

## Elevating SMEs Performance through Entrepreneurial Innovation and Government Regulations in Bujumbura, Burundi

Stephen Makau Muathe\*, Eunice Dushime, Lucy Kavindah School Business, Economics and Tourism, Kenyatta University, Kenya Corresponding author\* DOI: <u>https://doi.org/10.47772/IJRISS.2023.70518</u>

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## ABSTRACT

In most developing countries including Burundi Small and Medium Enterprises are major players in growth of the economies. In Burundi they accelerate growth towards achieving Burundi's vision 2025 by offering job opportunities, generating revenue for the government, reducing poverty and income inequality. However, they experience poor performance as indicated by reduced revenue turnover by 44.6 percent in 2014 to 2018. The focus of this study was to investigate the moderating effect of government regulation on the relationship between entrepreneurial innovation and the performance of small and medium enterprises in Bujumbura, Burundi. Resource-based view and dynamic capability theory guided the study, this was supported by Schumpeter's theory of entrepreneurship and innovation. An explanatory research design was used to test the causal effect of the study variables. A sample size of 164 SMEs was selected from the target population of 279 SMEs in Bujumbura, data was analysed using multiple linear regression. The study found out that government regulations negatively and significantly moderate the relationship between entrepreneurial innovation and performance. Thus, the Government through the ministry of industry andtrade of Burundi should create a good environment for SMEs to thrive by lowering license costs and thetime taken to issue a license in order to create a better business climate for SMEs to flourish.

**Keywords**: Entrepreneurial Innovation, Performance, Government Regulations, SMEs, Resource-BasedView Theory, Dynamic Capability Theory, Schumpeter's theory, Burundi.

## **INTRODUCTION**

Small and Medium Enterprises are major players in the competition and growth of economies, and therefore, are considered the core of innovation activities (UNCTAD, 2002) worldwide. SMEs are estimated to be more than 95%, offering over 60% of the employment opportunities in the private sector. In developed economies, this sector contributes around 64% of the GDP and 62% of employment (Muathe, 2010, Muathe & Makau, 2020).

Policymakers in Burundi have been working to create and promote micro, small, and medium enterprises but according to the Private Sector Development Strategy (PSDS) in Burundi, the informal sector, mainly made up of SMEs, contribute only 13 % of the GDP. Notwithstanding that the expected contribution of SMEs to GDP was over 50%, their performance has not been realized to its full potential, thus hindering their contribution to the socio-economic development of Burundi (Ngabirano, 2020).

Within a fast-moving environment, Burundian's SMEs have been experiencing challenges such as unfavorable government regulations that prevail, limited access to financial resources, and rapid technological development, among others (Girukwishaka, 2017).

For SMEs to compete effectively, they need to establish a good competitive edge which will also enhance their survival and growth. Adopting entrepreneurial innovation is one of the most important ways to



promote and sustain performance (Lin & Chen, 2007; Kiraka, 2009).

It has been reported by James and Diana (2017) that harsh regulations in many countries deter entrepreneurship and innovation in firms. Government policies and regulations are viable, particularlyconcerning the fostering of entrepreneurship, which determines the success of businesses on a national scale (Obaji & Olugu, 2014). Towards this, many governments, as arbiters on the margins of the market, have proposed legislative initiatives and policies to facilitate the SME sector, but only within the limits of tight national budgets and other considerations (Okeke & Eme, 2014). Few of them have succeeded, for instance, France and Russia established a political structure that has led them to entrepreneurial growth (Ricketts, 2006).

Bouazzaet al. (2015) asserted that SMEs in Algeria does not perform due to different external factors such as inaccessibility to finance, inequality in the tax system, harsh laws, policies, and regulations, among others. Algerian SMEs have been facing various challenges when establishing administrative and operational procedures due to different government regulatory requirements, such as the expense and time involved in getting licenses and permits. These challenges impose limitations in SME performance and business expansion. Most SMEs do not register due to the fear of being visible to the government which would apply its rules that are regarded as unfavourable. Unlike large enterprises, SMEs are affected by most government restrictions and regulations due to their financial weaknesses (Bouazza et al., 2015). In thestudy by Jiang, Wang, and Li (2018), conducted in China, it was found that regulations have a negativeeffect on innovation performance, as harsh local regulations restrict production. The findings are supported by the study conducted in Nigeria (Eniola & Entebang, 2015) which also found that regulations limit SMEs from performing. Nevertheless, these studies were conducted in different environments from the one in Burundi.

