Economic Resilience among Rural Communities as an Approach to Address Disasters and Pandemics

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Abstract

During a disaster, the vulnerabilities of a community are exposed. Because of their limited fiscal resources and trainings needed for catastrophe mitigation and rebuilding techniques, rural areas are facing social and economic challenges as a result of the current Pandemic (Janssen, 2006). Furthermore, the difficulty of responding to calamities is exacerbated by the physical distance. Countryside communities, on the other hand, can improve their capability to plan and manage catastrophe recovery and rebuilding operations by engaging in crucial collaborative activities focused toward long-term sustainability and resilience. Disasters may have political implications, depending on how the government handles disaster recovery capabilities. Resilience is a key idea for dealing with dangers through policies and programs that benefit the community in the long run. To address the community's demands, emergency management necessitates multi-sectoral actions. As a result, the goal of this research is to determine the extent to which local government units and rural communities adapt to disasters and pandemics, as well as to identify impediments that may impact future catastrophe policies. resulting in the establishment of rural community resilience. Data mining is part of the research strategy, which is based on the 2019 Cities and Municipalities Competitiveness Index dataset. Component cities in the province of Surigao del Sur were included in the scope. The findings show that each area's general organizational capacity or socio-demographic profile varies. This, in turn, has an impact on disaster/pandemic resilience collaboration networks as well as the problems faced by communities critical to disaster/pandemic mitigation activities.

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I. Introduction

Surigao del Sur is known as the "Pacific Shangri-la." It became a province in 1960 as a result of Republic Act Number 2786. It was once a part of Southern Mindanao before becoming one of Caraga Region's four provinces. Surigao del Norte borders it on the north, Agusan del Sur on the west, and Davao Oriental on the south. Surigao del Sur, with a total population of 50,808 people, has the greatest population according to the National Statistics Office.However, it has the lowest population density, whereas Surigao del Norte has the highest population density per square kilometer of land area. Bislig contributed the most to the total provincial population (19.50 percent) of the 19 municipalities that make up Surigao del Sur. Tandag City, the province capital, had an 8.83 percent turnout.

It is the province with the largest mineral resources in the country, as well as vast potential in agriculture, forestry, and ecotourism. Copper, gold, chromite, cobalt, nickel, and zince are among the metallic minerals found there. The province has both local and large-scale mining operations. Surigao del Sur is also a major provider of rice, bananas, and other tropical crops, as well as copper, chromite, and silver. Because the province is recognized for producing seafood and sea by-products, marine and aquaculture are numerous in the province, and they are a primary source of income for the residents.

The province is organized into 309 barangays and consists of 17 municipalities and two cities, Tandag City and Bislig City. Tandag City is the province's coastal component city. It is the seat of the provincial government. It is a 5th-class city where farming and fishing are the main sources of income for the majority of the population. Livestock and poultry farming are also lucrative businesses. Tandag's annual normal revenue, according to the Bureau of Local Government Finance, was P466,592,887.18.On the other hand, Bislig City is a 3rd class city of the province of Surigao del Sur with a land area of 331.80 square kilometres which constitutes

6.73 of the province's total area. According to the Bureau of Local Government Finance, the annual regular revenue of Bislig was ₱568,109,206.47.

With all of the province's resources, it's critical to understand how the province operates. The advantages of these resources must be evaluated in terms of how they help the province as a whole. The study's main goal is to analyze the competitive index of the province of Surigao del Sur's two component cities in terms of economic dynamism, government efficiency, infrastructure, and resiliency.

This study is a comparative analysis of the competitiveness index of the two component cities in Surigao del Sur, delving into the Significant Difference between the two cities in terms of the four pillars of CMCI; establishing the spatial distribution of the competitiveness indices among the component cities; and, as an output, suggesting a policy implication based on the findings.

Increasing competition, in essence, means increasing affluence. Because productivity is the ultimate driver of progress, a province's or city's competitiveness improves productivity. It will also boost the economic and industrial environment of a city and the province as a whole. The quality of human resources is at the heart of productivity. This research is particularly important for human resources because they are the driving force that motivates people to work extremely hard.

