

Management Strategies For Sustainable Growth In Asian Entrepreneurial Firms



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Abstract

The role of strategic management practices in sound growth in Asian entrepreneurial firms. Based on cross-country data on the World Bank Enterprise Survey (2011-2020), the study analyses the relationship between innovation orientation, operational efficiency, export engagement, financial constraints, and the age of the firm and employment growth as a measure of sustainable performance. Following the cleaning and restructuring of the dataset into a panel form, regression analysis using robust standard errors was done to determine the associations between the strategic variables and growth results. The results have shown that innovation has a significant positive impact on sustainable growth, whereas financial constraint and the age of the firm harm employment growth. Once other strategic factors are held constant, export participation and capacity utilisation exhibit few direct effects. Such findings imply that innovation-based approaches and financial availability are the key factors influencing the achievement of sustainable growth of entrepreneurial companies as opposed to individual operational practices. The research also provides empirical data on various Asian economies, which adds to the sustainability and strategic management literature in the context of individual countries. The results have practical implications for policymakers and managers who need to develop a robust entrepreneurial ecosystem that can balance the goal of economic growth and sustainability.

Keywords: Sustainable growth, Strategic management, Entrepreneurial firms, Innovation, Asia

1. Introduction

Sustainable growth has been a hallmark of business firms in the ever-changing and resource-laden volatile business environment. The current trend in research has been that within the last ten years there has been a shift towards not studying entrepreneurship as a mere economic phenomenon, but rather as a multidimensional process that incorporates environmental, social and strategic issues. An overall review of the literature proves that sustainable entrepreneurship has become a systematic and fast-growing field of research, but there are still serious gaps in the empirical studies, especially in such areas as Asia (Abbas and Bulut, 2024). Early systematic studies focused on how important it is to tie ecological responsibility to the recognition of entrepreneurial opportunities, stating that companies should be able to seek competitive advantage and at the same time respond to

environmental issues (Gast et al., 2017). This change has prompted researchers to examine how strategic management choices affect not only the performance of firms but also other sustainability impacts. Strategic orientation is key to creating sustainable results. There is evidence that management values and long-term strategic commitments play an important role in the sustainability engagement of small and medium-sized enterprises (Jansson et al., 2017). But even though the theoretical relationship between strategic orientation and sustainability is well-founded, empirical confirmation in various geographical settings is still minimal.

Sustainable growth cannot be achieved through incremental adjustments but in most cases it requires radical changes in business models. Studies of sustainable business model innovation emphasise the ability of firms to re-architect existing value

propositions to adjust economic goals to environmental and social value creation (Geissdoerfer et al., 2018). These transformations enable the entrepreneurial firms to be able to grow without further worsening the resources depletion. Circular business models are also another sign of how strategic innovation can create long-term resilience. Circular strategies focus on the efficiency of resources, reuse, and value-generation at the systemic level, which supports the strategic base of sustainable growth (Geissdoerfer et al., 2020). Through these models, sustainability evidently is not a compliance mechanism but a competitive differentiation driver. There are also practical processes in integrating sustainability into business models. As an example, value proposition design models reveal the way companies can align sustainability goals with user-led innovation, which enhances market positioning and keeps the company environmentally responsible (Baldassarre et al., 2017).

In Asian economies, SMEs play a major part and source of employment and GDP. The internal processes that associate sustainability practices and growth performance are under-researched, despite their significance. It has been called to unveil the black box of SME sustainability to gain more insight into how managerial practices translate into quantifiable results (Caputo et al., 2024). According to empirical research, sustainable entrepreneurial orientation has a positive impact on business performance, especially when firms combine innovation and proactiveness in their strategic decisions (Criado-Gomis et al., 2018). Sustainability strategies do not work in a vacuum though. Digitalisation and internationalisation can either ensure or replace sustainable-based growth paths, which implies complicated strategic trade-offs (Denicolai et al., 2021). Corporate social responsibility actions also influence SME performance by improving corporate image and trust of stakeholders, hence indirectly contributing to sustainable growth (Le, 2023). These results suggest that the question of whether sustainability lead to long-term competitive advantage is not an isolated practice of the environment but a strategic management decision.