Small and medium enterprises in Burundi are enterprises that have between 10 to 250 employees and there are in different categories such as services, commerce, manufacturing, among others. Policy makers in Burundi are committed to promote small and medium-sized enterprises since 2011, some changes havetaken place(World Bank, 2018). In Burundi, SMEs are regarded as the major contributor in the creation of employment and reduction of poverty(Douma & Seberege, 2021). However, they have been experiencing a lot of challenges which hindered their performance namely stringent legal regulations, competition fromlarge firms, limited access to finance, and lagging technology, among others(Girukwishaka, 2017). These challenges are accompanied by a changing environment regarding consumer needs, changing technology, and high-standard requirements, among others (Kiraka, 2009).

Adopting entrepreneurial innovation is one of the most important ways to promote and sustain performance (Kiraka, 2009). SMEs are recommended to engage in innovation as a strategic approach by using an appropriate process that results in competitive advantage and greater performance (Kiveu et al., 2019). Even though innovation is widely accepted as a strategy that SMEs can use to stay competitive and achieve higher performance, SMEs are rarely innovative, but compared to large companies, they have a better stand of innovating due to their structure(Nafula, 2017).

Regulations are essential procedures in the process of monitoring and evaluating businesses for better performance (Obaji, 2014) and Quertey (2001) represented regulations as means that government canmanage for greater social and economic outcomes and protection of small enterprises. Different government have set up regulations to control the activity of enterprises (King & Levine, 1993). Small and Medium Enterprises are governed by various regulations, such as those related to creating enterprises (license), labour regulations, taxation, and foreign trade. Clement and Wang (2004) and Khan (2014) highlighted that good government regulations are necessary to influence survival and growth of businesses and for socio economic development. Government policies and regulations are viable, particularly concerning fostering entrepreneurship which determines the success of businesses on a national scale(Obaji, 2014). Towards this,

many governments, as arbiters on the margins of the market, have proposed legislative initiatives and policies to facilitate the SME sector(Okeke & Okechukwu, 2014).

In the Doing Business Report (2020), 190 countries were ranked after a survey that considered favourable regulations for starting businesses, obtaining credit, trading across borders, ease of doing business, and paying taxes, among others. The report showed that the best-ranked country (New Zealand) had the best regulations. It also emphasized work still to be done in enhancing business climate in surveyed countries, including Burundi which ranked 166<sup>th</sup>.Burundi 'business environment affects the willingness of SMEs to become formal and their capability to innovate due burden taxes and other costs(Douma& Seberege, 2021).

Most studies have shown that the business climate strongly affects SME performance(Obaji, 2014, Kahihu, Wachira, & Muathe, 2021). Their report has also identified regulations as the major hindrance to the performance of firms and identified SMEs as the most affected. Bouazza et al. (2015) asserted that SMEs in Algeria face various challenges when establishing administrative and operational procedures due to different government regulatory requirements, such as the expense and time involved in getting licenses and permits. These challenges impose limitations in SME performance and business expansion. Most SMEs do not register due to their financial weaknesses and the fear of being visible to the government which would apply its rules that are regarded as unfavourable (Bouazza et al., 2015).Despite that the SME sector in Burundi has been accelerating changes towards achieving Burundi's vision 2025 by generating revenue for the government, creating new employment opportunities, and reducing poverty and income inequality, the SMEs are experiencing poor performance and Burundian SMEs' revenue turnover decreased by 44.6 percent from 2014 to 2018.(Girukwishaka, 2017). It's against the forgoing background that it was hypothesized that

 $H_{01}$ : Product innovation has no significant effect on the performance of Small and Medium Enterprises in Bujumbura, Burundi.

