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The Moderating Role of Project Complexity and Strategic Agility Between Absorptive Capacity, Project Success, And Business Success

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ABSTRACT

Organizations must harness external sources to thrive amidst complexity and change in a rapidly evolving business landscape. Drawing upon Complexity Theory, this research delves into the impact of absorptive capacity on project and business success within the realm of IT projects in Financial Services. Moreover, it investigates the moderating effects of project complexity and strategic agility on these relationships. A survey of 135 small and medium enterprises revealed that project complexity and strategic agility play pivotal roles in shaping the outcomes of absorptive capacity on project and business success. This study contributes to project management literature by shedding light on the nuanced interplay between absorptive capacity, project complexity, and strategic agility. It underscores the importance of organizations evaluating these factors to safeguard and expand their market presence amidst fierce competition and evolving stakeholder expectations. Organizations can enhance their resilience and sustain long-term success by recognizing the significance of absorptive capacity and adaptability in navigating dynamic environments.

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Business Success;
Financial Services.

1. Introduction

The existing literature emphasizes the importance of external sources for SMEs to respond effectively to complexity and ensure survival. Learning and managing knowledge are crucial aspects, with potential benefits including overall performance improvement and creating competitive advantages. Earlier research delved into absorptive capacity, recognizing that acquiring new external information is essential for understanding and successfully achieving organizational goals. The absorptive capacity theory posits that integrating new knowledge makes organizations more flexible and innovative. It distinguishes between potential absorptive and realized absorptive (PAC) capacity (RAC). PAC involves learning and absorption efforts to acquire and secure new external information, while RAC

focuses on information assimilation and utilization, integrating new insights into existing knowledge. Identifying absorptive capacity as a dynamic capability presents intriguing research opportunities, especially given the continuous transformation organizations undergo due to factors like technology, innovation, and growing competition. Strategic agility (SA) emerges as a key factor in detecting and responding to changes in the business environment. The literature underscores that project success in IT companies goes beyond traditional criteria like time, budget, and quality, requiring attention to handling complexity. Complexity theory is chosen as the theoretical foundation, recognizing that organizations operate as complex systems with non-linear and unexpected behavior (Tallon et al., 2018; Lyu et al., 2022; Khan et al., 2020; Haider et al., 2020). Despite ample literature on absorptive capacity and strategic agility, there is a notable gap in understanding these dynamics within SMEs in the context of developed countries, particularly in the domain of information technology. This study aims to address this gap by proposing a conceptual framework to identify potential factors influencing absorptive capacity in SMEs. The study leverages existing literature to provide a background for understanding the concept's impact on SME success and strategic agility. Furthermore, market dynamics are recognized as a significant driver for innovation and growth, placing pressure on companies to adapt and implement complex projects to survive in competitive markets (Xue & Swan, 2020). The research question posed is: How do Potential and Realized absorptive capacity enhance project success and business success? Moderator project complexity and strategic agility are the new contributions to SME research on project-based IT organizations.

2. Literature Review

2.1. Absorptive Capacity

The term absorptive capacity (AC) refers to a company's ability to recognize, integrate, and utilize information from its surroundings. It encompasses a set of organizational practices and processes that enable companies to acquire, assimilate, transform, and exploit knowledge, resulting in a dynamic organizational capacity. Previous research explored a U-shaped relationship between absorptive capacity and a company's financial performance. Initially, absorptive capacity positively impacts financial outcomes, but beyond a certain threshold, it starts to have a negative effect. Realized absorptive capacity is associated with data acquisition and enhancing the success of new products in the market. This involves an organization's capability to collect and organize information to develop operational skills. The concept involves four facets of the organizational learning process: acquisition, assimilation, transformation, and exploitation. Acquisition refers to a company's ability to identify and secure external information crucial for its functioning. Assimilation involves the establishment of schedules and procedures for analyzing, processing, transforming, and capturing acquired data. Transformation pertains to a company's ability to create plans integrating existing knowledge with

