

Reconnoitering LGU's Potential as a Creative Innovation Center of Nueva Vizcaya Using CMCI

Dr. Harrison T. Villanueva, Engr. Angelino A. Pimentel, and Dr. John Octavious S. Palina

Saint Mary's University, Philippines

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ABSTRACT

The Philippine Creative Industries Development Act (PCIDA) has identified the promotion of creative hubs and clusters as a key strategy to develop and support Philippine Creative Cities. This study assessed the potential of local government units (LGUs) in the province of Nueva Vizcaya to serve as creative innovation centers, utilizing the 2022 and 2023 Cities and Municipalities Competitiveness Index (CMCI) results, with the purpose of developing strategic actions to assist the LGUs in strengthening their potential and promoting stronger linkages and collaborations among stakeholders in the creative industries and the government. The study employed a mixed-methods approach, utilizing both quantitative and qualitative techniques. Percentile ranking was used to obtain the sum scores of the five main CMCI pillars - economic dynamism, government efficiency, infrastructure, resiliency, and innovation - to visualize the LGUs' potential as creative innovation centers, with the 50th percentile serving as the benchmark. Comparative analysis was also performed to evaluate the potential of the LGUs as creative innovation centers in the province and determine their respective strengths and weaknesses. The results showed that the municipality of Bayombong is considered the potential LGU for a creative innovation center. The province of Nueva Vizcaya presented more strengths in the resiliency and innovation pillars, but more weaknesses were seen in the infrastructure pillar. Based on these findings, the researchers crafted proposed strategic actions to enhance the LGUs' potential as creative innovation centers.

Keywords: creative hub, creative province, economic dynamism, government efficiency, infrastructure, innovation, resilience

INTRODUCTION

Background of the Study

Digitalization is a global force that innovation can ride through and expand a locality's competitiveness. The pandemic only hastened its expansion and importance. Towards these, the CMCI has been expanded to add the element of innovation as another pillar. With or without the pandemic, innovation has become a critical element of local competitiveness. Combined with the other pillars, innovation can attract more investments, foster inter-local cooperation, and improve social and economic indicators of practicing localities.

Compared to the overall competitiveness and resiliency, innovation models at the global and national levels are still limited. This idea already incorporates innovation as it is primarily the process of making creativity useful or adding value. After studying and comparing existing global, national, and sub-national reports on innovation and competitiveness, as well as comparisons and studies on cities and municipalities used by different agencies, relevant indicators were identified and considered to be integrated into the existing CMCI.

Many elements of innovation are already included in the CMCI. However, there is a need to be deliberate and intentional in adding innovation-related components to the CMCI to include elements of creativity and risk-taking. Furthermore, Prof. Porter added the idea of innovation when he said, "advantage must come from the ability to create and then commercialize new products and processes..." (Porter, 2011). Basically, elements in a locality that support the ability to create and commercialize new products comprise the innovation element.

He further explains that competitiveness advances when the public and private sectors work together to promote a favorable environment for innovation.

The convergence among the different surveys, frameworks, and reports led to five (5) core and convergent pillars necessary for realizing sustainable competitiveness: Economic Dynamism, Government Efficiency, Infrastructure, Resilience, and Innovation (Cities and Municipalities Competitiveness Index Manual)

Republic Act (RA) No. 11904, otherwise known as the Philippine Creative Industries Development Act (PCIDA) mandates the development of vibrant Philippine creative industries by protecting and strengthening the rights and capacities of creative firms, artists, artisans, creators, creative workers, indigenous cultural communities, creative content providers, and other stakeholders. Furthermore, the law also seeks to develop and promote Philippine Creative Cities to produce more UNESCO-designated creative cities in the country by placing creativity and culture at the heart of local development plans and promoting the establishment of creative hubs and clusters (DTI Website, 2022).

Aligned with the 2023 Philippine Creative Industries Month (PCIM) Celebration themed “Celebrating Filipino Creativity, Advancing Creative Philippines,” the Congress embodied the vision of transforming cities and municipalities into dynamic hubs of creativity and innovation. With the theme of “Building Creative Cities and Municipalities, Elevating Local Competitiveness,” the congress aimed to inspire and encourage transformative governance approaches among policymakers, who expressed keen support for the creative sector.

Secretary Alfredo E. Pascual of the Department of Trade and Industry highlighted the Department’s initiatives and programs to promote the potential of creative industries pursuant to the Philippine Creative Industries Development Act (PCIDA). He cited ongoing programs such as the Philippine Creative Industries Month, which is aimed at creating a better and empowering environment for our creative sector, and the Young Creatives Challenge (YC2), which is aimed to provide a platform to nurture and recognize the talents of the Filipino youth (Press Release, 2023).

Moreover, Trade Undersecretary for Competitiveness and Innovation Group Rafaelita Aldaba also shared that the Philippines’ creative industry is expected to post double-digit growth in the next three years, driven by government initiatives to develop the sector. The sector also plays a significant role in Philippine trade with creative goods and services amounting to \$7 billion, which was 6.6 percent of our trade. Data from the Philippine Statistics Authority (PSA) showed there were 6.98 million Filipinos employed in creative industries in 2022, 10.5 percent higher than the 6.32 million individuals in 2021. She added that the creative industry contributed 7.3 percent to the Philippine economy in 2022, valued at P1.6 trillion or an increase of 12 percent from 2021. Further, she noted that the Philippines ranked first in ASEAN regarding creative services exports (Talavera, 2023; San Juan, 2023).

The promotion of the establishment of creative hubs and clusters are identified as strategies to develop and promote Philippine Creative Cities as mandated by the Philippine Creative Industries Development Act (PCIDA). The Creative Hub Report (2016) stated that a dynamic ecosystem of creative spaces and communities has developed over the last 10 years. They guide and support thousands of creative ventures but are still largely misunderstood and often undervalued. The word ‘hub’ has become a universal but slippery term to label centers of creative enterprise, representing many different shapes, sizes, and agendas. The hub has become a ubiquitous idea connoting a dynamic process of bringing together diverse talents, disciplines, and skills to intensify innovation. Creative hubs tend to mean all things to all people. This is not the result of a lack of clear thinking, but rather a symptom of a fast-changing and vibrant activity.

Other work states that creative hubs tend to be administered by ‘borough (or municipal) level and publicly funded economic development agencies who work together with a variety of private actors and whose primary focus is to offer services and facilities for cultural entrepreneurs.’ Thus, activities within hubs are focused on primarily providing cultural entrepreneurs (usually in the form of micro businesses and SMEs) in the creative sector with a number of tailored services that they may not have had access to if they were merely part of a cluster or on their own. Similarly, the European Creative Hubs Forum (2015) has outlined several activities they believe a creative hub should engage in, such as business support, networking, research, communication,

and talent support.

The study conducted by Dovey et al. (2016) also revealed that hubs have become nests for freelancers and micro-SME's to gather, connect and collaborate. They are lighthouses for forgotten city areas, gathering people in unused spaces, and connecting previously invisible communities. Hubs not only form communities, but they also develop a structured serendipity that enables people to connect in ways they hadn't before, inspiring new cross disciplinary collaborations, community engagements and modes of working.

With the data presented above, the study aimed to determine the LGU's potential as a Creative Innovation Center of the province using the five (5) core and convergent pillars of Cities and Municipalities Competitiveness Index (CMCI) from 2022 to 2023 to support the mandate of the Philippine Creative Industries Development Act (PCIDA) for the possible establishment of a creative innovation center in the Province of Nueva Vizcaya.

Statement of Research Problem and Objectives

The main objective of this study was to analyze the 2022 and 2023 Cities and Municipalities Competitiveness Index (CMCI) results by tracking LGU's potential as a Creative Innovation Center and developing strategic actions to assist the LGU's to strengthen their potential as a creative innovation center.

Specifically, it aimed to:

1. To analyze the 2022 and 2023 CMCI data of potential LGUs as a creative innovation center of Nueva Vizcaya.
2. To determine the strengths and weaknesses of the potential LGUs across the five main pillars of CMCI.
3. To develop strategic actions to assist the LGUs to strengthen their potential as a creative innovation center.

Significance of the Study

This study may help the province and LGUs determine its potential as a creative innovation center and its strengths and weaknesses across the five main pillars. The recommendations of this study may help the national, provincial and local administrators to adopt strategic actions to strengthen their potential as a creative innovation center.

Scopes and Limitations

This study determined LGU's potential as a Creative Innovation Center and the strengths and weaknesses of potential LGU's across the five main pillars of the Cities and Municipalities Competitiveness Index (CMCI).

