

## THE NEXUS BETWEEN BUSINESS INCUBATORS AND ORGANIZATIONAL INNOVATION: DOES ABSORPTIVE CAPACITY MODERATE?

Tayyaba Arif<sup>1</sup>, Yasin Munir<sup>2</sup>, Sana Azeem<sup>3</sup>, Mujahid Bilal Khan<sup>4</sup>, Hassan Zafar<sup>5</sup>, Usman Sarwar<sup>6</sup>

<sup>1</sup>Research Scholar, Department of Business Administration, GC Women University, Sialkot, Pakistan.

<sup>2</sup>Associate Professor, Department of Business Administration, GC Women University Sialkot, Pakistan

<sup>3</sup>Lecturer, Department of Business Administration, GC Women University, Sialkot, Pakistan.

<sup>4</sup>PhD Scholar, School of Management, Beijing Institute of Technology, China.

<sup>5</sup>PhD Scholar, School of Management, Beijing Institute of Technology, China

<sup>6</sup>Assistant Professor, Hailey College of Banking and Finance, University of the Punjab, Lahore, Pakistan.

<sup>1</sup>tayyabaarif972@gmail.com, <sup>2</sup>dr.yasinmunir@gcwus.edu.pk, <sup>3</sup>sana.azeem@gcwus.edu.pk, <sup>4</sup>mujahidbilal@bit.edu.cn  
<sup>5</sup>hassanzafar@bit.edu.cn, <sup>6</sup>usmansarwar@puhcbf.edu.pk

Corresponding Author: \*

Tayyaba Arif

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### ABSTRACT

This paper involves the discussion of the impact of business incubators on commercialization and innovation among the startups in Pakistan, with special attention to the moderating effect of absorptive capacity. It is based on the Resource Based View that the research examines the potential of incubator provided services in increasing firms capacities to obtain, assimilate, transform, and utilize knowledge to maximize the innovation and commercial performance. A quantitative research design was utilized and 141 respondents completed a structured questionnaire of 51 public and private incubators were used to collect data. To test the proposed relationships, the statistical analyses, such as descriptive statistics, Pearson correlation, confirmatory factor analysis, and structural equation modeling, were conducted. The findings show that the business incubators affect both the absorptive capacity and commercialization and innovation greatly in a positive manner. Although the absorptive capacity has positive relationship with commercialization and innovation, it did not support its mediating role in the structural model. These results indicate that incubators have an overwhelming direct effect on startup market and innovation performance, and the conversion of improved absorptive capacity to quantifiable commercialization performance might demand supplementary organizational or contextual environments. The research paper adds to the scanty empirical evidence on incubation in developing economies and provides viable implications on incubator managers and policy makers that aim at enhancing startup support systems. It is recommended that future studies take the longitudinal designs and investigate other mediators to understand the mechanisms behind the production of knowledge based performance gains.

**Keywords:** Business Incubator, Absorptive Capacity, Commercialization, and Innovation

## INTRODUCTION

A business incubator (BI) is where startups receive amenities and guidance for the possibilities and obstacles in the beginning phases of their business (Mian et al., 2016). According to Kadocsa and Francovics (2011), business incubators were systems created to speed the expansion of start-ups by offering a range of business-related resources and services. It is well documented that business incubators exist to help aspiring businessmen start a company (Ahmad et al., 2025; Azeem et al. 2025; Marimuthu & Lakha, 2015). Individuals can obtain basic education, a place to open up a business, and sometimes even contact with others who can contribute to the growth of their business by becoming part of incubator programs (Lose et al., 2016). In a nutshell, business incubators offer links to essential assets that companies undergoing incubation might not be capable or prepared to obtain independently (Barney, 1991; Wernerfelt, 1984).

On the other side, the foundation of a company's understanding skills is its absorptive capacity, enabling it to acquire, assimilate, transform, and exploit information assets to generate new skills like innovation (Zahra & George, 2002). The term "absorptive capacity" describes the maximum rate at which a business may soak in intellectual and technical expertise, along with the maximum amount of knowledge that might be taken in (Cohen & Levinthal, 1990; Jansen, 2005; Gulzar et al., 2024).