newly acquired expertise. Exploitation signifies a company's capacity to swiftly incorporate information into its operations, emphasizing the transformation of information into new processes. The first two abilities combine to form potential absorptive capacity, indicating a company's capability to assess and obtain external knowledge for growth and expansion in its information repositories. The latter two are grouped under-realized absorptive capacity, involving the use of data gathered from operations to generate novel ideas. Most existing literature has concentrated on large-scale organizations in manufacturing industries, prompting the need to explore the impact of AC on small and medium-sized enterprises (SMEs) in the IT sector. Differences in infrastructure and support provided to SMEs may lead to varying results. Technological absorptive capacity in technical endeavors notably and positively contributes to hierarchical knowledge and progress. Empowering innovative absorptive capacity within a company encourages employees to seek and learn new ideas. Efficiently transforming this information into new services enhances production, improves the innovation performance of companies, and contributes to the success of projects (Nyamrunda et al., 2021; Muller et al., 2021; Lichtenthaler, 2016; Haider et al., 2022; Gurca et al., 2021; Bjorvatn & Wald, 2018).

2.2. Strategic Agility

Strategic agility refers to a company's capability to promptly respond, adapt, and take action to navigate uncertainties in a dynamic business environment, serving as a tool to establish a competitive edge. Researchers have extensively examined the impact of market factors, such as technology, sustainability, and competitiveness, emphasizing the belief that Information Technology (IT) and agility contribute to corporate success through key elements of agility: sensing and responding. Numerous studies highlight the significance of strategic agility in the IT sector, urging companies to consistently embrace transformation by recognizing strategic agility as a fundamental concept. (Tzokas et al., 2015) Underscore the essential role of IT investments for Small and Medium Enterprises (SMEs) in gaining market advantage. Tallon et al. (2018) assert that Strategic Agility is an emotional competence guided by IT, leading to enhanced corporate success. Zahoor et al. (2022) stress the importance of a business continuity plan during organizational changes, ensuring that the company can effectively navigate turbulent changes while maintaining optimal operational capacity. Strategic agility is closely linked to transformation, with companies possessing high levels of Strategic Agility better equipped to absorb, document, and apply new knowledge generated by absorptive capacity (AC). They actively seek innovative ways to respond swiftly to environmental changes, resulting in substantial business model innovation and strategic transformation. The process of inter-organizational knowledge acquisition concerning organizational transformation may vary based on a company's ability to transfer and effectively apply the acquired information in its organizational renewal processes (Nyamrunda et al., 2021; Haider et al., 2020; Albort Morant et al., 2018).

2.3. Project Complexity

Within project management, complexity stands out as a pivotal yet contentious subject. Complexity is a project's inherent quality that renders it challenging to comprehend, predict, and regulate its overall dynamics, even with reasonably comprehensive information about the project system. To be more specific, projects deemed complex tend to encounter schedule delays and exceed budgetary allocations. A project earns the label of complexity when it demonstrates a high degree of dependence on its (political, economic, or legal) environment, contends with continually shifting stakeholder demands and requirements, and grapples with conflicting stakeholder interests. The complexity further intensifies in the presence of inadequate information and the simultaneous involvement of numerous variables. Complexity theory enables team members to exhibit structured behavior and collaborate effectively in navigating ambiguous situations. This theory illustrates how principles drawn from diverse disciplines can be amalgamated and applied to interconnected contexts. It posits that a specific set of rules governs complex behavior, with all intricate systems comprising a network of interconnected components interacting under these rules. Complexity theory emerges as a conceptual framework employed in managing project teams, fostering the creativity essential for achieving project objectives (Mikkelsen, 2020; Luo et al., 2020; Bjorvatn et al., 2018).

2.4. Project Success

Project success is a widely researched and debated topic in project management literature. (Wateridge, 1998) defines project success as achieving objectives, meeting budget and schedule, and satisfying stakeholders. (Shenhar et al., 2001) expand the definition, including innovation, stakeholder satisfaction, and adaptability. Critical success factors (CSFs) have been identified by Pinto and Slevin (1988) as top management support, client consultation, and realistic expectations. Turner and Cochrane (1993) stress leadership, communication, and risk management as essential CSFs. Evaluating project success involves criteria such as efficiency, customer impact, and stakeholder satisfaction (Jugdev & Müller, 2005). (Crawford et al., 2006) advocate for a comprehensive approach that combines objective and subjective measures. Despite general agreement on the significance of project success, challenges persist in its conceptualization. (Morris and Hough, 1987) highlight subjectivity in defining success due to diverse stakeholder expectations. (Shenhar et al., 2001) emphasize balancing traditional project management goals with strategic success. The present literature underscores the multidimensional nature of project success, incorporating diverse perspectives and critical factors while acknowledging ongoing challenges and debates.

