Role of Public Policy and State Capacity in Influencing Entrepreneurial Activity: A Cross Country Analysis

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1. Introduction

Entrepreneurship serves as a key catalyst of economic growth, driving innovation and creating employment opportunities across the globe. (Ács et al., 2018; Autio et al., 2014). By facilitating the creation and expansion of new ventures, entrepreneurship contributes to the dynamism and resilience of economies in an increasingly competitive and globalized environment (Sautet, 2023; Baumol, 1990). Governments and policymakers recognize entrepreneurship as a key lever for addressing structural economic challenges, including unemployment and technological disruption (Aidis et al., 2022; Bosma et al., 2024).

Startups are a key indicator of entrepreneurial activity and are commonly used to assess entrepreneurial dynamism. Unlike mature firms, startups often operate under significant uncertainty and limited resources, making their emergence a good indicator of the overall health of a country's entrepreneurial ecosystem (Henrekson & Sanandaji, 2020; Breschi & Lassébie, 2023). They are often at the forefront of innovation, driving technological advancement and disrupting established markets (Fatoki, 2024). Moreover, startups disproportionately contribute to job creation and productivity growth, especially in rapidly evolving industries (Bjørnskov & Foss, 2016). Consequently, this study employs startup density - measured as the number of startups founded in the last decade per million population - as the key dependent variable to capture entrepreneurial activity and understand the variance across modern economies.

Public policy plays a crucial role in shaping the environment in which startups emerge and scale. From simplifying business registration processes to providing financial incentives and entrepreneurial education, policy instruments influence the ease and attractiveness of startup creation (Aidis et al., 2022; Baumol, 1990). Yet, the impact of such policies varies widely across countries, raising questions about the conditions under which they effectively foster entrepreneurial activity (Sautet, 2023).

Further, state capacity could play a significant moderating role in determining the effectiveness of entrepreneurship-supporting public policy on entrepreneurial outcomes. High state capacity, characterized by efficient governance, strong institutions, and effective enforcement mechanisms, enhances the implementation and impact of policies aimed at fostering entrepreneurship (Acemoglu & Robinson, 2019). When state capacity is robust, regulatory frameworks, financial incentives, and entrepreneurial support programs are more likely to be delivered effectively, reducing barriers and uncertainties faced by entrepreneurs (North, 1990; Besley & Persson, 2011). Conversely, in contexts with weak state capacity, public policies may be poorly enforced or corrupted, limiting their positive influence on entrepreneurial activity (Khan et al., 2023). Recent empirical evidence suggests that the interaction between public policy and state capacity significantly shapes startup formation and growth, highlighting the importance of institutional quality in entrepreneurship ecosystems (Li et al., 2024). Thus, understanding state capacity's moderating effect is vital for designing context-sensitive entrepreneurship policies.

This study explores the relationship between public policy and entrepreneurial activity across the top 40 economies by GDP, focusing on how variations in governance quality - measured through state capacity - moderate this relationship. This study combines Global Entrepreneurship Monitor (GEM) policy indicators with Crunchbase data on startups to examine how institutional capacity moderates the effectiveness of entrepreneurship-support policies. Specifically, the study examines whether higher state capacity strengthens the positive impact of public policies on startup formation by ensuring better implementation and reducing bureaucratic obstacles.

These insights aim to inform policymakers on the critical role of governance quality in shaping entrepreneurial ecosystems and highlight the need for tailored policy designs that consider the institutional context to successfully stimulate startup growth. The paper contributes by combining public policy and governance quality perspectives into an integrated framework, offering a nuanced understanding of drivers of startup formation across diverse institutional contexts. The findings offer practical insights for policymakers aiming to design

targeted entrepreneurship promotion strategies suited to different governance contexts.

2. Theoretical Foundation and Hypothesis development

Formal institutions, such as laws, regulations, and public policies, play a foundational role in shaping the environment in which entrepreneurial activity, including startup formation, takes place. Institutional theory states that these formal structures influence economic behavior by defining the rules, incentives, and constraints faced by individuals and organizations (North, 1990; Scott, 2008). In the context of entrepreneurship, public policy represents a key formal institutional mechanism through which governments attempt to influence startup activity by altering the costs, risks, and rewards of new venture creation (Bruton et al., 2010; Acs et al., 2020).

However, the mere existence of supportive policies does not guarantee their effectiveness. Institutional theory also emphasizes the importance of institutional quality, which determines whether formal rules are implemented consistently, predictably, and transparently. This quality is often operationalized through the concept of state capacity- a government's ability to design, enforce, and administer policies effectively (Fukuyama, 2013; Ang, 2020). In weak institutional environments, gaps in implementation, corruption, or inefficiency can undermine even well-designed policies. Therefore, understanding startup formation rates across countries requires not only an examination of the content of public policy, but also the capacity of the state to operationalize those policies in practice.