The competitiveness index of the two component cities in Surigao del Sur, Bislig City and Tandag City, is examined in this study. Gross Sales, Approved Business Permit, Approved Business Renewal, Approved Occupancy Permits, Approved Fire Safety Inspection, Declared Employees for New Business Applications, Declared Employees for Business Renewals, Local Inflation, Expenses, Total Revenues, and Transportation Vehicle Distribution are the only indicators covered in this study. The study also looked into the key differences between the two cities in terms of the CMCI's four pillars. This study also includes a spatial distribution of the identified indices. Policy implications to increase the competitiveness index of the cities under consideration are part of the study's output.

II. Review of Related Literature

The Cities and Municipalities Competitiveness Index (CMC()) seeks to quantify the number of final goods that can be generated with a limited amount of inputs. Productivity is defined as the amount of output produced per unit of input. The underlying source of a municipality's or city's resources and productivity is how the country uses these resources. Cities and towns create economic development plans to reconstruct the economy, social structure, and physical structure in order to attract businesses, people, and visitors. As a result, in order to take use of their competitive advantage over other cities and municipalities, these cities and municipalities must adequately improve their potentials.

Despite the fact that disaster losses are common in rural and agricultural areas, much of the current disaster research has concentrated on urban and coastal locations, sometimes overlooking rural populations and communities (Cutter et al., 2016; Tierney, 2013). Furthermore, the bulk of research (Scott et al., 2012) conducted in rural communities focused on environmental or technology catastrophes, such as mining-related accidents, rather than more common events such as catastrophic losses from flooding.

According to Kapuco et al. (2014)'s research, teamwork is required to address changing social, economic, and technical settings, which tend to create new vulnerabilities in rural areas. At the individual, organizational, and communal levels, rural communities' adaptive capacity is expected to sustain recovery. Because policies and initiatives that influence the location and character of development can eventually minimize losses and promote resilience to future catastrophes, sustainability is an important component of emergency management in rural communities.

Economic vulnerability is described as an economy's susceptibility to exogenous shocks as a result of its openness, whereas economic resilience is defined as an economy's policy-induced ability to withstand or recover from such shocks. When disasters strike rural areas, particularly severe or long-lasting calamities, the demands on local response agencies and economic properties can swiftly deplete available resources. Natural or man-made disasters have complicated consequences and can strike without warning.

Economic Resilience It's becoming clear that a region's ability to prevent, tolerate, and quickly recover from large economic disruptions is tied to its economic property. In truth, economic resilience encompasses three fundamental characteristics in the context of economic development: the ability to quickly recover from a shock, the ability to tolerate a shock, and the ability to avoid the shock completely. In order to build economic resilience in a local or regional economy, it is necessary to be able to foresee risk, assess how that risk will affect critical economic assets, and develop a responsive capability.

The Comprehensive Economic Development Strategy (CEDS), revealed that whether those in locations likely to experience significant natural disaster or those dealing with immediate or pending economic shifts, must be able to recognize their vulnerabilities. They should then develop goals, strategies, and actions that can mitigate the effects of an economic incident and support long-term recovery efforts. In addition to identifying regional vulnerabilities and specific actions to address them, the region should establish mechanisms to facilitate

active and regular communication between the relevant sectors to collaborate on common challenges. The economic development organization should be prepared to serve as a responsive participant in economic recovery efforts. The region should also be prepared to serve as an information hub by collecting data and convening the appropriate players to facilitate recovery post-disruption. The effectiveness of a region's response t o a major economic disruption is often enhanced if the public, private, education, and nonprofit sectors are aware of each other's roles and responsibilities – particularly as they pertain to recovering from economic shocks. Established communication networks and information collection protocols coupled with broadly understood knowledge of key elements (such as supply-chain relationships) can help speed a region's response. Once the networks are established, participants can be called upon in times of crisis to provide services and support in the case of a disruption.