On the other hand, the absorptive capacity is the basis of understanding skills in a company through which it is able to acquire, assimilate, transform, and exploit information asset to produce new skills such as innovation (Haris et al., 2025; Zahra & George, 2002). Absorptive capacity defines the highest pace with which a company can absorb intellectual and technical capability, as well as the upper limit of knowledge that could be assimilated (Cohen & Levinthal, 1990; Jansen et al., 2005; Sarwar & Khan, 2022).

An innovation plan is central to the operations of new companies that are incubated at the outset, and that is just as crucial as

commercialization (Hughes et al., 2007). This illustrates its focus on projects, events, and activities that meticulously look for new, unexplored economic opportunities to entice tenants. Additionally, Aarikka-Stenroos and Lehtimäki (2014) explained that commercialization is a process that turns creative business endeavours into successful businesses with higher profits. The present research looks into how the incubation process might enhance innovation and commercialization by increasing an essential characteristic of absorptive ability. The study investigates how a business incubator fosters gaining insight while promoting the conversion from data into assets, which encourages business success using innovation and commercialization, through increasing absorptive capacity.

## THEORETICAL SUPPORT AND HYPOTHESIS DEVELOPMENT

The analysis for this study has shown that the Resource-Based View (RBV) theory can be used to measure the effect of Business Incubators on Commercialization and Innovation through absorptive capacity. According to Barney (1991), RBV has a competitive edge in business growth by obtaining and holding unique and valuable resources.

### Business Incubators and Absorptive Capacity

According to Hughes et al. (2007), new companies gain understanding mostly from connections with others, and this type of education demonstrates the reasoning for incubators. To guarantee that businesses can assimilate, transform, and exploit the information they acquire, incubators must help in the development and coordination of these dynamic links (Sarwar et al., 2023; Borges & Bueno, 2020; Patton, 2014; Pena, 2004). According to Zahra and Hayton (2008), absorptive capacity is a crucial variable that deals with a startup's potential to acquire fresh information for its innovation and venture activities. Any fresh piece of information acquired by a company will boost productivity and innovation, making it an avenue of competitive advantage for incubator

businesses (Sarwar et al., 2025a; Xin et al., 2020; Zahra & Hayton, 2008).

According to Jansen et al. (2005), the incubator atmosphere enables businesses to advance their methods for exploring knowledge, transforming, and exploiting to meet their business objectives. A company may create specific, unique goods along with precisely predicting the characteristics and business potential of technical advancements with the help of this experience (Cohen & Levinthal, 1990; Tzokas et al., 2015). The following hypothesis is suggested based on the above discussion:

*H1: There is a significant impact of Business Incubators on Absorptive Capacity.*

### **Business Incubators, Commercialization, and Innovation**

Lai and Lin (2015) viewed incubators as an avenue for understanding business tactics, and how they are carried out, including the development of company ideas, and the structuring of organizations, including approaches. It implies that the services are expected to be used to help resolve problems and that incubators consider these to be the most important factors in their development as start-up companies (Eshun Jr, 2009). The quick commercialization of novel innovations and technologies is the main goal of business incubators and businesses that are fostered (Grimaldi & Grandi, 2005).

According to Haeussler (2011), businesses must create commercialization tactics that are tailored to their unique features. According to reports, entrepreneurs seeking to commercialize their goods have the chance to collaborate alongside established companies or incumbents since they aren't seen as constrained by resource constraints or marketplace problems (Fosfuri, 2006; Marx & Hsu, 2015). Business incubation, guided by the resource-based view, is a concept that shows how proactive strategies and managerial encouragement help fresh and rising businesses quickly commercialize their products (Eveleens et al., 2017; Hackett & Dilts, 2008; Patton et al., 2009; Pettersen et al., 2015; Sarwar et al., 2024; Voisey et al., 2006). This leads to the proposal of the following hypothesis:

*H2: There's a significant impact of Business Incubators on commercialization and innovation.*