Entrepreneurial firms are also present in larger ecosystems that influence the access to resources, institutional support and the dynamics of innovation. Sustainable entrepreneurial systems offer systematic environments to promote responsible development and cooperative innovation (Theodoraki et al., 2022). In Asia, the speed of industrialisation and institutional heterogeneity generate heterogeneous environments, which affect the adoption and implementation strategy of sustainability. The current studies highlight that regulation systems, culture, and collaborative

systems at the ecosystem level can serve as a bridge between the goals of entrepreneurship and sustainability solutions (Chaudhary et al., 2023). Such contextual factors are especially pertinent in Asia where developing economies are under pressure, both to grow and be environmentally responsible. Moreover, the level of sustainability maturity in SMEs differs widely based on the commitment of managers, their strategic alignment and their innovation skills (Salvador et al., 2023). This heterogeneity highlights the importance of region-based empirical data on the role of management strategies in realising sustainable growth.

Sustainability strategies and growth outcomes also have a moderating effect through firm-level characteristics. It is indicated that the effectiveness of green entrepreneurship efforts is affected by the age of the firm, with younger companies tending to respond to sustainability-focused innovation more strongly (Yin et al., 2022). These results indicate the need to incorporate firm-level controls in empirical models on sustainable growth. In spite of the increasing literature, a lot of the current research is based on case studies or country-specific analysis. Extensive cross-national research on Asia is slow. In addition, although theoretical frameworks put strategic management as the driver of sustainable growth, there is little empirical evaluation that connects operational efficiency, innovation, export orientation, financial constraints, and employment growth to Asian entrepreneurial firms.

The objective of the study is to evaluate the impact of strategic management practices on sustainable growth among Asian entrepreneurial firms. It aims to examine how innovation orientation, operations efficiency, export involvement, financial limitations, and firm attributes have impacts on employment growth as an indicator of sustainable performance. The research uses cross-country enterprise survey data in order to determine which management practices play the most important role in achieving the long-term growth results in the various Asian economic settings.

2.1 Research Design

The research design assumed in this study is a quantitative research design with secondary panel data to test the effects of management strategies on the sustainable growth of Asian entrepreneurial firms. The empirical method is based on the strategic management theory and utilizes the econometric modelling in testing the relationship that exists between firm-level strategic practices and growth outcomes. The research model presumes that decisions associated with operational efficiency and innovation as well as market orientation by managers are what determine long-run performance patterns. Multi-country design

offers comparative insight into the different Asian institutional settings and offers analytical consistency.

2.2 Data Source and Sample Selection

The empirical data is analysed using the World Bank Enterprise Survey (2011- 2020) which is a publicly available repository of data (Jeanpierre, 2022). The data is a set of standardised reports at the firm level reported to various countries annually. It has a structure of country identifiers, series name, and annual observations between 2011 and 2020. Only the Asian economies were retained in this study. World Bank country codes were used to filter countries in South Asia, Southeast Asia, East Asia, and some regions of West and Central Asia. Non-Asian recording was eliminated to ensure geographical consistency with the study. Missing data were turned to a null value, and data that lacked employment growth figures were dropped. The dataset was then cleaned and reorganised into a panel format to be used in longitudinal econometric analysis. Winsorization at the 1st and 99th percentiles was done to remove distortion caused by extreme outliers in the growth measures.