The analysis of this data relied on the dataset provided by the Department of Trade and Industry (DTI) on the Cities and Municipalities Competitiveness Index. Strategic actions were proposed to strengthen the LGUs potential as a creative innovation center which could also promote stronger linkages and collaborations among stakeholders in the creative industries and the government.

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REVIEW OF RELATED LITERATURE

Republic Act No. 11904 otherwise known as the Philippine Creative Industries Development Act (PCIDA)

The PCIDA, which lapsed into law on 28 July 2022, mandates the development of vibrant Philippine creative

industries by protecting and strengthening the rights and capacities of creative firms, artists, artisans, creators, creative workers, indigenous cultural communities, creative content providers, and other stakeholders.

The law provides adequate support measures to the Philippine creative industries which currently face various binding constraints to growth, such as high output costs, fragmented education systems, piracy issues, lack of data and statistics, underdeveloped branding and infrastructure, and wide skill gaps and mismatch, among others.

The law also seeks to develop and promote Philippine Creative Cities to produce more UNESCO-designated creative cities in the country by placing creativity and culture at the heart of local development plans and promoting the establishment of creative hubs and clusters.

The promulgation of the PCIDA-IRR is set to advance the country's efforts in effectively executing the PCIDA towards enabling the creative industries to be a key driver of the country's post-pandemic economic recovery.

Secretary Pascual also indicated the enormous potential of the Philippine creative industries, noting the role of the different stakeholders in building a vibrant and scaled-up Philippine creative economy at the forefront of the Asia-Pacific Region, driving the country's development and further enriching our local culture. As a matter of fact, the creative industries contribute almost 8% to the economy with employment of 5 million workers and exports accounting for 12% of the country's total exports.

Meanwhile, DTI Undersecretary Rafaelita M. Aldaba added that "With new technologies & digital transformation, creative industries present new opportunities & innovation prospects for creative and cultural workers. Leveraging on cultural richness, skilled content artists and creators, and new technologies, the creative industries can act as the prime catalyst for creative disruption and innovation in the country".

The creative industries are included in the priority industries of the DTI under its science, technology, and innovation-driven industrialization strategy, which aims to grow globally competitive and innovative industries and create more and better jobs in the country (DTI Website, 2022).

Cities and Municipalities Competitiveness Index (CMCI)

The annual competitiveness assessment helps the country to be aware of the new trends and developments across the globe. This is one way of developing international connections and of forming alliances to address global crisis. Competitiveness ranking is done to determine the status of the country with respect to economy, governance, infrastructure, and resiliency. These four major factors are equally considered to maintain or improve the competitiveness index of the country (Zoleta-Nantes, Marqueses & Lacorte, 2021). However, due to the Covid-19 pandemic in 2020, the lockdowns have shifted economic activities online. Without access to stable internet connections, local governments are handicapped from participating in the new global economy. LGUs that have prepared for the fourth industrial revolution and the advent of artificial intelligence (AI) recognized that innovation is an important component of competitiveness. Hence, the Innovation Pillar started to be crafted and have been formally introduced as the 5th Pillar in 2022 (CMCI Manual).

According to the DTI CMCI page, the CMCI local competitiveness Framework adopted the framework developed by Michael Porter, which is also being used in several global surveys on competitiveness. Porter's definition of competitiveness focused on the idea of productivity. Productivity is defined as output per unit of input. Effectively, it attempts to measure how many final products can be produced using a limited number of inputs. Productivity also requires that efficient outputs command value in the local up to the global marketplace. Porter defined competitiveness as based on location and is essentially the productivity that companies located there can achieve (Porter, 2004). He explains location as a country's underlying source of its resources and productivity as how the country uses these resources. Using the same lens, local competitiveness is how a city or municipality knows its resources and how it uses these to improve its standard of living.

This is critical because Porter's definition encompasses all sectors of society. According to him, "almost

everything matters for competitiveness – schools, roads, financial markets, the consumer.” He also cautioned that to make all of these work for competitiveness, people and culture must also catch up with the mindset. Hence, improving competitiveness takes time. Improving productivity allows firms, cities, municipalities, and countries to improve their standards of living and thereby give prosperity to its citizens.

The convergence among the different surveys, frameworks, and reports led to five (5) core and convergent pillars necessary for realizing sustainable competitiveness: Economic Dynamism, Government Efficiency, Infrastructure, Resilience, and Innovation.

1. **Economic dynamism** is usually associated with activities that create stable expansion of businesses and industries and higher employment. The pillar matches the output and productivity of the local economy with the local resources. Localities are centers of economic activities, and due to this, business expansion and job creation are easily observable in local settings.
2. **Government efficiency** refers to the quality and reliability of government services and support for effective and sustainable productive expansion. This factor looks at government as an institution that is generally not corrupt; able to protect and enforce contracts; apply moderate and reasonable taxation and is able to regulate proactively (La Porta et al, 1999).
3. **Infrastructure** refers to the physical assets 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 waste, disaster preparedness, environmental sustainability; and human capital formation infrastructure.
4. **Resilience** refers to the capacity of a locality to build systems that can absorb change and disturbance and being able to adapt to such changes (Llanto, 2016). It spans frameworks that bind LGUs and their constituents to prepare for possible shocks and stresses; budgeting for disaster risk reduction; hazard/risk identification mechanisms; resilience-related infrastructure; and resilience-related mechanisms.
5. **Innovation** is the creation, development, and implementation of a new product, process, or service in the aim of improving efficiency, effectiveness, or competitive advantage.

These core pillars need to be linked to the sub-national, national, and global indicator systems so that they can contribute to overall national competitiveness within the global perspective.

Creative Hubs/ Innovation Centers in the Philippines

At the heart of the Philippine archipelago, for the last 500 years, the city of Cebu, home to a population of 923,000, has been a hub of trade, culture and innovation. Traditionally known for furniture, arts and crafts, and fashion design, it is generally considered to be the country’s design capital. Moreover, in recent years, Cebu has also become a global hub for multimedia arts and IT outsourcing. In 2008, Cebu was designated a British Council Creative City of Design and was the ASEAN City of Culture in 2015.

Cebu City has always been very supportive of the arts, best epitomized by Sinulog - the country's longest-running festival that attracts 2 million visitors annually, showcasing Cebuano heritage and imagination. June 2018 saw the launch of the first Cebu Design Week (CDW), a multi-disciplinary, multi-format series of events which aimed to connect the fragmented creative ecosystem, providing opportunities for the creation, collaboration, and development of long-term platforms for sustainable development. In partnership with Cebu Business Month, these events are perhaps the most significant owing to their promoting of cross-sectoral collaborations and multi-disciplinary approaches to achieving unique and effective results that are socially-inclusive, environmentally-respectful and economically-sustainable.

It is estimated that the creative industries account for \$ US 550 million in revenue, representing 6% of Cebu’s GDP (UNESCO Creative Cities Network). This sector comprises over 1,300 companies, providing

employment for approximately 50,000 individuals. Given its significance within the local community, the city hosts a variety of initiatives including the Cebu Heritage Week, Cebu Arts Week and the Cebu Public Library City to support and enhance local cultural industries. Beyond the numbers, the importance and dynamism of

design in Cebu is even more compelling. Long a melting pot of local and international talent, Cebu's design scene has more than kept pace with the rapid development of the city. Already in its 4th generation, Cebu's designers have also honed a native yet global aesthetic that respects the past, celebrates the present and anticipates the future (UNESCO Creative Cities Network).

Moreover, Dagooc (2023) also stated that the prime movers behind Cebu's creative industry are on track to achieve the ambitious goal of generating P30 billion in revenue by 2030. This places Cebu and the entire Central Visayas region at the forefront of artistic and creative innovation. With the government now fully committed to harnessing the industry's immense potential, Cebu is poised to become a thriving hub for artists and creatives alike.

The City Government of Baguio, in partnership with BAYO Foundation recently opened Creative Community Hub that aims not only to promote arts and creative products, but also to help develop the creativity and artistry of Baguio folks through training and infusion of science, technology and innovations. Dubbed as HARVEST (Heritage and Artisanry Re-imagined as a Vehicle for Economic growth, Sustainability and Technology) Creative CommUNITY Hub, it is situated in a City Environment and Parks Management Office (CEPMO) 2 – floor building inside the Baguio Botanical Garden. It currently houses arts and crafts exhibits, weaving equipment and a training area (Dar, 2022).

Studies on Creative Hubs/ Innovation Centers

The study of Virani & Malem (2015) suggest that although different creative hubs take on a number of different physical, spatial, organizational and operational manifestations they nonetheless can be understood as having four primary characteristics: first, they provide 'creative' services to creative SMEs, including micro-businesses; second, they are aimed specifically at early stage creative SMEs and micro-businesses; third, they are facilitated by trusted individuals who retain a number of important positions and conduct a number of important activities; and fourth, they have become important to the health of the local creative economy.