### **Absorptive Capacity and Commercialization and Innovation**

Absorptive capacity is an important organizational skill that can help companies to convert external knowledge into competitive advantages that are sustainable in the long-term and can result in significant development and innovation results (Powell et al., 1996). It is a multi-dimensional learning ability whereby organizations recognize the worth of new information, proactively searches and acquires pertinent external information, synthesizes, internalizes the acquired information in a comprehensive manner and efficiently uses the newly acquired information to assist in the strategic and operational decision making processes (Todorova and Durisin, 2007). The establishment of the absorptive capacity enables firms to be more responsive to changes in the environment and responsive to the new changes in technology and markets, which enhances their innovative potential and effectiveness in commercialization. By establishing regular learning processes and knowledge management routines, the businesses can transform information that existed in isolation into concrete outputs in the form of new products, improved services, better processes, and sophisticated technological applications (Jansen et al., 2005; Shaukat et al., 2024). Moreover, the relationship between potential absorptive capacity, which focuses on exploration, identification, and assimilation of new knowledge, and realized absorptive capacity, which focuses on transforming and exploiting the knowledge to the practical use, creates a dynamic process and drive of organizational creativity and responsiveness to the market. Companies that effectively manage such knowledge processes are in a position to create new ideas and commercialize innovations that deliver unique value propositions which allow them differentiate themselves among others by providing unique offerings, better solutions, and more effective business practices (Talha et al., 2025; Yli-Renko et al., 2001). Such an integrated learning capacity will eventually run deep in the capacity of firms to not only innovate on a

continuous basis but also to make sure that the innovations are commercially viable and their effects enduring and market heavyweight.

For creative organizations, Kim et al. (2013) stated that information-driven organizational skills that enable differentiating, distinctive, and useful components by utilizing inventiveness in the novel commercialization of goods procedures are essential. This is why absorptive capacity constitutes a critical skill that provides a competitive edge over time from an information-driven perspective. Successful education focused on customers and rivals, continually generating new information (Tu et al., 2006). This concludes the following hypothesis:

*H3: Absorptive Capacity has a significant impact on commercialization and innovation.*

### **The Mediating Effect of Absorptive Capacity**

Drawing on organizational learning theory, business incubation is viewed as a structured developmental mechanism through which entrepreneurs and startup teams gain new competencies, industry-specific knowledge, and practical skills that significantly enhance their capacity to innovate, manage uncertainty through informed risk-taking, identify emerging business opportunities, and successfully commercialize new products or services (Patton et al., 2009). Incubation environments provide continuous exposure to professional training, mentorship, collaborative networks, and real-world problem-solving experiences, enabling entrepreneurs to systematically build learning capabilities beyond what would typically be achievable in isolation. This learning process unfolds across interconnected stages, beginning with the identification, search for, and acquisition of external knowledge through exploratory learning, which allows firms to scan markets, technologies, and competitors for valuable insights (Jansen, 2005. Zafar et al., 2025). Subsequently, firms engage in transformative learning, whereby newly acquired information is interpreted, assimilated into existing knowledge bases, and retained through internal communication and organizational memory systems, ensuring that insights are meaningfully integrated rather than passively acquired (Tzokas et al., 2015). Finally,

through exploitative learning, startups actively transform and deploy this accumulated knowledge into market-oriented actions, such as product development, process innovation, and strategic commercialization initiatives. Collectively, these iterative learning processes enable incubated ventures to translate knowledge inputs into actionable outcomes, thereby strengthening their innovation performance and market competitiveness.

