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Factor Analysis and Validation of Entrepreneurial Continuation Intention Instruments for Senior High School Students: The Role of Parental Support and Motivation in the Indonesian Context

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This study aims to develop and validate a psychometric instrument to measure the factors driving the readiness of Senior High School (SMA) students to continue their entrepreneurial journeys after the initial pilot phase, addressing the significant gap between entrepreneurial intention and business sustainability among Indonesian youth. An Exploratory Factor Analysis (EFA) was conducted using the Maximum Likelihood (ML) extraction method. The sample consisted of 368 SMA students from Yayasan Ciputra Pendidikan in Jakarta, Surabaya, and Tangerang. The analysis demonstrated excellent sampling adequacy with a KMO value of 0.964. Through an iterative refinement process, the instrument was consolidated into a stable three-factor structure: Entrepreneurial Continuation Intention (9 items), Parental Support (6 items), and Motivation (4 items), which collectively explain a satisfactory proportion of the variance. This research provides novelty by integrating the synergy between individual motivation and the family ecosystem (parental support) into a single validated evaluation tool specifically tailored for high school students within a collectivist cultural context like Indonesia.

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INTRODUCTION

Entrepreneurship has long been recognized as a key driver of economic growth, innovation, and job creation, particularly in developing countries like Indonesia, which faces significant challenges related to youth unemployment. Previous studies have identified several persistent barriers. One study found that young people have a lower probability of entering middle-class jobs compared to older workers (Al Ayyubi et al., 2023). In addition, youth tend to prefer non-agricultural employment and migrate to urban areas (Ngadi et al., 2023). Generally, vocational graduates obtain their first jobs faster than graduates from general education schools (Ariansyah et al., 2024). Unemployment and inactivity have also been identified as major problems among secondary school graduates (Sulistiobudi & Kadiyono, 2023). These findings indicate the presence of structural barriers and challenges in obtaining quality employment, which contribute to the issue of youth unemployment.

Indonesia is currently confronted with a serious youth unemployment crisis, dominated by high school graduates, totaling 32.12 million people (20.99% of the total labor force) (BPS, 2025). Over the past decade, the entrepreneurial landscape in academic literature has evolved significantly, shifting from a narrow focus on initial intentions toward a more sophisticated exploration of the post-founding phases (Caliendo et al., 2020; Shepherd et al., 2021). Recent data from the Global Entrepreneurship Monitor (GEM) Indonesia 2022 indicates that approximately 33.26% of adults intend to start a business within the next three years, while 8.07% are engaged in early-stage entrepreneurship, and only 6% own established businesses (GEM Indonesia, 2022). These

findings confirm the existence of a significant gap between entrepreneurial intentions, early-stage activity, and business sustainability in Indonesia, emphasizing the critical need for support and interventions to strengthen the post-founding phase. Research focus has now shifted toward Entrepreneurial Continuance Intention (ECI), which reflects a conscious and context-sensitive decision to maintain a business despite difficult conditions or the availability of attractive career alternatives. This concept aligns with the Theory of Planned Behavior (TPB) as proposed by Ajzen (1991). TPB explains that an individual's performance of a specific behavior for instance, in the context of maintaining entrepreneurial intentions is influenced by attitude toward the behavior, subjective norms, and perceived behavioral control (Dong & Chang, 2024; Vu et al., 2024). Therefore, understanding the factors that drive this resilience is essential to ensuring that business initiatives started during school years are not abandoned after the initial startup phase. Senior High School (SMA) represents a critical stage of vocational development where adolescents' professional identities and career interests begin to take shape (Gfrörer et al., 2022; Turda, 2024). Entrepreneurship education at the school level aims not only to spark initial interest but also to equip students with the psychological competencies needed to navigate uncertainty (Miço & Cungu, 2023). Despite many students showing entrepreneurial interest during their studies, a substantial gap exists between intention and sustained action (Lihua, 2022; Roos & Botha, 2022). Consequently, the development of psychometrically validated instruments within the high school environment is urgently needed to measure students' readiness to continue their entrepreneurial journeys in the future. Internal motivation, often analyzed through Self-Determination Theory (SDT) proposed by Deci and Ryan (2000), is considered the heart of the entrepreneurial process as it provides the sustained energy required to overcome obstacles (Koe & Afiqah Sakir, 2020; Ryan et al., 2021). The quality of motivation has proven to be a stronger predictor of entrepreneurial persistence than mere external financial gain (Kiani et al., 2023; Minh et al., 2025). For students, when entrepreneurial activities align with personal values and provide a sense of autonomy, they tend to demonstrate higher levels of resilience despite facing initial hurdles (Montoro-Fernández et al., 2022). The questionnaire instrument developed in this study aims to capture these motivational dimensions in depth.

