

Data Collection and Analysis of Citizen Feedback to Strengthen Small Family Businesses in Legazpi City

Executive Summary

The city government of Legazpi and partner stakeholders acknowledge the critical role of family businesses and MSMEs¹ in the local economy, especially at the time of COVID-19 pandemic. To better understand the sentiments and needs of family businesses and MSMEs in the city, Legazpi joined the Digital Democracy program in collecting and analyzing citizen feedback data to inform policy and decision making.

A series of online consultations with Legazpi city and stakeholders were conducted to formulate a total of 55 survey statements related to the survey objectives. Respondents voted either 'agree', 'disagree', or 'pass' for each statement, with open-ended feedback at the end to submit additional qualitative responses.

An online citizen assembly was held on August 2, 2021, to explain the program objectives and kick off the feedback collection process. Using Pol.is as data collection tool, the survey ran for a total of 11 days, from August 2, 2021, to August 13, 2021, with a total of 327 respondents and 16,454 votes. After tabulation and analysis, the results were presented in the closing citizen assembly on August 18, 2021.

Using Principal Components Analysis (PCA) via Pol.is report page, 302 out of 327 voters were classified under two opinion groups². The two opinion groups were fairly similar in terms of demographic, but are different in terms of support needed from the local government. Group A voters (n=195) are already fairly competent in the basics of running a business and uses the internet and digital tools in their business operations. However, Group A stated that they still require support on technology development and digital transformation. Group B (n=107) on the other hand, does not use digital tools in their business and requires more basic support such as business succession planning and financial management.

Both opinion groups have a generally positive outlook in running a family business despite the COVID-19 pandemic.

In supplement to the votes cast, qualitative statements received are classified into four major categories:

1. Specific help requested from the city government (Ambulant vendors, financing needed, etc.)
2. Statements in support of family businesses
3. Other ideas and suggestions (e.g. use of social media, improve agriculture, etc.)
4. Comments on the survey itself

While the majority of qualitative responses are positive, seven out of 210 qualitative statements contained swear words from irate respondents, possibly due to the length of the survey.

Finally, combined quantitative + qualitative analysis highlighted concerns to be the following:

1. Sufficiency of utilities (water, electricity, Telcos) in Legazpi city
2. Availability of financing, especially for micro-businesses
3. Capacity building on basic business-related topics such as planning for succession, management of finances, marketing, use of Information communications technology (ICT) tools³
4. Support for digital transformation⁴
5. Lack of information, knowledge, and funds, to register micro-businesses and comply with rules and regulations
6. Presence of a go-to office that specifically provides financial/registration/development assistance to businesses
7. Mayon volcano and natural hazards worry business owners

¹ Micro, Small, and Medium Enterprises

² These are groups of voters who voted similarly on certain statements.

³ More prominent on opinion Group B.

⁴ More prominent on Opinion Group A.

Survey Report

Background Data and Context:

Micro, small, and medium enterprises (MSMEs) comprise approximately 90% of all businesses, providing over 50% of employment globally, and contributes around 40% to the Gross Domestic Product (GDP) in emerging economies [1].

A significant subset within the MSME group are family-owned and managed businesses, which played a critical role in sustaining the local economy in Legazpi city, Albay, especially during the COVID-19 pandemic. Business registration data in Legazpi city (Table 1) shows that a total of 1,367 businesses temporarily closed in 2021 (roughly 53% increase from the previous year), while only 53 surrendered licenses (roughly 73% decrease from the previous year). Interestingly, 746 new businesses registered (roughly 13% decrease), the majority of which are under the 'Retailer' business category.

One key observation by the Albay Chamber of Commerce and Industry (ACCI) and the city government of Legazpi is, when many businesses ceased operations in 2020, many families started their own micro businesses to continue earning, notably, with the help of the internet and online platforms to reach their target market [2].

	2019	2020	2021
REGISTERED	6,476	6,207	5,752
RENEWALS	5,113	5,348	5,006
NEW BUSINESS	1,324	859	746
TEMPORARILY CEASED	472	893	1,367
SURRENDERED LICENSES	91	196	53

