The impact of a business angel on new venture performance: the mediating role of entrepreneurial finance and moderating role of human capital

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Abstract
This study aims to check the relationships between business angels, entrepreneurial finance, human capital, and new venture performance in the SMEs working in Bahawalpur, Pakistan. A random sample of 285 owners/managers/business angels like friends, families, or other finance providers was surveyed. The findings show that business angel has a positive and significant relationship with new venture performance. Findings also reveal that entrepreneurial finance positively affects business angels and recent venture performance. Findings also showed that human capital plays a vital role in establishing new ventures and in the survival and growth of a venture's performance. These three Variables, Business Angels, entrepreneurial finance, and human capital, collectively play a positive role in the performance of new ventures.

Introduction
Young businesses are immature. Unknown if a company is mature. Industry, resources, and strategy define a startup's maturation (Hmieleski 2022). 3–5 years can mature a company. First-time rules and setup take 8–12 years. A new venture is a company founded to produce, create, and distribute goods and services to meet market revenue and growth needs. New ventures can be shared enterprises, corporate units within established corporations, or independent ventures started by individuals acting in their own best interest (Bodlaj 2022).

Each firm is distinct in ownership, origin, and purpose. Company success can be measured in several ways (Wang 2022). This study doesn't examine

alternate methods' advantages and cons. So, we'll judge venture performance by success and survival. First, survive not fail. Businesses fail when they become economic entities. An enterprise may fail if it can't meet owners' or creditors' financial obligations. The ability of a venture to be self-sufficient economically is another indicator of its performance (Cob, 2022). Providing long-term, cost-effective value to clients is a subjective measure of success (Hmieleski 2022). A new firm may take years to break even, but its capacity to produce long-term, hard-to-copy value suggests it should surpass its competitors in profitability and growth. Because the model's main premise is that a venture's existence and success are slightly different, we employ a two-dimensional perspective on new venture performance based on past research. Strategy is crucial to company success, yet it's rarely blamed for failure (Gan 2022).

In volatile markets, startup success is crucial and tough. Emerging economies have lower new venture growth and success than Western ones. Underdeveloped and developed nations have conducted several studies. Some studies have examined corporate failure, while others have examined achievement, advancement, and efficiency. Messersmith (2018) studied recent venture failure and projected success. Without institutional support, resources, assistance, financial capital, and environmental instability, new businesses fail (Anwar, 2018). However, external ties, money, practicality, and staff resources help businesses succeed (Adomako 2018. National GDP depends on SMEs. SMEs are defined differently globally. SME categories emphasize assets, labor, and sales. Table 1.1 illustrates the most common definitions of SMEs from all across the world.

Table 1

Definitions of SMEs

Defined By	Max. No. of Employees	Max. Annual Sale/Turnover
State Bank of Pakistan	250	Rs.75-850million
SMEDA(Pakistan)	250	Rs.250.5million
World Bank	300	$15.5million
MIF-IADB	100	Infinite

Note: MIF-IADB= Multilateral Investment Bank Inter-American Development Bank.*

State Bank of Pakistan classified SMEs as trading, services, and manufacturing. Businesses with 20 to 50 employees and sales up to Rs.150 million are in the services industry. Trading enterprises have 50 to 100 employees, whereas manufacturing businesses have 50 to 250 employees and a revenue of Rs.175 million to Rs.800 million. Pakistan established the SME Development Authority in October 1998. In 2006 and 2007, it started planning to help small and medium-sized businesses grow.

A 2009 World Bank report found 3.2 billion SMEs in Pakistan, accounting for 95% of all businesses and 40% of GDP. SMEDA, created in October 1998, delivers programmers and strategies to help SMEs succeed. Previous studies have contributed by analyzing entrepreneur growth and achievement using many methods and factors. Thus, SMEs' survival in such locations is crucial for poverty reduction and economic growth (Messersmith 2018). Few studies have examined the influence of Business Angels and entrepreneurial finance on underdeveloped economies' new venture success and human capital. SMEs in emerging economies must consider aspects that can help them survive and prosper. In other words, developing economy SMEs provide a lot of GDP and aid to reduce poverty (Degong 2018). Many new businesses in developing markets fail over time (Anwar 2020). This study will help new companies build a long-term position and improve performance in a vibrant market.

Research Question

The research questions of the current study are as follow**:**

1) What impact does a business angel have on the performance of a new venture??
2) What role does entrepreneurial finance play in the performance of new ventures?
3) Is there a link among entrepreneurial finance and new venture performance that is moderated by human Capital?
4) Is there a link between the business angel and the performance of a new venture mediated by entrepreneurial Finance?

Literature review

New venture performance

According to Anwar and Ali Shah (2020), In Pakistan, higher than half of the new businesses fail in the long run. The liability of newness and smallness, which restrict their ability to adjust quickly to changing business conditions, significantly impacts the success and expansion of small and medium enterprises (SMEs). As a result, these businesses' capacity to grab new opportunities to compete effectively is restricted. Prior studies have extensively explored the topic of recent venture success, profitability, and competitive advantage, for example, via the eyes of a resource-based perspective (RBV) and organization theory. However, the explanations provided by previous studies may be limited when used in a specific situation of newly formed ventures in growing economies. A lack of entrepreneurship skills, a lack of finances, and a lack of competencies are all factors that hinder the growth and survival of new companies (Anwar & Ali Shah, 2020). More specifically, ventures in established economies are not subject to the same resource restrictions as emerging markets. Small

businesses, in comparison to large corporations, have fewer resources for discovering opportunities (Anwar, Clauss, & Issah, 2021).

Both subjective and objective measures can be utilized to assess a company's performance. Data from a questionnaire and a self-reported interview are used in the subjective measure. Accounting records are the most important objective measure. Financial statements can also be used as objective measure. The stock exchange and the state bank are also considered sources of information, which can be used to create objective measures. For various reasons, subjective measures of firm performance will be used.

1. The general public does not have access to financial statistics on SMEs. Owners, CEOs, and top managers are unwilling to share truthful financial information about their companies.
2. Previous research has revealed that there is a close link between the subjective and the objective Performance indicators for businesses.
3. Compared to objective metrics, subjective metrics encompass a more comprehensive range of aspects of a company's performance.

The performance of the firms (both financial and non-financial performance) can be assessed. By posing the question to owners and managers, "How well does your company perform in comparison to its major opponents set on the parameters listed below, such as return on assets, return on equity, shares of market, and return on investment, customer's satisfaction and customer's demand etc." (Khan, Li, Safdar, & Khan, 2019).