Beyond internal factors, external support in the form of parental support plays an irreplaceable role in shaping students' subjective norms and behavioral control in entrepreneurship (Tahir & Kutpudeen, 2023). Family support, both emotional and financial, has been shown to reduce students' anxiety regarding business risks and strengthen their self-efficacy (Ahmed, 2022). Parents do not only provide material assistance; they also serve as role models. For instance, when students observe their parents taking risks, demonstrating perseverance, and solving problems through various creative and innovative ways, they tend to believe that they can follow in their parents' footsteps. Furthermore, parents play a role in providing guidance and encouragement, which lowers the perceived risk of building a business and provides a sense of security when making strategic business decisions. In many cultural contexts, parents acting as role models significantly enhance the perceived feasibility and desirability of entrepreneurial careers in the eyes of students (Zhang et al., 2022). This study addresses the urgent need for evaluation instruments that specifically integrate the synergy between individual motivation and the family ecosystem to predict students'

entrepreneurial continuance. The primary objective of 57s research is to develop and validate a psychometric instrument designed to measure the factors driving the readiness of Senior High School (SMA) students to continue their entrepreneurial journeys. Specifically, this study seeks to identify the underlying factor structure of Entrepreneurial Continuation Intention by integrating individual motivation and the family ecosystem (parental support).

RESEARCH METHOD

Research Design

As this research was aimed to identify factors along with the 72 observed variables in the context of intention to continue the project of entrepreneurship, an Exploratory Factor Analysis (EFA) was conducted using the Maximum Likelihood (ML) extraction method. This approach was selected to provide a more rigorous estimation of factor loadings by finding the parameter values that maximize the likelihood of observing the current data. The analysis utilized a dataset of 368 cases with no missing values, as a listwise deletion procedure was applied.

Research Participants

The population of this study was all senior high school students with 11 Yayasan Ciputra Pendidikan. The sample in this study consisted of 368 students, all of whom gave informed consent for their data to be used. Given the intent to utilize EFA, the resulting sample (n = 368) is considerably suitable. This size meets common EFA guidelines, which often suggest a sample-to-variable ratio of at least 10:1 (Hair et al., 2019). With 72 factorable items in this dataset, a ratio of approximately 5:1, therefore, is achieved. While this ratio is considered acceptable in many social science applications, the findings and interpretation will have potential limitations to a certain extent.

The majority of the participants were drawn from two schools, Citra Kasih CG Jakarta and Ciputra Kasih CL Surabaya, with a minor contribution from the third school, Citra Berkat Citra Raya Tangerang. These school were chosen because they are affiliated with Yayasan Ciputra Pendidikan, which implements a structured entrepreneurship curriculum. This institutional context provides a relevant environment for examining student's entrepreneurial continuation intention. The sample was 34 predominantly composed of 10-th grade students (63.86%) and had a slightly higher representation of 14 female students (54.35%) compared to male students (45.65%). The detailed key demographic characteristics of the participants can be seen in the following Table 1.

Table 1. Demographic Characteristics of the Participants

45Characteristic	Category	n	%
Sex	Male	168	45.65%
	Female	200	54.35%
Grade	10	235	63.86%
	11	133	36.14%
Originating School	Ciputra Kasih CL Surabaya	170	46.20%
	Citra Berkat Citra Raya Tangerang	16	4.35%
	Citra Kasih CG Jakarta	182	49.46%

Research Instrument

The research instrument consisted of a questionnaire developed to measure student learning motivation within the context of Senior High Schools. The development process

began with a comprehensive literature review and focused discussions to formulate operational definitions and key dimensions of the construct (Geiling et al., 2023). This foundation resulted in an initial pool of 40 items. The content validity of these items was subsequently evaluated through qualitative assessment by a panel consisting of three experienced educational measurement experts. The panel provided feedback regarding the relevance, clarity, and appropriateness of each item in relation to its intended dimension. All input was reviewed in depth, leading to revisions of items deemed less appropriate, including editorial refinements, the removal of overlapping items, and adjustments to scope. Following this validation and revision stage, a draft questionnaire containing 72 items was produced for testing. The final instrument utilized three types of four-point response scales. Student factors, parent supports, learning instruction, and entrepreneurial continuation intention were measured using a four-point agreement scale ranging from 1 (Strongly Disagree) to 4 (Strongly Agree). In contrast, student learning engagement was measured using three types of response scales depending on the nature of the indicators: a four-point agreement scale (1 = Strongly Disagree to 4 = Strongly Agree), a four-point frequency scale (1 = Never to 4 = Very Often), and a four-category numerical range scale categorized into 0-2, 3-5, 6-8, and more than 8. This approach ensured that each dimension of learning engagement was captured in accordance with its conceptual and behavioral characteristics. This specific format was intentionally selected to exclude a neutral mid-point, thereby preventing neutral response bias and ensuring that respondents provide a definitive indication of their agreement or frequency regarding the measured constructs, which enhances the methodological rigor of the assessment.