Table 1 – Total number of registered businesses in Legazpi city

Source: LGU-Legazpi

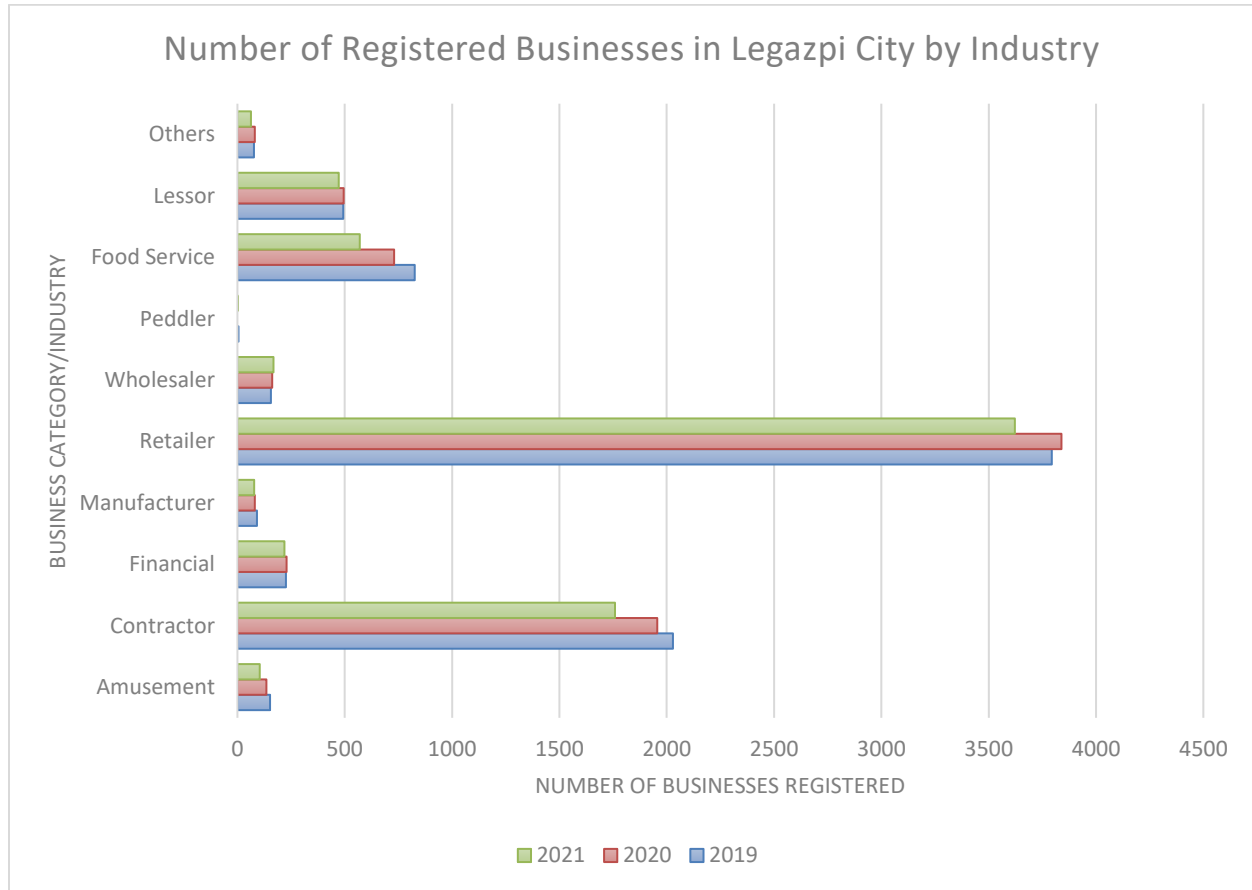


Figure 1 – Increase/decrease in the number of businesses registered from 2019 to 2021

Source: LGU-Legazpi

As shown in Figure 1, the number of registered wholesalers continued to increase at the same rate, despite the pandemic, while the number of registered retailers experienced the highest decrease in registration. Overall, the highest number of newly-registered businesses in 2021 still belongs to the retailer business category. New businesses registered under 'food services' and 'contractors' also increased in 2021 compared to the previous year [Figure 2].