 $H_{02}$ : Process innovation has no significant effect on the performance of Small and Medium Enterprises in Bujumbura, Burundi.

 $H_{03}$ : Organizational innovation has no significant effect on the performance of Small and Medium Enterprises in Bujumbura, Burundi.

 $H_{04}$ : Market innovation has no significant effect on the performance of Small and Medium Enterprises in Bujumbura, Burundi.

 $H_{05}$ : Government regulations have no significant moderating effect on the relationship between entrepreneurial innovation and the performance of Small and Medium Enterprises in Bujumbura, Burundi.

## **REVIEW OF LITERATURE**

#### **Theoretical Review**

Resource-Based view, Dynamic capability theory, and Schumpeter's theory of Innovation anchored the study.

#### The Resource-Based View

The theory was developed by Edith Penrose (1959), a theory which proposed that capabilities are skills used by a firm in organizing and putting resources into productive use, including the firm's structure and operations, that further illustrate how decisions are carried out, and hence, resources and capabilities are



fundamental within a firm. Resources must be valuable, difficult to duplicate, non-imitable, and nonsubstitutable to be effective. According to Bowman and Ambrosini (2003), organizations can gain a competitive advantage by utilizing resources with such characteristics, which is a viable strategy for surviving.

Resources and competencies are viewed as essential components in businesses to attain great competitive advantage and performance. If a firm has specific and valuable resources but with no needed capabilities to utilize these resources effectively, the performance may not be realized (Ambrosini, 2003). As reported by Rumelt (1987), RBV is an outstanding theory in innovation and competition since it improves performance. Entrepreneurs must be able to invest resources in true mass production to prosper and outperform their competitors, according to Barney, Wright, and Ketchen (2001), and Mckelvie and Davidsson (2009).

The RBV hypothesis, according to Eisenhardt and Martin (2000), has some flaws, such as neglecting external elements that contribute to the venture's success or loss, such as consumers, government regulations because they count for the success or loss of firms. RBV is entirely focused on internal causes.

#### **Dynamic Capabilities Theory**

Teece, Pisano, and Shuen (1997) developed the theory, which examines how organizations attain sustained competitiveness or greater performance in a changing and dynamic environment, and it arose as a result of the resource-based theory's constraints. According to the dynamic capability's theory, capabilities can be derived through shifting routines and product advancements that help the company position its resources and competencies in a fast-paced business environment (Wang & Ahmed, 2007).

When a company needs to operate and survive in a quickly changing market, dynamic capabilities help the company to use its resources more efficiently, and innovation is one of those key qualities (Albaladejo& Romjin, 2000; Sok, O'Cass& Sok,2013). Innovation is critical for achieving performance or competitive advantage in a dynamic volatile environment such as laws, regulations, and competition (Sabin, 2017), the theory explains how SMEs that operate in dynamic environments should improve their dynamic skills to maximize their chances of survival and growth (Cepeda & Vera, 2007).

Dynamic capabilities theory was useful to this study since it supports the RBV theory, furthermore, it goes beyond the idea of a sustainable competitive edge which is all about VRIN resources that businesses must acquire (Dushime, Muathe & Kavindah, 2021, Dushime, Muathe, & Kavindah, 2022). Additionally, it gives a broad view of how SMEs can create value in the changing environment where government regulates businesses and thus affect their survival and growth (Muithya & Muathe, 2020).

#### **Schumpeter's Theory of Innovation**

Schumpeter's theory of innovation originated and promoted by Joseph Schumpeter (1911), explains the importance of entrepreneurship and innovation in economic growth. The theory suggests that variations in the markets, as well as economies, are continuous or ongoing processes. In a changing economy, an entrepreneur is a force that is behind that change as well as growth. According to Joseph Schumpeter, an entrepreneur is an agent of innovation as well as a pivot of change (Schumpeter, 1934).