Procedure

After the draft questionnaire containing 72 items was finalized, data were collected in a single administration through an online survey distributed via Google Forms to senior high school students within Yayasan Ciputra Pendidikan over a period of four weeks from October 2025 to November 2025. A total of 368 complete responses were obtained, and listwise deletion was applied to ensure that the dataset contained no missing values. The dataset (N = 368) was analyzed using Exploratory Factor Analysis (EFA) with the Maximum Likelihood extraction method to identify the underlying factor structure of students' intention to continue entrepreneurship projects. Model refinement was conducted by evaluating factor loadings, cross-loadings, and theoretical coherence. The resulting factor structure served as the basis for subsequent validation of the measurement model.

Data Analysis

Data analysis was conducted using Exploratory Factor Analysis (EFA) to identify the underlying factor structure of the questionnaire measuring students' intention to continue entrepreneurship projects. The analysis was performed on a single dataset consisting of 368 complete responses. Maximum Likelihood (ML) was employed as the extraction method, with Varimax rotation, chosen under the working assumption that the resulting factors were not substantially correlated.

The suitability of the data for factor analysis was assessed using the Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and Bartlett's Test of Sphericity. A KMO value greater than 0.80 was considered indicative of meritorious sampling adequacy,



13 while a significant Bartlett's Test of Sphericity ($p < 0.05$) confirmed that the correlation matrix was appropriate for factor extraction. The correlation matrix was examined to ensure sufficient in 49-item correlations for factor extraction. Communalities were assessed to evaluate the proportion of variance in each item explained by the extracted factors, with values greater than 0.50 regarded as acceptable.

Factor retention was determined based on Total Variance Explained, supported by Initial Eigenvalues greater than 1.0, inspection of the scree plot, and the 61-theoretical interpretability of the resulting factor solution. Goodness-of-fit tests were also conducted to evaluate the overall fit of the factor model. The Rotated Factor Matrix was analyzed to identify the strongest loadings of items on their respective factors, using a minimum factor loading 7-criterion of ≥ 0.60 on the primary factor to ensure meaningful item-factor relationships. Items with loadings below this threshold or those exhibiting substantial cross-loadings across multiple factors were iteratively removed to achieve a parsimonious, stable, and theoretically coherent factor structure.

Finally, the Factor Transformation Matrix was examined to understand the relationship between the initial unrotated factor solution and the final rotated solution, confirming that the rotation improved interpretability without altering the underlying factor structure.

RESULTS AND DISCUSSION

Results

Data Suitability for Factor Analysis

21 or to factor extraction, the data suitability tests indicated highly satisfactory results. The Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy was 0.964, which falls 10 to the "marvelous" category according to Kaiser's (1974) criteria. This result indicates that the sample size was highly adequate for factor analysis. In addition, Bartlett's Test of Sphericity was statistically 37 highly significant ($\chi^2 = 20,623.877$, $df = 2,556$, $p < .001$). This finding rejects the null hypothesis that the correlation matrix is an identity matrix, thereby statistically confirming the 6 presence of sufficient inter-item correlations to proceed with factor extraction. These results are presented in Table 2.

Table 2. KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.964
Bartlett's Test of Sphericity	Approx. Chi-Square	20623.877
	df	2556
	Sig.	.000

An analysis of the correlation matrix (72×72) revealed a strong pattern of relationships among the research items. The majority of items exhibited statistically significant correlations with one another at the $p < .01$ level. This near-universal statistical significance indicates the presence of strong linear relationships among the variables under investigation. Such a correlation pattern provides robust justification for proceeding with factor analysis, as it satisfies the fundamental assumption that the variables are interrelated and potentially represent common underlying latent factors.

Communalities

40 Communalities values were examined to assess the proportion of variance in each item explained by the common factors. The majority of items demonstrated adequate



extraction communalities (above 0.40). However, several items namely PS1 (0.270), SLE3 (0.158), and SLE8 (0.321) exhibited communalities below the recommended threshold of 0.40. In accordance with the principles of parsimony and structural stability, these items were subsequently removed from the model during the iterative refinement process. This procedure resulted in a final set of 66 items with acceptable communality values, as presented in Table 3.