According to Voinescu&Moisoiu (2015), competitiveness is clearly one of the most frequently used concepts in current economic policies, in the regional or national policy frameworks and strategies, in businesses, especially when they discuss about growth or convergence, when strategies or comparative analysis are designed.

Rural communities can be understood as vulnerable social-ecological systems (SES) that need to build resilience to withstand internal and external stresses from social, economic, and political changes (Adger 2000, Wilson et al. 2013). It has been argued that many aspects of adaptive capacity reside in social networks (Adger 2003) and that these are a crucial source of resilience (Folke et al. 2005, Folke 2006, Berkes and Ross 2013). This applies in particular to rural communities in the Global South, where often a lack of access to resources, knowledge, and functioning institutions is a major obstacle to sustainable development (Etzold et al. 2012). However, although investigations into the role of social networks is growing at a fast pace, it remains scattered across different strands of research, with related but separate research agendas (Videras 2013).

The concept of disaster resilience has gained attention in political spheres and news outlets over the past few years, yet relatively few empirical measures of the concept exist (Cutter, 2016). Furthermore, research into urban resilience has dwarfed our understanding of disaster resilience in rural places. According to Korber and McNaughton (2017) The concept of resilience has been used in a variety of fields, including disaster management (Manyena, 2006),Global Competitiveness Index (GCI) developed by the World Economic Forum (WEF) has been used as a standard to measure a country's competitiveness and therefore is expected to be related to economic strength and growth (Xia et al., 2012)

Economic Dynamism is associated with activities that create stable expansion of business and industries and higher employment. This is the concrete representation of productivity as it matches the output of the local economy with local resources. It is a combination of the entrepreneurial spirit and the financial institutions that will channel dynamism that implies that localities are the centers of economic activities. This indicator focuses on the a.) size of the local economy as measured through business registrations, capital, revenue, and permits, b.) growth of the local economy, c.) capacity to generate employment, d.) cost of living, e.) cost of doing business, f.) financial deepening, g.) productivity and h.) presence of business and professional organizations. Economic Dynamism is associated with activities that create stable expansion of business and industries and higher employment. This is the concrete representation of productivity as it matches the output of the local economy with local resources. It is a combination of the entrepreneurial spirit and the financial institutions that will channel dynamism that implies that localities are the centers of economic activities. This indicator focuses on the a.) size of the local economy as measured through business registrations, capital, revenue, and permits, b.) growth of the local economy, c.) capacity to generate employment, d.) cost of living, e.) cost of doing business, f.) financial deepening, g.) productivity and h.) presence of business and professional organizations. Economic Dynamism is associated with activities that create stable expansion of business and industries and higher employment. This is the concrete representation of productivity as it matches the output of the local economy with local resources. It is a combination of the entrepreneurial spirit and the financial institutions that will channel dynamism that implies that localities are the centers of economic activities. This indicator focuses on the a.) size of the local economy as measured through business registrations, capital, revenue, and permits, b.) growth of the local economy, c.) capacity to generate employment, d.) cost of living, e.) cost of doing business, f.) financial deepening, g.) productivity and h.) presence of business and professional organizations. Economic Dynamism is associated with activities that create stable expansion of business and industries and higher employment. This is the concrete representation of productivity as it matches the output of the local economy with local resources. It is a combination of the entrepreneurial spirit and the financial institutions that will channel dynamism that implies that localities are the centers of economic activities. This indicator focuses on the a.) size of the local economy as measured through business registrations, capital, revenue, and permits, b.) growth of the local economy, c.) capacity to generate employment, d.) cost of living, e.) cost of doing business, f.) financial deepening, g.) productivity and h.) presence of business and professional organizations. Economic Dynamism is associated with activities that