In another study of Leng, Mui, & Badarulzaman (2023) showed that reconceptualization of Malaysian creative hubs is timely and apt by taking into consideration also elements like location, culture-specificity and the influence of ICT as the creative hub concept, its form and operations morph and navigate in response to the current global COVID-19 pandemic.

The current study explores on the potential of LGUs as a creative innovation center of the province using the Cities and Municipalities Competitive Index. It is different from the above-cited research and other researches since it focuses on LGU level and identified its potential as creative innovation center using the five (5) core and convergent pillars of Cities and Municipalities Competitiveness Index (CMCI). The researchers will develop strategic actions to assist the LGU's to strengthen their potential as a creative innovation center in the province. The present study provides better understanding of the creative innovation center to inform provincial and local policy implementers on the strengths and weaknesses.

METHODOLOGY

Variables and Measures/Concept and Indicators

The study employed a mixed-methods approach, utilizing both quantitative and qualitative methods. To assess the potential of the LGUs as creative innovation centers, the researchers obtained the sum scores of the five main pillars of Cities and Municipalities Competitiveness Index (CMCI) for each LGU and used percentile ranking to visualize their potential, with the 50th percentile serving as the benchmark (Nantes et al., 2020).

The formula for percentile was given as follows:

Percentile=(number of vales below X+0.5)/n·100

The variables were:

n = total number of LGU in each classification

The researchers also used the 50th percentile ranking to determine level of competitiveness is based on the following scale used by Dumayas (2023).

High	The LGU belongs to top 80 th percentile
Medium	The LGU belongs to top 50 th to 79 th percentile
Low	The LGU belongs to bottom 50 th percentile

The researchers used a combination of cluster analysis, 2D bar charts, and line charts to present data on the potential of local government units (LGUs) in Nueva Vizcaya to serve as creative innovation centers, as well as the strengths and weaknesses of these potential LGUs across the five main pillars of CMCI.

Comparative analysis was performed to determine the potential of each local government unit as a creative innovation center. The researchers also used qualitative method by conducting interview with the Department of Trade Industry- Nueva Vizcaya Provincial Office CMCI focal person to identify strategic actions that could assist the LGUs in strengthening their potential as creative innovation centers, complementing the numerical data with contextual insights. By integrating these quantitative and qualitative methods, the study provided a comprehensive assessment of the LGUs' suitability and potential as a creative innovation center.

Research Design and Methods

The study employed a mixed-methods approach, utilizing both quantitative and qualitative techniques. Quantitative descriptive research approach was used to investigate the potential of each local government unit (LGU) in Nueva Vizcaya as a creative innovation center. The researchers compared the scores of each municipality across the five main pillars namely: economic dynamism, government efficiency, infrastructure, resiliency, and innovation, compiling and presenting the results using descriptive statistics, such as percentile ranking and comparative analysis. The study considered all fifteen municipalities of Nueva Vizcaya, as CMCI data across the five main pillars were available for each LGU, ensuring a comprehensive assessment of the province. To gain deeper insights, the researchers conducted interviews with the CMCI Focal Person of the Department of Trade and Industry Nueva Vizcaya Provincial Office, and based on the quantitative findings and qualitative interviews, the researchers also crafted strategic actions to assist the LGUs in strengthening their potential as a creative innovation center.

Statistical Test and Parameters

To summarize and describe the CMCI data of potential LGUs in Nueva Vizcaya, the researchers employed descriptive statistics, such as percentile ranking, allowing them to visualize the relative performance of the LGUs and identify potential municipality for a creative innovation center.

To compare the potential of LGUs as creative innovation centers using CMCI data, the researchers conducted a comparative analysis, involving the performance of LGUs within Nueva Vizcaya across the five pillars of the CMCI: economic dynamism, government efficiency, infrastructure, resiliency, and innovation. This comparative study highlighted the relative strengths and weaknesses of each LGU, providing insights into their potential to serve as a creative innovation center. By combining descriptive statistics and comparative analysis, the researchers were able to systematically assess the CMCI data and identify the most qualified LGU for further consideration as potential creative innovation center in Nueva Vizcaya.

ANALYTICAL RESULTS AND DISCUSSION

Section 1: Potential LGU's as a creative innovation center of Nueva Vizcaya

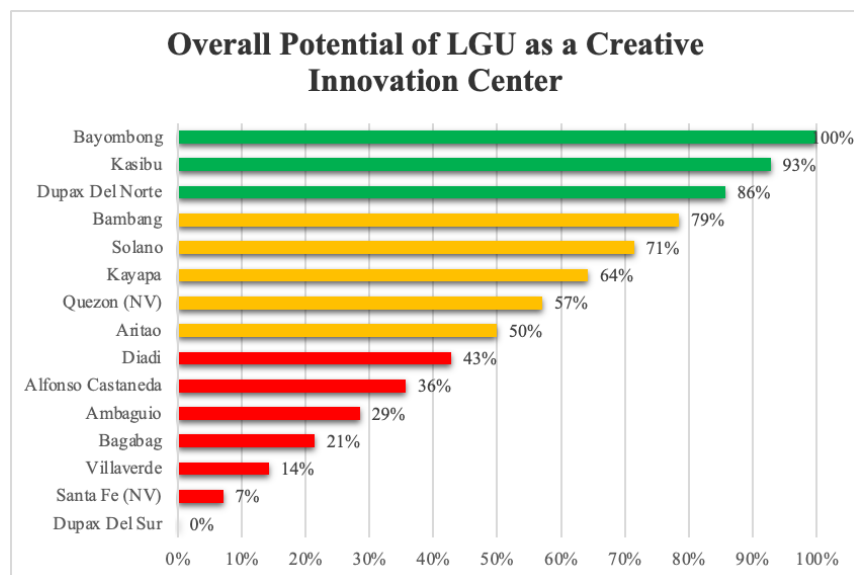


Figure 1. Analysis for the Overall Potential of LGUs as Creative Innovation Center in Nueva Vizcaya

Figure 1 shows the bar chart for the potential LGUs as creative innovative center in Nueva Vizcaya. As presented in the bar chart, Bayombong, Kasibu, and Dupax del Norte have the high potential to be a creative innovation center (with 80th percentile and above) followed by Bambang, Solano, Kayapa, Quezon, and Aritao with medium potential (with 50th to 79th percentile) and Diadi, Alfonso Castaneda, Ambaguio, Bagabag, Villaverde, Sta. Fe, Dupax del Sur with low potential (below 50th percentile). As seen in the chart, Bayombong has the highest potential to be a creative innovation center which is evident in their improvement in terms of government efficiency (Figure 3), infrastructure (Figure 4), and innovation (Figure 6).

Economic Dynamism

Economic Dynamism is usually 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. Conceptually, it is the combination of the entrepreneurial spirit and the financial institutions that will channel dynamism (Phelps, 2011). It is recognized that localities are the centers of economic activities. Therefore, business expansion and job creation are easily observable in local settings (DTI Cities and Municipalities Competitive Index).

LGU with Ranking Improvement (50th Percentile and above Ranking)		
1.	Ambaguio (5 th and 6 th class)	from 15 th to 4 th ranking
2.	Villaverde (5 th and 6 th class)	from 14 th to 3 rd ranking
LGU with DECLINE Ranking (below 50th Percentile Ranking)		
1.	Dupax Del Sur (3 rd to 4 th class)	from 12 th to 13 th ranking
2.	Alfonso Castaneda (1 st to 2 nd class)	from 13 th to 14 th ranking
3.	Diadi (3 rd to 4 th class)	from 8 th to 11 th ranking
4.	Sta. Fe (3 rd to 4 th class)	from 9 th to 12 th ranking
5.	Dupax del Norte (3 rd to 4 th class)	from 3 rd to 10 th ranking
6.	Bagabag (1 st to 2 nd class)	from 11 th to 15 th ranking