Incubator startups need significant technical backing, mentorship, and help, as well as incubator-provided facilities for exploring novel technologies and information to accomplish quick innovation (Lalkaka, 2001) and commercialization. An incubator company is receptive to fresh external information obtained through its connections while developing a new product (Scillitoe & Chakrabarti, 2010). This responsiveness significantly accelerates the pace of invention through the company's exposure to fresh technological advancement, seminars, and on-site conversations in a repeating phase of acquiring innovation (Lane et al., 2006; Lichtenthaler, 2009). This leads to the proposal of the following hypothesis:

*H4: There is a significant mediating effect of Absorptive Capacity between the relationship of Business Incubators and "commercialization and innovation".*

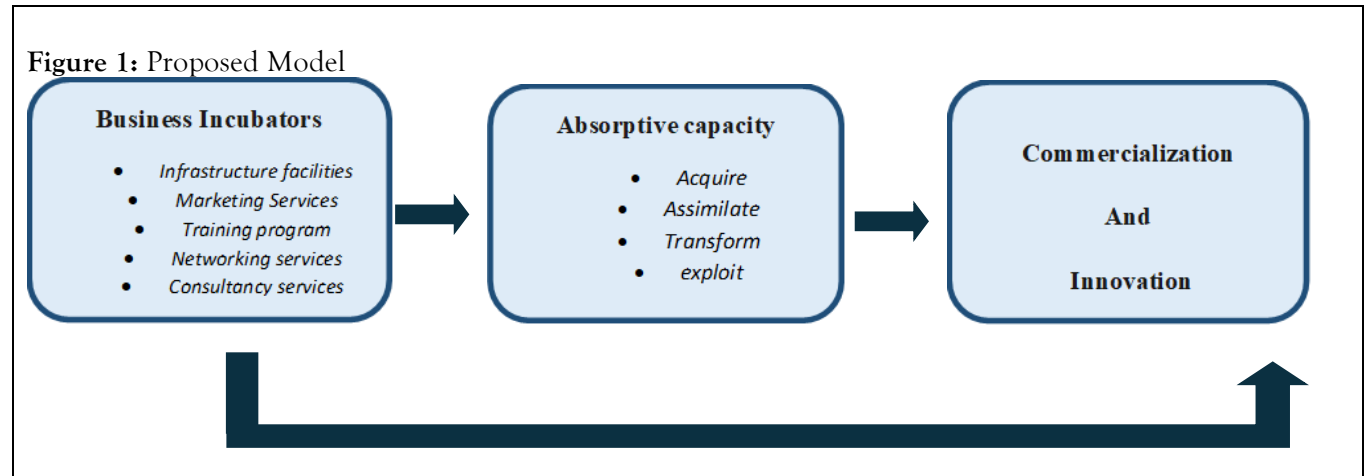
## **METHODOLOGY**

### **Participants and Procedure**

A survey was conducted through the distribution of questionnaires among public and private Business incubators, containing 51 items used to capture the variables, i.e, Business Incubator, absorptive capacity, and commercialization and innovation. The response rate was set as 255 distribution of questionnaires among 51 business incubators in Pakistan, as a ratio of 1:5. After accounting for missing values, 141 completed questionnaires were chosen for the present research. Among these, 119 participants were from Public business incubators, and 22 were from Private business incubators. Furthermore, as for the age of business incubators, 1-5 were 54 incubators; 6-10 were 82; and 11-15 were 5 only. More details on the

number of employees were acquired; of these, 75.2% were less than 20, and 24.8% were 21-40. The received questionnaires were 141, which is 52.29% of the actual response. Typically, a response rate of 30% is considered ok in a large

population. So 52% was considerably high and accepted. The 5-point Likert scale for these items ranged from strongly disagree to strongly agree.



**Measurement**

Measurements for all three variables are given below in Table I.

**Table I: Measurement of Variables**

Variables	Adopted from	No. of items	Cronbach's $\alpha$
BI	<a href="#">(Dahleez, 2009)</a>	21	0.937
AC	<a href="#">(Jansen et al., 2005)</a>	25	0.94
CAI	<a href="#">(Chen, 2009)</a>	5	0.986

**Note(s):** BI= Business Incubator; AC= Absorptive Capacity; CAI= Commercialization and Innovation

**DATA ANALYSIS**

The Researchers calculated the mean value for every component using the data restoration approach to determine Pearson's moment correlation. In this research, SPSS and AMOS 23 are utilized. The correlation between business incubators, absorptive capacity, and Commercialization and Innovation is shown in

Table II. Many participants agreed, as indicated by the business incubator mean score of 3.89, approximately 4. The SD of the respondents on business incubators is .67, indicating a 67% range in replies. Furthermore, Business Incubators positively and significantly correlate ( $r = .393^{**}$ ,

.518\*\*) at  $P < .01$  with Absorptive Capacity, and Commercialization and Innovation respectively.