Business Angel

During the last few decades, the significance of business angels and venture capital investors has been emphasized in the previous studies on entrepreneurial financing. Worthy and wealthy business angels are personalities who advance their own money in a straight line in an unquoted business with no family connection, acting on their own or in a formal or informal association, and who, after investing, take an active role in the business activities, such as a mentor or fellow of the board of directors.

They are necessary for a variety of reasons. First and foremost, BA is the most critical exterior source of early-stage risk capital and dwarfing venture capital investments. Second, as business angels do not have the same transaction expenses as venture capital companies, they can create smaller seed and early-stage investments, much less than the lowest deal sizes and stages measured by venture capital fund executives. Third, business angels are significantly more geographically scattered compared to venture capital funds. Fourth,' smart money is a term used to describe informal venture financing. Business angels are often "hands-on"

stakeholders who want to use their expertise, skills, and relationships to help their investee companies succeed (Mason & Harrison, 2008).

Entrepreneurial Finance

Entrepreneurial finance refers to early-stage sources of financing, which are frequently provided by an entrepreneur's personal network to support their businesses (Khattak, Anwar, & Clauß, 2021). The study of resource allocation and value in new ventures is known as entrepreneurial finance. It addresses essential issues that all entrepreneurs encounter. Such as how considerable money can be raised and how money should be raised, when it should be raised, from whom it should be raised, what is an acceptable value of a start-up, and how contracts related to investments and exit decisions should be handled. New ventures are fundamentally different from those that have been around for a while. Entrepreneurs differ from business managers who run corporations in several ways. New ventures and start-ups face quite different financial decisions than established businesses. Though the core of entrepreneurial finance is 'Finding Money' or 'Raising Funds,' it also entails the application of fundamental financial principles and theories.

Human Capital

Marketing, money, economic conditions, and government aid are crucial. No amount will start a business. We require people who can organise their ideas, believe in innovation, and stay motivated until the project is finished (Gan 2022). Understanding the person, process, and choice of scarce resources requires a psychological perspective on new enterprise formation. New ventures fail without support, funding, environmental uncertainty, and structure. Venture success involves good external relationships, funding, methods, and people. Research in advanced economies generally disregarded emerging ones, which has ramifications. In rising South Asian countries like Pakistan, entrepreneurial strategy, network contacts, and people and financial resources rarely matter for new venture success (Khan 2019). These fundamental changes affect incentives to acquire the two types of human capital and associated externalities. Human capital like education benefits workers and the economy. Only manufacturing companies with specific procedures should invest in on-the-job software training (Flabbi 2018). Human capital impacts startup growth (Danso 2016). Early venture performance depends on several aspects, but human and financial resources are key (Ahlstrom 2018). Anwar (2018) says companies need funding and assistance. According to RBV theory, companies with enough human, network, policy, and financial capital outperform others (J. Barney, 1991).

New Venture Performance in Pakistan

GDP and development depend on SMEs in Pakistan. The State Bank of Pakistan classifies SMEs as having less than 20 employees and sales under

Rs.75 million. Medium-sized services and manufacturing firms employ 20–250 people and sell Rs.75–Rs.400 million. Pakistan's 3.2 billion SMEs make up 95% of businesses and 40% of GDP, according to a 2009 World Bank survey. SMEDA, founded in October 1998, supports SMEs with policies and operations. SMEs in underdeveloped countries increase GDP and reduce poverty (Degong et al., 2018). Many firms fail in emerging markets (Anwar 2020). This study will help SMEs grow and compete in shifting markets.

Theoretical Framework

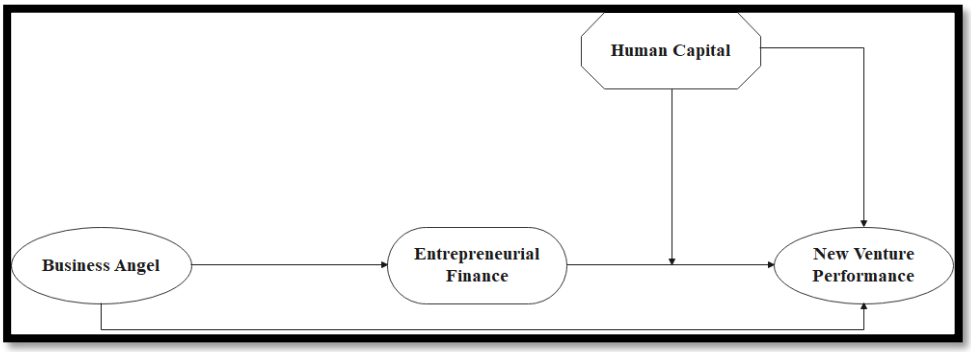

Figure 1
Framework of the Study
Source: Developed by the current study

Relationship between business angel and new venture performance

Angels invest in creative ventures and grow them. Startup funding, management help, and network access are offered. Business angels might invest alone or together. Data collecting is hard, restricting business angel financing study. Reserved business angels do not disclose their investments. Thus, most business angel research contrasts angel and non-angel reserves. A recent study indicated that business angel variation affects conduct and results. Bammens (2012) apply novel data collection approaches to answer new questions on angel investors' personalities, behaviour, and investment outcomes. Many business angel survey waves and portfolio business accounting data are used by Bonini (2019). They demonstrate how angel investor behaviour impacts portfolio business finances. Angel-backed businesses survive better in syndicates. Growing business angel organisations change the angel market. Angel investors benefit from BAN membership in various ways, including high-quality deal flow. Community knowledge sharing leads to more contributions. BAN executives (called as "gatekeepers") arrange training and pitching events to link angel investors and businesses (Aernoudt 2007).

H1: Business Angels significantly and positively contribute to the financial performance of newly established ventures.

Relationship between Business Angel and Entrepreneurial Finance

Self-funding, "friends and family," "angel" investors, venture capitalists, and large firms' venture funds support new venture "start-ups". All financial arrangements entail risk-return trades. Corporate venture capital is the safest investment but the least accessible to entrepreneurs. These funding strategies may change firm cultures, threatening the e-commerce business's future. In traditional entrepreneurial literature (Longenecker 2006), self-financing occurs early in a company's life, while venture capital funding follows. Angel investors help enterprises after "self-funding" but before VCs. The "venture capital" stage may include angel investors (Hamilton, 2001). Individuals, "friends and family," venture capital firms, and corporations and governments invest in startups. Freelancers contribute their funds. Wealthy former entrepreneurs invest in new enterprises as angels (Harmon, 1999).

H2: “There is a significant positive relationship between business angel and entrepreneurial finance”.