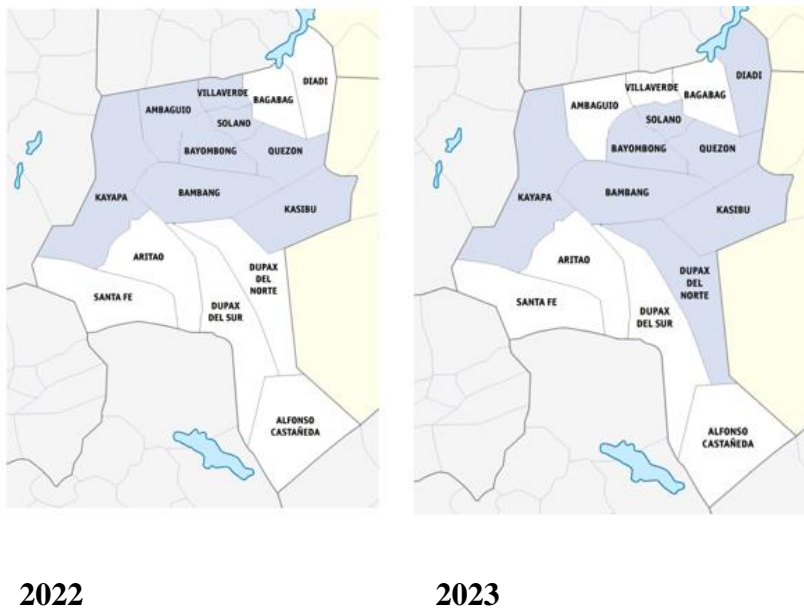


Figure 2. Percentile Ranking of Cities and Municipalities of the Province of Nueva Vizcaya in Economic Dynamism Pillar

Figure 2 presents the status of each municipality from 2022 to 2023 CMCI rankings. As to the map, the darker color represents the cities and municipalities that are above 50th percentile and the lighter color are those cities and municipalities which fall below 50th percentile.

Figure 2 presents that 2 or 13% of the LGUs belong to the 5th to 6th class municipalities ranked 50th percentile and above while 4 or 27% who are 3rd to 4th class municipalities and 2 or 13% who belong to the 1st to 2nd class municipalities fall below the 50th percentile for 2022 and 2023 in terms of economic dynamism. As presented on the GIS Map, the municipalities of Ambaguio and Villaverde are included in the above 50th percentile in 2023 which indicates an improvement in the competitive performance from 2022 while the municipalities of Dupax del Sur, Alfonso Castañeda, Diadi, Sta. Fe, Dupax del Norte, and Bagabag drop from the 50th percentile ranking in 2023. It can be seen in the map that the two 5th and 6th class municipalities of the province namely Ambaguio and Villaverde have the potential to be a creative innovation center in terms of economic dynamism.

LGU with Ranking Improvement (50th Percentile and above Ranking)	
1. Bayombong (1 st to 2 nd class)	from 7 th to 1 st ranking
2. Bambang (1 st to 2 nd class)	From 7 th to 2 nd ranking
3. Aritao (1 st to 2 nd class)	From 12 th to 4 th ranking
LGU with DECLINE Ranking (below 50th Percentile Ranking)	
1. Diadi (3 rd to 4 th class)	From 2 nd to 8 th ranking
2. Alfonso Castañeda (1 st to 2 nd class)	From 6 th to 13 th ranking

Government Efficiency

Government Efficiency refers to the quality and reliability of government services and support for effective and sustainable productive expansion. The indicators on this pillar are capacity of health services, capacity of school services, compliance to BPLS standards, business registration efficiency, compliance to national directives, recognition of performance, peace and order, presence of business promotion unit, capacity to generate local resources, and social protection.

Efficient government is visible through actions by adversely addressing different areas of concern and introducing new practices in various areas of public service. Efficiency in government can be a result of proper spending and budget allocations to different projects that will benefit the people. Moreover, efficiency is about doing more for less. Maintaining or improving the quality of service is the heart of an efficient government. Producing these services involves maximizing outputs, such as the volume of services provided, and minimizing inputs such as the number of resources or amount of capital (Zoleta-Nantes, Marqueses & Lacorte, 2021).

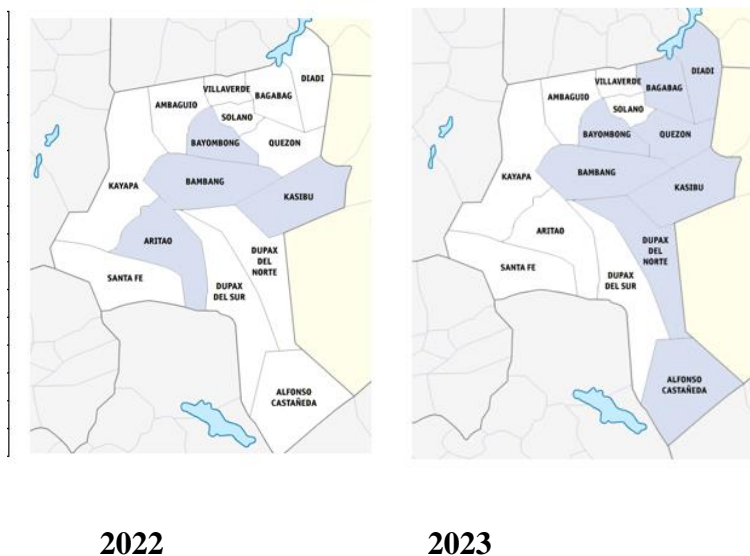


Figure 3. Percentile Ranking of Cities and Municipalities of the Province of Nueva Vizcaya in Government Efficiency Pillar

Figure 3 presents that 3 or 20% of the LGUs who belong to the 1st and 2nd class municipalities ranked above the 50th percentile while 1 or 7% of the LGUs each are 3rd to 4th class and 1st to 2nd class municipalities respectively fall below the 50th percentile for 2022 and 2023 in terms of government efficiency. As shown in the figure, three (3) out of seven 1st class municipalities improved in ranking in terms of government efficiency pillar. As shown on the GIS Map, the municipalities of Bayombong, Bambang, and Aritao are included in the above 50th percentile in 2023 which indicates an improvement in the competitive performance from 2022 while the municipalities of Diadi and Alfonso Castañeda drop from the 50th percentile ranking in 2023. It can be concluded that in terms of government efficiency pillar, the 1st to 2nd class municipalities like Bayombong, Bambang, and Aritao have the potential to be a creative innovation center.

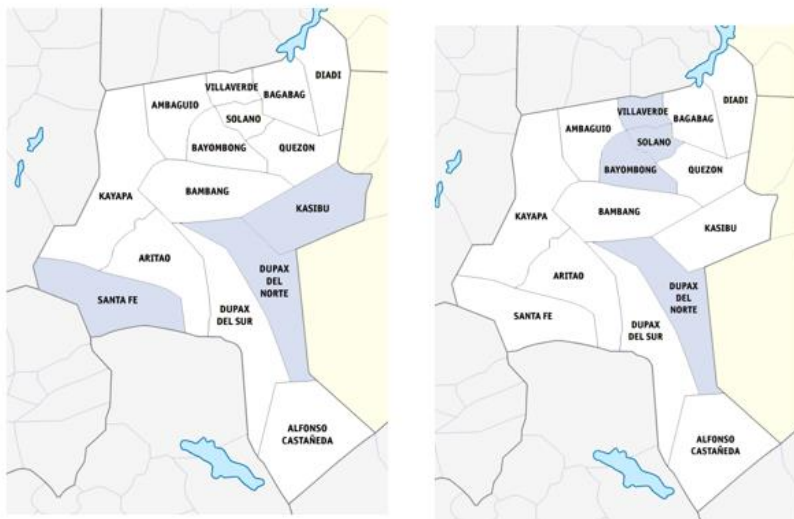
Infrastructure

Infrastructure is the physical building blocks which connect, expand, and sustain a locality and its surrounding to enable the provision of goods and services refers to the infrastructure pillar. The indicators which measure the competitiveness level in this pillar are availability of basic utilities, accommodation capacity, financial deepening, distance to ports, education, health, information technology capacity, LGU investment, road network and transportation vehicle.

Furthermore, infrastructure is vital to economic development, as it is key to achieving higher and stable economic growth. Although most economies in Asia have already developed their basic infrastructure, the focus of development is usually on the quantity rather than the quality (Ismail & Mahyideen, 2015). According to World Economic Forum (2014), well-developed infrastructure not only reduces the distance between regions but also integrates national markets and connects them at low costs to other economies.