2.1 Role of Public Policy in Influencing Entrepreneurial Activity

Public policy constitutes a fundamental mechanism through which governments actively shape entrepreneurial ecosystems and promote startup activity (Bosma et al., 2024; Aidis et al., 2022). The policy environment influences entrepreneurs' decisions by affecting costs, risks, incentives and available resources. Key policy dimensions include the extent to which public policy supports entrepreneurship as a national priority, the complexity of taxes and bureaucratic procedures, and the availability and effectiveness of government entrepreneurship programs (Bosma et al., 2024).

Simplified and transparent regulatory frameworks reduce administrative burdens, allowing startups to allocate more resources to innovation and growth rather than compliance (Baumol, 1990; Breschi & Lassébie, 2023). Tax incentives or reduced tax complexity further enhance the financial viability of new ventures, while government-sponsored programs provide critical access to training, mentorship, and funding networks (Aidis et al., 2022; Fatoki, 2024).

Empirical studies highlight the positive correlation between supportive public policy and entrepreneurial outcomes. For example, Bjørnskov and Foss (2016) found that policy initiatives promoting entrepreneurship as a national priority are associated with higher rates of new firm formation. Similarly, Bosma et al. (2024) reported that countries with favourable tax regimes and accessible government programs help in creating incentives for greater innovativeness and in the development of a more active entrepreneurial ecosystem. Public policy does this through two ways- (a) signalling governmental commitment and (b) delivering tangible support to entrepreneurs. The present study hypothesizes that countries with more supportive public policy environments - characterized by pro-entrepreneurial policy, lower tax and bureaucratic barriers, and effective government programs - will exhibit higher levels of startup activity, even when controlling for underlying economic and demographic conditions.

Given the centrality of public policy in shaping the incentives and resources available to startups, we propose the following hypothesis:

H1: Entrepreneurship-promoting public policies positively impact the level of entrepreneurial activity within a country

2.2. State Capacity as a Moderator

While public policy is necessary for entrepreneurial promotion, it could be insufficient on its own to guarantee positive outcomes. The effectiveness of public policies is contingent upon state capacity - defined as the government's ability to consistently design, implement, and enforce regulations and programs in a transparent manner. (Fukuyama, 2013; Ang, 2020).

State capacity encompasses dimensions such as administrative quality, legal infrastructure, and freedom from corruption - factors reflected in the Worldwide Governance Indicators, including Government Effectiveness, Rule of Law, and Control of Corruption. (Kaufmann et al., 2010). Strong state capacity ensures that policies are effectively operationalized and that entrepreneurs face a predictable and fair business environment (Henrekson & Sanandaji, 2020). Conversely, weak state capacity may result in policy implementation gaps, inefficiencies, or elite capture, which can undermine entrepreneurial activity (Mazzucato & Kattel, 2021; Mechkova & Lindberg, 2022).

Recent empirical work supports the moderating role of governance quality. For instance, Fatoki (2024) found that the perceived effectiveness of government entrepreneurial programs depends heavily on governance quality, with weak institutions diluting policy impact. Breschi and Lassébie (2023) showed that startup density is not

only a function of policy support but also of trust and institutional reliability.

Accordingly, we argue that state capacity strengthens the positive relationship between public policy and entrepreneurship by ensuring that policies are credible, consistently applied, and free from distortions. Accordingly, this forms the basis of the second hypothesis proposed in this research.

H2: The relationship between public policy support and entrepreneurial activity is positively moderated through state capacity such that higher state capacity leads to higher strength between public policy support and entrepreneurial activity.

Together, these hypotheses integrate insights from institutional theory and recent empirical work to offer a comprehensive explanation for cross-country differences in entrepreneurship. The next section outlines the data, variables, and empirical strategy used to test H1 and H2.

3. Data and methodology

3.1. Data

This study uses a cross-country dataset covering 40 countries across diverse regions. These countries are the top 40 economies based on nominal GDP (IMF, 2024) and together account for over **90% of global GDP** and more than **65% of the world's population**, ensuring robust global representativeness (International Monetary Fund, 2024; United Nations, 2024). The primary dependent variable is **startup activity**, operationalized as the number of companies founded between 2015 and 2024 per million population. Data on startups was sourced from **Crunchbase** (2025), while population data were obtained from the **World Bank** (2024). Crunchbase is widely used in academic research for analyzing startup activity due to its extensive global coverage of founding dates, funding rounds, industry classifications, and firm-level characteristics. Its structured and regularly updated data make it particularly suitable for examining patterns of entrepreneurial activity across countries and over time. Scholars have relied on Crunchbase to explore topics such as venture capital networks, startup performance, and digital business models (Hochberg et al., 2023; Block et al., 2023). Its adoption in peer-reviewed research underscores its credibility as a robust data source for studying entrepreneurship and innovation at scale.