Relationship between entrepreneurial finance and new venture performance

Company finance is its 'liver' RBV states that firms with sufficient money and talent outperform those without (J. Barney, 1991). A recent RBV theory suggests that well-resourced companies spend more on community connections, enhancing financial and environmental returns (Anwar 2021). Financial incentives from the government affect corporate performance, innovation, and reputation (Xiang 2017). SME financial resources are scarce in emerging nations like Pakistan, so they view entrepreneurial finance and financial support as lucrative possibilities for competitive advantage and success (Anwar 2021). Entrepreneurial finance may help emerging economy firms survive (Anwar 2020). Financial venture capitalists are less interested in early entrepreneurial initiatives due to their legal risk of failure (Howell, 2019). Wealthy firms can expand in Pakistan (Degong 2018).

H3: “Entrepreneurial finance positively and significantly contributes to the financial performance of newly established ventures”.

Relationship between human capital and new venture performance

Human capital is the key to corporate performance, according to human capital theory (Huang 2016). Human capital has grown in relevance in innovative businesses (Augusto 2014). High-tech enterprises' insolvency fear decreases with entrepreneurial human capital. The effects are negligible in low-tech firms (Kato 2015). Though not usually, human capital helps entrepreneurs succeed. The study also found that varied human capital characteristics affect venture performance. Some traits affect entrepreneur success more (Unger 2011). New businesses need human capital to grow (Capelleras 2019). Human capital-driven competitive markets favor young

audit firms (Danso 2016). Technical training, commercial experience, and managerial technical skills boost new businesses (Ganotakis, 2012). Human capital is becoming intangible for entrepreneurs. It greatly impacts corporate growth and profitability (Doong 2011). The following theory links human capital and corporate performance.

H4: There is a significant positive relationship between human capital and new venture performance.

Moderating role of human capital

HC is employees' knowledge, skills, and abilities (Capozza 2019). Employee values, attitudes, and competences boost competitiveness and value (Hamadam 2019). Staff skills, knowledge, and talent define the organisation. Kianto, (2017) define it as skills, knowledge, and experience. Moderator variables help explain and contextualize entrepreneurial finance and new venture performance. Kato (2015) discusses new venture growth and human capital. Human capital is vital to new business growth, he argues. Entrepreneurial human capital is known to improve post-entry performance. Some scholars say startups need entrepreneurial human capital. Entrepreneurs with strong human capital outperform their competitors, according to 2015 research. Non-financial capital from business angels comes in two forms. Promote resource acquisition and mentoring to build social capital, and serve as a sounding board/strategic consultant to evaluate human capital (Harrison 2016). Traditional corporate finance differs from entrepreneurial financing in two ways. First, entrepreneurs and financial sources have knowledge asymmetries, making entrepreneurial finance challenging and fluctuating. Second, entrepreneurial firms generally lack human capital, network access, reputation, and legitimacy to create value. So, we propose the human capital, entrepreneurial finance, and company performance hypothesis.

H5: Human capital moderates the relationship between entrepreneurial finance and new venture performance.

The mediating role of entrepreneurial finance

Mediators have been studied to explain the link between business angels and new venture performance. Mediating variables may explain connected variables. Business angels support creative startups and development. Startup funding, management help, and network access are offered. Business angels invest alone or in groups (Jörn H Block, Fisch, Obschonka, & Sandner, 2019). Baron and Kenny (1986) describe a variable as a mediator if (a) its levels significantly explain supposed mediator dissimilarities, (b) dependent variable deviations, and (c) dependent variable variations. Business angels and venture capital investors are closely related in entrepreneurial finance literature (Cumming et al., 2019). Capital structure, sources of finance, market failure in entrepreneurial finance, internal/personal finance limits on growth, and business angels' distinctive role in high-growth firm formation and performance have all been explored.

Successful entrepreneurship requires management and funding. Their technological viability, administrative competence, and competitiveness are uncertain. Homegrown investors like business angels (BA) can be classified (Berger & Hottenrott, 2021). Angel investors help companies grow, survive, and employ. Many wealthy nations are using business angels (BAs) to finance startups (Cowling et al., 2021). Entrepreneurial Finance fits all three Baron and Kenny (1986) mediator qualifications.

H6: "Entrepreneurial finance mediates the relationship between business angel and new venture Performance"

Unit of Analysis:

Since this study focuses on SME owners and managers, the unit of analysis is the individual. Owners and managers were chosen as units of analysis because they can effectively answer questions about new venture performance.

Sample:

A self-administered survey questionnaire was used to randomly sample Bahawalpur business owners/business angels/managers of newly founded enterprises. This sampling strategy quickly creates population representative sets and gives each person an equal chance of getting selected.

The Chamber of Commerce and Industry published a list of registered businesses. Newly created Bahawalpur businesses provided data to test the model. But we concentrated on young ventures, trading for less than a decade. The "Chamber of Commerce" tracks Pakistani SMEs from start to finish. The Bahawalpur Chamber of Commerce and Industry registered 345 manufacturing, commerce, and service organisations. Following Krejcie and Morgan (1970), 265 participants were deemed a sufficient sample size. Version 3 of G*Power was used to verify sample size. A priori G*Power power analysis was used to determine sample sizes based on statistical parameters (Faul, Erdfelder, Lang, & Buchner, 2007). Four predictors, the medium effect size convention of 0.15, and a significance level of 0.05 were used to calculate an acceptable sample size of 265 with statistical power of 0.95. Table 3 shows the demographics of poll participants.1 below 117 (41.05%) of usable surveys were from men, while 168 (58.94%) were from women. The majority of respondents were married (61.75%) and aged 26–35 (40.00%). Master's degrees were held by 46.31% of respondents.

Table 2

Survey respondents' demographic profile

Demographics	Categories	Frequency (N=285)	Percentage
Gender	Male	117	41.05
	Female	168	58.94
Marital Status	Married	176	61.75
	Single	109	38.24
Age	18− 25	63	22.10

	26– 35	114	40.00
	36– 45	67	23.50
	46-55	31	10.87
	56 and over	10	3.50
Qualification	MPhil	31	10.87
	Master's	132	46.31
	Bachelor	122	42.80

Operationalization

This research is based on four variables

1. Business angel
2. Entrepreneurial finance
3. New venture performance
4. Human capital

Operationalization of all these variables is given below

a. Business angel

Business angels are driven mainly by two factors: first, the satisfaction of participating in the entrepreneurial process, and second, financial considerations.