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Government Efficiency Scores refers to the quality and reliability of government services and governement support for effective and sustainable productive expansion. This indicator looks at the governemnt as an institution that is generally corrupt; able to protect and enforce contracts; apply moderate and reasonable taxation and is able to regulate proactively (La Porta et al, 1999). This represents the people and culture factor that porter alluded to in understanding the process of competitiveness and making locations productive. This indicator is composed of a.) capacity of health services, b.) capacity of schools, c.) security, d.) business registration efficiency, e.) compliance to BPLS standards, f.) presence of investment promotions unit, g.) compliance to national directives for LGUs, h.) ratio of LGU collected tax to LGU revenues, i.) most competitive LGU awardee, and j.) social protection quality and reliability of government services and government support for effective and sustainable productive expansion. This indicator looks at the government as an institution that is generally not Infrastructure refers to the physical building blocks that connect, expand, and sustain a locality and its surroundings to enable the provision of goods and services. It involves basic inputs of production such as energy, water; interconnection of production such as transportation, roads, and communications; sustenance of production such as water, disaster preparedness, environment sustainability and human capital formation infrastructure. This represents the idea of making productivity sustainable over time. It is divided into ten indicators such as a.) existing road network, b.) distance from municipality center to major ports, c.) Department of Tourism - accredited accommodations, d.) Availability of Basic Utilities, e.) annual investment in infrastructure, f.) connection of ICT, g.) number of public transportation vehicles, h.) health infrastructure, i.) education infrastructure and g.) number of ATM's.

Resiliency refers to the capacity of a locality to facilitate business and industries to create jobs, raise productivity, and increase the incomes of citizens over time despite of the shocks and stresses it encounters. This implies that the role of local governments is critical in ensuring a competitive environment to make business sustain their profits, create jobs, and increase the productivity of its people. In order to be able to do this, it must be resilient in tis infrastructure, governance, social and environmental systems. This indicator focuses on the following, a.) land use plan, b.) disaster risk reduction plan, c.) annual disaster drill, d.) early warning system, e.) budget for DRRMP, f.) local risk assessments, g.) emergency infrastructure, h.) utilities, i.) employed population and f.) sanitary system.

These indicators were regarded as the contributor to the local economic development and competitiveness up to the regional, national and global levels according to the Competitiveness Bureau of the Department of Trade and Industry.

III. Methodology

This is a descriptive study that examines the competitiveness index of Surigao del Sur's component cities. It uses a quantitative descriptive design with a data mining method, with data sets derived from the competitive index of Surigao del Sur cities. The Competitiveness Bureau of the Department of Trade and Industry provides the information for this index. Economic dynamism, government efficiency, infrastructure, and resiliency are among the competitiveness indexes. The study employed descriptive and inferential statistics as statistical methods. The spatial distribution of the discovered competitiveness indices of the two cities included in the study was also determined using a Geographic Information System.

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ECONOMIC DYNAMISM	Computed Value	p-value	Decision	Conclusion
1.1 Size of the Local Economy	35.00	0.666	Failed to Reject Null	There is no significant difference
			Hypothesis	
1.2 Growth of the Local Economy	35.00	0.627	Failed to Reject Null	There is no significant difference
			Hypothesis	
1.3 Structure of the Local Economy	45.00	0.000	Reject Null	There is a significant difference
			Hypothesis	
1.4 Safety Compliant of the	13.00	0.014	Reject Null	There is a significant difference
Business			Hypothesis	-
1.5 Increase of the Employment	10.00	0.006	Reject Null	There is a significant difference
			Hypothesis	-
1.6 Cost of Living	40.50	1.00	Failed to Reject Null	There is no significant difference
		(same	Hypothesis	_
		value)		
1.7 Cost of doing business	26.00	0.222	Failed to Reject Null	There is no significant difference
			Hypothesis	_
1.8 Financial Deepening	34.50	0.605	Failed to Reject Null	There is no significant difference
			Hypothesis	_
1.9 Productivity	35.00	0.666	Failed to Reject Null	There is no significant difference
			Hypothesis	_
1.10 Presence of Business	37.00	0.796	Failed to Reject Null	There is no significant difference
Organization			Hypothesis	-

IV. Results and Discussion

Significant Difference between the Two Cities in terms of Economic Dynamism * p-value < 0.05 – reject null hypothesis, otherwise accept.