To capture the multidimensional nature of public policy support for entrepreneurship, we draw on three indicators provided by the Global Entrepreneurship Monitor (GEM, 2025). These indicators reflect expert assessments of how government actions and structures influence the entrepreneurial environment. Specifically, we include the following:

a. "Governmental Policy: Support and Relevance" - measures the extent to which government policies are perceived as relevant and supportive of entrepreneurship. It captures whether public policy frameworks explicitly prioritize entrepreneurship as a key driver of economic development and whether these policies are considered well-aligned with the practical needs of entrepreneurs.

b. "Government Policy: Taxes and Bureaucracy" - assesses how tax systems and administrative procedures influence the ease of doing business. A higher score indicates that entrepreneurs face fewer obstacles from regulatory processes and tax burdens, suggesting a more enabling policy environment for startup formation.

c. "Governmental Entrepreneurial Programs" - measures reflects the availability and effectiveness of government-run initiatives aimed at supporting entrepreneurship

These three dimensions are combined to create a composite index of public policy ("Public Policy Index") using averages of the standardized values of the three scores. Thus, the Public Policy Index reflects both structural and programmatic aspects of government involvement in shaping the entrepreneurial landscape. Data represented here for these indicators are based on 2024 figures as reported in the GEM 2024/2025 Global Report: Entrepreneurship Reality Check (GEM, 2025). These three indicators, capturing the perceived quality and impact of entrepreneurship-related policy frameworks based on survey of experts across each country and are part of the National Expert Survey database of GEM (GEM, 2025). While GEM data reflect expert perceptions, they are validated through rigorous sampling procedures and have been widely used in entrepreneurship research to examine institutional conditions and national frameworks (Bosma et al., 2024; Amorós et al., 2023). For a few countries not present in the report, the data was extracted for the latest year for which it was available from the GEM consortium web portal (gemconsortium.org/data).

State capacity refers to a government's ability to design, implement, and enforce public policies effectively, while maintaining institutional order across society. It encompasses the quality of public institutions, reflected through their legitimacy, rule enforcement, and control over corruption - factors essential for supporting businesses, especially new ventures (Gökce, 2023; Lin & Milhaupt, 2023).

To measure state capacity, we use four indicators from the Worldwide Governance Indicators (WGI) dataset (World Bank, 2023):

a) "Government Effectiveness"- captures the perception of public service quality, policy implementation efficiency, civil service competence, and the government's credibility in delivering on policies

b) "Regulatory Quality" - reflects the ability of the government to develop and enforce regulations that enable private sector activity and promote fair market competition.
c) "Rule of Law"- Measures confidence in legal institutions, including the enforcement of contracts, protection of property rights, and fairness of police and judicial systems
d) "Control of Corruption" - Assesses the extent to which public power is misused for private gain, including both petty corruption and elite-level influence on state functions.
Each WGI indicator is measured on a standardized scale ranging from approximately - 2.5 (weak governance performance) to 2.5 (strong governance performance), reflecting perceptions of a country's institutional quality based on surveys of experts and citizen assessments (Kaufmann, Kraay, & Mastruzzi, 2011). These four indicators collectively offer a multidimensional and internationally recognized proxy for state capacity, especially useful in cross-country empirical research.). This operationalization is consistent with recent literature that employs WGI indicators to assess how governance quality and institutional capacity shape entrepreneurship and innovation outcomes. For instance, Yu et al. (2023) and Karra and Tran (2024) use WGI-based constructs to explore governance influences on entrepreneurial ecosystems. Similarly, Laskovaia et al. (2022) and Aparicio et al. (2016) apply WGI data to understand institutional enablers of high-growth and innovation-driven firms.
The **control variables in** this study include:

- **Nominal GDP** (in USD billion), based on 2023
- **Total population** (in millions), based on 2023
- **Unemployment rate** (as % of total labour force), based on 2024

These figures were obtained from the IMF World Economic Outlook (October 2024 edition) and the International Labour Organization (ILO, 2025). For Taiwan, data on unemployment data were retrieved from the National Statistics of the Republic of China (Taiwan) as of April 2025.
These control variables account for fundamental structural factors that influence entrepreneurial activity across countries. Nominal GDP captures overall economic capacity, population size reflects market potential and labor availability, and the unemployment rate indicates labor market dynamics. Including these ensures more accurate estimation by controlling for macroeconomic differences that could otherwise confound the relationship between public policy, state capacity, and startup formation.
The descriptive statistics and bivariate correlations among the original variables (prior to normalization and index creation) are presented in Table 1. Figure 2 displays the number of startups per million population across countries, illustrating considerable cross-national variation in startup activity.

