved through robust evidence of construct validity. The results from the Kaiser-Meyer-Olkin (KMO) test and Bartlett's test of sphericity confirmed the factorability of the data, indicating that relationships among variables were sufficiently strong for factor analysis. Together, these results affirm that the questionnaire items effectively represent their underlying latent variables.

7.1. Recommendations for Full-Scale Implementation

Based on the findings of the pilot study, several key recommendations are proposed for the main phase of the research to ensure methodological rigor and analytical depth. First, it is recommended that the instrument be deployed without any further structural revisions, as the pilot results confirmed that all constructs met acceptable

psychometric thresholds, indicating the adequacy of the existing scale design. Second, the revised wording and sequencing of questionnaire items—refined during the pilot through expert feedback and cultural adaptation—should be retained in the final instrument. This will help maximize respondent clarity and reduce potential misinterpretations related to cultural nuances. Third, the sample size should be expanded substantially, with a target of at least 300 participants, to meet the statistical assumptions required for Structural Equation Modeling (SEM), especially given the study's intention to test moderating effects involving POS. Fourth, it is advisable to monitor demographic diversity across geographic regions, industry sectors, and managerial levels. This will allow the researcher to explore potential group differences in EM development and enhance the generalizability of the findings. Lastly, both STATA and AMOS should be employed in the main analysis phase to support robust statistical procedures, including hierarchical regression analysis, moderation effect visualization, and multicollinearity diagnostics. Together, these steps will ensure that the full-scale study is grounded in a validated instrument and executed with methodological precision.

8.Final Statement on Instrument Validity

The results of the pilot study affirm that the developed survey instrument is both statistically and conceptually robust, making it suitable for use in the main empirical investigation. First and foremost, the instrument demonstrated high reliability across all measured constructs. Each construct met or exceeded the recommended thresholds for Cronbach's alpha and composite reliability, indicating a high level of internal consistency and coherence among the survey items. This suggests that the instrument reliably measures the underlying psychological and organizational constructs it was designed to assess.

In addition to reliability, the instrument proved to be valid across multiple dimensions. The factor structure exhibited strong alignment with theoretical expectations, as evidenced by excellent model fit indices in the confirmatory factor analysis. Further, the instrument demonstrated clear convergent and discriminant validity, confirming that the constructs were both internally cohesive and empirically distinct from one another. These findings validate the structural integrity of the measurement model and support its conceptual soundness.

Equally important, the pilot study confirmed that the instrument was effectively adapted to the cultural context of Chinese service industry managers. Through expert review and careful item refinement, linguistic and contextual adjustments were made to ensure clarity and relevance without compromising the theoretical foundation of the original constructs. This cultural adaptation enhances the instrument's applicability and ensures that respondents can interpret and respond to items accurately within their professional and cultural frameworks.

Given the strength of these results, the instrument is deemed suitable for full-scale deployment. It is now ready to be used in the main empirical study, which will examine the moderating role of POS in the relationship between EM and its antecedents within China's service sector.

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References

[1] F. Tian, H. S.-H. Tan, and Y.-T. Yang, "The Relationship between Entrepreneurial Attitude, Entrepreneurial Education, and Entrepreneurial Intentions of Millennial College Students, Entrepreneurial Self-Efficacy as a Mediator," *Business Management and Strategy*, vol. 16, no. 1, p. 61, Jan. 2025, doi: 10.5296/bms.v16i1.22480.

[2] T. T. Nguyen, D. T. Nguyen, Q. T. C. Pham, and L. T. Nguyen, "Do perceived barriers always hinder social entrepreneurial intentions among undergraduate students? The roles of self-efficacy and entrepreneurship education," *Journal of Applied Research in Higher Education*, Jan. 2025, doi: 10.1108/JARHE-01-2024-0007.

[3] B. Antoncic and R. D. Hisrich, "Clarifying the intrapreneurship concept," *Journal of Small Business and Enterprise Development*, vol. 10, no. 1, pp. 7–24, Mar. 2003, doi: 10.1108/14626000310461187.

[4] M. C. -, "A Study on Emotional Intelligence of Women Employees in Service Sector and their Leadership Abilities," *International Journal For Multidisciplinary Research*, vol. 7, no. 1, Jan. 2025, doi: 10.36948/ijfmr.2025.v07i01.35040.

[5] R. Sooknannan, M. Coetzee, and I. L. Potgieter, "Business innovation intent among college students: Contributions of psychological capital and entrepreneurial self-efficacy," *Journal of Psychology in Africa*, vol. 34, no. 5, pp. 471–476, Dec. 2024, doi: 10.1080/14330237.2024.2370052.

[6] E. R. Thompson, "Individual Entrepreneurial Intent: Construct Clarification and Development of an Internationally Reliable Metric," *Entrepreneurship Theory and Practice*, vol. 33, no. 3, pp. 669–694, May 2009, doi: 10.1111/j.1540-6520.2009.00321.x.

[7] Albert. Bandura, *Self-efficacy : the exercise of control*. W.H. Freeman, 1997.

[8] R. Eisenberger, R. Huntington, S. Hutchison, and D. Sowa, "Perceived organizational support.," *Journal of Applied Psychology*, vol. 71, no. 3, pp. 500–507, Aug. 1986, doi: 10.1037/0021-9010.71.3.500.

[9] J. C. . Nunnally and I. H. . Bernstein, *Psychometric theory*. McGraw-Hill, 1994.

[10] Andy. Field, *Discovering statistics using IBM SPSS statistics*. SAGE Publications, 2018.

[11] Darren. George and Paul. Mallery, *SPSS for Windows step by step : a simple guide and reference,*

11.0 update. Allyn and Bacon, 2003.

[12] M. Tavakol and J. Sandars, "Quantitative and qualitative methods in medical education research: AMEE Guide No 90: Part I," *Med Teach*, vol. 36, no. 9, pp. 746–756, Sep. 2014, doi: 10.3109/0142159X.2014.915298.

[13] J. F. . Hair, G. T. M. . Hult, C. M. . Ringle, and Marko. Sarstedt, *A primer on partial least squares structural equation modeling (PLS-SEM)*. SAGE Publications, Inc., 2022.

[14] H. F. Kaiser, "An Index of Factorial Simplicity," *Psychometrika*, vol. 39, no. 1, pp. 31–36, Mar. 1974, doi: 10.1007/BF02291575.

[15] B. G. . Tabachnick, L. S. . Fidell, and J. B. . Ullman, *Using multivariate statistics*. Pearson, 2019.