2.3 Variable Measurement

Annual employment growth percentage is used as a measure of sustainable growth. Structural expansion and organisational scaling are captured by employment growth and are common in entrepreneurship studies as a proxy of sustainable firm development. This measure is an indication of long-term capacity building as opposed to a short-term increase in profits. Firm-level strategic indicators in the dataset are used to measure management strategies. Operational efficiency and strategic resource mobilisation are captured by the use of the capacity utilisation percentage. Indicators of innovation are proxies of dynamic capabilities and competitive positioning. The export participation indicates the outward market growth and internationalisation strategy. Access to finance variables denote financial ability and the provision of strategic resources. The firm age is added to reflect the firm's maturity and the influence of experience. The country fixed effects and year fixed effects are control variables that consider institutional and macroeconomic heterogeneity and the temporal shocks that affect all firms in one way.

2.4 Data Preparation and Diagnostic Procedures

Distributional properties of all variables were analysed and then the variables were estimated. The descriptive statistics were calculated to measure central tendency and dispersion. The correlation analysis was carried out to assess the initial associations between variables. Variance Inflation Factor (VIF) was used to test the existence of

multicollinearity and no serious multicollinearity problems were observed. Heteroskedasticity was an additional test performed on the Breusch-Pagan procedure and to test the violation of homoscedasticity assumptions, robust standard errors were used to correct the test. The panel structure of the dataset was checked to make sure that it is consistent across countries and years. Observations were chronologically aligned and clustered standard errors were built by using country identifiers. These steps made sure that the data had been well organised and statistically fit to do regression-based inference.

2.5 Econometric Model Specification

As a form of analysing how management strategies can influence sustainable growth, the use of a panel regression format was applied. The control model uses strategic management indicators to specify how employment depends on strategic management factors, and it conditions out firm and contextual factors. The overall form of functions is given as:

$$\begin{aligned} Growth_{it} = & \beta_0 + \beta_1 Capacity_{it} + \beta_2 Innovation_{it} \\ & + \beta_3 Export_{it} + \beta_4 Finance_{it} \\ & + \beta_5 FirmAge_{it} + \gamma_i + \delta_t + \varepsilon_{it} \end{aligned}$$

and represents country-level firm observation and represents time. The terms γ and δ capture country and year fixed effects, respectively. The error term takes into consideration the unknown factors that have not been included in the variables.

2.6 Estimation Strategy

The analysis commences by pooled Ordinary Least Squares estimation as a point of departure. A Fixed Effects model is estimated to control the country-level unobserved heterogeneity. Random Effects model is also calculated and the Hausman specification test is performed to find out the most fitting estimator. Cross-sectional dependence and heteroskedasticity are taken care of by using robust standard errors that are concentrated on a country basis. Lagged independent variables are used to carry out sensitivity analyses to minimise possible simultaneous bias. Other robustness tests are the re-estimation of the model without the extreme growth values and the use of other subsamples in Asia to validate the result.

3. Results

3.1 Data restructuring, completeness, and analytic sample

The World Bank Enterprise Survey file in the archive is arranged in a country-indicator-year format (each row is a Series Name of a country, and the column is 2011 -2020). To match the analysis and the methodology, they cleaned the data by setting the missing marker to a null and then reshaped the data with wide year columns into a long panel (Country

year value) and then pivoted the data into a country year analytic table, which contained the study variables. Since the WBES indicators are not measured in all countries and all years, the overlap with all the constructs being chosen at the same time is limited. Once the filtering of the economies in Asia was done and the constructs that are outlined in the methodology were selected, the final

regression sample included 45 country-year observations with all the data available on growth, capacity utilisation, innovation, export orientation, finance constraint, and the age of the firm. The annual growth of employment at 1st and at 99th percentile was minorized to minimize the effect of extreme values without affecting overall distributional structure.

Table 1. Indicator coverage in the Asian sample (2011–2020)

Construct	WBES Series used	Non-missing country-years (Asia)	Available country-years (Asia)	Coverage %
Growth	Annual employment growth (%)	47	320	14.7
Capacity	Capacity utilization (%)	47	320	14.7
Firm Age	Age of the establishment (years)	47	320	14.7
Innovation	Percent of firms that introduced a new product/service	45	320	14.1
Export	Percent of firms exporting directly (at least 10% of sales)	47	320	14.7
Finance Constraint	Percent of firms identifying access to finance as a major constraint	47	320	14.7

This coverage profile suggests that the most important strategic-management indicators are available over a significant group of Asian country-years but are reported intermittently which minimizes the size of the fully overlapping analytic panel over which multivariate regression can be conducted.