The table presents the Significant Difference between the two cities in terms of economic dynamism. This notion is linked to activities that result in consistent growth of businesses and industries, as well as increased employment. It is a depiction of productivity since it compares the production of the local economy to the resources available in the area. Localities are propelled toward becoming economic hubs by a combination of entrepreneurial drive and final institutions. For this variable, there are ten indicators. Structures of the local economy, business safety compliance, and employment growth are assessed to have a significant difference among the 10 indicators tested at the 0.05 level of significance. The remaining indicators were found to have no significant difference as an index of economic dynamism. These include the following: size of the local economy, growth of the local economy, cost of living, cost of doing business, financial deepening, productivity, and presence of business organization.

GOVERNMENT EFFICIENCY	Computed	p-value	Decision	Conclusion
	Value			
2.1 Compliance to National Directives	25.50	0.673	Failed to Reject Null	There is no significant difference
			Hypothesis	
2.2 Presence of Investment Promotion Unit	23.50	0.666	Failed to Reject Null	There is no significant difference
			Hypothesis	-
2.3 Business Registration Efficiency	3.5.50	0.56	Failed to Reject Null	There is no significant difference
			Hypothesis	-
2.4 Capacity to Generate Local Resources	38.00	0.863	Failed to Reject Null	There is no significant difference
			Hypothesis	-
2.5 Capacity of Health Services	18.00	0.49	Reject Null Hypothesis	There is a significant difference
2.6 Capacity of Education Services	9.00	0.04	Reject Null Hypothesis	There is a significant difference
2.7 Recognition Performance	12.50	0.011	Reject Null Hypothesis	There is a significant difference
2.8 Compliance to Business Permits and	33.00	0.546	Failed to Reject Null	There is no significant difference
Licensing System Standards			Hypothesis	-
2.9 Peace and Order	6.00	0.001	Reject Null Hypothesis	There is a significant difference
2.10 Social Protection	12.00	0.011	Reject Null Hypothesis	There is a significant difference

Table 2. Significant Difference between the Two Cities in terms of Government Efficiency

* p-value < 0.05 – reject null hypothesis, otherwise accept.

The quality and dependability of government services, as well as government assistance for successful and long-term productive expansion, are measured by government efficiency scores. This component represents the importance of people and culture in comprehending the competitiveness process and making locations fruitful. Five (5) of the ten (10) variables determined to have a substantial difference as an index of government efficiency in both cities: health-care capacity, education-care capacity, recognition performance, peace and order, and social protection.Compliance with national directives, the presence of an investment promotion unit, the efficiency of business registration, the ability to generate local resources, and compliance with business

permits and licensing system standards are all indicators that show no significant differences between the two cities.

INFRASTRUCTURE	Computed	p-value	Decision	Conclusion
	Value	_		
3.1 Roads	10.00	0.000	Reject Null Hypothesis	There is a significant difference
3.2 Ports	45.00	0.000	Reject Null Hypothesis	There is a significant difference
3.3 Basic Utilities	19.50	0.063	Failed to Reject Null	There is no significant difference
			Hypothesis	
3.4 Number of Public Transportation	23.00	0.136	Failed to Reject Null	There is no significant difference
Vehicles			Hypothesis	-
3.5 Education Infrastructure	1.00	0.000	Reject Null Hypothesis	There is a significant difference
3.6 Health Infrastructure	3.000	0.000	Reject Null Hypothesis	There is a significant difference
3.7 LGU Investment in Infrastructure	12.00	0.011	Reject Null Hypothesis	There is a significant difference
3.8 Accommodation Capacity		-	A lot of missing data	
3.9 Information Technology Capacity	38.00	0.863	Failed to Reject Null	There is no significant difference
			Hypothesis	_
3.10 Financial Technology Capacity	30.00	0.387	Failed to Reject Null	There is no significant difference
			Hypothesis	

Table 3. Significant Difference between the Two Cities in terms of Government Efficiency

* p-value < 0.05 – reject null hypothesis, otherwise accept.