LGU with Ranking Improvement	
(50th Percentile and above Ranking)	
1. Villaverde (5 to 6 th class)	From 8 th to 1 st ranking
2. Solano (1 st to 2 nd class)	From 7 th to 2 nd ranking

3. Bayombong (1 st to 2 nd class)	From 5 th to 4 th ranking
LGU with DECLINE Ranking	
(below 50th Percentile Ranking)	
1. Dupax del Norte (3 rd to 4 th class)	From 1 st to 3 rd ranking
2. Kasibu (3 rd to 4 th class)	From 3 rd to 6 th ranking
3. Quezon (3 rd to 4 th class)	From 12 th to 14 th ranking
4. Sta. Fe (3 rd to 4 th class)	From 2 nd to 7 th ranking



2022

2023

Figure 4. Percentile Ranking of Cities and Municipalities of the Province of Nueva Vizcaya in Infrastructure Pillar

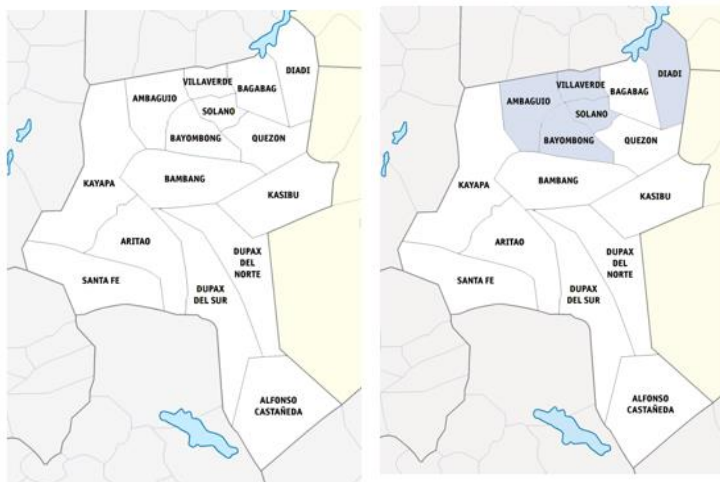
Figure 4 presents that 2 or 13% who belong to the 1st and 2nd class municipalities and 1 or 7% who are 5th to 6th class municipalities ranked above 50th percentile while 4 or 27% who belong to the 3rd to 4th class municipalities fall below the 50th percentile for 2022 and 2023 in terms of infrastructure. As shown in the figure, two (2) out of seven 1st class municipalities improved in ranking in terms of infrastructure pillar. As shown on the GIS Map, the municipalities of Villaverde, Solano, and Bayombong are included in the above 50th percentile in 2023 which indicates an improvement in the competitive performance from 2022 while the municipalities of Dupax del Norte, Kasibu, Quezon, and Sta. Fe drop from the 50th percentile ranking in 2023. It can be seen that two out of the seven 1st to 2nd class municipalities and one 3rd to 4th class municipalities have the potential to be a creative innovation center in terms of infrastructure.

Resiliency

Resiliency is the capacity of a locality to facilitate businesses and industries to create jobs, raise productivity, and increase the incomes of citizens over time despite the shocks and stresses it encounters. This implies that the role of local governments is critical in ensuring a competitive environment to make businesses sustain their profits, create jobs, and increase the productivity of their people. In order for localities to be able to do this, they must be resilient in their infrastructure, governance, social and environmental systems.

According to Moberg and Simonsen (2014) and cited by Lesaca (2018), resilience is the “capacity to deal with changes, shocks, and stresses while at the same time growing and developing. It is about tolerance and adapting to the effects brought about by such shocks and stresses”. Being resilient leads to finding adaptive strategies that secure the needs of the community not to be paralyzed in times of crisis. It also ensures that cities or municipalities can easily overcome the challenges brought about by unexpected crises and bring everything back to normal soon.

LGU with Ranking Improvement (50th Percentile and above Ranking)	
1. Solano (1 st to 2 nd class)	from 9 th to 2 nd ranking
2. Diadi (3 rd to 4 th class)	From 10 th to 5 th ranking
3. Ambaguio (5 th to 6 th class)	From 8 th to 1 st ranking
LGU with DECLINE Ranking (below 50th Percentile Ranking)	
1. Quezon (3 rd to 4 th class)	From 12 th to 14 th ranking
2. Alfonso Castaneda (1 st to 2 nd class)	From 5 th to 15 th ranking



2022

2023

Figure 5. Percentile Ranking of Cities and Municipalities of the Province of Nueva Vizcaya in Resilience Pillar

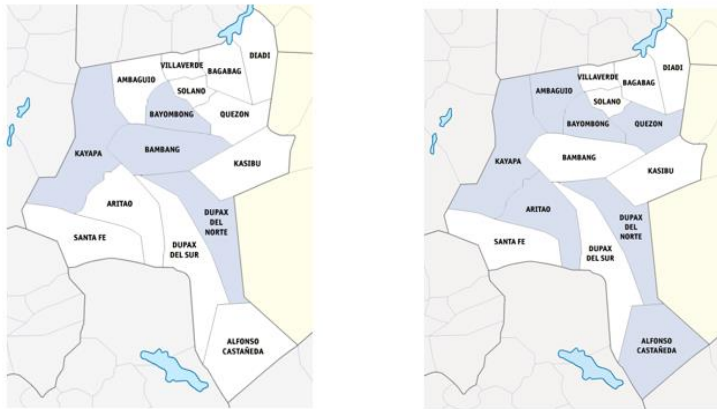
Figure 5 presents that 1 or 7% each for the 1st to 2nd class, 3rd to 4th class, and 5th to 6th class municipalities ranked above 50th percentile while 1 or 7% each for the 1st to 2nd class and 3rd to 4th class municipalities fall below the 50th percentile for 2022 and 2023 in terms of resilience. As shown in the figure, each class municipality is represented in terms of improvement in ranking in terms of resilience pillar. As shown on the GIS Map, the municipalities of Solano, Diadi, and Ambaguio are included in the above 50th percentile in 2023, which indicates an improvement in the competitive performance from 2022, while the municipalities of Quezon and Alfonso Castaneda drop from the 50th percentile ranking in 2023. It can be inferred that the potential to be a creative innovation center in terms of resiliency is distributed to each class municipality.

Innovation

INNOVATION refers to the ability of a locality to harness its creative potential to improve or sustain current levels of productivity. It hinges mainly on the development of creative capital which are human resources, research capabilities, and networking capacities.

LGU with Ranking Improvement (50th Percentile and above Ranking)	
1. Ambaguio (5 th to 6 th class)	from 11 th to 6 th ranking
2. Bayombong (1 st class)	from 3 rd to 2 nd ranking
3. Alfonso Castaneda (1 st to 2 nd class)	from 8 th to 5 th ranking
4. Aritao (1 st to 2 nd class)	from 10 th to 7 th ranking
5. Quezon (3 rd to 4 th class)	from 5 th to 3 rd ranking
LGU with DECLINE Ranking	

(below 50th Percentile Ranking)	
1. Solano (1 st to 2 nd class)	from 6 th to 9 th ranking
2. Bagabag (1 st to 2 nd class)	From 9 th to 12 th ranking
3. Bambang (1 st to 2 nd class)	From 2 nd to 11 th ranking



2022

2023

Figure 6. Percentile Ranking of Cities and Municipalities of the Province of Nueva Vizcaya in Innovation Pillar

Figure 6 presents that 3 or 20% belong to 1st to 2nd class municipalities, 1 or 7% each for 3rd to 4th class and 5th to 6th class municipalities ranked above 50th percentile while 3 or 20% are 1st to 2nd class municipalities who fall below the 50th percentile for 2022 and 2023 in terms of innovation. As shown in the figure, equal number of 1st to 2nd class municipalities experienced improvement and decline in ranking in terms of innovation pillar. As shown on the GIS Map, the municipalities of Ambaguio, Bayombong, Alfonso Castaneda, Aritao, and Quezon are included in the above 50th percentile in 2023 which indicates an improvement in the competitive performance from 2022 while the municipalities of Solano, Bagabag, and Bambang drop from the 50th percentile ranking in 2023. It can be concluded that most of the LGUs with improvement in innovation are 1st class municipalities, which qualifies them the potential to be a creative innovation center in the province.