3.2 Descriptive statistics

In the country-years of Asian analysis, the average value of employment growth (minorized) is positive,

implying a general growth of entrepreneurial firms in the surveyed periods. The degree of utilisation of the capacity is comparatively high, and the rates of innovation and exporting are widely dispersed, which is also in line with the heterogeneous development and competitiveness in the Asian contexts. It is also observed that the measure of the financial constraint differs significantly, which means that the financial environment of the sampled economies is essentially different.

Table 2. Descriptive statistics (analytic sample; N = 45)

Variable	Count	Mean	Std. Dev.	Min	25%	Median	75%	Max
Annual employment growth (%), minorized	45	4.218	3.451	-4.194	1.800	4.300	6.900	12.020
Capacity utilization (%)	45	72.991	9.720	52.800	66.400	73.700	80.400	95.800
Innovation (% introducing new product/service)	45	25.507	14.577	1.700	15.400	23.100	40.500	50.800
Exporting (% exporting directly)	45	9.420	7.838	1.300	3.900	7.100	11.200	36.800
Finance constraint (% “major constraint”)	45	20.002	12.474	2.400	10.800	17.400	26.300	47.800
Firm age (years)	45	15.587	4.696	9.400	11.600	14.700	18.500	27.400

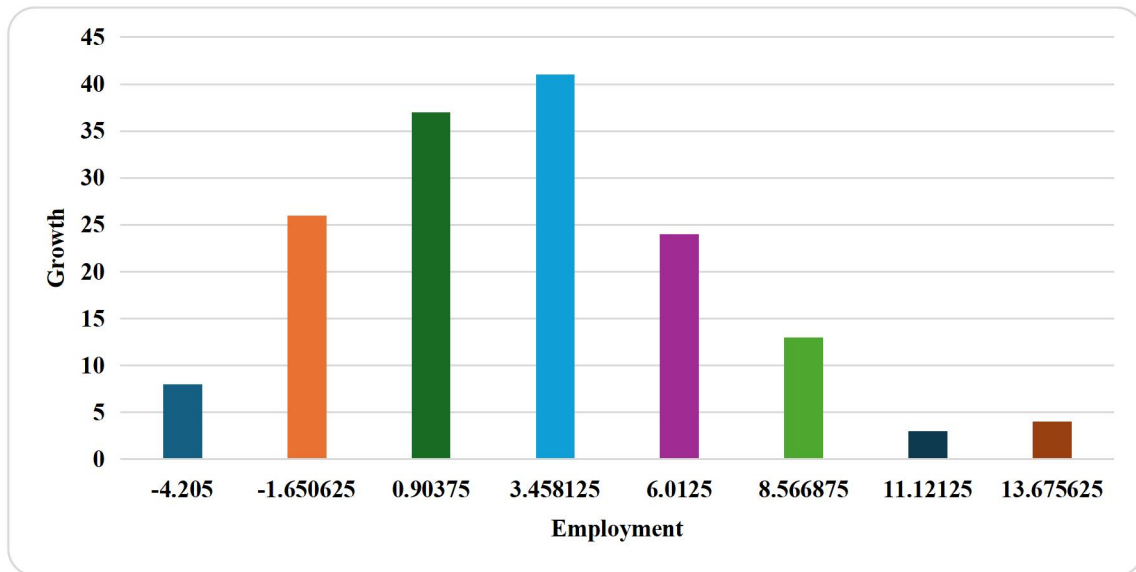


Figure 1. Distribution of annual employment growth (winsorized) in the analytic sample

The histogram demonstrates that the majority of observations are concentrated in relative moderate growth regions with the left side tail being slimmer indicating contraction of some country-years.