In terms of infrastructure, it refers to the physical elements that link, expand, and sustain a community and its environs in order to facilitate the delivery of products and services. It includes essential production inputs like energy and water, as well as interconnections like transportation, roads, and communication. Roads, ports, education infrastructure, health infrastructure, and LGU investment all showed a substantial difference in this variable, according to the table. However, there was no discernible change in basic utilities, the number of public transportation vehicles, information technology capacity, or financial technology capability.

Table 4. Signific	ant Difference b	etween the Two	Cities in term	s of Governm	ent Efficiency
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RESILIENCY	Computed	p-value	Decision	Conclusion
	Value	_		
4.1 Land Use Plan			Not required	
4.2 Disaster Risk Reduction Plan			Not required	
4.3 Annual Disaster Drill			Not required	
4.4 Early Warning System			Not required	
4.5 Budget for Disaster Risk Reduction	24.00	0.277	Failed to Reject Null	There is no significant difference
-			Hypothesis	-
4.6 Local Risk Assessment			Not required	
4.7 Emergency Infrastructure	17.00	0.040	Reject Null Hypothesis	There is a significant difference
4.8 Redundancy of Utilities			Not required	
4.9 Employed Population	10.00	0.006	Reject Null Hypothesis	There is a significant difference
4.10 Sanitary System	35.00	0.666	Failed to Reject Null	There is no significant difference
			Hypothesis	

* p-value < 0.05 – reject null hypothesis, otherwise accept.

Resiliency refers to a community's ability to assist business and industry in order to create jobs, enhance productivity, and increase citizen income over time, despite natural or man-made disasters. Due to a lack of data for various components, only four indicators were examined for this component: disaster relief budget, emergency infrastructure, employed population, and sanitary system. Emergency infrastructure and employed population were shown to have a significant difference as indices of resiliency in the two cities, however budget for disaster risk reduction and sanitary system did not have a significant difference.



Figure 1

The allocation for the cities' catastrophe risk reduction management efforts is shown in Figure 1. One of the primary issues facing the rising economies of cities is disaster. It also has a negative impact on local economies. Surigao del Sur is located on Mindanao's eastern coast, overlooking the Philippine Sea. It belongs to the second kind of climate, which is defined by year-round precipitation. The municipalities are prone to flooding and landslides as a result of the Province's continuing severe rains. Earthquakes are also felt, but there has been no evidence of a damaging hit in the Province.Figure 1 shows that Tandag City has a larger budget allocation for disaster risk reduction management programs; nevertheless, when it comes to budget increases, Bislig City has a greater rate than its counterpart city, with a little swing in 2016. Tandag City, on the other hand, has a rising budget trend for its DRRMP, which has fluctuated between 2011 and 2017. This budget is set aside to cover the costs of damage to the province in the event of a calamity. It's also utilized to educate and prepare the communities through public awareness and education programs.



Figure 2

Figure 2 depicts the total sales of all registered businesses in Philippine pesos. The statistic shows that over the first five years of the study's coverage, registered firms in Tandag did not have an active turnout, as seen in the graph; however, a modest escalation can be noticed in its counterpart city. However, there was a large gain from 2015 to 2016, with a minor downturn from 2016 to 2017, but it was able to maintain its momentum from 2017 to 2019. This could indicate that as the years passed, customers' purchasing power increased.Bislig City, on the other hand, has maintained a slight upward trend over the years, indicating that, while the increase is minor, it demonstrates that, in terms of gross sales of registered firms, investors have a greater capacity to accumulate income, contributing to the LGU's strong financial position.





Local government units (LGUs) make use of municipal resources to improve their services. Infrastructure is connected with development since it serves as a fundamental component of society and the economy, delivering services to homes and other enterprises. Infrastructure services improve the availability of transportation, energy, water, and sanitation services provided by the LGU, which has an impact on household quality of life. Infrastructure also contributes to economic growth by facilitating manufacturing and trade; as a result, susceptibility to both man-made and natural disasters is better addressed.Figure 3 demonstrates that for the first four years, both cities had nearly identical infrastructure allocation, with a minor decline in Tandag in 2015 and an increase in Bislig in the same year. Tandag City, on the other hand, shows a consistent upward tendency from 2016 to 2019, whilst Bislig shows an almost flattening pattern from 2017 to 2019. This indicates that the latter has allocated a significant portion of the LGU's budget to this measure, which in turn contributes to the City's competitiveness index by improving the locality's efficiency in terms of service delivery.