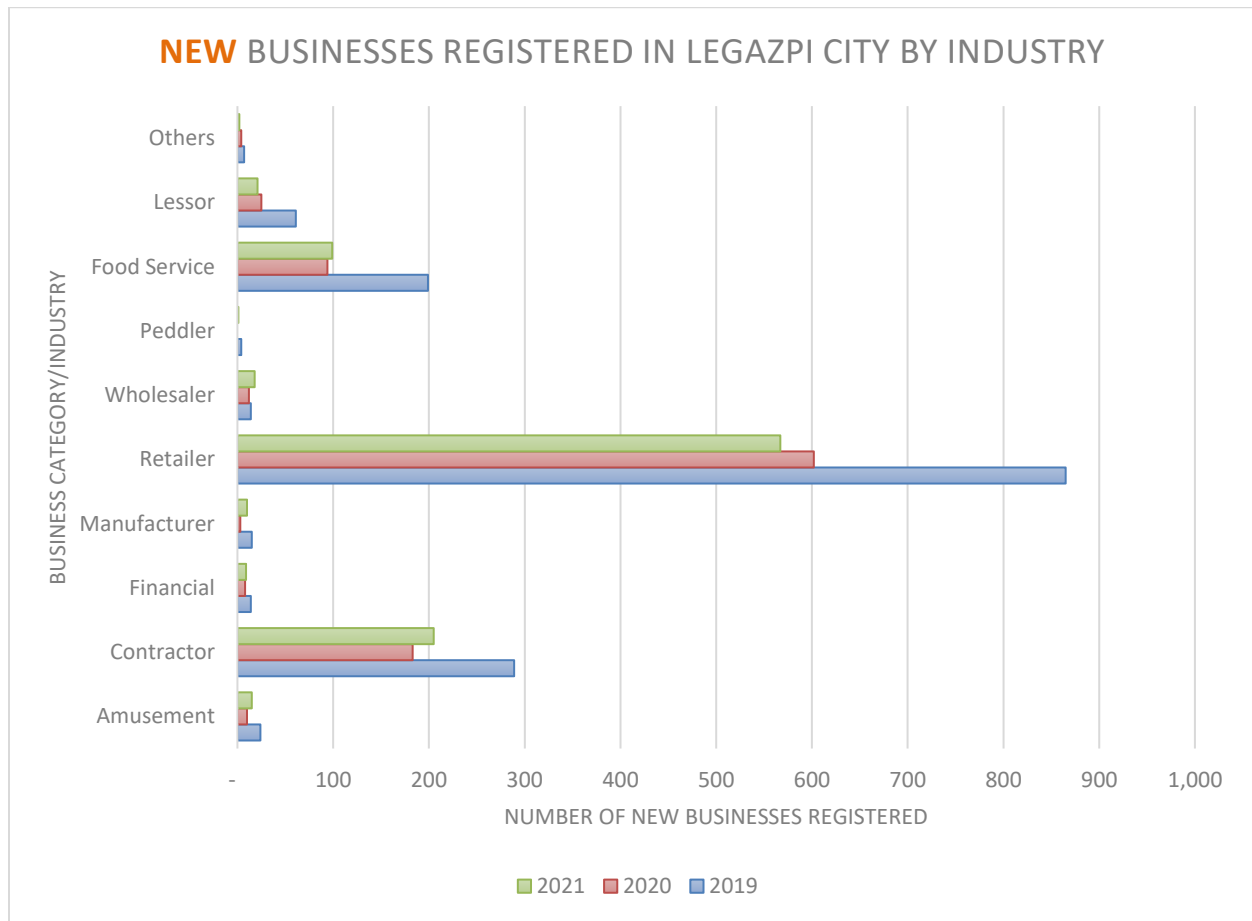


Figure 2 – Number of newly-registered businesses in Legazpi city by industry
Source: LGU-Legazpi

To best support family businesses in Legazpi city, the city government of Legazpi and the ACCI, participated in the Digital Democracy program run by Makati Business Club (MBC) and Konrad Adenauer Stiftung (KAS) to inform local policy and programs thru citizen feedback.

Objectives of the Survey:

- Understand citizen sentiment and opinion on owning, running, and working for small family businesses in Legazpi city
- Identify key points of conversations and opinion groups based on voting patterns
- Identify key statements and key concerns raised (or support needed) by local businesses
- Extract insights to inform policy and decision making of Legazpi city, to support family businesses and MSMEs in the city

Methodology



Figure 3 – Digital Democracy process

The process started with an initial correspondence between MBC, the City Government of Legazpi, ACCI, and Civil Society representative Simbag sa Pag-Asenso (SEDAP), to formulate the initial statements which will be used in the survey. An opening online citizen assembly was held on August 2, 2021, with Mayor Noel Rosal as keynote speaker, and City Administrator Mr. Chito Ante, Ms. Rosemarie Quinto-Rey (ACCI President), and Fr. Jovic Lobrigo (SEDAP President), as panelists. The Opening assembly kicked off the voting process, which ran for a total of 11 days.

The survey data were pre-processed, analyzed, visualized, and presented during the closing assembly on August 18, 2021. The closing assembly held breakout rooms for the stakeholders to discuss the survey results and proposed next steps.