3.3 Bivariate associations

The correlation analysis gives a preliminary picture of the association between the proxies of strategic management and sustainable growth. Innovation is

positively related to employment growth, whereas financial constraint and firm age are negatively related to growth. Exporting is negatively correlated in this particular analytic overlap, which indicates that the exporting share taken here might be indicative of situations when exporting companies have greater adjustment costs or structural bottlenecks; this trend is more directly measured in the regression models.

Table 3. Correlation matrix (Pearson; analytic sample)

Analytic sample	Growth (wins.)	Capacity	Innovation	Export	Finance Constr.	Firm Age
Growth (wins.)	1.000	0.095	0.272	-0.164	-0.276	-0.546
Capacity	0.095	1.000	-0.016	-0.234	-0.386	-0.007
Innovation	0.272	-0.016	1.000	0.112	0.328	0.037
Export	-0.164	-0.234	0.112	1.000	0.230	0.300
Finance Constr.	-0.276	-0.386	0.328	0.230	1.000	0.238
Firm Age	-0.546	-0.007	0.037	0.300	0.238	1.000

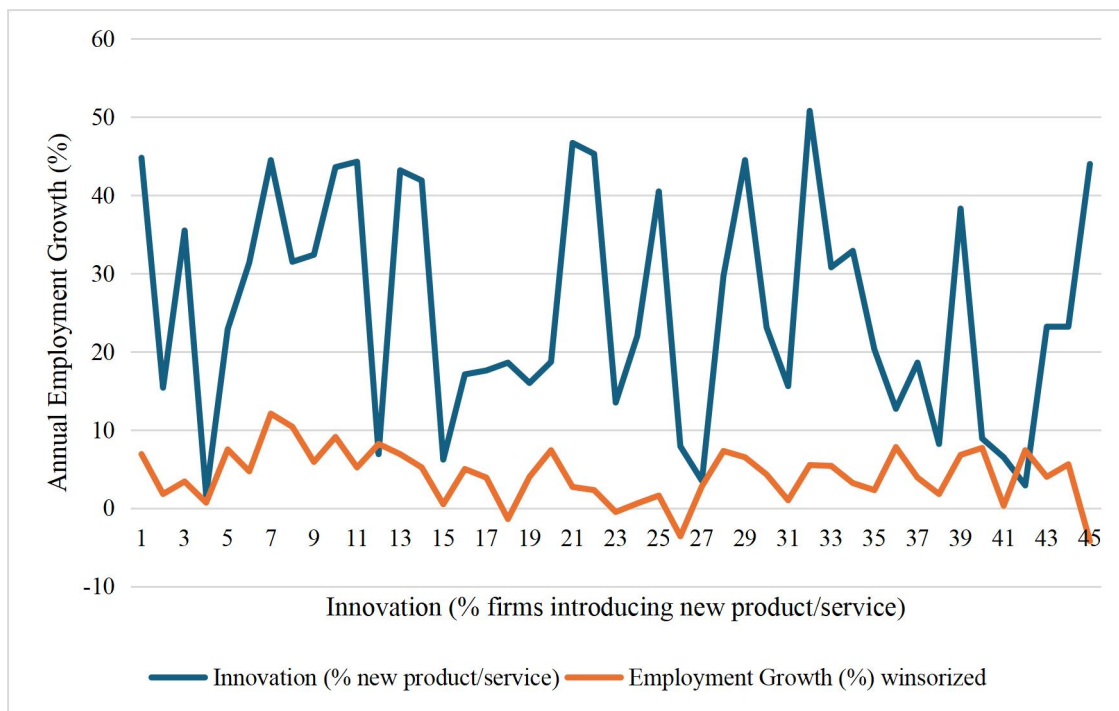


Figure 2. Innovation and employment growth

The estimated line shows that the prevalence of innovation (share of firms introducing new products/services) has a positive correlation with employment growth in observed Asian country-years.