Table 3. Communalities

Item	Initial	Extraction
SE1	.634	.537
SE2	.625	.578
SE3	.614	.478
SE4	.570	.416
SE5	.659	.525
SE6	.645	.521
SE7	.563	.374
SE8	.654	.473
SE9	.606	.470
SE10	.584	.439
SE11	.594	.405
SE12	.516	.452
SE13	.621	.471
SE14	.627	.498
SE15	.645	.496
M1	.652	.568
M2	.746	.625
M3	.709	.590
M4	.652	.525
M5	.595	.499
M6	.713	.681
M7	.771	.768
M8	.745	.718
M9	.667	.654
PS1	.462	.270
PS2	.666	.590
PS3	.733	.678
PS4	.713	.592
PS5	.722	.601
PS6	.660	.610
PS7	.582	.426
PS8	.723	.674
PS9	.690	.640
PS10	.692	.559
PS11	.762	.677
PS12	.731	.608
LI1	.652	.555
LI2	.712	.653
LI3	.733	.636
LI4	.727	.638
LI5	.768	.662
LI6	.700	.614
SLE1	.684	.571
SLE2	.650	.532
SLE3	.306	.158
SLE4	.561	.423



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30 m	Initial	Extraction
SLE5	.551	.374
SLE6	.625	.424
SLE7	.687	.503
SLE8	.599	.321
SLE9	.714	.536
SLE10	.705	.597
SLE11	.757	.608
SLE12	.763	.657
SLE13	.709	.508
SLE14	.636	.388
SLE15	.635	.426
SLE16	.608	.459
ICPE1	.738	.666
ICPE2	.763	.683
ICPE3	.813	.728
ICPE4	.780	.681
ICPE5	.753	.689
ICPE6	.770	.679
ICPE7	.739	.564
ICPE8	.718	.600
ICPE9	.690	.557
ICPE10	.751	.694
ICPE11	.775	.709
ICPE12	.745	.614
ICPE13	.743	.649
ICPE14	.624	.521

Extraction Method: Maximum Likelihood.

5 Goodness-of-Fit Test and Factor Extraction

Exploratory Factor Analysis (EFA) was conducted using the Maximum Likelihood (ML) extraction method with Varimax rotation. The goodness-of-fit test yielded a chi-square value of $\chi^2 (2,139) = 4,327.993$, $p < .001$. Although this statistically significant p-value technically indicates that the extracted factor model does not perfectly reproduce the population correlation matrix, the chi-square test in EFA is well known to be highly sensitive to large sample sizes ($N = 368$) and therefore tends to be significant even when model fit is acceptable. Consequently, the evaluation of model adequacy relied more heavily on practical criteria, including the very high KMO value, the strong correlation patterns observed in the correlation matrix, and the interpretability of the extracted factors. These results are presented in Table 4.

Table 4. Goodness-of-fit Test

Chi-Square	df	Sig.
4327.993	2139	.000

5 Explained Variance and Factor Structure

Based on the eigenvalue-greater-than-one criterion and inspection of the scree plot, six factors were extracted. As shown in Table 5 (Total Variance Explained), the factor analysis results indicate that six factors have eigenvalues greater than 1, thereby meeting Kaiser's criterion to be retained in the model.



Table 5. Total Variance Explained

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	30.326	42.120	42.120	29.829	41.429	41.429	11.626	16.147	16.147
2	3.699	5.137	47.257	3.310	4.598	46.026	9.235	12.826	28.974
3	3.071	4.266	51.523	2.597	3.607	49.633	6.339	8.804	37.778
4	2.124	2.949	54.472	1.767	2.454	52.087	6.096	8.467	46.245
5	1.832	2.544	57.016	1.371	1.904	53.991	3.522	4.891	51.136
6	1.511	2.099	59.115	1.093	1.517	55.508	3.148	4.372	55.508
7	1.425	1.980	61.094						
8	1.220	1.694	62.788						
9	1.159	1.609	64.397						
10	1.036	1.439	65.836						
11	.989	1.374	67.210						
12	.953	1.324	68.533						
13	.923	1.282	69.816						
14	.869	1.207	71.023						
15	.829	1.151	72.174						
16	.770	1.070	73.244						
17	.747	1.037	74.281						
18	.705	.980	75.260						
19	.683	.948	76.209						
20	.652	.905	77.114						
21	.649	.901	78.015						
22	.622	.864	78.879						
23	.613	.851	79.730						
24	.602	.836	80.566						
25	.592	.822	81.389						
26	.580	.806	82.194						
27	.547	.760	82.954						
28	.522	.725	83.679						
29	.485	.673	84.352						
30	.473	.656	85.008						
31	.459	.637	85.646						
32	.439	.609	86.255						
33	.424	.589	86.844						
34	.418	.580	87.424						
35	.408	.566	87.990						
36	.401	.557	88.547						
37	.386	.537	89.084						
38	.368	.511	89.595						
39	.362	.503	90.098						
40	.339	.470	90.568						
41	.331	.459	91.028						
42	.329	.457	91.484						
43	.323	.449	91.933						
44	.306	.425	92.358						
45	.301	.418	92.776						
46	.294	.409	93.185						
47	.282	.391	93.576						
48	.274	.380	93.956						
49	.264	.366	94.322						
50	.260	.362	94.684						