The mean value of Absorptive capacity is 4.1, close to 4, which means the majority of participants agreed, and also the Standard Deviation of .628 shows a 62.8% variation among responses. Moreover, Absorptive Capacity positively and significantly correlates ( $r = .317^{**}$ ) with Commercialization and Innovation at  $P < .01$ . The mean value of Commercialization and Innovation is 4.219, which is close to 4, which shows the respondents' agreement. The standard deviation of Commercialization and innovation is 0.475, which means 47.5% of the variance among the responses.

#### Confirmatory Factor Analysis (CFA)

It is necessary to evaluate the appropriateness of the generated variables before evaluating the conceptual models. Utilizing AMOS 23, CFA was performed on every variable. Each data point, except for typical errors, falls within the acceptable ranges, according to the CFA findings. With  $\chi^2$  standing for Chi-square, DF for Degree of Freedom, CMIN for Minimum Chi-square, GFI for Goodness of Fit Index, RMR for Root Mean Square Residual, RMSEA for Root Mean Square Error of Approximation, NFI for Normed Fit Index, TLI for Tucker

Lewis Index, CFI for Comparative Fit Index, and AGFI for Adjusted Goodness of Fit Index, each model's factor structure corresponds the information and all of the fit indices fulfilled the corresponding criteria.

#### Path Analysis

After conducting a confirmatory factor analysis on each variable, the indirect effect was tested on all variables using Structural Equational Modeling (SEM) in AMOS 23, which includes Business Incubators as an Independent variable, Absorptive Capacity as a mediating variable, and commercialization and innovation as a dependent variable. As shown in Figure 2 structural analysis of the Path model between all given variables. Table VI shows that the relationship between Business Incubator and Absorptive capacity is significant with the estimate of .369 ( $P = ***$ ). The relationship between absorptive capacity and commercialization and innovation is insignificant, with the p-value .085 greater than .05 ( $p < .05$ ) and estimates of .101. Results show that the relationship between business incubators and commercialization and innovation is significant, with an estimate of .331 and ( $P = ***$ ). Two out of three relationships are important, and one is insignificant.

**Table II: Correlation Analysis**

Variables	M	SD	BI	AC	CAI
BI	3.8991	0.6703	1		
AC	4.1068	0.62896	.393**	1	
CAI	4.2199	0.47573	.518**	.317**	1

**Note(s):** BI= Business Incubator; AC= Absorptive Capacity; CAI= Commercialization and Innovation

**Table III: Results of Confirmatory Factor Analysis**

Variables	$\chi^2$	df	$\chi^2/df$	RMSEA	GFI	CFI	NFI
<i>Business Incubators</i>							
1-factor model	219.89	26	8.46	0.231	0.79	0.84	0.82
<i>Absorptive Capacity</i>							
1-factor model	335.81	193	1.74	0.073	0.82	0.91	0.82
<i>Commercialization and Innovation</i>							
1-factor model	35.736	5	7.15	0.21	0.91	0.98	0.97

Notes: n= 141, GFI= goodness of fit index; NFI= normal fit index; CFI= comparative fit index; RMSEA= root mean square error of approximation