2.5. Business Success

The literature on business success encompasses diverse perspectives and factors influencing organizational achievements. Scholars have explored various dimensions and criteria to define and

measure business success. (Barney, 1991) contends that sustained competitive advantage is a key determinant of business success, emphasizing the significance of strategic resources and capabilities. Prahalad and Hamel (1990) introduce the concept of core competencies, suggesting that businesses should focus on developing unique and valuable capabilities to achieve success. The role of leadership is a recurrent theme in discussions of business success. Collins (2001) identifies Level 5 leadership, characterized by humility and fierce resolve, as a critical factor in propelling companies to greatness. Furthermore, organizational culture is recognized as a potent driver of success. Denison (1990) argues that strong cultural traits, such as adaptability and consistency, contribute to business effectiveness. In the context of the globalized economy, innovation and adaptability emerge as pivotal elements of business success. Christensen (1997) introduces the concept of disruptive innovation, emphasizing the importance of staying ahead of technological advancements. Tushman and (O'Reilly, 1996) stresses the need for ambidextrous organizations capable of balancing exploiting existing capabilities with exploring new opportunities. Thus, the literature on business success underscores the multifaceted nature of success, incorporating strategic management, leadership, organizational culture, and innovation as integral components in achieving sustainable competitive advantage.

3. Theoretical Background and Support

Complexity theory, also known as complexity strategy or complex adaptive organizations, is utilized in the examination of intricate systems within the realms of strategic management and organizational studies (Anderson, 1999; Benbya et al., 2006). Rooted in natural sciences research focusing on insecurity and non-linearity, complexity theory underscores the exploration of interactions and feedback loops, acknowledging the perpetual evolution of these systems. Despite asserting that these systems are inherently unpredictable, complexity theory posits the existence of order-generating laws that constrain them (Larsen-Freeman, 2013). Its application in strategic management and organizational studies aims to comprehend how companies adapt to their environments and navigate uncertain situations. Organizations exhibit complex structures characterized by dynamic interaction networks, avoiding an excessive addition of static elements (Larsen-Freeman, 2017).

4. Hypotheses Development and Conceptual Framework

Firms possessing elevated levels of absorptive capacity (AC) are more inclined than their counterparts to identify market opportunities, acquire market information, and comprehend client needs. Consequently, they engage in innovation development initiatives more effectively, enhance overall company success, and augment the likelihood of achieving high success rates in their projects (Duan et al., 2021; Wang et al., 2020). Given the rationale presented above, the subsequent hypotheses can be formulated:

H1: Absorptive Capacity has a significant influence on Project Success.

H2: Absorptive Capacity has a significant influence on Business Success.

The existing literature consistently highlights the increasing complexity of projects over time (Zhu & Mostafavi, 2017; Hansen et al., 2020). The success of software development projects, with widespread implications for various industries and business processes, has been extensively discussed (Andersen, 2015). This impact extends to operational planning and control (Rehman et al., 2021), human resource management, inventory management, and supply chain management (Eckstein et al., 2015). Scholars stress that project success is contingent upon the project's complexity, including size and timing specific to the tasks (Luo et al., 2020). While project complexity may negatively influence success, it can also yield positive outcomes due to emerging properties that create new opportunities (Bjorvatn et al., 2018). Given these considerations, the primary focus should be on managing project complexity rather than merely attempting to reduce or entirely avoid it. In the dynamic contemporary environment, success in handling project complexity is crucial for project-based organizations, particularly in the software development industry (Butler, Vijayasarathy & Roberts, 2020). The prevalence of high project failure rates is a shared reality across advanced and developing nations, particularly evident in the software industry (Varajao et al., 2014; Sousa et al., 2020; Morcov et al., 2021). De Toni and Pessot (2021) assert that urgent research is required to identify and mitigate risks associated with project complexity, offering techniques to enhance the likelihood of project success. Hence, proposed:

H3: Project Complexity has a significant influence on Project Success.