Section 2: Strengths and weaknesses of the potential LGUs across the five main pillars of CMCI

Economic Dynamism

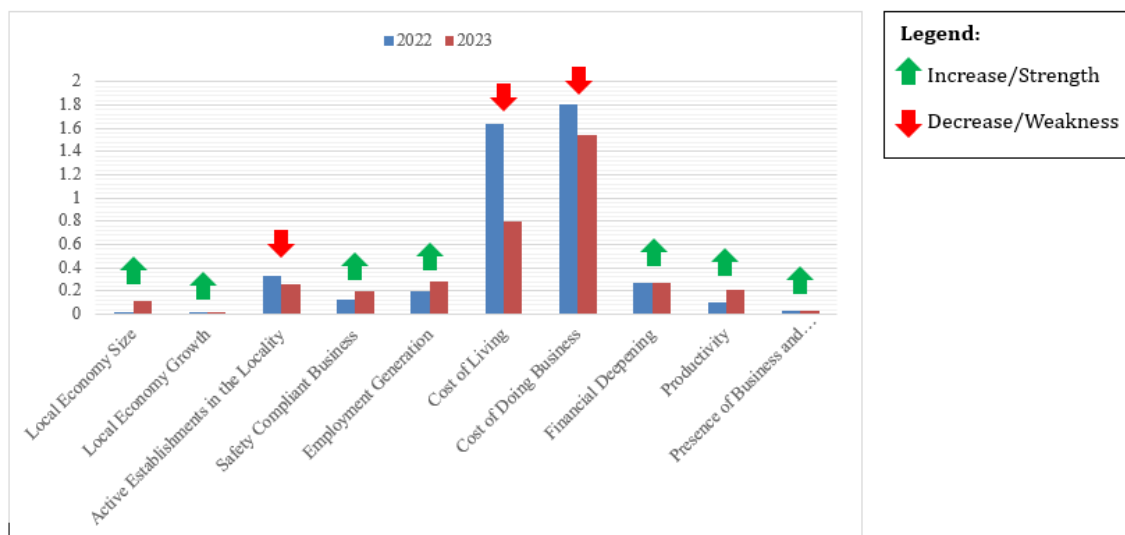


Figure 7: Strengths and Weaknesses of the Province of Nueva Vizcaya under Economic Dynamism

The graph shows all the indicators improved its scores from 2022 to 2023 except active establishments in the locality, cost of living, and cost of doing business. Moreover, no change was observed in local economy growth and financial deepening. Most of the indicators increased its scores from 2022 to 2023, the province needs to improve its local economy size, safety compliance business, employment generation, productivity, and presence of business and professional organizations.

Government Efficiency

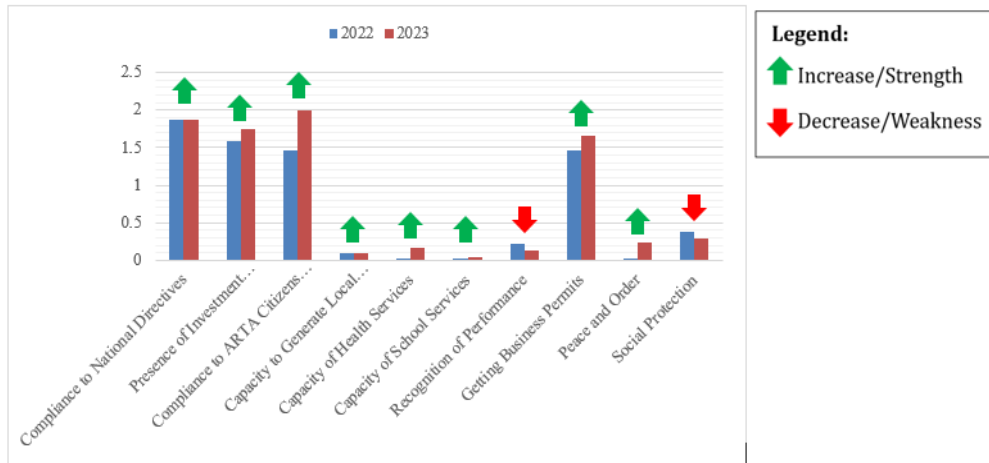


Figure 8. Strengths and Weaknesses of the Province of Nueva Vizcaya under Government Efficiency

The performance of the Province of Nueva Vizcaya in terms of government efficiency identified seven strengths out of ten indicators namely: presence of investment promotion unit, compliance to ARTA citizens charter, capacity to generate local resources, capacity of health services, capacity of school services, getting business permits, and peace and order. Moreover, no change was observed in compliance to national directives.

To attain government efficiency at a higher level, there is a need to provide quality and reliable government services particularly on the following indicators: recognition of performance and social protection.

The province of Nueva Vizcaya has more to address in government efficiency to make it more competitive and maintaining its compliance to implementing rules and regulations.

Infrastructure

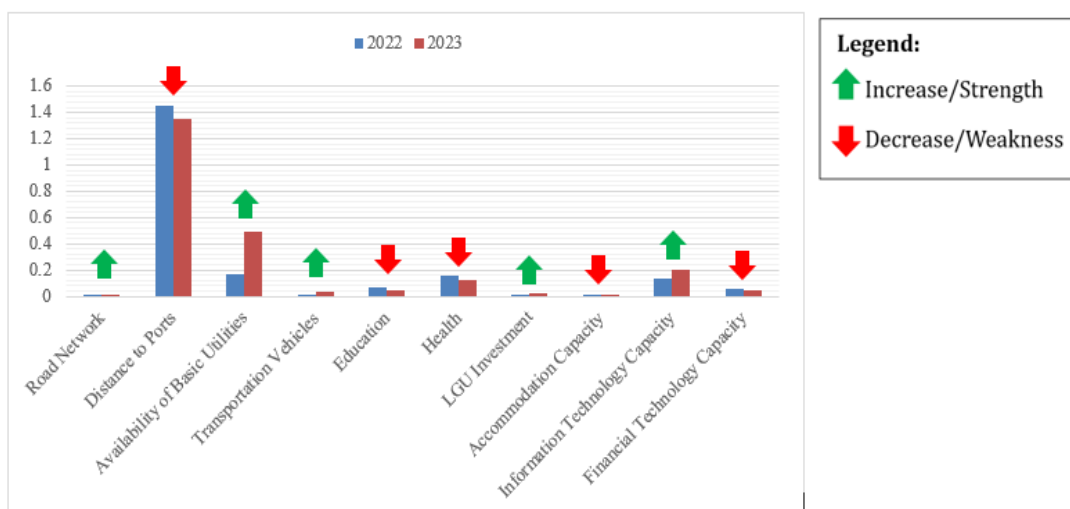


Figure 9. Strengths and Weaknesses of the Province of Nueva Vizcaya under Infrastructure

The graph shows all the indicators improved its scores from 2022 to 2023 except distance to ports, education, health, accommodation capacity, and financial technology capacity. Moreover, no change was observed in the road network. Moreover, a significant increase was evident in the availability of basic utilities. Most of the indicators increased its scores from 2022 to 2023. The province needs to improve its transportation vehicles, LGU investment, and information technology capacity.

Resilience

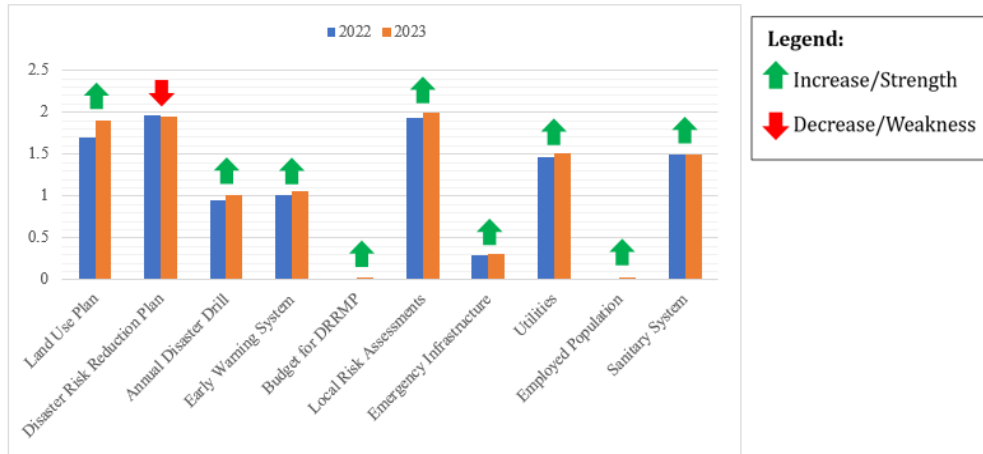


Figure 10. Strengths and Weaknesses of the Province of Nueva Vizcaya under Resilience

The graph shows all the indicators improved its scores from 2022 to 2023 except disaster risk reduction plan. Moreover, no change was observed in sanitary system. Most of the indicators increased its scores from 2022 to 2023, the province needs to improve its land use plan, annual disaster drill, early warning system, budget for DRRMP, local risk assessments, emergency infrastructure, utilities, and employed population.