51	.250	.347	95.031
52	.245	.340	95.371
53	.237	.330	95.701
54	.229	.319	96.019
55	.223	.309	96.328
56	.218	.303	96.632
57	.208	.289	96.921
58	.203	.282	97.203
59	.188	.261	97.465
60	.183	.254	97.719
61	.176	.245	97.964
62	.171	.237	98.202
63	.166	.230	98.432
64	.159	.220	98.652
65	.145	.201	98.853
66	.138	.192	99.045
67	.136	.188	99.233
68	.128	.178	99.411
69	.114	.159	99.570
70	.109	.152	99.722
71	.106	.147	99.869
72	.094	.131	100.000

Extraction Method: Maximum Likelihood.

After rotation, these six factors cumulatively explained 55.508% of the total variance in the data, a proportion that is generally considered adequate in social science research. These results are illustrated in Figure 1.

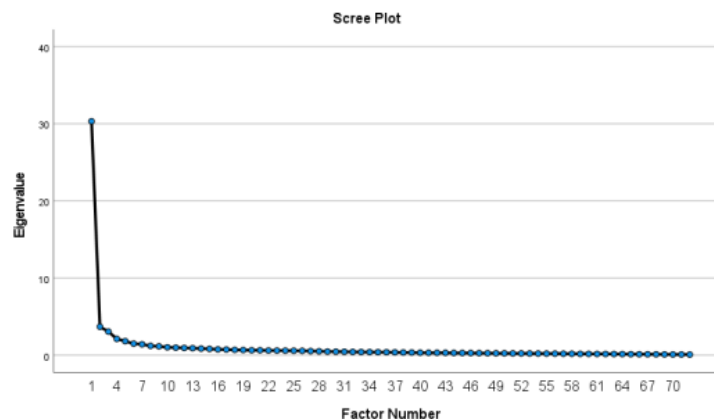


Figure 1. Scree Plot

After rotation and item refinement, the Rotated Factor Matrix revealed a clear and interpretable five-factor structure, as presented in Table 6.

Table 6. Rotated Factor Matrix

	Factor					
	1	2	3	4	5	6
ICPE3	.741	.181	.333	.160	.084	.038
ICPE4	.733	.136	.314	.110	.058	.105
ICPE11	.723	.300	.242	.081	.142	.105
ICPE10	.709	.251	.240	.090	.175	.181
ICPE5	.684	.220	.357	.108	.156	.093
ICPE2	.669	.241	.374	.148	.124	.017



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	Factor					
	1	2	3	4	5	6
ICPE6	.651	.190	.374	.149	.117	.208
ICPE13	.644	.357	.093	.158	.186	.198
ICPE12	.623	.330	.163	.155	.173	.191
ICPE1	.569	.210	.485	.232	.066	.072
ICPE8	.558	.265	.235	.188	.096	.344
ICPE9	.545	.240	.126	.280	.044	.327
SLE12	.544	.332	.413	.251	.132	.011
SLE13	.534	.376	.051	.161	.227	-.040
SLE10	.534	.414	.274	.225	.121	.022
ICPE14	.522	.231	.185	.217	.140	.307
SLE11	.519	.351	.382	.253	.039	.060
ICPE7	.515	.120	.159	.339	.027	.378
LI5	.509	.323	.450	.259	.117	.122
LI3	.486	.354	.483	.114	.169	-.012
SLE15	.485	.326	.087	.255	.111	.007
SLE16	.449	.391	.163	.218	.049	.168
SLE14	.448	.345	.067	.172	.184	-.034
SLE1	.436	.340	.321	.325	.128	.201
SLE3	.268	.248	.014	.133	.063	-.056
SE2	.228	.647	.235	.112	.149	.134
SE6	.243	.608	.146	.236	.122	.027
SE5	.276	.585	.169	.210	.157	.096
SE1	.286	.568	.218	.136	.188	.177
SE13	.181	.555	.140	.164	.211	.199
SE15	.246	.548	.070	.180	.225	.217
SE9	.194	.543	.258	.094	.201	.148
SE14	.154	.531	.148	.173	.227	.299
SE12	.098	.523	.227	.136	.180	.258
SE8	.332	.517	.165	.071	.182	.173
SE4	.308	.514	.179	.099	.088	.084
SLE9	.340	.508	.245	.307	-.065	.065
SE3	.320	.498	.203	.170	.217	.099
SLE2	.436	.493	.145	.247	.128	-.015
SE10	.273	.487	.290	.175	.087	.069
SLE7	.331	.468	.304	.282	-.040	.006
SE7	.261	.466	.203	.113	.171	.074
SE11	.091	.448	.295	.251	-.007	.214
SLE5	.249	.425	.230	.245	.041	.131
SLE4	.385	.413	.192	.204	.160	-.001
PS1	.186	.304	.093	.245	.226	.153
LI2	.420	.265	.585	.183	.105	.139
M5	.246	.203	.577	.174	.102	.152
M1	.249	.303	.567	.111	.113	.260
LI4	.447	.269	.554	.209	.117	.039
M4	.284	.266	.553	.166	.030	.201
LI6	.448	.190	.543	.216	.120	.146
LI1	.373	.242	.534	.182	.113	.163
M2	.423	.313	.514	.195	.200	.073
M3	.381	.365	.497	.142	.144	.153
SLE6	.262	.344	.348	.277	-.036	.195
SLE8	.233	.271	.294	.255	-.124	.160
PS8	.185	.198	.178	.735	.112	.127
PS12	.148	.123	.166	.714	.028	.182