Entrepreneurship is the foundation of economic progress since it allows for the emergence of novel combinations of production factors, allowing for discontinuity and transition. Entrepreneurship is all about coming up with new ideas. Creative destruction also named innovation is one of the approaches for businesses that can result in a change in the economy.

Schumpeter also suggested that innovation helps in the development of economies, and this is done by the



entrepreneur (innovator), whose role is to place the available resources into new applications and create new combinations.

Furthermore, Schumpeter proposed that entrepreneurship is a key factor of production because it supports and brings economic change, and entrepreneurs change production techniques by utilizing new sources of raw materials or reorganizing an industry (Schumpeter, 1939, Muathe, 2010, Dushime, Muathe, &Kavindah, 2022). The theory illustrates the impact of entrepreneurial innovation on firm performance and economic development in this study. To accomplish economic progress, greater innovation is required to enable value-creating creative destruction.

#### **Empirical Review**

# Entrepreneurial Innovation, Government Regulations, and Performance of Small and Medium Enterprises

In a globalized and changing environment, entrepreneurial innovation is widely regarded as a crucial engine for boosting corporate efficiency, performance, and survival (Kiraka, Kobia, &Katwalo, 2013). Kiveu, Namusonge, and Muathe (2019) noted that the capability of SMEs to innovate for change and satisfy the demands of their customers' markets is considered a good competitive advantage.

Mensah and Acquah (2015) conducted in Sekondi-Takoradi Metropolis supported by the study Salim and Sulaiman (2011) conducted in Malaysian acclaimed that the performance of enterprises gets higher as innovation increases and recommends firms to adopt innovative strategies to outperform their competitors, observing that firms that perform well are those that are consistent with innovation.

In addition, Martin and Namusonge (2014) study supported by the study of John and Kithae (2020) carried out a study in Nairobi County, Kenya, found that innovation is one of the aspects that can impact performance and entrepreneurship. The two studies used a descriptive research design, a weak design that only explains the behavior or characteristics of the study variables. In addition, the effect of the moderating variable, government regulation, which this study considered as a key variable, was not examined.

Government regulations affect the business climate by affecting the production costs, and profits in different countries (Dethier&Effenberg, 2012). According to Lumpkin and Dess (1996), the business climate that is regulated by government regulations and policies strongly affect SME performance. Countries with lower levels of regulation for accessing licenses develop at a higher rate, and thus, benefit from increased production compared to those with higher levels of regulation (Djankov 2002).

In the study conducted in China, it is observed that regulations negatively affect innovation performance, as harsh local regulations restrict production (Jiang, Wang, and Li (2018). The study of Eniola and Entebang (2015) support those results, they also found that regulations limit SMEs from performing, and impact the competitiveness of SMEs. Nevertheless, these studies overlooked variables such as product, process, and marketing innovation which are important aspects of innovation in this study and were conducted in different environments from the one in Burundi.

In addition to the previous research findings, Mwasiaji (2019) noted that government policies impactbusiness performance in Kenya. The study focused on manufacturing enterprises in Kenya and utilized a descriptive research design which is ineffective at revealing correlations between variables. The studyfindings were supported by Dushime, Muathe, and Kavindah (2021)study that concluded that government policies are important in creating a friendly business climate that is helpful for business development. However, the study was based on a desk review with no primary data to validate the findings. The studies reviewed present contextual, conceptual, and methodological research gaps and the limitation of not addressing the outcomes



of the moderating effect of government regulation between entrepreneurial innovation and performance of small and medium enterprises in Bujumbura,

## **RESEARCH METHODOLOGY**

The study utilized an explanatory research design to test causal relationship between the study variables as recommended by Saunders et al. (2009). The study used Yamane formula to calculate a sample of 164 SMEs from a target population of 279 SMEs in Bujumbura(Israel, 1992; Nafula, 2017). To select the 164 respondents the study used proportionate stratified and random sampling techniques thus increasing the accuracy, precision, and reliability of estimates (Singh & Belwal, 2008).Primary data was collected using a questionnaire. This study utilized multiple linear regression to test the hypotheses as recommended by Whisman & McClelland, (2005).