Feedback Collection Process and Instrument

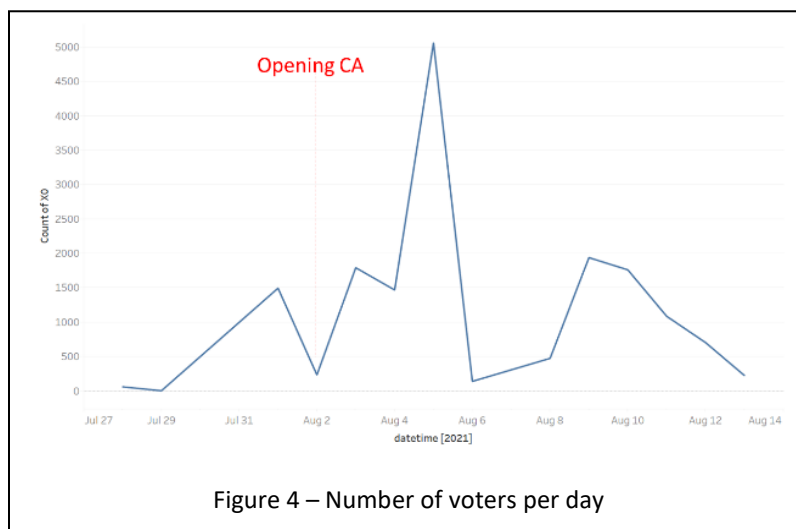
The primary feedback collection tool for this survey is [Pol.is](#), supplemented by stakeholder discussions during the opening and closing assemblies. Additional data on business registration was provided by the city government of Legazpi to give more context to the analysis and discussions.

Pol.Is Statements

The Pol.Is survey has a total of 55 topic-related statements, 10 of which are metadata. The statements are written in English, with corresponding Filipino translations. Respondents voted either agree, disagree, or pass, for each statement, and submitted qualitative statements at the end of the survey. The complete list of statements can be found [here](#).

Voting Summary

- Voting ran from **August 2, 2021**, to **August 13, 2021** (11 days).
- **327** total voters were counted, **302** of these were grouped.
- There are a total of 55 statements
- **16,454** votes were cast for all statements.
- An average of **50.32** votes is cast per voter.



Voting Timeline

Opening online citizen assembly was held on August 2, 2021. ACCI and Legazpi city invited stakeholders to answer the survey by posting the link on their official Facebook pages and sharing in Facebook Messenger group chats. Votes counted were until August 13, 2021, and preliminary results were presented on the closing citizen assembly held on August 18, 2021.

Opinion Groups Identified

Two “opinion groups” were identified based on voting patterns. These are groups of respondents who voted similarly on a number of statements. Identifying opinion groups informs the city government of the specific concerns of specific sectors in the population.

Using Principal Components Analysis (PCA) and K-Means clustering, Pol.is platform detected two opinion groups: Group A, with 195 respondents, and Group B, with 107 respondents.

Note that of all 327 voters, 302 (92%) were classified into either Group A or B. This indicates that respondents who participated in this survey easily fit a certain voting pattern that can be mapped to an opinion group. This may be leveraged by the city government, as this indicates that the concerns of the voters may be addressed in groups or batches, instead of individual concerns. (e.g. conduct group capacity building sessions on the needs raised by the respondents.)

Figure 5 shows the visualization of the opinion groups detected.

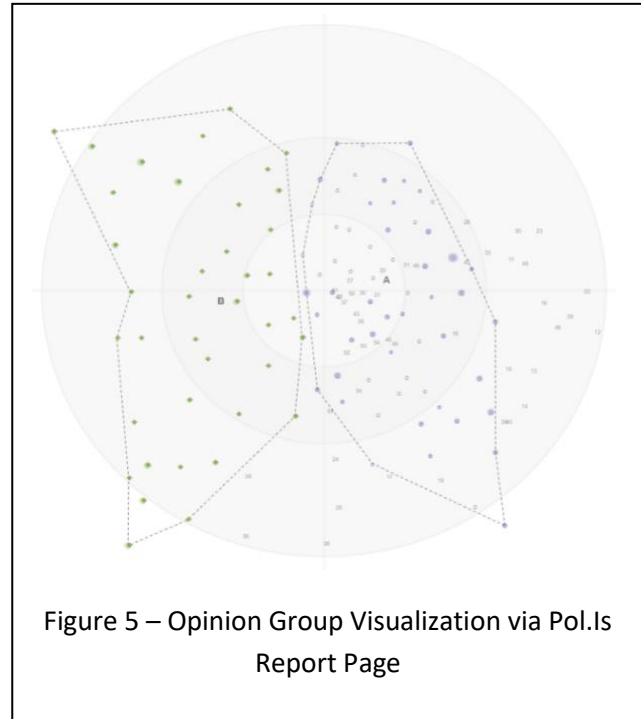


Figure 5 – Opinion Group Visualization via Pol.is
Report Page

What do these opinion groups look like?

Table 2 shows the similarities and differences of the two opinion groups based on metadata. One key observation is that the two opinion groups do not have very strong differences in terms of demographic and agreement ratio (e.g. both groups A and B are mostly Legazpi residents, they are mostly women, and mostly finished high school.)

The most notable difference between groups A and B based on metadata is the ratio of respondents working for a family business. The majority of Group A claimed that they are working for a family business, while Group B has a significantly lower ratio.

Because of the lack of distinct differences in metadata, the opinion groups were instead labeled according to their voting patterns and the kind of support needed. Therefore, Group A is labeled “Currently doing well in business”/ “using digital tools” while Group B is labeled “Currently needs support”/“does not use social media or internet”. [Group labeling discussed in next section].