H4: Project Complexity has a significant influence on Business Success.

H7: Project Complexity moderates the relationship between Absorptive capacity and Project Success.

H8: Project Complexity moderates the relationship between Absorptive capacity and Business Success.

The notion of agility first surfaced in a 1991 Iacocca Institute review in America, focusing on adaptability and agile creation to meet rapidly changing business requirements (Dove, 1991). It entails transforming constantly evolving customer circumstances into beneficial capacity within a competitive environment (Haider, 2019). Agility operates actively in unpredictable climates, adapting and evolving in turbulent environments to create opportunities ahead of change (Sheppard & Young, 2006). A more in-depth exploration of how absorptive capacity (AC) influences learning ability can enhance understanding of the relationship between IT competency and strategic agility (Kohtamaki et al., 2020). As a knowledge-based and IT-driven capacity, AC empowers organizations to master knowledge and adjust processes, yielding significant commercial value (Hurtado-Palomino et al., 2022). Absorptive capacity serves as a bridge between IT competence and strategic agility, seen as two interconnected dynamic characteristics (Harvey et al., 2010; Khan et al., 2020). Developing absorptive capacity is

essential for IT-enabled improvements (Ali et al., 2021). Complexity theory is employed to define the role of agility, linking absorptive capacity and strategic agility as two dynamic characteristics (Bakarada & Koronios, 2018). (Verma et al. (2017) noted substantial similarities between the sub-dimensions of absorptive capacity and the sensing and reacting components of strategic agility.

According to (AlTaweel and Al-Hawary, 2021), strategic agility implies the ability to assess or rediscover the organization and its strategy in response to changes in the business climate, directly connected to human performance, processes, and organizational advancements. Skare and Soriano (2021) assert that strategic agility aims to incorporate information on normal changes into the business through organizational participation. Existing research reveals a lack of analysis on the relationship between strategic agility and absorptive capacity, with some indirect support from studies like Rojo et al. (2018), which identified elements of strategic learning closely related to strategic agility. Previous research has examined the direct impact of strategic agility on absorptive capacity and organizational success. Rehman et al. (2020) assert that strategic agility's influence grows, particularly in dynamic corporate environments. Tallon and Pinsonneault (2011) identified company agility as a mediator in the relationship between strategic IT alignment and project success. Another study highlighted strategic agility's mediating role in the connection between the ability to manage customer knowledge and project success. Haider et al. (2020) Investigated innovation through absorptive capacity. Albert Morant et al. (2018) emphasized the need for an integrated approach to comprehend agility fully. As per (Nyamrunda et al., 2021), agility is a synthesis created by diverse companies with distinct skills and qualities to meet customer requirements. They underscored the integration of crucial elements like people, organizations, and technology to achieve agility. Strategic collaborations are suggested to acquire information on anticipated market developments.

In contrast to reactive production agility, strategic agility is proactive and knowledge-based. Building on these research insights, it is posited that strategic agility may play a role in shaping the impact of absorptive capacity on project success, leading to the formulation of the following hypotheses:

H5: Strategic Agility has a significant influence on Project Success.

H6: Strategic Agility has a significant influence on Business Success.

H9: Strategic Agility moderates the relationship between Absorptive capacity and Project Success.

H10: Strategic Agility moderates the relationship between Absorptive capacity and Business Success.

Figure 1 summarizes the hypotheses and the conceptual framework.