3.2. Methodology

To examine the relationship between public policy, state capacity, and startup activity across countries, this study employs an ordinary least squares (OLS) multi-linear regression framework. OLS is widely used in cross-country empirical research due to its interpretability and ability to estimate linear associations under standard statistical assumptions (Wooldridge, 2016). The dependent variable, startup activity, is measured as the number of startups founded between 2015 and 2024 per million population.
To study public policy and state capacity holistically, we created composite indices for both variables. The public policy index was constructed by averaging the z-scores of three indicators from the Global Entrepreneurship Monitor (GEM): support and relevance, taxes and bureaucracy, and government entrepreneurial programmes. Similarly, the state capacity index was created by averaging the z-scores of four indicators from the Worldwide Governance Indicators (WGI): government effectiveness, regulatory quality, control of corruption, and rule of law. The approach on index creation follows established practices for composite index construction (Acs et al., 2014; Amorós et al., 2023), allowing comparability across countries. Creating composite indices allows for a more integrated representation of these multidimensional constructs while reducing measurement error and enhancing explanatory power (Stenholm et al., 2013; Valliere, 2020).
All other continuous variables used in the analysis were also normalized using the z-score method, a widely accepted approach in cross-country regressions to ensure comparability and eliminate scale differences (Acs et al., 2014; Amorós et al., 2023).
Four regression models were estimated to test the study's hypotheses. Model 1 includes only control variables - nominal GDP (in USD billion), unemployment rate (percentage of total labor force), and total population (in millions) - to establish a baseline and account for macroeconomic and demographic influences on entrepreneurship. Model 2 adds the public policy index to assess the direct effect of policy environment on startup activity. Model 3 introduces the state capacity index as a moderator alongside public policy and controls, examining whether institutional quality independently contributes to explaining cross-country differences. Model 4 includes an interaction term between the public policy index and the state capacity index, allowing us to test whether the effect of public policy on startup activity is contingent on the level of state capacity. The theoretical model

underlying these estimations is presented in Figure 1.

The combined equation in this study is as follows:

$$Y = \beta_0 + \beta_1 PPI + \beta_2 SCI + \beta_3 (PPI \times SCI) + \beta_4 GDP + \beta_5 UNEMP + \beta_6 POP + \varepsilon_i$$

Where:

Y_i represents the dependent variable and captures the entrepreneurial activity, measured as the number of startups founded between 2015 and 2024 for each country per million population

PPI is the Public Policy Index, constructed as the average of Z-score normalized values of three GEM indicators - Support and Relevance, Taxes and Bureaucracy, and Government Entrepreneurial Programmes

SCI is the State Capacity Index, constructed as the average of Z-score normalized values of four WGI indicators - Government Effectiveness, Regulatory Quality, Control of Corruption, and Rule of Law

$PPI \times SCI$ represents the Interaction term between the Public Policy Index and State Capacity Index

GDP is the nominal Gross Domestic Product (in USD billion) for 2023

$UNEMP$ is the Unemployment rate, measured as the percentage of the total labor force that is unemployed

POP is the Population for the country, measured in millions

ε_i represents the error term capturing the residual variation not explained by the model

β_0 represents the constant (intercept) term

β_1 to β_6Coefficients representing the standardized effects of each independent variable on the dependent variable

Variance Inflation Factors (VIFs) were calculated to check for multicollinearity. All VIF values were below the commonly accepted threshold of 5, indicating acceptable levels of collinearity (Hair et al., 2010).

The use of linear regression is consistent with prior cross-country studies on entrepreneurship, which have employed similar techniques to evaluate the effect of institutional and macroeconomic variables on entrepreneurial outcomes (Stenholm et al., 2013; Williams & Krasniqi, 2018; Amorós et al., 2023).

4. Results

The results of the regression analysis based on the four models are presented in Table 2. Each successive model adds predictors to examine their incremental explanatory power on entrepreneurial activity measured through startup density i.e. startups per million population.

Model 1, which includes only control variables Population, GDP, and Unemployment, explains about 14.9% of the variance in startup density ($R^2 = 0.149$). Population has a significant negative effect ($\beta = -0.411$, $p < 0.01$), indicating that countries with larger populations tend to have lower startup density. GDP shows a positive but non-significant effect, and Unemployment is also non-significant.

Model 2 introduces the Public Policy Index (PPI), resulting in a significant increase in explained variance by 14.2% (total $R^2 = 0.291$). In this model, PPI emerges as a significant positive predictor ($\beta = 0.44$, $p < 0.01$), indicating that more supportive public policy environments substantially enhance startup activity. Population remains a significant negative predictor ($\beta = -0.498$, $p < 0.01$), while GDP now reaches significance at the 0.05 level ($\beta = 0.298$, $p < 0.05$), suggesting that the size of the economy and policy both contribute positively to startup formation. Unemployment remains non-significant.