GROUP A	Metadata	GROUP B
MAJORITY (95%)	Legazpi resident?	MAJORITY (90%)
MAJORITY (86%)	Female	MAJORITY (86%)
MINORITY (16%)	Male	MINORITY (7%)
MINORITY (4%)	LGBTQ+	MINORITY (4%)
MAJORITY (86%)	Business Proprietor	MAJORITY (66%)
MAJORITY (52%)	Working for a Family Business (not related*)	MINORITY (34%)
MAJORITY (71%)	Working for Family business (related)	HALF (49%)
MAJORITY (84%)	Finished High School	MAJORITY (75%)
MINORITY (39%)	Finished College w/ degree related to business	MINORITY (24%)
MINORITY (32%)	With Post-Graduate Degree	MINORITY (24%)

Table 2 – Comparison of opinion groups A and B with metadata

Points of Consensus

Table 3 shows a summary of the points of consensus for all voters. Points of consensus are statements wherein the majority of voters, regardless of opinion group, agreed or disagreed with.

Overall, the points of consensus reflect a generally positive outlook on running family businesses amid the impact of COVID-19. Respondents also collectively agreed on the need for additional support on marketing, financing, regulatory compliance, and assistance with technology upgrading and digital transformation.

AGREE	DISAGREE
<ul style="list-style-type: none"> Family businesses IMPROVE relationship of family members (and overall positive outlook towards Family Businesses) I do research before I make a decision I NEED marketing support for my business I NEED support in financing my business I NEED help with regulatory compliance I NEED help with technology upgrading* I NEED assistance w/ digital transformation* I practice waste segregation 	<ul style="list-style-type: none"> Working for a small/medium/large enterprise family business COVID had NO IMPACT on my business My business IMPROVED due to COVID Family Business is stressful, intimidating, and doomed to FAIL

Table 3 – Points of Consensus for Both Opinion Groups A and B

* While both groups A and B agree with the need for support in digital transformation, the ratio of agreement is significantly higher in Group A (85%) compared to Group B (56%)

Divisive Statements

Divisive statements are statements wherein participants are split within agreement and disagreement. Roughly half of the voters agreed while the other half disagreed, regardless of opinion group. Divisive statements are important points of conversation that often require clarification and/or attention from the local government and stakeholders. The following are flagged as divisive statements:

- I shifted to another business because of the pandemic.
- My business closed due to the pandemic
- Utilities in Legazpi city are sufficient in running a business

Unique Voting Patterns of the Opinion Groups

As shown in Table 4, Group A claimed to have a more organized and clear business succession plan, business targets, and financial management. The most notable difference is, majority of respondents under Group A use the internet and social media in their business operations. Hence the label 'Doing well' and 'Using digital tools' for this opinion group.

GROUP A:

STATEMENT	GROUP A			GROUP B		
	AGREE	DISAGREE	PASS	AGREE	DISAGREE	PASS
We have a clear business succession plan	86%	6%	6%	21%	62%	16%
We have clear plans and targets for our business	90%	5%	3%	31%	51%	16%
Business funds are managed separately from household funds	83%	9%	6%	22%	63%	13%
I do research before I make a decision	98%	1%	0%	58%	33%	8%
I use the internet and social media in my business operations	76%	22%	1%	21%	69%	8%
People turn to me for advice	78%	13%	8%	27%	51%	20%

Table 4 – Unique voting pattern identified for Group A

On the other hand, the majority of Group B voters said that that they don't have a clear business succession plan, no clear business targets, and they manage their finances together with household funds. Group B also has a negative view on the compensation from working with family businesses and does not work extra hours outside of the usual 8-5 working hours. The majority of Group B also claimed that they do NOT use the internet or social media in their business operations, hence the label 'needs support/does not use digital tools' for this opinion group [Table 5].

GROUP B:

STATEMENT	GROUP A			GROUP B		
	AGREE	DISAGREE	PASS	AGREE	DISAGREE	PASS
I need support in financing my business.	90%	5%	3%	82%	11%	5%
We have a clear business succession plan	86%	6%	6%	21%	62%	16%
Business funds are managed separately from household funds	83%	9%	6%	22%	63%	13%
I use the internet and social media in my business operations	76%	22%	1%	21%	69%	8%
Working for family businesses (or our family business) takes extra hours outside of normal 8-5 jobs.	68%	19%	12%	21%	66%	11%
Compensation from working with a family business is Good	68%	21%	10%	13%	63%	22%

Table 5 – Unique voting pattern identified for Group B

Identifying Statement Relationship

All 55 Pol.Is statements were analyzed using Association Rules Mining to find associations between statements based on voting patterns from all 327 voters. As a guide, the following key statements were used to direct the apriori algorithm⁵.