Table 3

***Scale items For Business Ange* Constructs**	**Sr. N**	**Scale items**	**Source**
Business Angel		**Motivation for Being a Business Angel**	*(Harrison & Mason, 2007)*
	01.	To support the next generation of entrepreneurs	
	02.	Personal satisfaction from being involved with entrepreneurial businesses	
	03.	Potential for high capital appreciation	
	04.	To help friend(s) set up in business	
	05.	For current or future income (e.g., dividends, fees)	
	06.	Support socially beneficial products or services	
	07.	A way of having some fun with my money	

	08.	For positive recognition in the community
	09.	For nonfinancial perks, privileges, etc.
	10.	To make use of tax breaks

b. Entrepreneurial Finance

This study employed six Ahmad and Xavier (2012) items to assess EF availability for new initiatives. Example: "We can easily access to adequate equity investment for new and developing businesses."

Table 4

Scale items for Entrepreneurial Finance

Construct	Sr. N	Scale Items	Source
Entrepreneurial Finance	01	sufficient finance from banks when we need it for new projects	(Ahmad & Xavier, 2012)
	02	access to equity funding available for new and growing firms	
	03	we access sufficient debt funding available for new and growing firms	
	04	sufficient government subsidies available for new and growing firms	
	05	we can easily access sufficient funding available from private individuals (other than founders) for new and growing firms	
	06	We have access to sufficient venture capitalist funding available for new and growing firms.	
	07		

c. Human Capital

The scale established by Youndt and Snell (2004) was adapted to measure human capital.

Table 5

Scale items for Human Capital

Construct	Sr. N	Items	Source
Human Capital	01	Our employees are highly skilled.	(Youndt & Snell, 2004)
	02		
	03	Our employees are widely considered the best in our industry.	
	04		

	05	Our employees are creative and bright. Our employees are experts in their particular jobs and functions. Our employees develop new ideas and knowledge.

d. New Venture Performance

Performance can be measured using return on equity, return on investment, return on assets, etc., depending on SMEs' financial data accessibility. SME financial data is not publicly available. This study used a self-report method to measure NVS (e.g., six items used by Anwar, 2018). Owners and managers were asked to compare their company's performance to its primary competitors over the past three years using metrics like return on equity, return on investment, return on assets, etc.

Table 6

Scale items for New venture performance

Construct	Sr. N	Scale Items	Source
New Venture Performance	*01*	In last three years, our Profit growth has increased as compared to our competitor.	(Anwar et al., 2020)
	02	In last three years, our Sales volume has increased as compared to our competitor.	
	03	In last three years, our Sales growth has increased as compared to our competitor.	
	04	In last three years, our Market share has increased as compared to our competitor.	
	05	In last three years, our Operational performance has increased as compared to our competitor.	
	06	In last three years, our Overall firm performance has increased as compared to our competitor.	

Instrumentation:

This survey will collect respondent data using a 5-point Likert scale. The 5-point Likert scale boosts originality and dependability by reducing annoyance. On a 5-point Likert scale, 5=strongly agree, 4=agree, 3=natural, 2=disagree, and 1=strongly disagree.

Statistical tool

This study evaluates data using smart partial least squares (PLS). Smart PLS divides analysis into two parts. First, the measurement model is evaluated. Second, calculate the structural model. Analysis of the measurement model uses factor loading, Cronbach's alpha, composite liability, convergent validity, discriminant validity, and average variance retrieved. A number above 0.7 is acceptable, according to Sekaran (2000). Factor loading should exceed 0.5. 2016 (Jauhar et al.).

The second section uses SmartPLS bootstrapping to assess the moderation effect. Additionally, SmartPLS bootstrapping was issued to analyze both direct and indirect moderation effects. Predictive relevance (Q2) was also investigated.

Findings

Smart PLS 3 analyses data using PLS-SEM, a traditional and advanced estimating method. PLS estimated loadings, path coefficients, and significant levels, followed by bootstrapping. We assessed the measurement model using structural model assessment. Table 7 analysed missing values, outliers, and normality. Table 7 shows data screening results: no missing values, outliers, normal standard deviation, and skewness.

Table 7

Data Statistics

	No.	Missing	Mean	Median	Min	Max	Standard Deviation	Excess Kurtosis	Skewness
BA1	1	0	3.241	4	1	7	1.627	-0.728	0.204
BA2	2	0	3.218	3	1	7	1.717	-0.732	0.338
BA3	3	0	3.315	3	1	7	1.896	-0.814	0.406
BA4	4	0	3.292	3	1	7	2.04	-1.078	0.447
BA5	5	0	3.185	3	1	7	2.069	-0.945	0.536
BA6	6	0	3.194	3	1	7	1.981	-0.879	0.537
BA7	7	0	3.301	3	1	7	1.674	-0.576	0.434
BA8	8	0	3.245	3	1	7	1.912	-0.845	0.433
BA9	9	0	3.282	3	1	7	1.878	-0.859	0.455
BA10	10	0	3.292	3	1	7	1.92	-0.858	0.416
EF1	11	0	3.236	3	1	7	2.024	-1.037	0.457
EF2	12	0	3.329	3	1	7	2.039	-1.013	0.436
EF3	13	0	3.236	3	1	7	1.933	-0.989	0.433
EF4	14	0	3.315	3	1	7	1.879	-0.779	0.443
EF5	15	0	3.097	3	1	7	1.86	-0.798	0.444
EF6	16	0	3.264	3	1	7	1.998	-1.012	0.376
EF7	17	0	3.204	3	1	7	1.855	-0.94	0.352
HC1	18	0	2.954	2	1	7	2.217	-0.734	0.86

HC2	19	0	2.833	2	1	7	2.242	-0.707	0.895
HC3	20	0	2.968	2	1	7	2.165	-0.694	0.847
HC4	21	0	2.88	2	1	7	2.085	-0.503	0.896
HC5	22	0	2.894	2	1	7	2.32	-0.829	0.885
NVP1	23	0	2.806	2	1	7	2.13	-0.393	1.012
NVP2	24	0	2.88	2	1	7	1.945	-0.334	0.882
NVP3	25	0	2.787	2	1	7	1.953	-0.165	0.97
NVP4	26	0	2.852	2	1	7	2.193	-0.612	0.919
NVP5	27	0	2.912	2	1	7	2.079	-0.523	0.881
NVP6	28	0	2.94	2	1	7	2.234	-0.749	0.853

Measurement model assessment's results

a. Convergent validity

By means of loadings, composite reliability (CR), the measurement model and average variance extracted (AVE), was analyzed and convergent validity was assessed. Figure 4.1 depicts the measuring model. For all items in Table 4.2 & 4.3, the majority of the factor loadings surpassed the suggested threshold of 0.60. Furthermore, all of the CR values were higher than the suggested limit of 0.70 (Hair Jr, Hult, Ringle, & Sarstedt, 2021). Furthermore, all AVE values for all under-studied constructs were greater than 0.50, which is the recommended value (Hair Jr et al., 2021). Cronbach's alpha (α) was also used to test the instruments' dependability. Over 0.80 reliability is considered good, 0.70 reliability is within acceptable limit, and less than 0.60 reliability is considered ba.The Cronbach's coefficient α estimates for four variables were greater than 0.70 which was considered acceptable.