Model 3 adds the State Capacity Index (SCI) alongside controls and PPI, explaining a substantial additional 29.6% of the variance ($R^2 = 0.587$). In this model, SCI becomes a highly significant positive predictor ($\beta = 0.771$, $p < 0.01$), suggesting that stronger institutional capacity greatly facilitates startup activity. However, the coefficient for PPI reverses direction and becomes non-significant ($\beta = -0.07$, $p > 0.1$), which may indicate that state capacity subsumes some of the policy effect. Population and GDP lose their significance, while Unemployment remains non-significant.

Model 4 incorporates the interaction term between PPI and SCI, further increasing explained variance by 5.6% to a total of 64.3% ($R^2 = 0.643$). Here, the interaction term is significant and positive ($\beta = 0.344$, $p < 0.001$), revealing that the effect of public policy on startup density depends on the level of state capacity. Both SCI ($\beta = 0.912$, $p < 0.001$) and the interaction show strong positive effects, while PPI alone is negative and non-significant. Population and GDP are also non-significant in this fully specified model. This pattern suggests that the benefit of public policies on entrepreneurial outcomes is magnified in contexts with higher state capacity.

To further interpret this moderation effect, the Johnson-Neyman (J-N) technique was applied and visualized (refer to Figure 3). The Johnson-Neyman plot highlights conditional effects by empirically pinpointing moderator values where predictor effects shift between significance and non-significance (Johnson & Neyman, 1936; Hayes, 2018). As per the J-N plot, we can understand that when the State Capacity Index is below approximately -1.1 (standardized units), the effect of Public Policy on startup density is significantly positive. Above this threshold, the effect loses significance. This implies that in countries with relatively weaker institutional capacity, supportive public policies play a crucial role in stimulating startup creation, whereas in countries with stronger state capacity, public policy's additional influence diminishes.

5. Discussions, implications and limitations

This study set out to examine how public policy influences entrepreneurial activity across countries and whether this relationship is moderated by the quality of state capacity. Our findings provide meaningful insights that contribute to the understanding of the complex interplay between policy support, institutional quality, and startup dynamics at a global scale.

The results strongly support the first hypothesis, which state that public policy aimed at promoting entrepreneurship is positively associated with startup activity. When controlling for macroeconomic factors like GDP, population, and unemployment, the data show a clear positive relationship between the composite Public Policy Index and the density of startups per million population. This confirms that government efforts, ranging from supportive regulations and tax systems to targeted entrepreneurial programs, can effectively stimulate new venture creation. These findings reinforce the critical role of policy frameworks in shaping entrepreneurial ecosystems and suggest that policymakers who invest in coherent, entrepreneur-friendly policies are likely to see higher levels of startup activity.

The second hypothesis focused on the moderating role of state capacity, the government's ability to implement and enforce policies effectively. Our analysis confirms this moderation effect: the interaction between public policy and state capacity significantly predicts startup activity, with higher state capacity strengthening the positive influence of public policy. This means that not only does policy matter, but its impact depends greatly on institutional quality, governance effectiveness, regulatory quality, and corruption control. Countries with strong state capacity are better positioned to translate policy intentions into real-world outcomes, ensuring that entrepreneurial support mechanisms function as intended.

However, the Johnson-Neyman analysis adds an important nuance to these findings. It reveals that in countries where state capacity is very low (specifically, below approximately -1.1 on the standardized State Capacity Index), public policy still has a statistically significant and positive impact on startup density. This indicates that in weak governance contexts, well-designed public policies can foster entrepreneurship to a greater extent, possibly by providing some formalized support or reducing barriers in otherwise challenging environments. This insight is crucial for multilateral agencies and policymakers working in developing or fragile states. It suggests that investing in public policy reforms can yield entrepreneurial benefits even before significant improvements in state capacity are achieved. Yet, beyond this low threshold, the strength of state capacity increasingly amplifies the effectiveness of public policy, underscoring the importance of strengthening institutions alongside policy design.

These findings carry clear implications for policymakers and international development agencies. First, efforts to increase entrepreneurial activity should not focus solely on policy content but must also prioritize institutional capacity building. Strengthening governance, legal systems, and regulatory enforcement is essential for maximizing the returns from entrepreneurship-promoting policies. Second, in low-capacity contexts, public policy can still be a valuable tool, but it likely needs to be tailored to account for institutional constraints and supplemented by capacity development initiatives. Governments or international organizations may find it strategic to combine policy advice with governance support to achieve sustainable entrepreneurial growth.

Despite these important contributions, this study has some limitations. First, the cross-sectional design limits causal inference and does not capture how the relationships evolve over time. Future research using longitudinal data could provide deeper insights into the dynamic effects of public policy and state capacity on entrepreneurial outcomes. Second, the broad country-level approach does not account for within-country regional differences or local variations in policy implementation and institutional quality. Case studies or regional analyses could complement our findings by highlighting sub-national dynamics.