Statement #40 – My business improved during the COVID-19 pandemic.

Statement #55 – Utilities (such as power and electricity) in Legazpi city are sufficient in running a business.
(Flagged as divisive)

Statement #22 – Compensation from working with family businesses is good.

Statement #19 - The business has been in operation for more than 10 years.

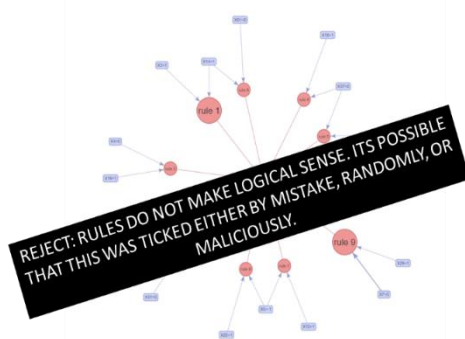
⁵ The specific algorithm that is used in R (statistical programming language) to mine frequent patterns in the dataset.

It would have been valuable to see which responses are related to the key statements listed above. For example, for those who answered that their businesses improved during COVID-19 pandemic, it would have been interesting to see which other statements and responses went with this. What factors might have contributed to a thriving business amid the COVID-19 pandemic? Do they have good utilities? Do they work extra hours? These questions can potentially be answered by looking at frequently occurring patterns.

Unfortunately, the principal association rules mined do not make logical sense, while the other association rules did not have sufficient rule strength and context value⁶.

Upon inspection of patterns mined, a possibility behind the illogical rules that surfaced would be that some respondents were answering the questions randomly either by mistake or on purpose. This possibility is supported by a number of qualitative statements received that had bad words and reflect irate respondents, possibly due to the long (55-item) questionnaire.

Example pattern mined:



Example Association:

Respondents who **agreed** with the following:

Statement code	Statement
X14	"I work for a business with 100-199 employees."
X17	"Business is in operation for 1-3 years."
X24	"Business is in operation for less than 1 year."

tend to agree that"

"Business is operational for over 10 years."

We have contradictory statements.

Table 6 – Example association rule mined and rejected due to inconsistency

⁶ The number of occurrences is very low or makes no logical sense.

Analyzing Qualitative Statements

Apart from the 55 pre-determined statements which the respondents voted on, a total of 210 qualitative statements (open-ended feedback) were received and classified as follows:

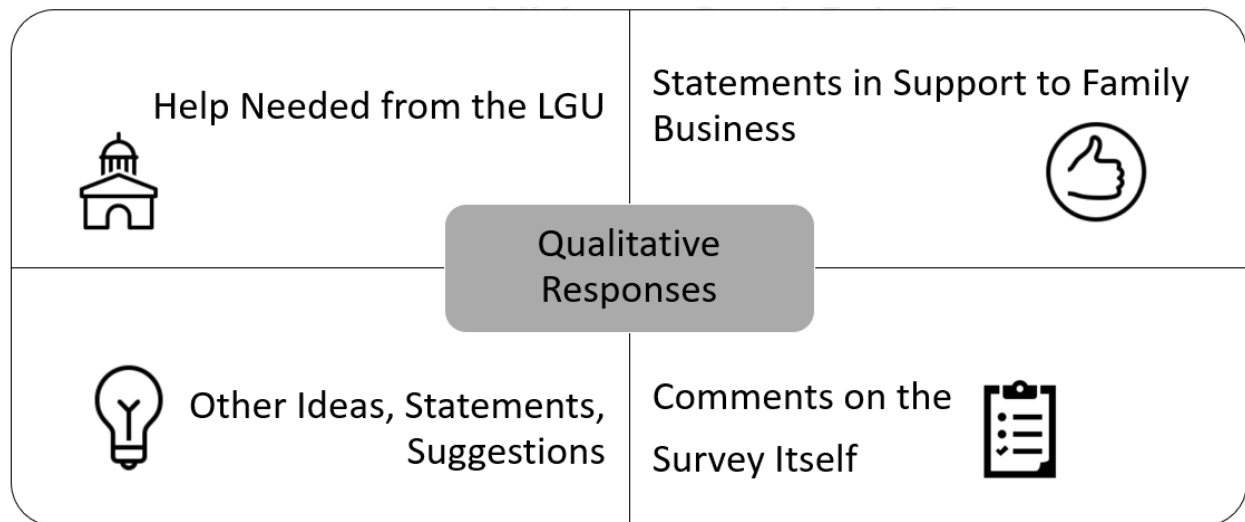


Figure 6 – Discovered Classifications of Qualitative Responses

Qualitative responses submitted were mostly:

1. Specific requests for assistance addressed to the city government (e.g. messages asking for financial support, training and orientation on business-related topics, etc.)
2. Statements of support to the family businesses in the city (e.g. agreement with the initiative of the local government of Legazpi to support MSMEs and family businesses)
3. Other ideas and suggestions such as the use of internet, social media, and specific emphasis on the agricultural sector in Albay
4. Various comments regarding the survey such as thankful words and irate complaints about the survey.