	Factor					
	1	2	3	4	5	6
PS9	.238	.166	.139	.698	.161	.154
PS11	.182	.173	.147	.690	.061	.336
PS6	.170	.207	.206	.671	.140	.161
PS10	.201	.267	.025	.660	.104	.027
PS7	.158	.216	.165	.540	.065	.178
M7	.237	.189	.203	.134	.783	.062
M6	.139	.197	.139	.125	.767	.025
M9	.110	.253	-.075	.094	.750	.009
M8	.247	.262	.150	.039	.750	.038
PS3	.124	.186	.188	.415	.093	.642
PS2	.163	.198	.122	.377	.038	.605
PS5	.121	.279	.236	.378	-.036	.556
17	.094	.273	.240	.386	.020	.549

Extraction Method: Maximum Likelihood.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 9 iterations.

Factors were labeled based on the dominant themes of the items with high factor loadings ($\geq .60$).

Factor 1: Entrepreneurial Continuation Intention (9 items). This factor represents students' deep intention and commitment to continue or start entrepreneurial activities.

Factor 2: Self-Efficacy (2 items). This factor reflects students' confidence in their ability to perform entrepreneurial tasks.

Factor 3: Parent Support in overall entrepreneurship involvement (6 items). This factor includes guidance, reasoning, and encouragement.

Factor 4: Motivation (4 items). This factor represents expectations regarding the benefits and outcomes of engaging in entrepreneurship.

Factor 5: Parent Support in decision-making autonomy (2 items). This factor specifically allows children the freedom to choose strategies and products/services.

Discussion

The statistical analysis using Exploratory Factor Analysis (EFA) in this study identified several key indicators that form the basis of the discussion. The Kaiser-Meyer-Olkin (KMO) value of 0.964, categorized as marvelous at the significance of Bartlett's Test of Sphericity ($\chi^2 = 20,623.877$, $p < .001$) confirmed the adequacy of the sample and the suitability of the correlation matrix for factor analysis. Although the goodness-of-fit test ($\chi^2(2,139) = 4,327.993$, $p < .001$) was significant a common outcome in large samples ($N = 368$) practical criteria such as the very high KMO and strong correlation patterns support the model's feasibility. An iterative refinement process based on communality values and factor loadings (threshold ≥ 0.60) led to the removal of several items with low communalities and the consolidation of the structure from six initial factors into three core factors, which collectively explain a satisfactory amount of variance. The final structure comprises Entrepreneurial Continuation Intention (9 items), Parent Support (6 items), and Motivation (4 items).

After considering the criteria of parsimony, structural stability, and strong theoretical relevance and interpretability within the context of the study, a decision was made to retain a more focused and meaningful factor structure. Three primary factors were selected as the final solution because they most clearly represent the core constructs

intended for measurement and align closely with the theoretical framework of students' entrepreneurial intention, can be seen in Table 7.

Table 7. Results of Factor Analysis: The Retained Three-Factor

Factor	Items*	12
Entrepreneurial Continuation Intention (Liñán & Chen, 2009)	Studying entrepreneurship is interesting to me 44 have the opportunity, I would like to continue my project of entrepreneurship. If I have the resources, I would like to continue my project of entrepreneurship. 3 working on a project of entrepreneurship would give me great satisfaction. If I have the opportunity, I will continue to develop my entrepreneurial skills. I feel capable of continuing my project of entrepreneurship. I feel ready to continue my project of entrepreneurship. I know the technical aspects required to continue my project of entrepreneurship. I know how to develop a project of entrepreneurship.	
Parent Support (Mageau et al., 2015)	Parents explain the logical reasons behind the advice they give regarding the project of entrepreneurship. Parents ensure that I understand the reasons behind the limitations of the project of entrepreneurship. Parents encourage me to develop my self-identity while working on the project of entrepreneurship. Parents understand the pressure I experience while working on the project of entrepreneurship. Parents are open to my creative ideas that differ from their views. Parents listen to my opinions even when they disagree with their advice.	
Motivation (Midgley et al., 2000)	I feel it is important to be regarded as better than my classmates in working on the 29 ject of entrepreneurship. One of my learning goals is to show others that I am good at working on the project of entrepreneurship. One of my learning goals is to show others that I can work on the project of entrepreneurship easily. It is important for me to appear smart compared to others in my class.	