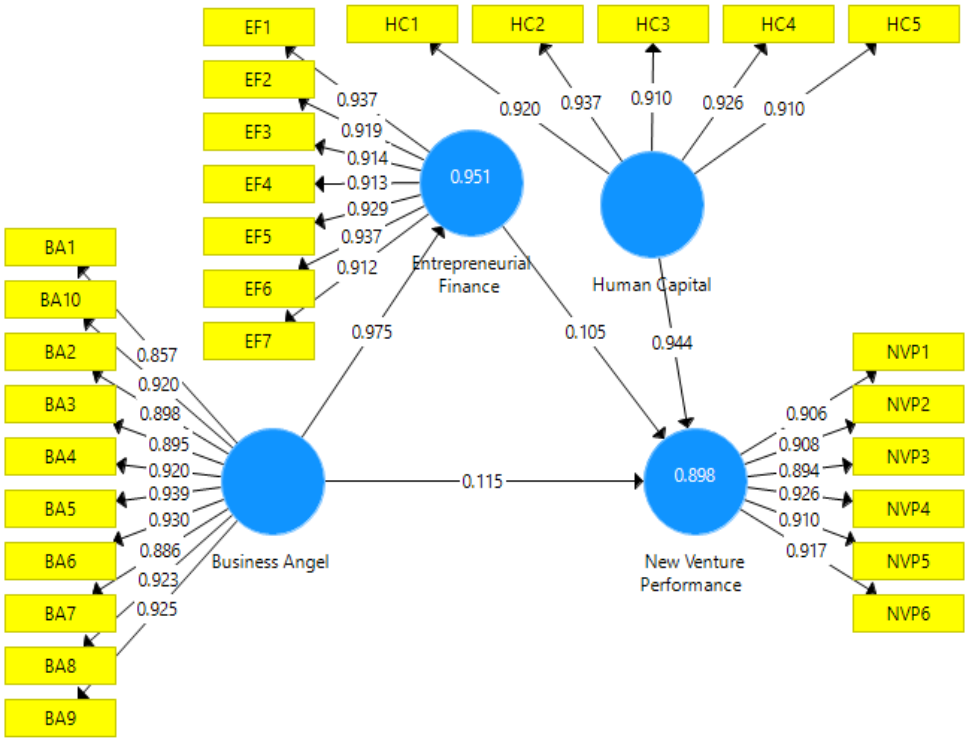

Figure 2 Measurement Model

Table 8

Factor Loadings

	Business Angel	Entrepreneurial Finance	Human Capital	New Venture Performance
BA1	0.857			
BA10	0.92			
BA2	0.898			
BA3	0.895			
BA4	0.92			
BA5	0.939			
BA6	0.93			
BA7	0.886			
BA8	0.923			
BA9	0.925			
EF1		0.937		
EF2		0.919		
EF3		0.914		
EF4		0.913		
EF5		0.929		
EF6		0.937		
EF7		0.912		
HC1			0.92	
HC2			0.937	
HC3			0.91	
HC4			0.926	
HC5			0.91	
NVP1				0.906
NVP2				0.908
NVP3				0.894
NVP4				0.926
NVP5				0.91
NVP6				0.917

Table 9

Reliability and Convergent Validity

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Business Angel	0.977	0.977	0.98	0.827
Entrepreneurial Finance	0.971	0.971	0.976	0.852
Human Capital	0.955	0.955	0.965	0.848
New Venture Performance	0.959	0.959	0.967	0.828

b. Discriminant validity

Discriminant validity is described as the degree to which a variable is truly unique from other variables (Hair, 2009). For this analysis, two approaches were used to measure discriminant validity, the Fornell Larcker criterion (FLC) (Fornell & Larcker, 1981) and the Heterotrait-Monotrait Ratio (HTMT) (Henseler, Ringle, & Sarstedt, 2015).

(i). The FLC

The FLC was used to evaluate discriminant validity, and the square root of the AVE for all constructs was calculated and compared to the correlation values for the other constructs. For this analysis, two approaches were used to assess discriminant validity (Fornell & Larcker, 1981). The AVE square root coefficients were shown diagonally in the correlation matrix. To show discriminant validity, the square root AVE values should be larger than the squared correlation estimations (Hair, 2009). The AVE square root values in this investigation outperformed the correlation of all constructs. All diagonal elements in the corresponding rows and columns were greater than off-diagonal elements, indicating that all constructs had acceptable discriminant validity. In this work, the cross-loadings of the items were also examined. As proposed by Hair (2009) Estimates of loading must be 0.50 or higher, preferably 0.70 or higher. Items with low factor loadings should be eliminated in the meantime. Furthermore, all items of a construct should be significantly loaded on the structures to which they belong (Hair Jr et al., 2021). All of the items' factor loadings were greater than the cross-loadings of the other constructs in this study. There were no cross-loadings amongst the indicators because they were all loaded on their underlying constructs.

(ii). The HTMT

Henseler et al. (2015) offer a new and innovative criterion (i.e., the HTMT) for evaluating discriminant validity, and believe that the FLC is one of the most operative strategies for doing so. The FLC, on the other hand, fails to examine the lack of discriminant validity in a variety of research scenarios. As a result, the HTMT was employed to examine the constructs' discriminant validity, and all results are listed in Table 4.4. As indicated by the Gold, Malhotra, and Segars (2001), all of the readings were less than 0.90 hence, discriminant validity for all constructs had been established.