## FINDINGS AND DISCUSSION

This section presents results of hypotheses testing, it began with testing the direct effect of product, innovation, process innovation, organizational innovation and market innovation on performance of SMESin Burundi. Finally, it ends with testing of the moderating effect of government regulations on the relationship between entrepreneurial innovation and the performance of small and medium enterprises in Bujumbura, Burundi. The five hypotheses tested are presented below:

 $H_{01}$ : Product innovation has no significant effect on the performance of Small and Medium Enterprises in Bujumbura, Burundi.

 $H_{02}$ : Process innovation has no significant effect on the performance of Small and Medium Enterprises in Bujumbura, Burundi.

 $H_{03}$ : Organizational innovation has no significant effect on the performance of Small and Medium Enterprises in Bujumbura, Burundi.

 $H_{04}$ : Market innovation has no significant effect on the performance of Small and Medium Enterprises in Bujumbura, Burundi.

 $H_{05}$ : Government regulations have no significant moderating effect on the relationship between entrepreneurial innovation and the performance of Small and Medium Enterprises in Bujumbura, Burundi.

The results of hypotheses testing are as presented and discussed below:

Table 1a Model Summary

Model	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	Std. Error of the Estimate	R <sup>2</sup> Change	Durbin Watson
1	.729 a	.532	.517	.29156	.532	2.232

#### 1. Predictors: (constant), product innovation, process innovation, organizational innovation, market innovation

#### 2. Dependent variable: performance

The linear correlation between the predicted and observed variables in Table 1a is 0.729. It indicates a significant relationship between performance and product innovation, process innovation, organizational innovation, and market innovation. Second, the  $R^2$  of 53.2% indicated that product innovation, process innovation, organizational innovation, and market innovation, and market innovation can explain 53.2% of the variance in the



performance of SMEs. Finally, the autocorrelation in the residuals was assessed by Durbin Watson which is 2.232 which was within the range indicated by Dufour and Dagenais (1985), who found that the optimum range to exhibit uncorrelated residues is between 1 and 3.

#### Table 1b: ANOVA

Mo	odel	Sum of Squares	Df	Mean Square	F	Sig.
	Regression	12.277	4	3.069	36.104	.000 b
1	Residual	10.796	127	.085		
	Total	23.073	131			

#### **1.** Dependent variable: performance

#### 2. Predictors: (constant), product innovation, process innovation, organizational innovation, market innovation.

Table 1b results show a p-value =0.000 that is less than 0.05 and F (4,127) = 36.104, which means a significant effect of entrepreneurial innovation (product innovation, process innovation organizational innovation, market innovation) on the performance of SMEs.

Model		Unstanda	rdized Coefficient	ts Standardized Coefficient	ts T	Sig.
		В	Std. Error	Beta		
	(Constant)	1.752	.236		7.418	.000
	Product innovation	.025	.049	.039	.505	.614
1	Process innovation	.265	.108	.251	2.454	.015
1	Organizational innovation	.439	.050	.679	8.865	.000
	Market innovation	.341	.082	.341	4.180	.000

#### **Table 1c: Regression Coefficient**

#### 1. Dependent variable: performance

According to Table 1c three of the objectives are statistically significant, including the relationship between process innovation, organizational innovation, and market innovation on small and medium enterprise performance.

Those results in Table 1c can be stated in the following model:

 $H_{01:}$  Product innovation has no significant effect on the performance of Small and Medium Enterprises in Bujumbura, Burundi.

Table 1c shows that the relationship between product innovation and the performance of SMEs is statistically insignificant as  $\beta = 0.25$  and p = 0.614 which is greater than 0.05 at the confidence level of 95%. **H**<sub>01</sub> was not rejected, but rather accepted, implying that product innovation had no significant effect on the performance of Bujumbura's SMEs.