6. Conclusion

This study investigates the relationship between public policy and entrepreneurial activity across countries, focusing on the moderating role of state capacity. Using a cross-country dataset comprising startups per million population as the dependent variable, the analysis employs an Ordinary Least Squares (OLS) regression framework with controls for GDP, unemployment, and population size. The primary independent variable is a composite Public Policy Index, reflecting government support, tax and bureaucracy measures, and entrepreneurial programs. State capacity is measured using a standardized index capturing governance quality, rule of law, regulatory effectiveness, and corruption control. The study also incorporates interaction effects and employs a Johnson-Neyman technique to explore threshold effects in the moderation.

The empirical findings reveal a robust positive effect of public policy on startup activity, affirming that well-designed and entrepreneur-friendly policies stimulate new venture creation. Moreover, the moderating role of state capacity is confirmed: the positive impact of public policy strengthens as state capacity improves. This highlights the critical importance of institutional quality and governance effectiveness in translating policy initiatives into tangible entrepreneurial outcomes. Importantly, the

Johnson-Neyman analysis uncovers that public policy has a much more statistically significant positive impact on startup density in countries with relatively low state capacity, specifically below a threshold of approximately -1.1 on the State Capacity Index. This suggests that in weak institutional contexts, well-crafted policies can still foster entrepreneurship, although the magnitude of impact grows as institutional capacity improves. Such nuanced insights provide valuable guidance for policymakers and international development agencies aiming to promote entrepreneurship in diverse governance environments.

These results contribute to the broader literature on entrepreneurship and institutional economics by empirically demonstrating how policy and institutional quality interact to influence entrepreneurial outcomes. They reinforce the growing recognition that entrepreneurship policy effectiveness cannot be separated from the institutional context and governance quality of a country. By integrating the Johnson-Neyman approach, this study adds granularity to understanding threshold effects, showing that policy efforts can be impactful even before state capacity reaches high levels.

For practitioners and policymakers, the findings emphasize the dual need to design supportive policies and simultaneously invest in strengthening state institutions to maximize entrepreneurial growth. In developing and fragile states, targeted policy interventions combined with capacity-building measures may offer the most promising path to fostering sustainable entrepreneurship. Future research could build on this study by employing longitudinal designs to capture dynamic effects over time and by exploring sub-national variations in policy impact and institutional quality.

In sum, this study highlights the critical interplay between public policy and institutional quality in shaping entrepreneurial ecosystems and provides actionable insights for promoting startups as engines of economic development worldwide.

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List of Tables

Table 1- Descriptive statistics, with correlations between variables

	Mean	SD	1	2	3	4	5	6	7	8	9	10	11
1. Startups per million	325.26	363.54	1.00 (-)										
2. Population	139.42	306.36	-0.26	1.00 (-)									
3. GDP	2394.3	4985.1	0.09	0.50 ***	1.00 (-)								
4. Unemployment	5.39	5.08	-0.13	-0.05	-0.08	1.00 (-)							
5. Government Policy: Support and Relevance	4.46	1.35	0.15	0.28 *	0.1	-0.25	1.00 (-)						
6. Government Policy: Taxes and Bureaucracy	4.7	1.26	0.39 **	0.22	0.2	-0.24	0.75 ***	1.00 (-)					
7. Government Entrepreneurial Programmes	4.84	1.21	0.36 **	0.1	-0.02	-0.27 *	0.73 ***	0.77 ***	1.00 (-)				
8. Control of Corruption	0.6	1.08	0.76 ***	-0.29 *	0.04	-0.14	0.31 **	0.42 ***	0.59 ***	1.00 (-)			
9. Government Effectiveness	0.8	0.87	0.74 ***	-0.17	0.07	-0.27 *	0.46 ***	0.57 ***	0.70 ***	0.94 ***	1.00 (-)		
10. Regulatory Quality	0.7	0.99	0.76 ***	-0.32 **	0.04	-0.21	0.31 **	0.42 ***	0.58 ***	0.96 ***	0.95 ***	1.00 (-)	
11. Rule of Law	0.67	0.91	0.71 ***	-0.26	0.06	-0.13	0.33 **	0.43 ***	0.62 ***	0.97 ***	0.94 ***	0.95 ***	1.00 (-)

***$p < 0.01$, **$p < 0.05$, *$p < 0.1$

Table no. 2: Hierarchical regression of Public Policy and State Capacity on Entrepreneurial Activity