Table 10

HTMT

	Business Angel	Entrepreneurial Finance	Human Capital	New Venture Performance
Business Angel				
Entrepreneurial Finance	0.701			
Human Capital	0.464	0.475		
New Venture Performance	0.45	0.455	0.59	

c. The PLS-SEM results (the structural model)

Following the evaluation of the measurement model, the PLS-SEM was carried out (see Fig. 4.2). The model's significance was determined using t-values, path coefficients, and standard errors for this purpose. The primary and indirect impacts of the hypotheses were assessed using the Smart PLS 3 bootstrapping approach (Ringle, Wende, & Will, 2005). As displayed in Table 4.5, Business angel has a significant and positive relationship with Entrepreneurial Finance (t = 12.180, P = 0) thus, H1 was supported because the T value is above 1.96 and the P value is below 0.05. Business angel has a positive and significant relationship with new venture performance (t = 3.955, P = 0) thus, H2 was supported because the T value is above 1.96 and the P value is below 0.05. Entrepreneurial Finance has a positive and significant relationship with new venture performance (t = 1.965, P = 0.05) thus, H3 was supported because the T value is above 1.96 and the P value is below 0.05. Human Capital has a positive and significant relationship with new venture performance (t = 51.671, P = 0) thus, H4 was supported because the T value is above 1.96 and P value is below 0.05. Human Capital moderates the relationship between entrepreneurial finance and new venture performance (t = 3.715, P = 0) thus, H5 was supported because the T value is above 1.96 and P value is below 0.05. Entrepreneurial Finance mediates the association between business angel and new venture Performance (t = 3.41, P = 0.001) thus, H6 was supported because the T value is above than 1.96 and P value is below than 0.05 (see Table 11

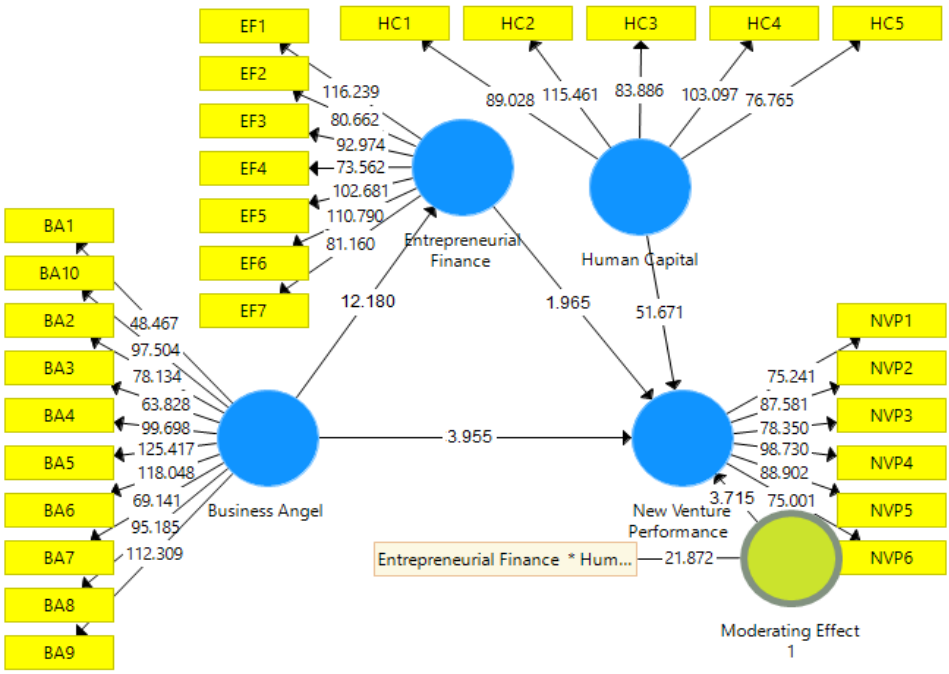

Figure 3 Structural Model

Table 12
Direct Effect Results

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
Business Angel -> Entrepreneurial Finance	0.975	0.975	0.079	12.180	0
Business Angel -> New Venture Performance	0.093	0.093	0.023	3.955	0
Entrepreneurial Finance -> New Venture Performance	0.085	0.085	0.043	1.965	0.05
Human Capital -> New Venture Performance	0.959	0.96	0.019	51.671	0
Moderating Effect 1 -> New Venture Performance	0.049	0.049	0.013	3.715	0

Table 13
Indirect Effect Results

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
Business Angel -> Entrepreneurial Finance -> New Venture Performance	0.083	0.083	0.024	3.41	0.001

d. Predictive relevance (Q^2)

Predictive relevance (Q^2) in this study is examined to check the quality of the model. According to literature, to achieve minimum quality of the model, Predictive relevance (Q^2) must be higher than zero. Results of Predictive relevance (Q^2) are shown in Table 4.7 and Figure 4.3. It shows

that Predictive relevance (Q^2) is above zero. Therefore, model has achieved the minimum quality level.

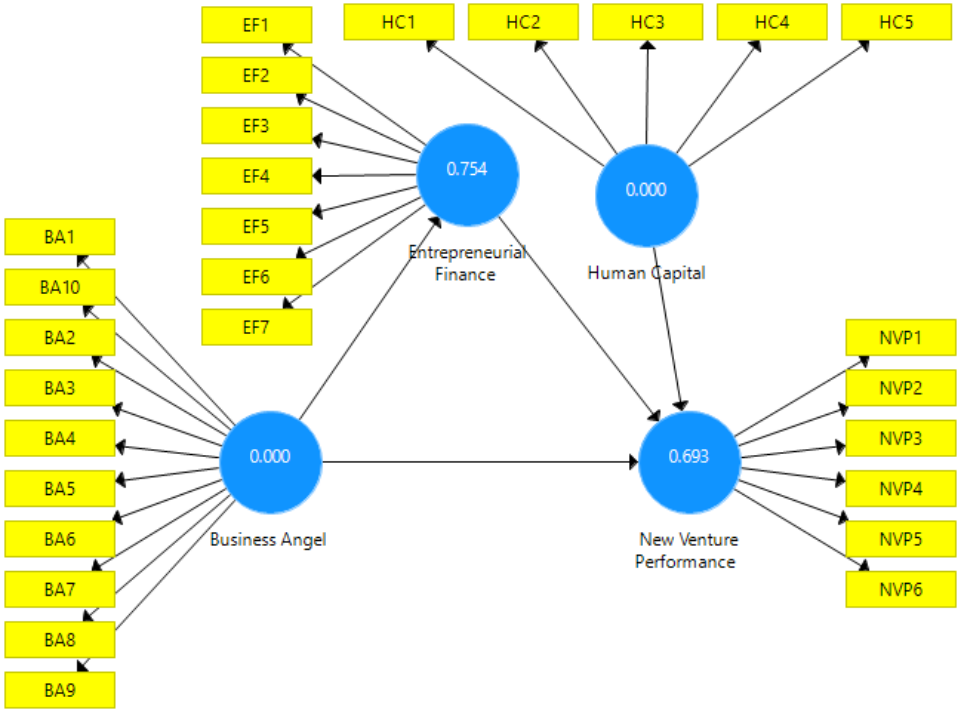

Figure 4 Predictive Relevance (Q^2)