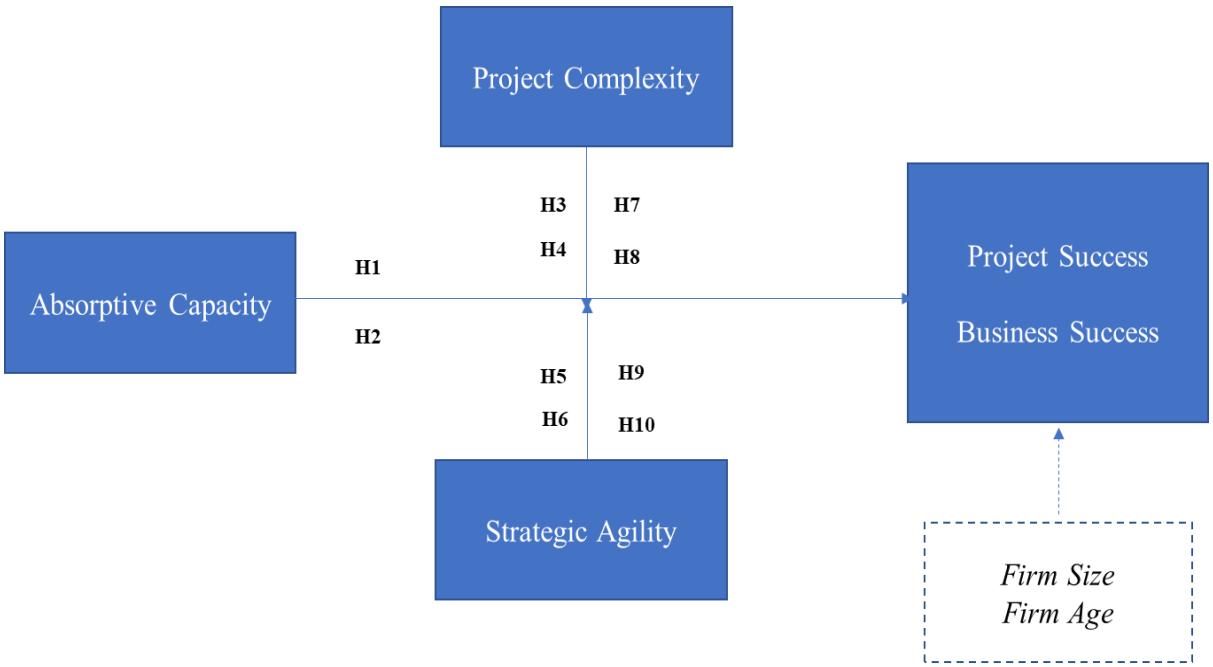


Fig. 1. Conceptual Framework (Author's interpretation).

5. Research Methodology

5.1. Sampling and procedure

For hypothesis analysis, a dataset comprising 135 responses was gathered from managers of small and medium-sized financial services IT firms. Data collection employed a simple random sampling technique, with approximately three hundred individuals solicited to complete a questionnaire via Google Forms. The data cleansing and analysis procedures included rigorous validation of each response, focusing on participants affiliated with the targeted organizations (Hair et al., 2011). SPSS was used to analyze descriptive and inferential statistics, including hypotheses and moderation testing. The survey yielded a response rate of 26.8%. No statistically significant differences (alpha 5%) were observed between initial and subsequent responses (Podsakoff et al., 2003). To mitigate bias risks related to common-method variance, participants in various positions and roles were contacted to assess the study variables.

5.2. Measures / Study Variables

All measures are based on a five-point Likert scale. All item scales' validity was verified by applying PCFA, followed by CFA. The PCFA was accomplished to examine all items loaded in one factor. Cronbach's alpha (α) appropriate values were found to be greater than 0.7 for the scale reliability. A confirmatory factor analysis (CFA) was carried out for measurement model validation. The measurement model is considered satisfactory at CMIN/DF = 2.807, CFI = 0.916, RMSEA = 0.071, and SRMR = 0.029. The instrument was developed by adapting items from similar previous studies for

example, Absorptive Capacity (three items), Project Complexity (three items), Strategic Agility (seven items), Project Success (four items), and Business Success (four items).

5.3. Sample and respondent's profiles

Figure 2 indicates the sample attributes. Most of the respondents were from a firm with more than 250 employees and belonged to managers and senior managers considering the firm's age of 1 to 2 years.