**Table IV: Outer Model Estimates**

Items	FL	AVE	CR
<i>Business Incubators</i>			
<i>Infrastructure Facilities</i>			
“The BIs help in providing affordable infrastructure and office facilities.”	0.72		
“The BIs help in establishing the business at prime locations.”	0.61		
“The BIs help in getting the best quality office equipment.”	0.87		
“The BIs facilitate sharing office facilities.”	0.65		
“The BIs facilitate a hassle-free workplace environment.”	0.72	0.72	0.81
<i>Marketing Services</i>			
“The BIs help in providing both local and international market opportunities.”	0.79		
“The BIs provide display centers.”	0.8		
“The BIs provide a platform for participation in exhibitions/Business fairs.”	0.66	0.75	0.76
<i>Training Program</i>			
“BIs help in improving capacity-building skills.”	0.7		
“BIs help in improving product development skills.”	0.75		
“BIs help in improving business management skills.”	0.63		
“BIs help in improving marketing skills.”	0.64		
“BIs help in providing customized training skills.”	0.76	0.7	0.8
<i>Networking</i>			
“BIs provide the latest information on exhibition regulations and specific sectors.”	0.59		
“BIs help in networking with chambers and associations.”	-		
“BIs provide the latest information on technological updates.”	0.73	0.66	0.34

***Consultancy Services***

“BIs provide consultancy services for the right project identification.”	0.7		
“BIs help in the development of management and marketing facilities.”	0.61		
“BIs provide consultancy services in designing brochures, websites, and business cards.”	0.61		
“BIs provide consultancy services on cash management and raising money through banks.”	0.66		
“BIs help businesses in the use of different accounting software.”	0.55	0.63	0.74

***Absorptive Capacity***

***Acquire***

“We frequently scan the environment for new technologies.”	0.75		
“We thoroughly observe technological trends.”	0.67		
“We observe in detail external sources of new technologies.”	0.74		
“We thoroughly collect industry information.”	0.67		
“We have information on the state of the art in external technologies.”	0.61	0.69	0.78

***Assimilate***

“We frequently acquire technologies from external sources.”	0.67		
“We periodically organize special meetings with external partners to acquire new tech.”	0.72		
“Employees regularly approach external institutions to acquire technological knowledge.”	0.68		
“We often transfer technological knowledge.”	0.71	0.7	0.73

***Transform***

“We thoroughly maintain relevant knowledge over time.”	0.7		
“Employees store technological knowledge for future reference.”	0.65		
“We communicate relevant knowledge across the units of our firm.”	0.69		
“Knowledge management functions well in our company.”	0.64		
“When recognizing a business opportunity, we can quickly rely on existing knowledge.”	0.65	0.67	0.81

***Exploit***

“We are proficient in reactivating existing knowledge for new uses.”	0.73		
“We quickly analyze and interpret changing market demands for our technologies.”	0.53		
“New opportunities to serve our customers with existing technologies are quickly understood.”	0.66		
“We are proficient in transforming technical knowledge from external sources into new products.”	0.62		

“We regularly match new technologies from the outside with ideas for new products.”	0.58		
“We quickly recognize the usefulness of new technological knowledge from outside for existing knowledge.”	0.51		
“Our employees are capable of sharing their expertise to develop new products.”	0.61		
“We regularly apply technologies developed externally in new products.”	0.56		
“We constantly consider how to better exploit technologies from outside.”	0.6		
“We easily implement external technologies in new products.”	0.51		
“It is well-known who can best exploit new technologies inside our firm.”	0.58	0.59	0.83
<b>Commercialization and Innovation</b>			
“We value our organization’s ability to commercialize new products.”	0.97		
“Our organization is highly capable of commercializing patents.”	0.97		
“Our organization is one of the leaders in our industry for commercializing new emerging technologies.”	0.98		
“Our organization has developed over time the capability of commercializing more of our patents.”	0.98		
“Our organization is recognized for adapting technologies from other industries and commercializing them in our industry.”	0.95	0.97	0.98