The factors are as follows:

Factor 1: Entrepreneurial Continuation Intention (9 items). This factor represents students' deep intention and commitment to continue or start entrepreneurial activities.

Factor 2: Parent Support (6 items). This factor includes guidance, reasoning, and encouragement.

Factor 3: Motivation (4 items). This factor represents expectations regarding the benefits and outcomes of engaging in entrepreneurship.

The refinement of the instrument and the consolidation of factors carry profound theoretical implications. The removal of items with low communality suggests that several indicators adapted from international theories may not adequately capture the psychological realities of Indonesian senior high school students in a contextualized manner. This finding aligns with previous research that emphasize developmental sensitivity in measuring entrepreneurial intention among adolescents, noting that constructs developed for more mature populations may become less relevant or ambiguous when applied to younger respondents (D'Armas Regnault et al., 2024). Rather than weakening the measurement, this validation process strengthens construct validity within the specific research context, while simultaneously underscoring the importance of careful and contextual instrument adaptation in accordance with respondent characteristics (El-Den et al., 2020)

At this developmental stage, entrepreneurial self-efficacy may not yet function as a stable and independent belief construct, but instead remains closely intertwined with intrinsic and extrinsic motivation as well as perceptions of external support. This interpretation is supported by previous research that demonstrate that among students, self-efficacy often operates as a mediator or as part of a broader motivational construct rather than as a distinct dimension (Saks, 2024). In addition to theoretical considerations, the decision to remove the self-efficacy items was also informed by the data analysis results. Although two self-efficacy items showed factor loadings above 0.6 in the Rotated Factor Matrix, these items were not included in the final questionnaire set because they did not fully align with the overall factor structure representing entrepreneurial continuation intention in this sample. Removing these items helps maintain the construct validity and coherence of the instrument. These findings indicate that future research could re-examine the potential integration of self-efficacy items, for example, with larger or more diverse samples, to determine whether these items can be reliably used to measure entrepreneurial intention among Indonesian high school students.

The emergence of Parent Support as a strong and coherent factor constitutes a culturally significant finding (Ahmed, 2022). Within collectivist societies such as Indonesia, family support tends to be perceived as a holistic entity encompassing emotional, instrumental, and informational support, rather than as separate dimensions (Adha et al., 2023). This result reinforces the argument that in family-oriented cultures, parental influence serves as a powerful antecedent in shaping adolescents' career intentions, including entrepreneurial aspirations (Adha et al., 2023; Nguyen & Nguyen, 2024). Parental support emerges as one of the predictors of adolescents' entrepreneurial intentions in collectivist societies. Empirical evidence, however, shows mixed results. One strong supporting finding indicates that parents significantly influence entrepreneurial intentions among 196 university students in Indonesia, with the relationship mediated by eudaimonic well-being and entrepreneurial orientation (Suwarno et al., 2026). The role of parents as role models has also been identified as a strong predictor of entrepreneurial intention among 419 university students in Latin America (Gonzalez-Tamayo et al., 2024). Other studies confirm that family support has a protective influence on youth behavior among 195 young people in Indonesia. Nevertheless, parental factors remain one of the strongest predictors. However, another study found that parental influence did not have a significant effect on entrepreneurial behavior among 200 millennial farmers in Indonesia, where peer influence and agricultural extension services played a more significant role (Qonita et al., 2025).

The resulting three-factor structure Entrepreneurial Continuation Intention, parental support, and motivation offers a parsimonious model and theory of Planned Behavior that is well aligned with the ecological systems framework and the concept of entrepreneurial perceived support (Aliedan et al., 2022; Baluku et al., 2020; Gonzalez-Tamayo et al., 2024). This model situates students within their social systems, where internal motivation and external familial support jointly shape sustained entrepreneurial intentions (Lingappa et al., 2020).

The results of this study provide empirical evidence that the developed questionnaire instrument possesses solid psychometric performance for measuring the factors influencing the entrepreneurial continuation intentions of high school students. These findings reinforce the argument that entrepreneurial continuation is not merely the



absence of an exit desire but a dynamic decision-making process triggered by adequate mental resources and environmental support. The high internal consistency of this instrument confirms its utility as a reliable evaluation tool within the secondary education environment. The motivation variable, particularly in the form of identified regulation, emerged as the primary driver for students to persist in entrepreneurial activities (Suan et al., 2022). This suggests that high school entrepreneurship education must shift from merely teaching technical skills toward developing "emotional energy" and a deeper sense of meaning through business. This motivation acts as a self-regulatory mechanism that lowers the likelihood of students disengaging when faced with difficulties (Bigos & Michalik, 2020; Krishnawati⁸ et al., 2023).