The findings of Table 1c didn't support the RBV theory since, according to the theory, resources and capabilities such as innovation are critical for businesses to gain a competitive edge (Muithya, & Muathe



2021). These findings differ from the studies by Camisón and Villar-López (2014), Mung'ora (2020) and Maldonado-Guzmán et al. (2018) who found that product innovation was an important predictor of performance and that it is responsible for the majority of variations or improvements in products or services, production processes, and management systems. The findings are consistent with the study by Kiveu et al. (2019), revealing a positive but negligible link between product innovation and business competitiveness/performance. Furthermore, Mensah andAcquah(2015) observed the same findings that product innovation was positive, however not significant to the organizational performance.

 $H_{02}$ : Process innovation has no significant effect on the performance of Small and Medium Enterprises in Bujumbura, Burundi.

Table 41c indicates that process innovation has  $\beta = 0.265$  and p = 0.015 which is less than 0.05. It implies that process innovation has a positive significance on the performance of SMEs in Bujumbura, Burundi, at the confidence level of 95%.  $H_{02}$  was rejected; thus, the alternative hypothesis was accepted. The results were aligned with the studies of Kiilu and **Kithae** (2020) and Martin and Namusonge, (2014), who showed SMEs must introduce the process innovation to succeed. The studies pointed out that process innovation helps enterprises to carry out activities more effectively and efficiently. RBV theory and dynamic capabilities theory support these findings because they argument that innovation is a capability that enables businesses to use existing resources to develop new processes and systems in a changing environment togain a competitive advantage (Kori et al., 2021). Other research, such as the study by Abdilahi et al. (2017) revealed a positive but negligible relationship between process innovation and the performance of small and medium firms, those findings contradict this study's conclusions.

 $H_{03}$ : Organizational innovation has no significant effect on the performance of Small and Medium Enterprises in Bujumbura, Burundi.

Table 1c reveals that, at a 95% confidence level, organizational innovation and the performance of SMEs in Bujumbura, Burundi are significantly related, with p = 0.000 less than 0.05.  $H_{03}$  was shown to be false. Hence, the alternative hypothesis was adopted. Organizational innovation has the greatest effect of all the innovations.

According to the studies by Kiveu et al. (2019); Omwanza and Jagongo (2019) and Zakaria et al. (2016), the more innovative activities organizations undertake, the more they can enhance their performance. The studies also found that firms that prioritized organizational innovation were in a position to perform higher than firms that were not focused on organizational innovation since organizational innovation and performance are positively and significantly related.

According to Cepeda and Vera (2007), in a dynamic, volatile environment, innovation is crucial for attaining the performance or a competitive edge. In addition, the theory provides insight into how SMEs working in dynamic environments should improve their dynamic capabilities to increase their chances of survival and growth. Moreover, Schumpeter (1942) established that various types of innovation can be utilized to create value, including organizational innovation.

 $H_{04}$ : Market innovation has no significant effect on the performance of Small and Medium Enterprises in Bujumbura, Burundi.

Table 1c reveals that market innovation and the performance of SMEs in Bujumbura, Burundiis significantly related, at a confidence level of 95%, as  $\beta = 0.341$  and p = 0.000 which is less than 0.05. **H**<sub>04</sub> was rejected. Hence, the alternative hypothesis was accepted. Several studies have revealed that market innovation and performance are positively related (Al-Ansari et al., 2013; Muithya and Muathe, 2021). According to Georgina Valdez-Bocanegra et al. (2020), competition of firms depends to the adoption of



marketing innovation since the consumers' tastes and preferences change, SMEs should alter their plans to include market innovation initiatives to be more responsive to them.

According to Dixon et al. (2014), SMEs should focus on reorganizing resources to meet market shifts, address market challenges, and develop new markets through innovation consistent with the reasoning of dynamic capabilities theory. Different forms of innovation, for instance, market innovation, are unique strategies entrepreneurs use to create possibilities in a changing economy (Schumpeter, 1947).

 $H_{05}$ : Government regulations have no significant moderating effect on the relationship between entrepreneurial innovation and the performance of Small and Medium Enterprises in Bujumbura, Burundi.