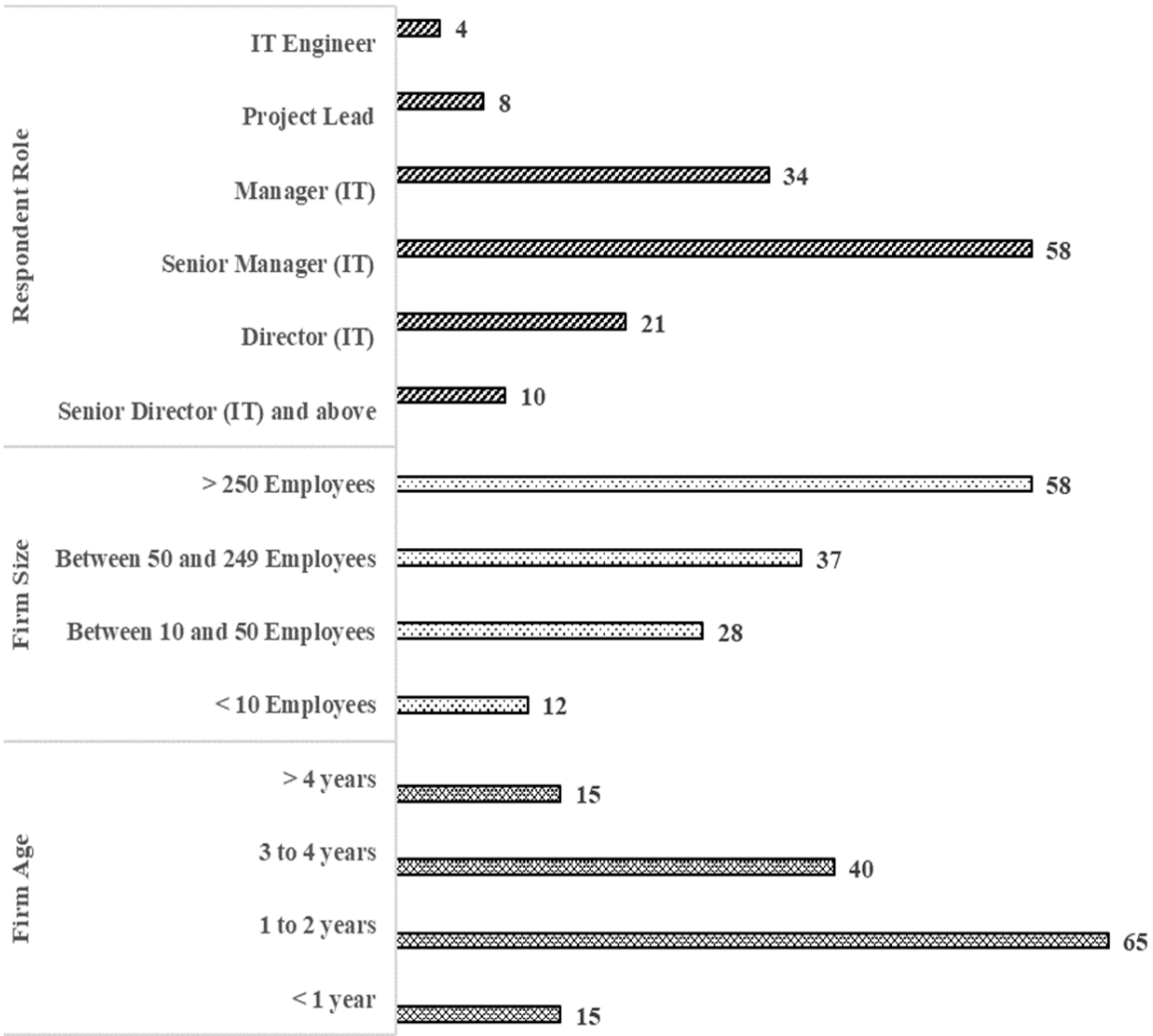


Fig. 2. Sample Respondent's Profile.

5.4. Descriptive Statistics

Table 1 indicates the descriptive statistics with the mean and standard deviation values and the correlation between different study variables.

Table 1. Descriptive Statistics.