Furthermore, the research data underlines the crucial role of parental support in strengthening students' continuation intentions by increasing self-efficacy. Family support creates a psychological safety net that allows students to experiment with new ideas without an excessive fear of failure. The finding that students without prior entrepreneurial experience perceive higher levels of social support provides an important indication for the need for more intensive mentorship during the pilot stage. Thus, parental involvement in the school's entrepreneurial ecosystem becomes a deciding factor in whether a student's initial interest evolves into a long-term career commitment (Luis-Rico et al., 2020).

Practically, the validation of this instrument provides schools with a tool to identify high-resilience student profiles and design more targeted curriculum interventions. Integrating practical activities like business plan competitions with the strengthening of social support networks has proven more effective in fostering continuation intentions than conventional teaching methods (Lv et al., 2021). Schools must recognize that situational factors and government policies also impact the effectiveness of students' internal motivation. Through a human-centric approach, the educational ecosystem can be more successful in producing future entrepreneurs who are not only capable of starting but also resilient in sustaining their ventures (Liu et al., 2021).

However, these interpretations also entail several limitations that warrant critical reflection. Although the factor structure generated through Exploratory Factor Analysis (EFA) proved to be stable and theoretically meaningful, its confirmatory¹⁶ validity and generalizability still require further examination. First, since the current factor structure was identified during the exploratory stage, Confirmatory Factor Analysis (CFA) on a different and larger sample is required to ensure that the three-factor model remains consistent and demonstrates a high degree of model fit. Furthermore, the scope of this research, which focuses on metropolitan areas (urban-centric), may not fully capture the entrepreneurial nuances of students in rural regions who face different structural challenges. Second, this instrument exclusively measures entrepreneurial intention, which is widely recognized for having an intention-action gap when compared to actual behavior. Structural factors, such as access to capital and school curriculum policies, may represent critical barriers preventing adolescents from translating their intentions into concrete actions dimensions that were not fully captured in the present study. Therefore, future research steps should focus on testing predictive validity through longitudinal research designs to prove whether these continuation intentions truly persist over the long term. Practically, there is an urgent need to implement this instrument within a broader educational environment. The application of this instrument by educational



practitioners as a diagnostic tool would be highly valuable for mapping students' psychological readiness and the strength of their supporting ecosystems. By conducting continuous testing across various types of schools and regions, this instrument can be refined into a reliable evaluation standard to support the sustainability of young entrepreneurs in Indonesia.

CONCLUSION

The results of this study provide empirical evidence that the developed questionnaire possesses solid psychometric performance for measuring factors influencing the entrepreneurial continuation intentions of high school students. The final structure comprising Entrepreneurial Continuation Intention, Parental Support, and Motivation represents the most parsimonious and theoretically relevant model for understanding student persistence. By integrating individual motivation with the family ecosystem (parental support), this instrument fills a critical gap in existing Indonesian educational assessment tools, which often lack the cultural specificity required to measure the sustainability of business initiatives started during school years. This confirms that the intention to continue is a dynamic decision-making process supported by both internal mental resources and environmental support.

Practically, the validation of this instrument provides schools with a tool to identify high-resilience student profiles and design more targeted curriculum interventions. Entrepreneurship education must shift from merely teaching technical skills toward developing emotional energy and a deeper sense of meaning. Furthermore, parental involvement is a deciding factor; family support creates a psychological safety net that allows students to experiment without excessive fear of failure, turning initial interest into a long-term career commitment. The current factor structure was identified during an exploratory stage and its generalizability remains limited as the sample was urban-centric (metropolitan areas), which may not capture nuances for students in rural regions. Additionally, the instrument measures intention, which is subject to an intention-action gap compared to actual future behavior. Future steps should focus on Confirmatory Factor Analysis (CFA) on a larger and more diverse sample to ensure the three-factor model remains consistent. Since there are mixed arguments regarding the role of parental support in shaping entrepreneurial intentions, future research is encouraged to apply this questionnaire to a larger and more diverse sample. Such studies may further examine how parental support interacts with other psychological and contextual factors in influencing students' entrepreneurial continuation intentions. In addition, future studies could use this instrument to explore whether parental support strengthens students' motivation, persistence, and resilience in sustaining entrepreneurial activities over time. It is also recommended to use longitudinal research designs to prove whether these continuation intentions truly persist and translate into concrete actions in the business world over the long term.

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