Spotlights

On Opinion Groups:

1. There is no standout difference in opinion groups, in terms of metadata.
2. Opinion groups are defined by the kind of support they needed (not metadata).

GROUP A “doing well/using ICT tools”	GROUP B “needs support/does NOT use ICT tools”
<ol style="list-style-type: none"> 1. Number of respondents classified under this group is 127. 2. Well capacitated in the basics of running a family business (e.g. has a clear vision/goal, succession plan, finance management, etc.) 3. Already using internet and social media in their business operations 	<ol style="list-style-type: none"> 1. Number of respondents classified under this group is 107. 2. Requires support in the basics of running a family business (e.g. business funds is managed together with household expenses) 3. Does NOT use internet and social media in their business operations.

Table 7 – Summary of key differences between opinion groups A and B

Support Needed (for both groups A and B):

1. Finance management
2. Marketing
3. Funding
4. Regulatory Compliance and Registration Processes
5. Equipment and Technology **
6. Digital Transformation **

** ratio of respondents asking for this type of support is significantly higher in Group A.

Possibly Interesting statements for the city government of Legazpi:





	STATEMENT	ALL VOTERS		
		AGREE	DISAGREE	PASS
	The presence of Mayon volcano and other natural hazards in the city DISCOURAGES me from managing our business	66%	29%	4%
	There is SUFFICIENT policy in Legazpi city that supports family business operations	68%	17%	13%
	Business-related transactions with Legazpi city hall are FAST AND EFFICIENT.	66%	20%	13%
	Utilities in Legazpi city are SUFFICIENT in running a business	47%	45%	7%

Table 8 – ‘Interesting Statements’⁷ for the city government of Legazpi

Majority of respondents voted favorably on Legazpi city’s current business-related policy and efficiency of transactions. However, respondents also expressed concern with the presence of Mayon volcano and other natural hazards in the city. Respondents are also divided as to whether utilities in Legazpi are sufficient in running a business or not.

⁷ Statements that the analysts deemed to be interesting to the local government, based on their declared 5-year vision for the city (<https://legazpi.gov.ph/performance-governance-system/>)

Recommendations (Based on Survey Results)

On Future Surveys:

1. Consider giving a shorter questionnaire to respondents, to avoid irate respondents clicking randomly on the questionnaire. Shorter answering time will also encourage respondents to give more articulate qualitative feedback at the end of the survey.
2. Get feedback as to which statements SHOULD have been added, and incorporate these as initial statements in the succeeding runs of the survey.

Overall recommendations:

1. Improve communication with stakeholders. There are already existing policies, offices, that address many of the questions and issues raised by the MSME respondents. However, many are still not aware of these. Social media can be leveraged to let stakeholders know about existing programs of the city government and its partners. Alternatively, barangays may be tapped to reach areas without internet or social media penetration.
2. Some businesses shifted industries during the pandemic. Which specific industries ceased operations and which continued operating/started? Understand which industries thrived and zoom in to traits, tools, and strategies that can be attributed to their success and survival.
3. Map the specific needs pointed out by the respondents to existing LGU programs, projects, or policies. Also consider partner institutions or organizations that offer these kinds of support (e.g. which microfinancing organizations are accredited by the city government? Which NGOs in the city are offering trainings on marketing, business management, etc.?)
4. Monitor effectiveness of trainings/support given to the businesses. Get feedback on the quality of training/support given to them. Set indicators to measure impact and identify, what worked and what didn't work.
5. The needs of family businesses and MSMEs change over time. Given the rapidly changing business environment brought by technology and other factors such as COVID-19, it is important to constantly monitor which programs and policies are still working for the local businesses and which ones need to be updated. Proactively collecting citizen feedback can help keep the city government's policies and programs up-to-date and relevant to the needs of the businesses.

Closing Citizen Assembly Conversations and Suggestions from Attendees

After the presentation of the results in the closing assembly, the participants were grouped into five breakout room and were asked three questions:

1. **If you were the Mayor of Legazpi City, how would you provide support to MSMEs?**
2. **What is the most important consideration when crafting policies to support MSMEs?**
3. **If you could change something about the survey process, what would you change?**

The following are the consolidated responses of the stakeholders for the three questions:

If you were the Mayor of Legazpi City, how would you provide support to MSMEs?