Figure 4

In terms of total revenue, the graph demonstrates that Bislig City has had a higher revenue than Tandag City for the past nine (9) years. Taxes levied by the city, such as business and property taxes, frequently raise revenue. The spatial distribution reveals a growth disparity, as seen in the image, with Bislig outperforming the others. The revenue platform is shifting away from real estate taxes and toward business taxes.

III. Conclusions, Recommendations, Policy Implications

In terms of the selected metrics, the province of Surigao del Sur has a booming economy. Between 2011 and 2019, the gross in both cities increased.

In terms of economic dynamism, sub variables such as local economy structures, business safety compliance, and job growth were found to differ significantly between the two cities. The remaining sub indicators for the said variables, on the other hand, did not show any significant differences. When examining government efficiency, it was discovered that some metrics, such as health-care capacity, education-care capacity, recognition performance, peace and order, and social protection, did not differ significantly between the two cities.Roads, ports, education infrastructure, health infrastructure, and LGU investment all showed substantial differences in the infrastructure component. However, there was no discernible change in basic utilities, the number of public transportation vehicles, information technology capacity, or financial technology capability.

Due to a lack of data for several components, only four indicators were studied in terms of resiliency: disaster preparedness budget, emergency infrastructure, employed population, and sanitary system. Emergency infrastructure and employed population were shown to have a significant difference as indices of resiliency in the two cities, however budget for disaster risk reduction and sanitary system did not have a significant difference.

According to the geographical distribution, Tandag City has a larger allocation to disaster risk reduction management programs; yet, in terms of budget increases, Bislig City has a greater rate than its counterpart city, with a little swing in 2016. Tandag did not have an active turnout in terms of total sales of registered enterprises, as seen in the graph, although its counterpart city has a minor ascending trend.Bislig City, on the other hand, has maintained a slight upward trend over the years, indicating that, while the increase is minor, it demonstrates that, in terms of gross sales of registered firms, investors have a greater capacity to accumulate income, contributing to the LGU's strong financial position.In terms of infrastructure geographical distribution, it was discovered that Tandag experienced a minor reduction in 2015, whereas Bislig experienced an increase in the same year. Tandag City, on the other hand, shows a consistent upward tendency from 2016 to 2019, whilst Bislig shows an almost flattening pattern from 2017 to 2019.For the past nine (9) years, Bislig City has had a larger total revenue than Tandag City in terms of total revenue. The revenue platform shifted from real estate taxes to corporate taxes.

Policy Implications

The findings show that general organizational capacities and the socio-demographic profile of each area differ. This, in turn, has an impact on disaster/pandemic resilience collaboration networks as well as the problems faced by communities critical to disaster/pandemic mitigation activities. As a result, this evaluation is critical for LGUs to perform well in terms of economics. The availability of LGU potentials should be used as a benchmark for boosting economic stability in these LGUs so that they can better handle social issues in the community, particularly during man-made and natural calamities.Further, information from this study can be used as benchmark information in order to gauge the competitiveness index of the cities and municipalities in the Province in terms of economic dynamism, government efficiency, infrastructure, and resiliency. Moreover, data could also serve to trigger dialogues to generate

The findings of this study could be used to reevaluate the competitiveness score of cities in Surigao del Sur. Cities' strengths and shortcomings could be extensively evaluated in order to forecast LGU economic levels. While the national government can define the general conditions of productivity, direct productivity, such as those listed as indicators in the study, can serve as building blocks for a trajectory in local government performance. Thus, considering LGU activities as possible sources of productivity should be a key component of developing a policy agenda that may entice competitiveness and improve the socio-economic position and quality of life of local citizens, even in the face of disasters and pandemics.

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