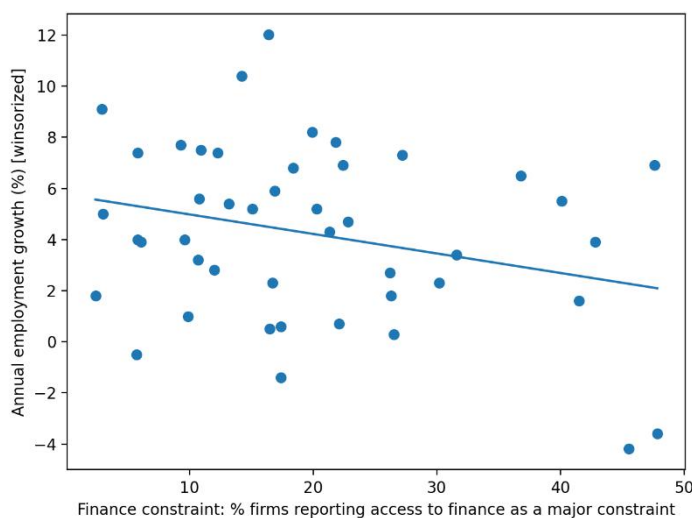


Figure 3. Finance constraint and employment growth

The fitted line reveals that there is a negative relationship between the proportion of the firms that use finance as a binding growth limiter and employment development, which is in line with the theory of finance as a major constraint.

3.4 Multivariable regression results

The regression equation is an estimation of employment growth (winsorized) as a dependent variable if it is a regression of the identified strategic management indicators of the methodology: operational efficiency (capacity utilization),

innovation, export orientation, finance constraint, and firm age. Standard errors are of robust (HC3) type in order to decrease the sensitivity to heteroskedasticity. Besides a pooled specification, a year fixed-effects model is also estimated to explain period specific shocks that are common in the sample of countries considered. The relationship between innovation and growth is also always positive and statistically significant which means that the more innovation is widespread, the more the growth of employment is. The constraint of finance is always negative and statistically

significant, which supports the argument that limited financial conditions are related to poor performance in terms of growth. Firm age exhibits a negative value that is statistically significant in both specifications, indicating that the growth processes are lower in more mature populations of firms in the observed country-years. These models find no

statistical difference between capacity utilization and exporting and zero, and that aligns with the fact that (in this thin overlap) the variation in these indicators is not the major determinant, after accounting for innovation, finance constraints, and age structure.

Table 4. Regression results (Dependent variable: annual employment growth %, winsorized; N = 45)

Predictor	Pooled OLS	Standard Error	Year Effects	Fixed	Standard Error
Capacity utilization (%)	-0.005	(0.053)	0.045		(0.099)
Innovation (% new product/service)	0.091***	(0.034)	0.090**		(0.040)
Exporting (% direct exporters)	0.002	(0.058)	0.006		(0.073)
Finance constraint (% major constraint)	-0.081**	(0.036)	-0.097**		(0.043)
Firm age (years)	-0.362***	(0.116)	-0.374***		(0.140)

Cells show coefficient with robust standard error in parentheses. Significance: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

The model fit statistics indicate moderate explanatory power in pooled estimation and a better fit in controlling year effects.

Table 5. Model fit statistics

Statistic	Pooled OLS	Year Fixed Effects
Observations (N)	45	45
R-squared	0.452	0.566
Adjusted R-squared	0.382	0.385

The growth across years varies, indicating that the macro conditions are time-varying and that the survey timing is fixed. These typical shocks are incorporated through year fixed effects in the regression model.