Variable / Metric	Model 1	Model 2	Model 3	Model 4
Population	-0.411**	-0.498***	-0.102	0.039
GDP	0.288	0.298*	0.108	0.111
Unemployment	-0.128	-0.02	0.001	-0.005
Public Policy Index (PPI)		0.44**	-0.07	-0.119
State Capacity Index (SCI)			0.771***	0.912***
Interaction (PPI× SCI)				0.344***
F-statistic	2.107	3.593**	9.668***	9.906***
R^2	0.149	0.291	0.587	0.643
Adjusted R^2	0.078	0.21	0.526	0.578
ΔR^2		0.142	0.438	0.494

***$p < 0.01$, **$p < 0.05$, *$p < 0.1$; (*All β values are based on standardized Coefficients)*

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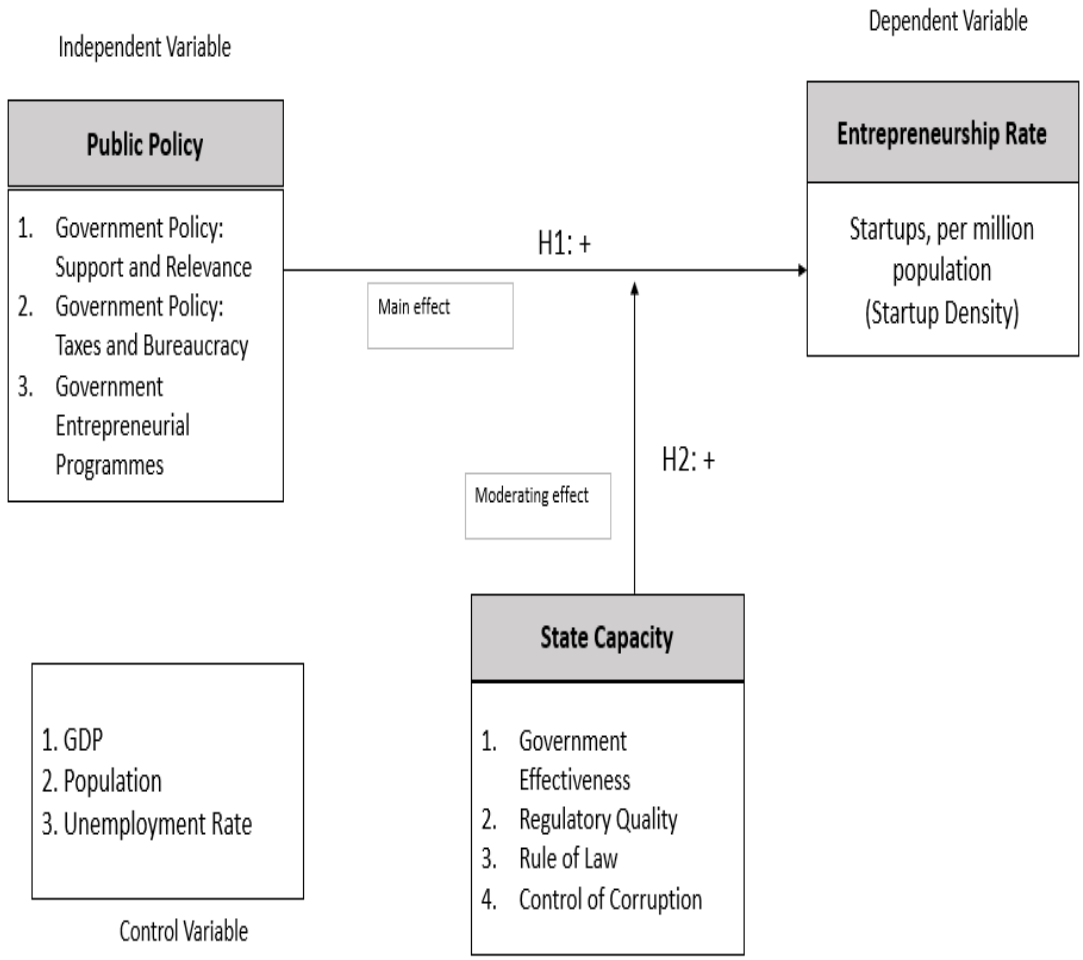