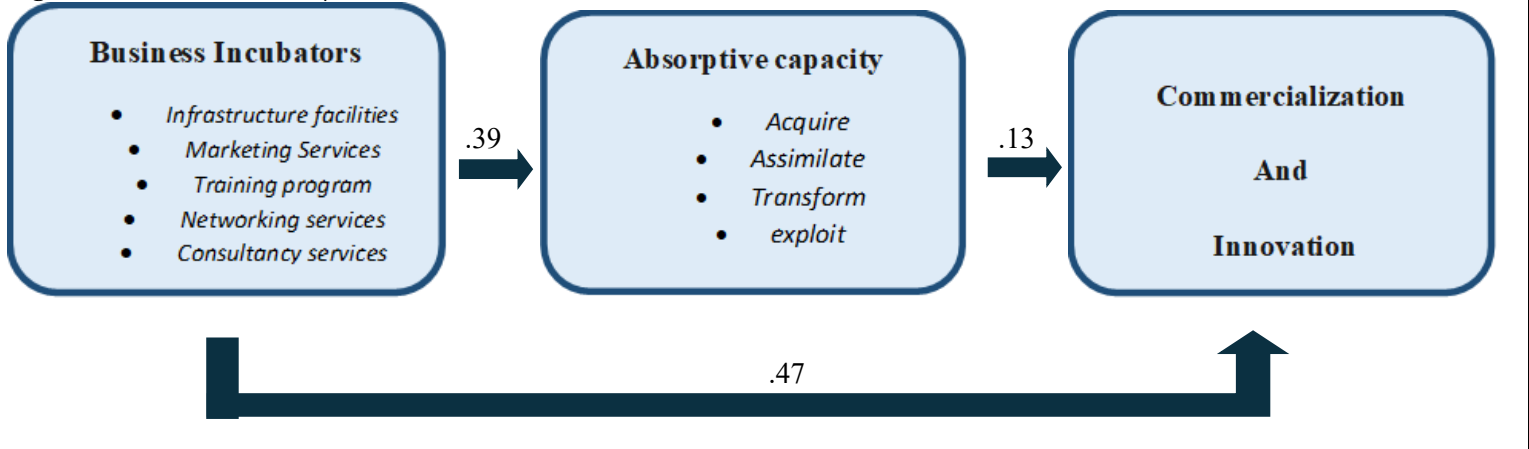
**Notes:** FL= Factor Loadings; AVE= Average Variance Extraction; CR= Construct Reliability

**Table V: Standardized Estimates of Path Analysis**

Indications of the relationship between variables	Standardized estimate	S.E.	C.R.	p	Results
AC ← BI	0.369	0.073	5.055	***	Significant
CAI ← AC	0.101	0.059	1.72	0.085	Insignificant
CAI ← BI	0.331	0.055	5.987	***	Significant

Note(s): BI= Business Incubator; AC= Absorptive Capacity; CAI= Commercialization and Innovation

Figure 2: Structural Analysis of Path Model



## DISCUSSION AND CONCLUSION

In order to answer some research questions a hypothesis has been formulated first: "Business Incubators have a significant impact on Absorptive Capacity. Results have indicated that Business Incubators and absorptive capacity have a significant positive association ( $r = .393$  at  $P < .01$ ). Table V results in the hypothesis of the research and the existing results of the study are similar to the previous research. The current research had a high level of significant positive outcome regarding BI and AC ( $b = .369$ ;  $P < .05$ ). The other hypothesis that was formulated was that There is a strong influence of Absorptive Capacity on commercialization and innovation. The results of Pearson, moment Correlations reveal that AC and CAI positively and significantly relate to each other ( $r = .317$ ) at  $P = .01$ . However, the outcomes in Table V of standardized estimations indicate that there is no significant relationship between AC and CAI ( $b = .101$ ) and  $P = .085$  that exceeds  $.05$ . This reveals that Business Incubator can influence the absorptive capacity but not influence significantly on the success of the commercialization and innovation and the findings are also reasonable and parallel to other previous researches. These findings are consistent with prior research (Lane et al, 2006; Lane & Lubatkin, 1998; Lichtenthaler, 2009; Sarwar et al., 2025b; Zahra & George, 2002). Third, a hypothesis was proposed which stated that there is a significant influence of Business Incubators on