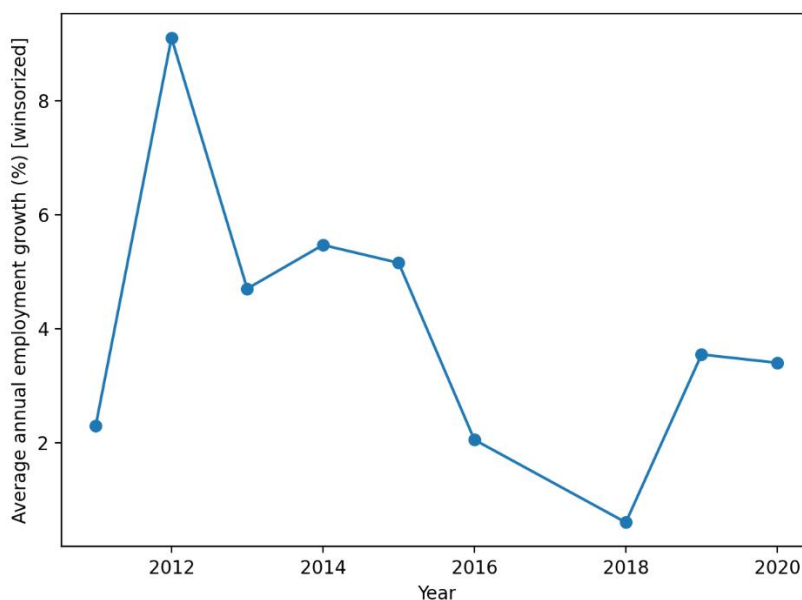


Figure 4. Average employment growth by year in the analytic sample

3.5 Interpretation aligned with the study focus

Combined, the calculated evidence suggests that, among the Asian nation-years observed in this panel based on WBES, innovation prevalence and financial access (inverse of finance constraints) are the most congruent strategic leveragers of sustainable growth (proxied by employment growth). The inverse

correlation between age of firms and growth is also agreeable with the premise that young entrepreneurial environments or younger groups of firms can have stronger expansion dynamics but older groups of firms can grow slowly with respect to employment. Meanwhile, the outcomes can be assumed with reference to the reporting structure of

the dataset: the analysis is conducted in the form of country-year groups of enterprise-survey indicators, and the overlap of all constructs being observed simultaneously is small. This does not overrule the results but it does imply it should be interpreted as macro-level strategic ecosystem clues (in Asia) as opposed to the micro-level causal approximations at the individual firm scale.

4. Discussion

The implication of the findings of this study is the significance of strategic management practices in the development of sustainable growth paths in Asian entrepreneurial firms. The fact that innovation is a strong positive employment factor argues the point that strategic decisions that are focused on sustainability can have quantifiable performance implications. This is in line with the fact that sustainable entrepreneurship improves the performance of firms when applied as part of the core business strategies instead of being used as fringe measures (Soto-Acosta et al., 2016). The fact that innovation is positively related to growth is also indicative of the wider development of sustainable entrepreneurship studies. The field mapping shows that the focus on connecting environmental responsibility and competitive performance is growing, especially in innovation and strategic alignment (Thananusak, 2019). The current results provide empirical evidence of this trend by showing that, in more Asian countries and years, the prevalence of innovation is correlated with better employment growth. Simultaneously, the adverse and substantial impact of financial limitations emphasises the institutional obstacles that may impede sustainable growth. Entrepreneurs are likely to experience resource constraints and risk perceptions when embarking on sustainability activities, which are likely to curtail growth opportunities (Hoogendoorn et al., 2019). The findings indicate that despite the innovative approaches taken by firms, limited access to funds might limit their capacity to grow sustainably.