Table 14
Predictive Relevance (Q^2)

	SSO	SSE	Q^2 (=1-SSE/SSO)
Business Angel	2,160.00	2,160.00	
Entrepreneurial Finance	1,512.00	371.855	0.754
Human Capital	1,080.00	1,080.00	
New Venture Performance	1,296.00	397.332	0.693

Discussion and conclusions

Even though much research has debated entrepreneurial funding and new venture performance, none have considered how business angels and human capital improve small and medium firms. This study proposed four constructs—business angel, entrepreneurial finance, new venture performance, and human capital—and an RBV-based research methodology to fill this research gap. Reviewing related literature created a theoretical model of the components mentioned. The study found that business angels

have a significant impact on new venture performance, supporting Bonini et al. (2019)'s claim that co-investing angels improve investee companies' performance and survival by demonstrating their ability to produce a higher-value deal flow and selection process and by providing funded ventures with a wider range of non-monetary contributions. Hypothesis 2 investigates business angels and entrepreneurial finance. Business angels or angel investors are major investors in new ventures. Kerr et al. (2014) believe business angels and angel investors can help companies expand, survive, and hire. They may help local economies recycle entrepreneurial income (Clarysse et al., 2014). Hypothesis 3 investigates how entrepreneurial finance affects new businesses' financial performance. Anwar et al. (2020) indicated entrepreneurial finance helps emerging economy startups survive. According to Wu et al., (2016), newly formed businesses need financial resources to protect them from unexpected events. Howell (2019) also suggested that obtaining external financial capital in the early phases of entrepreneurial firms is difficult due to its legal stance, as there are high failure odds, making it less enticing to financial venture capitalists. Degong et al. (2018) suggested that financially stable companies in emerging countries like Pakistan can expand. The study found that entrepreneurial finance improves new ventures' financial performance. Hypothesis 4 investigates how human capital affects new businesses' financial performance. This is consistent with Capelleras et al. (2019), who claimed that human capital drives new organisations and their growth and development. Young audit firms perform better in competitive marketplaces with human capital (Danso et al., 2016). According to Ganotakis (2012), emerging enterprises benefit from a blend of commercial experience, technical education, and managerial technical capabilities (Chen & Chang, 2013). Doong et al. (2011) suggested that human capital is now an intangible resource for new venture success. It greatly affects corporate growth and profitability. Human capital positively affects new ventures' financial performance, according to the study. Hypothesis 5 examines how human capital, entrepreneurial funding, and new venture performance relate. Hamadamin (2019) claimed that employees' attitudes, values, and competencies create competitive advantage and organisational value. According to Kato and Honjo (2015), new enterprises driven by entrepreneurs with great human capital outperform their competition. This analysis confirms prior findings that human capital moderates the entrepreneurial finance-new venture performance link. Five direct effect hypotheses are discussed above. This study provides a hypothesis to analyse the indirect effects of entrepreneurial finance, business angels, and new venture financial performance. Hypotheses 6 address entrepreneurial financing, business angels, and startup financial performance. Entrepreneurial Finance mediates business angel-new venture performance. Various research showed that entrepreneurial funding has a good association

with business angels and greatly affects new venture performance. All of the above discoveries are RBV-related. Umrani (2016) says RBV implies business performance depends on internal resources. So, business angels, entrepreneurial money, and human capital affect new venture success or failure.

Implications for academic research

This study provides a theoretical framework for understanding how business angels, entrepreneurial funding, and human capital affect Pakistani SME new venture performance and growth, which experts have not previously uncovered. Although various scholars (Bammens and Collewaert (2012), Bonini et al. (2019), Cumming and Zhang (2019) explain these characteristics and their effects on new venture performance. The relationship between business angels and new venture performance and how entrepreneurial financing and human capital affect it has been debated since this study This study contributes to Pakistani SME literature as the first empirical study to evaluate the correlations among the major drivers of company performance. Policymakers, owners, and managers of new firms and governments will discover numerous implications in this study. This study suggests that governments and politicians should create special financing programs for new start-ups to get the funds they need. Business angel records can be maintained by the government.

References:

Adomako, S., Danso, A., Boso, N., & Narteh, B. (2018). Entrepreneurial alertness and new venture performance: facilitating roles of networking capability.

Aernoudt, R., San José, A., & Roure, J. (2007). Executive forum: Public support for the business angel market in Europe–a critical review. *Venture capital*, *9*(1), 71-84.

Ahlstrom, D., Yang, X., Wang, L., & Wu, C. (2018). A global perspective of entrepreneurship and innovation in China. *Multinational Business Review*.

Ahmad, S. Z., & Xavier, S. R. (2012). Entrepreneurial environments and growth: evidence from Malaysia GEM data. *Journal of Chinese Entrepreneurship*.

Anwar, M. (2018). Business model innovation and SMEs performance—does competitive advantage mediate? *International Journal of Innovation Management*.

Anwar, M., & Ali Shah, S. Z. (2020). Managerial networking and business model innovation: empirical study of new ventures in an emerging economy. *Journal of Small Business.*

Anwar, M., Rehman, A. U., & Shah, S. Z. A. (2018). Networking and new venture's performance: mediating role of competitive advantage.

Augusto Felício, J., Couto, E., & Caiado, J. (2014). Human capital, social capital and organizational performance. *Management Decision*, *52*(2), 350-364.

Bammens, Y., & Collewaert, V. (2012). Trust Between Entrepreneurs and Angel Investors: Exploring Positive and Negative Implications for Venture Performance Assessments.

Barney, J. (1991). Firm Resources and Sustained Competitive Advantage. *Journal of Management*, *17*(1), 99-120. doi:10.1177/014920639101700108

Baron, R. M., & Kenny, D. A. (1986). The moderator–mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations.

Berger, M., & Hottenrott, H. (2021). Start-up subsidies and the sources of venture capital.

Block, J. H., Fisch, C. O., Obschonka, M., & Sandner, P. G. (2019). A personality perspective on business angel syndication. *Journal of Banking & Finance*, *100*, 306-327.

Bodlaj, M., & Čater, B. (2022). Responsive and proactive market orientation in relation to SMEs' export venture performance: The mediating role of marketing capabilities.

Bonini, S., Capizzi, V., & Zocchi, P. (2019). The performance of angel-backed companies. *Journal of Banking & Finance*, *100*, 328-345.

Capelleras, J.-L., Contin-Pilart, I., Larraza-Kintana, M., & Martin-Sanchez, V. (2019). Entrepreneurs' human capital and growth aspirations.