Fig.1. Hypothesized research model

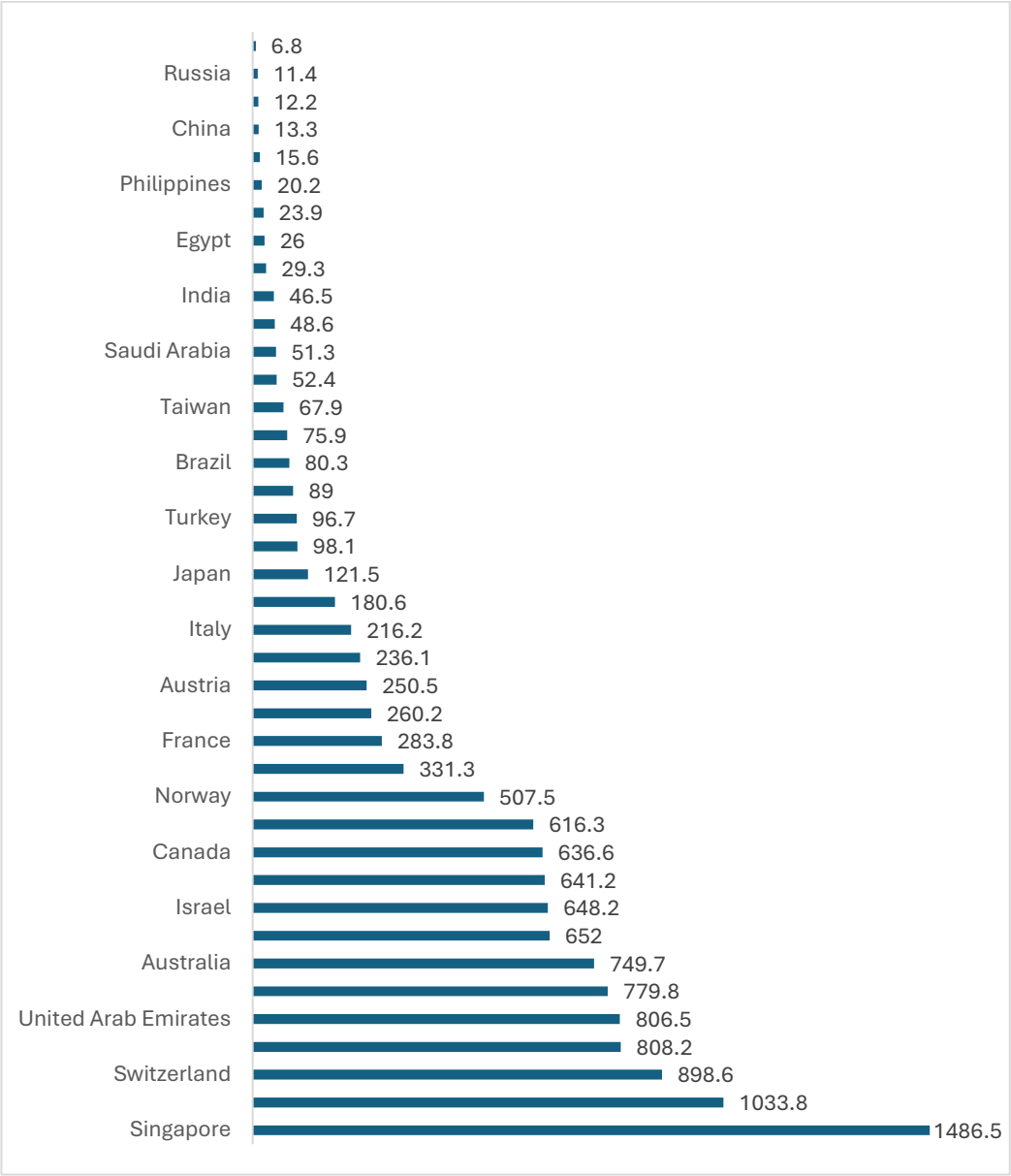

Fig.2. Startups per million people, by country

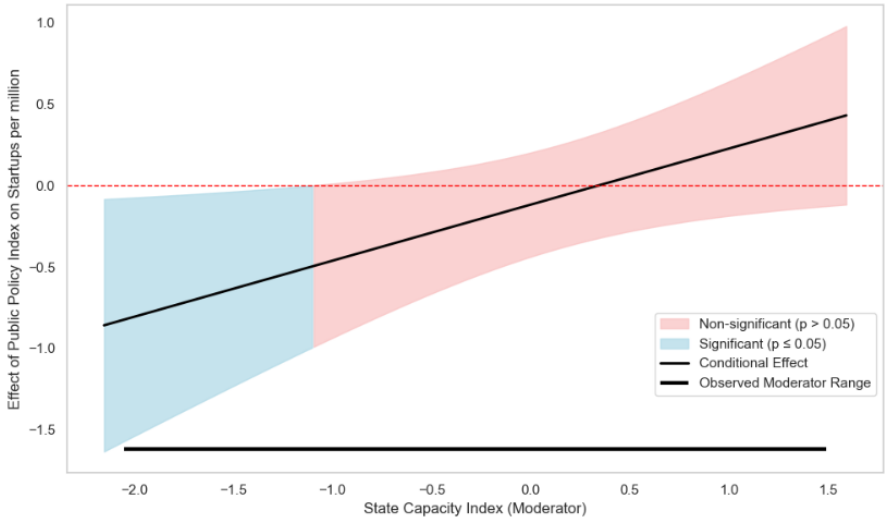

Figure 3- Johnson-Neyman Plot with Significance Region