This study utilized two linear regression models to evaluate this hypothesis. Model one was utilized to determine the effect of the independent variable, entrepreneurial innovation, on the dependent variable, performance. In regression on performance, model two, entrepreneurial innovation, government regulations, and the interaction between entrepreneurial innovation and government regulations were investigated. Table 2a indicates that the regression results from the two models.

#### Table 2a: Model Summary for Moderator Analysis

Model	R	<b>R</b> <sup>2</sup>	Adjusted R <sup>2</sup>	Std. Error of the Estimate	R <sup>2</sup> Change	F Change	Sig. F Change
1	.598 <sup>a</sup>	.358	.353	.33766	.358	72.368	.000
2	.782 <sup>a</sup>	.612	.603	.26440	.254	5.015	.000

- 1. Predictors: (constant), entrepreneurial innovation
- 2. Predictors: (constant), entrepreneurial innovation and government regulations, entrepreneurial innovation, government regulations
- 3. Dependent variable: performance

Table 2a shows that  $R^2 = 0.254$ , F-change = 5.015, and p-value = 0.000 indicates that government regulation has a significant moderating effect on the relationship between entrepreneurial innovation and small and medium enterprise performance.

Mo	odel	Sum of Squares	Df	Mean Square	F	Sig.
	Regression	8.251	1	8.251	72.368	.000 b
1	Residual	14.822	130	.114		
	Total	23.073	131			
2	Regression	14.125	3	4.708	67.353	.000 b
	Residual	8.948	128	.070		
	Total	23.073	131			

#### Table 2b: ANOVA for Moderator Analysis

- 1. Dependent variable: performance
- 2. Predictors: (constant), entrepreneurial innovation
- 3. Predictors: (constant), entrepreneurial innovation and government regulations, entrepreneurial innovation, government regulations

The results of ANOVA Table 2b show that the first model was significant without the interaction, with F (1, 131) = 72.368 and p-value = 0.000<sup>b</sup>. Furthermore, in the second model with the interaction, F (3,131) =



67.353 and p-value =  $0.000^{b}$ , there was significance.

#### Table 2c: Coefficient for Moderator Analysis

Model		Unstanda Coefficier	rdized Its	Standardized Coefficients	Т	Sig.
		В	Std. Error	Beta		
1	(Constant)	1.464	.242		6.047	.000
1	Entrepreneurial innovation	.597	.070	.598	8.507	.000
	(Constant)	-1.237	.397		-3.115	.002
	Entrepreneurial innovation	.713	.072	.714	9.909	.000
2	Government regulations	.789	.087	.931	9.085	.000
	Interaction between entrepreneurial innovation and government regulations	333	.050	-0.792	-6.653	.000

#### 1. Dependent variable: performance

Table 2c results, can be stated in the following model:

Performance of small and medium enterprises =

1.464 + 0.597 entrepreneurial innovation... Model 1

Entrepreneurial Innovation at  $\beta = 0.597$ ; t = 6.047; p = 0.000 is positively significant, which means that entrepreneurial innovation and the performance of SMEs are positively related.

The results for the second model show that entrepreneurial innovation is significant at  $\beta = 0.713$ ; t = 9.909; p = 0.000, government regulation is significant at  $\beta = .789$ ; t = 9.085; p = 0.000 and interaction between government regulation and entrepreneurial innovation is significant at  $\beta = -0.333$ ; t = -6.653.; p = 0.000 at 95% confidence interval.

 Table 3: Decision Criteria

Model 1	Model 2	Total Effect	Conclusion
$\beta_1 = 0.597 \ (p < 0.05)$	$\beta_{46} = 0.789 \ (p < 0.05)$	$\beta 47 = -0.333$	A moderator variable has a moderating effect