Capozza, C., & Divella, M. (2019). Human capital and firms' innovation: evidence from emerging economies. *Economics of Innovation and New Technology*, *28*(7), 741-757.

Clarysse, B., Wright, M., Bruneel, J., & Mahajan, A. (2014). Creating value in ecosystems: Crossing the chasm between knowledge and business ecosystems.

Cob, S. C. (2022). A STUDY OF ENTREPRENEURIAL STRATEGY AND NASCENT VENTURE PERFORMANCE IN MALAYSIA.

Cowling, M., Brown, R., & Lee, N. (2021). The geography of business angel investments in the UK: Does local bias (still) matter? *Environment and Planning.*

Cumming, D., & Zhang, M. (2019). Angel investors around the world. *Journal of International Business Studies*, *50*(5), 692-719.

Danso, A., Adomako, S., Damoah, J. O., & Uddin, M. (2016). Risk-taking Propensity, Managerial Network Ties and Firm Performance in an Emerging Economy.

Degong, M., Ullah, F., Khattak, M. S., & Anwar, M. (2018). Do international capabilities and resources configure firm's sustainable competitive performance? Research within Pakistani SMEs. *Sustainability*, *10*(11), 4298.

Doong, S.-C., Fung, H.-G., & Wu, J.-Y. (2011). Are social, financial, and human capital value enhancing? Evidence from Taiwanese firms. *International Review of Economics & Finance, 20*(3), 395-405.

Faul, F., Erdfelder, E., Lang, A.-G., & Buchner, A. (2007). G* Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior research methods, 39*(2), 175-191.

Flabbi, L., & Gatti, R. (2018). A primer on human capital. *World Bank Policy Research Working Paper*(8309).

Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of marketing research, 18*(1), 39-50.

Gan, D., & Erikson, T. (2022). Venture governance: CEO duality and new venture performance. *Journal of Business Venturing Insights, 17*, e00304.

Ganotakis, P. (2012). Founders' human capital and the performance of UK new technology based firms. *Small business economics, 39*(2), 495-515. doi:10.1007/s11187-010-9309

Gold, A. H., Malhotra, A., & Segars, A. H. (2001). Knowledge Management: An Organizational Capabilities Perspective. *Journal of Management Information Systems,*

Hair Jr, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2021). *A primer on partial least squares structural equation modeling (PLS-SEM)*: Sage publications.

Hamadamin, H. H., & Atan, T. (2019). The impact of strategic human resource management practices on competitive advantage sustainability. *Sustainability, 11*(20), 5782.

Hamilton, R. (2001). E-commerce new venture performance: how funding impacts culture.

Harrison, R. T., Botelho, T., & Mason, C. M. (2016). Patient capital in entrepreneurial finance: a reassessment of the role of business angel investors. *Socio-Economic Review, 14*(4).

Harrison, R. T., & Mason, C. M. (2007). Does gender matter? Women business angels and the supply of entrepreneurial finance. *Entrepreneurship Theory and Practice, 31*(3).

Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling.

Hmieleski, K. M., & Cole, M. S. (2022). Laughing All the Way to the Bank: The Joint Roles of Shared Coping Humor and Entrepreneurial Team-Efficacy in New Venture Performance. *Entrepreneurship Theory and Practice*, 10422587211046543.

Howell, A. (2019). Ethnic entrepreneurship, initial financing, and business performance in China. *Small business economics, 52*(3), 697-712.

Huang, L.-C., Ahlstrom, D., Lee, A. Y.-P., Chen, S.-Y., & Hsieh, M.-J. (2016). High performance work systems, employee well-being, and job involvement: an empirical study. *Personnel Review, 45*(2), 296-314. doi:10.1108/PR-09-2014-0201

Kato, M., & Honjo, Y. (2015). Entrepreneurial human capital and the survival of new firms in high- and low-tech sectors. *Journal of Evolutionary Economics, 25*(5).

Kerr, W. R., Lerner, J., & Schoar, A. (2014). The consequences of entrepreneurial finance: Evidence from angel financings. *The Review of Financial Studies, 27*(1), 20-55.

Khan, N. U., Li, S., Safdar, M. N., & Khan, Z. U. (2019). The role of entrepreneurial strategy, network ties, human and financial capital in new venture performance. *Journal of Risk and Financial Management, 12*(1), 41.

Khattak, M. S., Anwar, M., & Clauß, T. (2021). The role of entrepreneurial finance in corporate social responsibility and new venture performance in an emerging market. *The Journal of Entrepreneurship, 30*(2), 336-366.

Kianto, A., Sáenz, J., & Aramburu, N. (2017). Knowledge-based human resource management practices, intellectual capital and innovation. *Journal of Business Research, 81*.

Krejcie, R. V., & Morgan, D. W. (1970). Determining Sample Size for Research Activities. *Educational and Psychological Measurement, 30*(3).

Longenecker, J. G., Moore, C. W., & Petty, J. (2006). Small Business Management: An Entrepreneurial Emphasis, 13th [M]. *USA: South-Western College Pub*.

Mason, C. M., & Harrison, R. T. (2008). Measuring business angel investment activity in the United Kingdom: a review of potential data sources. *Venture capital, 10*(4), 309-330.

Messersmith, J. G., Patel, P. C., & Crawford, C. (2018). Bang for the buck: Understanding employee benefit allocations and new venture survival. *International Small Business Journal, 36*(1), 104-125.

Ringle, C., Wende, S., & Will, A. (2005). Smart PLS (Version 2.0. M3). Hamburg, Germany: University of Hamburg.

Umrani, W. A. (2016). Moderating effect of organizational culture on the relationship between corporate entrepreneurship and business performance in Pakistan's banking sector.

Unger, J. M., Rauch, A., Frese, M., & Rosenbusch, N. (2011). Human capital and entrepreneurial success: A meta-analytical review. *Journal of Business Venturing*.

Wang, A. X., & Zhou, K. Z. (2022). Financial munificence, R&D intensity, and new venture survival: critical roles of CEO attributes. *Small business economics*, 1-19.

Wu, J., Si, S., & Wu, X. (2016). Entrepreneurial finance and innovation: Informal debt as an empirical case. *Strategic Entrepreneurship Journal*, *10*(3), 257-273.

Xiang, D., & Worthington, A. C. (2017). The impact of government financial assistance on the performance and financing of Australian SMEs. *Accounting Research Journal*.

Youndt, M. A., & Snell, S. A. (2004). Human resource configurations, intellectual capital, and organizational performance. *Journal of managerial issues*, 337-360.