	Variables	0	1	2	3	4
	Mean	3.574	3.152	3.043	3.743	3.043
	Std. Dev.	1.153	1.318	1.233	1.033	1.093
	Reliability	0.875	0.798	0.882	0.881	0.871
	Kendall's tau_b					
0	Business Success	1				
1	Project Success	0.563***	1			
2	Absorptive Capacity	0.459***	0.399***	1		
3	Strategic Agility	0.435***	0.374***	0.355***	1	
4	Project Complexity	0.498***	0.384***	0.355***	0.398***	1
	Spearman's rho					
0	Business Success	1				
1	Project Success	0.634***	1			
2	Absorptive Capacity	0.439***	0.397***	1		
3	Strategic Agility	0.597***	0.469***	0.356***	1	
4	Project Complexity	0.495***	0.387***	0.395***	0.399***	1
	*** Correlation is significant at the 0.01 level (2-tailed).					

6. Research Findings

The current study examines the association between ordinal outcome variables, i.e., Absorptive Capacity, Project Complexity, Strategic Agility, Project Success, and Business Success. An ordinal, categorical, and five-point Likert scale assessed the study variables. The ordinal categorical results could not be assumed to be normal or to have homogeneous variance. The ordinal regression method was used because it requires the assumption of parallel lines across each stage of the categorical outcome rather than constant variance and normality (Tiwari et al., 2021; Norusis, 2008). Diagnostic tests were run before running the regression analysis to check for any preconceived notion violations. None of the variables had values that were missing.

Additionally, the SPSS tool was used to analyze the findings using the ordinal regression method. Tables 2 and 3 represent the outcomes of the ordinal regression method used for data analysis. The variation inflation factor (VIF) was found with a value of 2.16.

Table 2. Ordinal Regression for Business Success.

Variables	Business Success					
	Model 1		Model 2		Model 3	
	Control Variables					
Firm Age	0.125***	0.011	0.112***	0.021	0.026***	0.012

Variables	Business Success					
	Model 1		Model 2		Model 3	
Firm Size	0.115***	0.013	0.109***	0.023	0.016***	0.014
Independent Variable						
Absorptive Capacity	0.838***	0.016	0.568***	0.017	0.245***	0.089
Moderating Variable						
Strategic Agility			0.182***	0.025	0.142***	0.098
Project Complexity			(-)0.212***	0.034	(-)0.178***	0.076
Interactions						
Absorptive capacity * Strategic Agility					0.211***	0.092
Absorptive Capacity * Project Complexity					(-)0.213***	0.086
-2log likelihood	447.768		452.771		472.771	
Likelihood ratio (Chi-Square)	87.256***		113.636***		125.283***	
Pesudo R^2 Cox and Snell	0.512		0.548		0.669	
Notes: N=135 1. Unstandardized regression coefficients and standard errors are shown.						
2. ***Significance at 0.001 level (2-tailed).						

7. Discussion

Building upon prior research and findings, this study aimed to explore the connection between potential and realized absorptive capacity and its influence on both project success and business success. This investigation considered the moderating effects of strategic agility and project complexity, particularly in the context of IT projects. The outcomes revealed a positive impact of absorptive capacity on project and business success, mediated by the moderating influences of strategic agility and project complexity. The acquisition of absorptive capacity signifies the active integration of a newfound capability (Albort-Morant et al., 2018). Previous studies have empirically verified the influence of potential capacity on realized capacity (e.g., Volberda et al., 2010; Andersen, 2015). Understanding absorptive capability, project success, and business success is pivotal for dynamic capabilities.

Table 3. Ordinal Regression for Project Success.