Circular and sustainable business model strategies can explain the importance of innovation in the facilitation of sustainable growth. By considering sustainability principles in product development and business model design, firms can develop long-term value and decrease the impact on the environment (Bocken et al., 2016). This integration is likely to promote operational resilience and differentiation in the market, which helps in the promotion of employment. Managerial values and long-term orientation also define sustainable entrepreneurship. The implementation of sustainability may be based on long-term thinking, which shapes the development of entrepreneurship intentions and long-term strategic choices (Thelken and de Jong, 2020). The noted correlation between

growth and innovation in this case could be indicative of more profound managerial attitudes towards sustainable competitiveness as opposed to immediate benefits. Moreover, motivational drivers are important in influencing sustainability engagement. Systematic reviews of sustainable entrepreneurship focus on the fact that motivational facets, including environmental concern to opportunity recognition, which support sustainable strategic behaviour, are very varied (Reuther et al., 2023). As the empirical findings of this paper indicate, promising growth outcomes are related to the presence of these motivations when they are converted into actual innovation activities.

The cross-national nature of this research points to the significance of situational factors in the formation of sustainable entrepreneurship procedures. Comparative evidence demonstrates sustainable dynamics of entrepreneurship in different countries as they depend on the institutional level, economic growth, and environmental consciousness (Proença and Soukiazis, 2023). The difference in the Asian sample supports the notion that the practice of strategic management is moderated by country level condition to generate heterogeneous growth. Longitudinal environmental and economic development factors further suggest that sustainable entrepreneurship changes over time and is vulnerable to macroeconomic changes (Moya-Clemente et al., 2020). These temporal variations are explained by the inclusion of year effects in the regression models and imply that it is not possible to obtain sustainable growth results without regard to longer-term economic cycles. Also, sustainable entrepreneurial ecosystems are supported by aligned efforts of various stakeholders. The example of innovative financing, including crowdfunding, demonstrates how the mobilisation of resources in a collective could contribute to sustainability-oriented projects (Pabst et al., 2021). Finance constraints negatively affect this study, thus the need to build enabling financial systems to help in unlocking the potential of sustainable growth.

The results add to the current discussions on the intersection and deviation of sustainable entrepreneurship and other research areas. Recent literature has pointed to the conceptual overlaps between sustainable and social entrepreneurship and also noted that more empirical operationalisation of sustainability outcomes is required (Bonfanti et al., 2024). This study has given a tangible empirical model that can bridge the gap between the abstract discourses on sustainable growth and its actual results by operationalising sustainable growth in terms of job creation and its association with strategic management measures. Besides, science-mapping literature shows that science is now demanding quantitative, cross-

national research in order to prove the theoretical hypotheses (Thananusak, 2019). The current analysis is the answer to this call, as it uses structured panel data in several Asian economies. Generally, the discussion indicates that the comprehensive environmental commitment of entrepreneurial firms is not just an outcome of sustainable growth but a strategic policy. Innovation, financial access, and firm characteristics interact in the more extensive institutional environments to define whether sustainability initiatives result in actual growth. Such results support the thesis statement that strategic management acts as the driving force in the transformation of sustainability goals into long-term economic performance in entrepreneurial ecosystems.

5. Conclusion

The sustainable growth in Asian entrepreneurial firms is affected by strategic management practices based on the information of the cross-country enterprise surveys. The results indicate that innovation-based policies have a great role to play in employment creation and this supports the opinion that sustainability-based innovation can be one of the mechanisms of long-term growth. On the other hand, financial constraints were identified to be one of the limiting factors towards growth indicating the significance of the availability of financial systems to facilitate firms to grow sustainably. Age of firm was negatively related to the growth indicating that younger entrepreneurial settings might have more powerful expansion characteristics. The analysis of the operational, financial, and innovation indicators incorporated into a single analytical framework gives the study empirical data that sustainable growth is conditioned more by the strategic choice than by isolated environmental interventions. The findings are important in highlighting the significance of ensuring that sustainability efforts are aligned to the main business strategies to bring about measurable performance results. Policy wise, better financial infrastructure and innovation ecosystems could help in boosting sustainable entrepreneurial development in Asia. Although the study provides insights with gold-cross country information, further studies should include firm-level microdata and longitudinal designs to confirm causal links further. Altogether, the results help to develop the knowledge of strategic management as one of the essential courses of sustainable growth in entrepreneurship.

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