1. Make government transactions more efficient.
 - a. Establish an office/committee that would specifically cater to the needs of MSMEs
 - b. Improve transparency in transactions.
 - c. Have a stronger campaign against red-tape in government agencies.
 - d. Improve ease of doing business, with the proper health protocols in place, in line with COVID-19 pandemic.
 - e. Application of business permits may be costly to micro businesses. Find ways to support and promote registration of micro businesses, with minimal cost.
2. Develop ICT infrastructure for eCommerce
 - a. Develop ICT infrastructure to promote and support eCommerce
 - b. Work closely with Department of ICT (DICT) Luzon cluster.
 - c. Install free internet access in wet markets or *palengke* and surrounding areas
 - d. Leverage eCommerce portal/s to market local products and services (e.g. locally-developed 'My Albay' platform).
 - e. Train MSMEs to use digital tools and platforms.
3. Promote Legazpi city, local businesses, and its tourism sector
 - a. Improve data collection on local MSMEs, and have a 'one-stop shop' for investors, to promote the city for investment and development.
 - b. Greater involvement of private sector in Legazpi LGUs programs and continued multi-sectoral consultation.

- c. Establish strong partnership/coordination with other government agencies to promote businesses such as with Department of Trade and Industry (DTI) and its *Negosyo Centers*, and Department of Tourism (DOT).
 - d. Showcase Legazpi's products through the 'Pasalubong Center', weekend markets, and trade fairs.
 - e. Give specific spots for street vendors to ensure cleanliness and orderliness. This can also make street vendors a tourist attraction.
 - f. Present microfinance opportunities to micro and small businesses to avoid high interest from other lending options.
4. Improve local utilities (and other environmental concerns).
 - a. Pay special attention in addressing basic needs such as water, electricity, and telcos. In relation to the promotion of eCommerce, how can businesses go online if the supply of electricity is always down?
 - b. 3rd party audit of local utilities.
 - c. Improve waste disposal of hazardous wastes.
5. Policy and Taxation
 - a. Improve business taxation (e.g. Could these be based on NET sales? Can there be a clear documentation which explains taxes on net sales bracket?)
 - b. Tax deferments and incentives for micro and small businesses.
 - c. Coordinate with Bureau of Internal Revenue (BIR) to support business taxation needs and concerns.

What is the most important consideration when crafting policies to support MSMEs?

1. Community involvement, multisectoral consultation in both planning and execution of policies and programs.
 - a. Leverage ICT tools like the feedback and query portal of Legazpi city.
 - b. Ensure that the official government website is always accessible.
 - c. Promote inclusivity in policy and decision-making process.
 - d. Capacity building for stakeholders, so that they are empowered to participate.
 - e. Legazpi city must reach out to stakeholders and invite them to participate.
 - f. Be transparent in crafting and implementing policies.
 - g. Make language of policies easy to understand for the public.
 - h. Train city hall personnel to be more welcoming to business owners, and treat them as 'partners' in development.
 - i. Policies should be harmonious with other government agencies.

2. Data-driven decision making.
 - a. Importance of baselining and profiling and studying the business environment before making plans and decisions.⁸
 - b. Constantly monitor effectiveness of policies.
3. Give special emphasis on utilities: power, water, and telcos, as they are the backbone of business operations in the city.
4. Promotion of social protection (microinsurance, health insurance, credit insurance, calamity insurance) for MSMEs
5. Special incentives and considerations for MSMEs.
 - a. Fiscal and non-fiscal incentives for MSMEs
 - b. Provide consideration and flexibility especially to those with special needs and circumstances (e.g. pandemic amnesty compliance for real property tax)
 - c. Inspect unjust lending practices that prey on MSMEs.
6. Create a technical working group between legislative, executive, and private sector.

If you could change something about the survey process, what would you change?

1. Make a shorter survey (ideally, only 10-15 initial statements and avoid repetitions).
2. Improve information dissemination about the survey.
3. Use Bicolano language
4. Initial statements in the survey should also cover:
 - a. Transparency
 - b. Taxes
 - c. Effectiveness of government processes

⁸ Layertech's suggestion: The ACCI (or any willing partner/stakeholder) may play the role of a 'data bank' of the local informal economy/unregistered MSMEs since the LGU is focused on documenting the registered businesses. The baseline data can be used to monitor how many of these were able to transition into the formal economy, and how best to support them.

Final Notes and References

References:

[1] The World Bank Group (no date) Small and Medium Enterprises (SMES) Finance. Available at:
<https://www.worldbank.org/en/topic/smefinance> (Accessed: 8/25/2021).

[2] Interview with ACCI President Ms. Rosemarie Rey and City Administrator Mr. Carlos Ante, Dated August

Additional credits to: Engr. Lenidy Mañago (legma.engineeringconsultancy@gmail.com) for the report. Cloud City Feedback Accelerator Group in Layertech, Frei Sangil (frei@layertechlab.com) and Ram Lim (lim.ramnick@layertechlab.com).

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END OF REPORT

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