Variables	Project Success					
	Model 1		Model 2		Model 3	
Control Variables						
Firm Age	0.125***	0.011	0.112***	0.021	0.026***	0.012
Firm Size	0.115***	0.013	0.109***	0.023	0.016***	0.014

Variables	Project Success					
	Model 1		Model 2		Model 3	
Independent Variable						
Absorptive Capacity	0.818***	0.026	0.498***	0.017	0.225***	0.089
Moderating Variable						
Strategic Agility			0.282***	0.025	0.242***	0.098
Project Complexity			(-)0.192***	0.034	(-)0.208***	0.076
Interactions						
Absorptive capacity * Strategic Agility					0.221***	0.092
Absorptive Capacity * Project Complexity					(-)0.273***	0.086
-2log likelihood	457.768		452.771		472.771	
Likelihood ratio (Chi-Square)	89.256***		114.636***		126.283***	
Pesudo R^2 Cox and Snell	0.532		0.558		0.678	
Notes: N=135 1. Unstandardized regression coefficients and standard errors are shown.						
2. ***Significance at 0.001 level (2-tailed).						

Organizations aiming for sustained competitive advantages must strategically manage these capacities. The literature underscores the substantial growth in knowledge about absorptive capacity, project success, and business success (Duan et al., 2021). The study's findings underscore the intricate nature of projects. As a moderator, project complexity positively and significantly affects absorptive capacity, project success, and business success. Managing complex systems is challenging, and projects stand a better chance of success when analyzing past success patterns. Failure becomes a risk when managers solely focus on aspects of project complexity. Despite the traditional use of the triple constraints of money, time, and Scope to measure project success, this study suggests that a project's complexity can adversely impact both project and business success. Inadequate evaluation of complexity can negatively affect both business and project success outcomes, which can be assessed through various metrics such as new strategic plans, employee competency enhancement, timely and quality project completion, and adherence to specific budgets. Consequently, this research significantly contributes to the project management field by delving into the intersections of project success and business success concerning project complexity and strategic agility. In light of intense competition and evolving expectations from consumers and stakeholders, organizations must assess absorptive capacity, project complexity, and strategic agility to safeguard and expand their market shares.

8. Implications

This study represents a novel contribution to the existing literature, examining the relationship between strategic agility and project complexity and their impact on variables such as project and business success. By supplying additional empirical evidence regarding project complexity theory, this research yields theoretical implications. Various facets of project complexity have been scrutinized as variables with a moderating impact on absorptive capacity. The study also demonstrates a moderate influence of both strategic agility and project complexity on project and business success. Findings suggest that proactive companies engaged in swift environmental scanning identify more market opportunities than their counterparts. Such forward-thinking organizations are more inclined to acquire knowledge from external environments (e.g., customers, competitors, markets), transforming this information efficiently to drive innovation, enhance project success, and bolster overall business success. These outcomes reinforce the argument for fostering a proactive, risk-taking, innovation-driven environment to optimize opportunities for successful projects. Strategic agility emerges as a valuable asset, offering information to aid organizations in strategic reform and renewal.

Consequently, organizations should regard absorptive capacity as a fount of knowledge. The practical implications of the study are noteworthy. The research concludes that absorptive capacity significantly influences the performance of small and medium enterprises. While obtaining external information may not directly correlate with a company's success, it is deemed a crucial initial step in the absorptive capacity process. The study delves into the positive effects of leveraging absorptive capacity characteristics on strategic agility and project complexity. Although previous research has not explored this specific topic, existing studies have considered aspects like knowledge reach, knowledge skills, and strategic learning in the context of strategic agility. An avenue for future research could delve into the influence of a company’s stakeholders on strategic agility. Further studies on absorptive ability and strategic agility could aid managers, particularly in rapidly changing environments such as the IT industry. Companies are urged to assess both absorptive capacity and strategic agility to safeguard and expand market shares amid intense competition and evolving expectations. Recognizing the significance of external knowledge in their processes and effectively applying that information to products or services is pivotal, contributing to heightened success rates for projects.

9. Limitations and Scope for further research

First, this study only uses a sample of 135 SMEs for validation. Considering that such geographical and sample size limitations may threaten the generalizability of the research results to a certain extent, subsequent research must enrich the sample data sources and compare the obtained and available results. Second, given the scarcity of this kind of study, future research could examine this issue regarding various forms of performance (e.g., financial performance, customer knowledge management

capability, innovation performance) in IT, the manufacturing industry, and large and small tourism enterprises. Further research is needed to explain agility-related concepts, distinguish strategic agility from other types, help businesses comprehend its value, and fill gaps in the literature.

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