Innovation

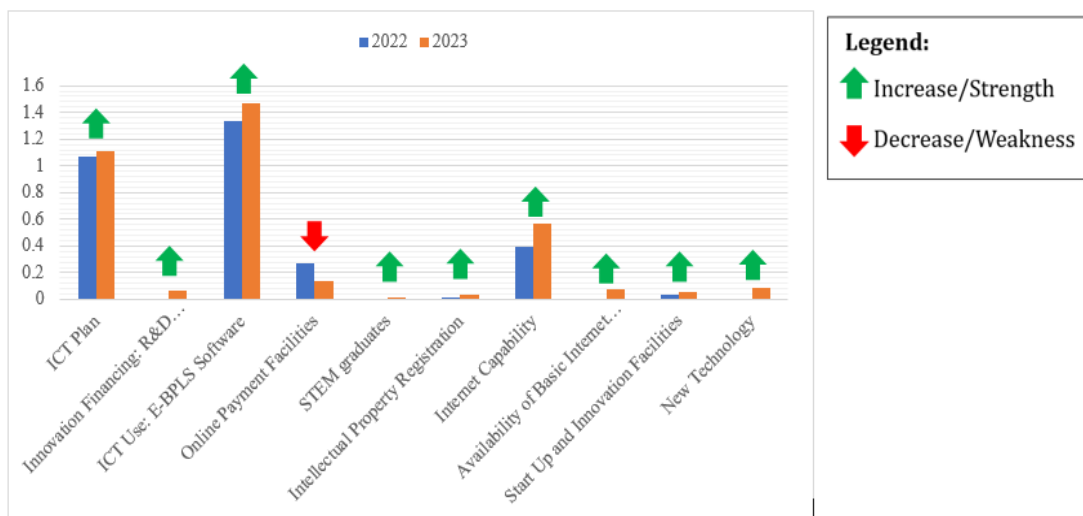


Figure 11. Strengths and Weaknesses of the Province of Nueva Vizcaya under Innovation

The graph shows all the indicators improved its scores from 2022 to 2023 except online payment facilities. Most of the indicators increased its scores from 2022 to 2023, the province needs to improve its ICT plan, innovation financing R&D Expenditures Allotment, ICT Use: E-BPLS Software, STEM graduates, intellectual property registration, internet capability, availability of basic internet service, start-up and innovation facilities, and new technology.

Section 3: Strategic Actions to Strengthen the LGUs Potential as a Creative Innovation Center

The following are strategic actions to strengthen the LGUs Potential as a Creative Innovation Center in the province of Nueva Vizcaya which is also aligned with the Philippine Creative Industries Development Act (PCIDA) and the Creative Industries and Development Plan.

Table 1: Proposed Strategic Actions to Strengthen the LGUs Potential as a Creative Innovation Center

STRATEGIC GOAL: IMPROVED ECONOMIC DYNAMISM	
<p>Economic Dynamism includes activities that create stable expansion of business and industries and higher employment. The pillars include size of the local economy, growth of the local economy, capacity to generate employment, cost of living, cost of doing business, financial deepening, productivity, presence of business and professional organizations, safety compliant business and local economy structure.</p>	
Strategies	Proposed Strategic Actions
<p>Create better, more enabling work environment and livelihood for creative workers in the province.</p>	<ol style="list-style-type: none"> 1. The Department of Labor and Employment and the Department of Trade and Industry may develop programs that promote the hiring and employment, occupational safety, and welfare of workers in the creative industries. 2. The Local Government Unit and the Department of Trade and Industry may provide incentives and promote job-creating investments; 3. The Local Government Unit and the Department of Trade and Industry may encourage and promote entrepreneurship and equal opportunities for all including women and youth; 4. The Local Government Unit may come up with policies for sustainable and dignified livelihood and labor welfare in the creative industry; and 5. The Local Government Unit and the Department of Trade and Industry may assist more entrepreneurs so that more employment opportunities will be created in terms of entrepreneurial education and training, access to funding and capital, implement supportive government policies and programs for entrepreneurs, such as tax incentives, subsidies, and streamlined regulatory processes, encourage networking events, industry meet-ups, and business conferences, create innovation hubs that bring together entrepreneurs from various industries, and assist entrepreneurs in accessing local and international markets.
<p>Strengthened linkages between and among the actors in Creative Ecosystem.</p>	<ol style="list-style-type: none"> 1. The Department of Trade and Industry, Intellectual Property Office, and Department of Science and Technology may create programs that promote a stronger IP ecosystem among the key players in the creative industry through conducting workshops, seminars, and online courses that educate creative professionals about the importance of intellectual property, including copyrights, trademarks, and patents, establish incubators specifically for startups in the creative industry, providing mentorship, workspace, and legal support, organize events that bring together creative professionals, legal experts, and IP authorities for collaborative workshops, and establish

	<p>incentive programs that reward creative businesses for innovation and the creation of original content;</p> <p>2. The Department of Trade and Industry, Department of Tourism, Local Government Unit, Department of Interior and Local Government may develop strategies towards the creation of the Philippine creative cities network by fostering collaboration and interconnectedness among creative cities, implementing cultural exchange programs among creative cities, developing joint initiatives that leverage the strengths of multiple cities, and investing in education and skills development programs to nurture talent.; and</p> <p>3. The Department of Trade and Industry, Department of Tourism, Department of Information and Communication Technology, Local Government Unit, Commission on Higher Education, Department of Education, and Department of Interior and Local Government may create programs that promote stronger linkages and collaborations among stakeholders in the creative industries and government by establishing advisory boards comprising representatives from the creative industries, government officials, and experts, organizing regular dialogues or roundtable discussions between government representatives and stakeholders from the creative industries, establishing joint funding initiatives that involve both government agencies and private stakeholders, developing incubators or innovation hubs specifically for the creative industries, and encouraging collaboration between the creative industries and other sectors, such as technology, tourism, and education.</p>
<p>Increased market access for the provincial Creative Industry, both nationally and globally</p>	<p>1. The Department of Trade and Industry, Department of Tourism, and Local Government Unit may develop strategies for capacity-building and improved national and international market access;</p> <p>2. The Department of Trade and Industry, Department of Tourism, and Local Government Unit may build capacities of active businesses in the locality; and</p> <p>3. The Department of Trade and Industry, Department of Tourism, and Local Government Unit may assist creative industry players in maximizing opportunities that expand access to existing and new markets.</p>
<p>Explore possible opportunities to position Nueva Vizcaya as an emerging hub for the creative industries.</p>	<p>1. The Department of Trade and Industry, Department of Tourism, and Local Government Unit may create well-defined and measurable economic goals and KPIs for the creative industries;</p> <p>2. The Department of Trade and Industry, Department of Tourism, and Local Government Unit may create programs and identify areas of investment to promote original creative content and talent; and</p> <p>3. The Department of Trade and Industry, Department of Tourism, and Local Government Unit may assist creative industry players to increase their production and introduce more innovative products using local resources.</p>

STRATEGIC GOAL 2: ENHANCED GOVERNMENT EFFICIENCY

Government Efficiency refers to the quality and reliability of government services and support for effective and sustainable productive expansion. The indicators on this pillar are capacity of health services, capacity of school services, compliance to BPLS standards, business registration efficiency, compliance to national directives, recognition of performance, peace and order, presence of business promotion unit, capacity to generate local resources and social protection.

Strategies	Proposed Strategic Actions
<p>Create reinforced and more cohesive government-led programs for the development of the creative industry.</p>	<ol style="list-style-type: none"> 1. The Department of Trade and Industry, Department of Tourism, Local Government Unit, and Department of Interior and Local Government may create guidelines, programs, and strategies for the proper management of the Creative Industry Development Fund; 2. The Department of Trade and Industry, Department of Tourism, Local Government Unit, and Department of Interior and Local Government may identify areas of possible strategic investments in the creative industries with focus on MSMEs; 3. The Department of Trade and Industry, Department of Tourism, Local Government Unit, and Department of Interior and Local Government may provide incentive to innovative initiatives using local resources; 4. The Department of Trade and Industry, and Local Government Unit may assist creative industry players to increase their production and introduce more innovative products using local resources. 5. The Department of Trade and Industry and Local Government Unit may improve social protection

STRATEGIC GOAL 3: BETTER ACCESS TO INFRASTRUCTURE

Infrastructure is the physical building blocks which connect, expand, and sustain a locality and its surrounding to enable the provision of goods and services. The indicators which measure the competitiveness level in this pillar are availability of basic utilities, accommodation capacity, financial deepening, distance to ports, education, health, information technology capacity, LGU investment, road network and transportation vehicle.