commercialization and innovation. Results indicate that BI and CAI have a strong positive correlation ( $r = .518^{**}$ ) at  $P < .01$ . Table V indicates the findings of standardized estimates which confirm the positive significant correlation of BI and CAI ( $b = .331$ ;  $P < .05$ ). This implies that the direct effects of the business incubators enhance the degree of commercialization and innovation among the entrepreneurs. These findings are in line with the past research (Amezcuca et al., 2013; Bruneel et al., 2012; Grimaldi & Grandi, 2005; Mian et al., 2016; Rothaermel & Thursby, 2005). Fourth, the proposed hypothesis i.e., there is a strong mediating role of Absorptive Capacity between the correlation of Business Incubators and the relationship between the term commercialization and innovation. The results obtained in CFA demonstrate that the relationships between AC and CAI and the insignificant correlations are insignificant and are consistent with a limited amount of earlier research. It indicates that there is a possibility that Absorptive capacity does not mediate between BI and CAI. The distinction between the two types of innovations is founded on the premise that the former action is uncommon and therefore viewed negatively by society. The difference between the aforementioned two types of innovations lies in the fact that the first action is not common and thus it is considered as negative by the society.

### Implications

This study has numerous implications on business. Regarding the theoretical implications, the present work introduces the numerous services offered by the business incubators into the concept of the absorptive capacity. In the methodology, it is seen that the stringency of the study is enhanced through the application of a quantitative methodology. It provides a good insight into the causal mechanisms that involve business incubator support, the nature of absorptive capacity, and commercialization and innovation outcomes through statistical illustration of the relationship between variables. Concerning the contextual implications, the findings of this research will inform various managers and policymakers of different business incubators in order to improve the services of a business incubator. It offers an understanding of the universal guidelines of business incubators that determine the performance of startups in the global arena. It highlights the importance of organizational activities taking place inside organizations, so as to transform external resources, including the ones of incubators, into innovative tasks.

### Limitations

This study will be restricted to some articles and replies. Further, it is confined to the specific business incubators because the number of incubators in Pakistan is usually lower compared to the number of incubators worldwide. Other such variables as absorptive capacity and CAI are too complicated, thus, may influence the depth of findings. Finally, Business incubators develop with time; since this study is cross-sectional, it does not give the researcher an opportunity to understand the change over time.

### Future Research Recommendations

The study provides theoretical, methodological, and contextual future directions of the study. The services of Business Incubators can be studied separately. One can study acquiring, assimilating, transforming and exploiting parts of the absorptive capacity. The question of how business incubators can augment entrepreneur absorptive capacity as well as foster innovation can also be

investigated in light of this dynamics theory of these functions. Besides, longitudinal studies are also possible to compare with cross-sectional studies to verify the changes over time. Broadens research on different types of business incubators or localities in order to determine differences in incubator effectiveness and startup impacts. It is also possible to have a cross-national study by comparing the outcome of business incubators in various countries.

### Conclusion

This paper has given a clear discussion and overview of business incubators with references to the absorptive capacity mediating effect and its influence on commercialization and innovation. This paper has emphasized the importance of knowledge application in the components of the absorptive capacity in acquiring, assimilating, transforming, and exploiting in contributing to incubation. Through the services offered by business incubators including infrastructure facilities, marketing services, training services, networking services as well as consultancy services, a business is developed in the form of commercialization and innovation. This research discusses these three key variables that are business incubator as an independent variable, absorptive capacity as a mediating variable, and commercialization and innovation as a dependent variable.

The research results have significant theoretical, management, and policy implications since they have proven the pivotal position of business incubators in direct and direct improvement of commercialization and innovation results, in addition to augmenting startups absorptive capacity as a principle organizational competency. Theoretically, the study builds on the Resource Based View by providing an empirical investigation into the relationship between incubator services and knowledge development processes within the new firms, and that access to infrastructure, training, networking, marketing, and consultancy services, helps the company in the acquisition and refinement of strategic resources required in the performance of innovations. In practice, managers of incubators must focus on well-organized knowledge transfer tools,

mentoring and industry connections to make sure that the external support can be properly converted into operational innovation capabilities. Policy wise, the findings highlight the necessity of long-term government and non-governmental investment in incubation ecosystems especially in the developing economies like Pakistan as a way of enhancing the rate of entrepreneurship, commercialization of technologies and economic growth. All these implications are taken together to stress the fact that well designed incubation programs may act as potent launch pad to convert knowledge inputs to market outputs.

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