According to Whisman and Mcclelland (2005) decision criteria, government regulations moderate the link between entrepreneurial innovation and the performance.  $\beta_{47}$  which is the interaction of government

regulation and entrepreneurial innovation, is  $\beta 0.333$  at a 95% confidence interval, revealing that, for each unit increase in government regulation, there is a decrease in entrepreneurial innovation and performance of SMEs by  $\beta 0.333$ . These results express that the study rejects  $H_{05}$  and that government regulations negatively moderate the link between entrepreneurial innovation and the performance of SMEs in Bujumbura, Burundi. The results are consistent with the findings obtained from the study by Jiang et al. (2018) conducted in China, which found regulations negatively affect innovation performance, as harsh local regulations restrict



production. Muithya and Muathe (2021) conducted in Kenya and observed that the business climate that is regulated by government regulations and policies strongly affect the relationship between innovation and non-financial performance. The studies by Eniola and Entebang (2015); Mwasiaji (2019) and the dynamic capabilities' theory are consistent with those findings since they state that a changing and volatile environment, such as government regulations negatively affects a firm's competitive advantage and performance since they hinder firms' ability to operate. Countries with lower levels of regulation forobtaining licenses develop faster, and so does the profit (Djankov et al., 2002).

According to Whisman and McClelland, (2005) decision criteria, government regulations have a moderating effect on the relationship between entrepreneurial innovation and the performance of small and medium enterprises in Bujumbura, Burundi.  $\beta_{47}$ , which is the interaction of government regulation and entrepreneurial innovation is -0.333 at a 95% confidence interval revealing that for each unit increase in government regulation, there is a decrease in entrepreneurial innovation and performance of small and medium enterprises by -0.333.

These results imply that the study rejects  $H_{01}$ , and that government regulation has a negative moderating effect on the relationship between entrepreneurial innovation and the performance of small and medium enterprises in Bujumbura, Burundi. The results are consistent with the findings obtained from the study conducted in China by Jiang, Wang, and Li (2018), which found a moderating effect between innovation and performance, and that regulations have a negative impact on innovation performance. These findings are consistent with the dynamic capabilities' hypothesis which states that a changing and volatile environment, such as legislation, negatively impacts a firm's competitive advantage (Dixon & Day, 2014). Compared to nations with greater levels of regulation, countries with lower levels of regulation for obtaining licenses develop faster, and so does the profit from increasing output (Djankov, 2002). Other studiesperformed in Nigeria (Eniola & Entebang, 2015) and Kenya (Mwasiaji, 2019) have indicated that regulations hinder SMEs' ability to operate and have a negative effect on their competitiveness. Thefindings of the majority of research are consistent with those of this study.

## CONCLUSION AND POLICY RECOMMENDATION

Based on the objective, the research found that the effect of entrepreneurial innovation and performance of SMEs in Bujumbura, Burundi was positive and significant before introducing government regulations, when government regulations are introduced as a moderating variable to the relationship between entrepreneurial innovation and performance, the effect becomes negative and significant. The time taken by the respective bodies to issue licenses has negatively affected the performance of SMEs. Therefore, the study concluded that government regulations moderate the link between entrepreneurial innovation and performance negatively. Responsible offices in the ministry of industry, trade, and tourism in Burundi should lower license costs and the time taken to issue a license in order to create a better business climate for SMEs since the study found that government regulations in Bujumbura, Burundi affect the link between entrepreneurial innovation and firm performance in a negative way. Finally, the ministry of industry, trade, and tourism in Burundi should establish more programs for SMEs by introducing institutions in charge of innovation of SMEs to provide them with the relevant skills and resources. Responsible offices in Burundi's ministry of industry, trade, and tourism should introduce more business incubators, connect SMEs with universities and experts, and establish more research institutes. Thus, SMEs would perform better and contribute considerably to Burundi's economic growth.

## LIMITATIONS AND FUTURE RESEARCH

Most respondents could not read or understand a questionnaire written in English, as Burundi uses French as the official language. The researchers overcame that challenge by translating the questionnaire to French.



Government regulations constituted the only variable that may alter the link between entrepreneurial innovation and performance. Firm age, availability to finance, market orientation, and company size are other criteria that should be included in future studies that may alter the link between entrepreneurial innovation and the performance of SMEs. The license was the measure of government regulations used in this study.

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