Strategies	Proposed Strategic Actions
<p>Improved access to financial support, infrastructure, and other resources.</p>	<ol style="list-style-type: none"> 1. The Department of Tourism may expand the capacity of accommodation facilities; 2. The Commission on Higher Education, Department of Education and Department of Health may expand facilities in the education and health systems; 3. The Department of Trade and Industry and Local Government Unit may strengthen LGU investment in infrastructure; 4. The Department of Trade and Industry, Department of Labor and Employment, and Department of Science and Technology may provide financing programs for equipment and machinery acquisition; 5. The Department of Information and Communication

	<p>Technology and Department of Science and Technology may promote commercialization of technology and build capabilities to foster industry clustering;</p> <p>6. The Department of Tourism may increase transportation vehicles;</p> <p>7. The Department of Trade and Industry, SBCorp, Department of Tourism, Department of Science and Technology, Technical Education and Skills Development Authority, and Department of Labor and Employment may provide technical, technological, and financial assistance programs for creative goods and services;</p> <p>8. The Department of Trade and Industry and Department of Tourism may utilize current data and findings of research of technologies, processes and the like, pertaining to creative industries; and</p> <p>9. The Department of Trade and Industry and Department of Information and Communications Technology may create comprehensive digital acceleration plan for creative industry.</p>
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STRATEGIC GOAL 4: RESILIENT BUSINESS ENVIRONMENT

Resiliency is the capacity of a locality to facilitate businesses 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 businesses sustain their profits, create jobs, and increase the productivity of its people. In order for localities to be able to do this, it must be resilient in its infrastructure, governance, social and environmental systems.

Strategies	Proposed Strategic Actions
Facilitate businesses and industries to create jobs, raise productivity, and increase the incomes of citizens over time despite of the shocks and stresses it encounters	<p>1. The Department of Trade and Industry and Office of the Civil Defense, and National Disaster Risk Reduction Management Council may create programs that establish coordinative relationships with the leading national agency on disaster risk management and resilience;</p> <p>2. The Department of Budget and Management may increase budget for DRRMP;</p> <p>3. The National Disaster Risk Reduction Management Council and Local Government Unit may create emergency infrastructure;</p> <p>4. The Department of Trade and Industry and the Department of Labor and Employment may create more employment opportunities;</p> <p>5. The Office of the Civil Defense, and National Disaster Risk Reduction Management Council may conduct trainings for responders to make the province more resilient in dealing with the disaster or environmental hazards.</p>

STRATEGIC GOAL 5: GLOBALLY COMPETITIVE AND INNOVATIVE INDUSTRY

Innovation refers to the ability of a locality to harness its creative potential to improve or sustain current levels of productivity. It hinges mainly on the development of creative capital which are human resources, research capabilities, and networking capacities.

Strategies	Proposed Strategic Actions
<p>Continuous education and human capital development.</p>	<ol style="list-style-type: none"> 1. The Department of Trade and Industry may identify skills gaps through analyses of current and emerging trends and changes in factors affecting the creative industries; 2. The Department of Trade and Industry, Department of Information and Communications Technology, and Department of Science and Technology may assist in the provision of start-up and innovation facilities; 3. The Department of Trade and Industry, Department of Information and Communications Technology may increase awareness on the use of online payment facilities. 4. The Department of Trade and Industry, Department of Labor and Employment, and Department of Science in Technology may provide financial assistance, programs, and investments schemes, loan programs, and guarantees for MSMEs in the creative industry; 5. The Department of Trade and Industry through SBCorp, Bangko Sentral ng Pilipinas, Land Bank of the Philippines and Development Bank of the Philippines may institute policies and programs for innovative financing; and 6. The Department of Trade and Industry, Intellectual Property Office, and the Department of Science and Technology may assist MSMEs in intellectual property registration.

CONCLUSIONS, RECOMMENDATIONS, AND POLICY IMPLICATIONS

Conclusion

1. Bayombong is considered to be the potential LGU for the creative innovation center, but as seen in each of the pillars, Bayombong and Solano are perceived to be potential LGUs.
2. The province of Nueva Vizcaya presented more strengths in the resiliency and innovation pillars; however, more weaknesses were seen in the infrastructure pillar.
3. Proposed Strategic Actions were crafted to improve the province's overall competitiveness.

Recommendations

Based on the conclusions of the study, the following recommendations per pillar and indicator were drawn.

Economic Dynamism

The provincial administrators should work together with national agencies like the Department of Trade and Industry, Intellectual Property Office, Department of Science and Technology, and the municipal administrators to create programs that promote a stronger IP ecosystem among the key players in the creative industry, as well as programs that promote stronger linkages and collaborations among stakeholders in the creative industries and government. The Department of Trade and Industry, together with the Local Government Unit and other agencies regulating business, should provide financial incentives and/or subsidies to MSMEs to motivate them to engage in the creative industry and provide higher compensation to employees. The Department of Trade and Industry, Department of Tourism, and Local Government Unit may also create programs and identify areas of investment to promote original creative content and talent. Local yet globally competitive creative products may be considered for market development and expansion to the global market.

Government Efficiency

The Department of Trade and Industry, Department of Tourism, Local Government Unit, and Department of Interior and Local Government may create guidelines, programs, and strategies for the proper management of the Creative Industry Development Fund and identify areas of possible strategic investments in the creative industries. The provincial administrators should also provide incentives to innovative initiatives using local resources.

Infrastructure

The tourism sector should consider constructing additional accommodation facilities. The Department of Trade and Industry, Department of Labor and Employment, and Department of Science and Technology may consider providing financing programs for equipment and machinery acquisition. The Department of Information and Communications Technology and Department of Science and Technology should promote the commercialization of technology and build capabilities to foster industry clustering. Additional facilities in the education and health sectors are recommended, considering the new technologies available. Local Government Unit officials should allocate a budget for investment in infrastructure to boost the creative industry in the province and improve the road network. The local government unit should look into increasing the number of transportation vehicles. The Department of Trade and Industry, Department of Tourism, and provincial administrators can partner with academic institutions regarding current data and findings of research on technologies, processes, and the like, pertaining to the creative industry. The Department of Trade and Industry, in partnership with the Department of Information and Communications Technology, can work together for the creation of a comprehensive digital acceleration plan for the creative industry.

Resiliency

The Department of Trade and Industry, Office of the Civil Defense, and National Disaster Risk Reduction Management Council may create programs that establish relationships with national agencies on disaster risk management and resilience, and allocate a budget for disaster risk reduction and management plans (DRRMP), as well as create emergency infrastructure. More trainings for responders should be provided to make the province more resilient in dealing with disasters or environmental hazards. More employment opportunities should be provided to the unemployed.

Innovation

The Department of Trade and Industry can partner with academic institutions in identifying skills gaps by analyzing the current and emerging trends and changes in factors affecting the creative industry. The Department of Trade and Industry can work with the Department of Science and Technology and the provincial government on the provision of start-up and innovation facilities. The Department of Trade and Industry can also work with the Department of Information and Communications Technology on the conduct of trainings related to the use of online payment facilities. The Department of Trade and Industry, Department of Labor and Employment, and Department of Science and Technology may create programs to provide financial assistance, programs, and investment schemes, loan programs, and guarantees for MSMEs in the creative industry, and assist MSMEs in intellectual property registration.

Future Researchers

It is recommended that a qualitative study on the Best Practices and Challenges of Creative Industry Players be conducted in line with the Competitive Cities and Municipalities Index (CMCI) pillars to come up with specific recommendations to improve the CMCI of the province and create a comprehensive action plan for the creative industry in the province. It is also suggested that an assessment of the awareness of CMCI, as well as the challenges encountered by the LGUs, be conducted to improve their ranking.

Policy Implications

The national government, specifically the Department of Trade and Industry, Intellectual Property Office,

Department of Science and Technology, and provincial and municipal administrators, may formulate strategies and policies on the creation of programs that will promote a stronger IP ecosystem among the key players in the creative industry, as well as programs that promote stronger linkages and collaborations among stakeholders in the creative industries and government.

Another implication of the findings related to economic dynamism and government efficiency is the creation of programs and the identification of areas of investment to promote original creative content and talent, and the provision of incentives to innovative initiatives using local resources, which will lead to the generation of more income, provide more employment, and open profitable opportunities for the key players in the creative industry.

The Department of Trade and Industry and Local Government Unit may consider allocating a budget for investment in infrastructure to boost the creative industry in the province and the road network, as well as to give priority to the financial and transportation sectors. The Department of Trade and Industry, through SBCorp, Bangko Sentral ng Pilipinas, Land Bank of the Philippines, and Development Bank of the Philippines, may institute policies and programs for innovative financing and provide financing programs for equipment and machinery acquisition to assist the creative industry players.

Further, the Department of Tourism may also consider improvements in the transportation sector by ensuring the availability of transportation services anytime and anywhere in the province. The Department of Trade and Industry, Office of the Civil Defense, and National Disaster Risk Reduction Management Council may also create programs establishing relationships with the national agency on disaster risk management and resilience, and reviewing the allocated budget for disaster risk reduction and management plans (DRRMP), as well as creating emergency infrastructure.

Lastly, the government may consider increasing compensation and other benefits to encourage creative industry workers to stay and work in the country.

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