



Effects of COVID-19 on Local Small Businesses and Resiliency Options in South Wollo and Oromia Administration Zone, Ethiopia

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Abstract: Unemployment is rising in Africa due to inefficient economic performance; rural –urban migration as well as the speeding up poverty. Ethiopia is not exceptional in facing by such daunting unemployment and poverty and its resultant effect at both the rural and urban areas. Government envisaged and implemented national economic policies and programs, for instance, micro and small enterprise and technical and vocational training programs that boost local and small business growth in the urban areas. Micro and small enterprise particularly local and small business activities created vast job opportunities in cities in Amhara regional state, specific to South Wollo and Oromiya administration Zone, Ethiopia. However, local and small business were in fact triggered and faced by adverse factors, COVID-19 was prevalently affecting their monthly sale, saving, expenditure and overall activities. Along with this, this study pinpointed the effect of COVID-19 on the local and small businesses activities in Kemissie, Dessie, Kombolecha and Haik. In pursuit of it, this study employed a descriptive type of research design using cross sectional surveyed data. In pursuit of this, binary logistic regression model and stata software 14 version was used to determine significant effect of COVID-19 on local and small business. Along with this, this study, identified that COVID-19 was influenced the local and small business owner's income; saving and expenditure. Moreover, lack of loan without collateral and working area were significantly affecting local and small business activities besides to the COVID-19 lockdown. This, study, therefore, suggest to whom it may concern to subsidies and deliver loan without collateral; entrepreneurial and client handling training, working areas for local and small business that will have help of resilienting from the effect of COVID-19 pandemic and the rising inflation effect in the study area and at large in Amhara region, Ethiopia.

Keywords: COVID-19, Local and Small Business, Resiliency

1. Introduction

1.1. Background of the Study

The world today faced a serious challenge by pandemic COVID-19. Local small businesses, which are, still, infant to overcome effects of COVID-19 and lockdown and people perception to consume goods and services production and sale volume, are going to decline in Africa, particularly, in Ethiopia. The economy is, in sum, at recession and crisis due to COVID-19. In Africa, local small business, particularly Ethiopia is also affected by COVID-19 since it prevailed in April, 2020. It hardly affected local and small business transactions and yet results market distortions and caused the

social fragmentation between business owners, buyers, sellers, families, friends and etc. Since Africa countries are unable to protect and low awareness of population towards COVID-19, it is being causing local small business crisis and hyperinflation.

Ethiopia is despite striving to ensure sustainable economic growth, however, becoming among the lowest GDP; high unemployment and poverty level country in Africa. Industry and small enterprise growth in Ethiopia is yet at stagnant and infant stage despite government has been put effort so as to shift the vast agriculture sector. Particularly, small and micro enterprise growth and other small local business enterprise growth in cities are triggered by different factor such as lack of loan, working area, training, skill, and etc. despite these factors are prevalent,

today local small business enterprises in cities particularly in south and Oromia zone are affected by COVID-19 and make their growth questionable. This study will, therefore, aimed at assessing the effects of COVID-19 and resiliency opportunities in South & Oromia Zone.

In south wollo and Oromiya administration zone, Amhara regional states, small businesses are, still, facing inability to pay loan and unable earn their expected daily income that couldn't fill the minimum subsistence for survival. Small business sectors and business owners in particular, for instance, in kombolecha, Dessie, Kemissie and Haik, were affected by are more affected by COVID-19. In cities, local small business enterprises are likely to be affected by action taken by government such as, business shutting down, supply chain disruption, demand depression, and finally hopelessness to recover from such recession and crisis by COVID-19. This needs further research to resilient small local business opportunities in South Wollo and Oromiya Zone, Ethiopia. This study assessed effects of COVID-19 on local small business activities and owners income, saving at Haik, Dessie, Kombolecha and Dessie, and Kemissie city.

1.2. Problem Statement

Small businesses accounted for 56% of about two million businesses that were registered in 2002 [1]. It is estimated that 45% of the adult population dream about taking the entrepreneurial step but neglect to pursue their dreams due to a fear of failure, risk, or uncertainty (Gray & Gray, 1989). Nevertheless, many of the entrepreneurs of today are opportunists who seek out a problem or unfulfilled need and find creative ways to solve the problem or satisfy the need. The businesses that are being started by these entrepreneurs are creating new jobs, generating wealth, and providing satisfying careers [2]. It is estimated that only one in three businesses survive to their fifth anniversary and a mere one in five make it to their tenth (Small Business Association, 1995).

The local small business in Ethiopia cities faced a serious challenge by pandemic COVID-19. It adversely affected and halted business activities such as production, supply exchange and market transaction, created social distortion, and gave up political discourses. Most huge investment and macroeconomic activities in both developed and developing countries are triggered and recessed by this pandemic COVID-19. Governments take measures against fighting COVID-19; but it is, yet, challenging the whole population in multidimensional aspects, such as social, economic and political proxies. However, effect of COVID—19 on local and small business activities are severely and highly influenced business owners in LDCs, including, Ethiopia.

After the eruption of the corona virus pandemic in late 2019 in the city of Wuhan in Hubei province, China, within few months, it has been highly spread to all over the world and has become a main global threat [3]. In just 12 weeks, the outbreak of a novel corona virus disease (COVID-19) has gone from an initially discrete outbreak to a raging pandemic [4]. No continent has been able to escape this virus [5]. The spreading rate of this pandemic and the grave need to control

the widespread resulted in the governments of the hardest-hit countries to declare a national emergency and the World Health Organization (WHO) “global emergency on 30th January 2020” [6] and a pandemic on 11 March 2020 [5]. As of May 18, 2020, more than 4.7 million confirmed COVID-19 cases have been reported to WHO and over 315,000 deaths globally.

Studies that have been conducted previously explored with similar diseases effect that generally reveals beyond the terrible toll on lives and the suffering caused, it also has the bulk of far reaching psychosocial and economic costs due to the preventive behavior of individuals and policies of governments for containment and mitigation measures to limit the spread of the virus and save lives [7]. Hence, the deadly pandemic diseases knock-on effects are huge such as loss of lives, stifled growth rates, reversed recent socio-economic gains, aggravated poverty and food insecurity, and destroyed livelihoods, particularly, affecting social fabrics that glues the societies together [8]. Similarly studies of past outbreaks, such as Severe Acute Respiratory Syndrome (SARS) in 2003, Ebola in 2014 the epidemic are already had measurable economic impacts, as seen in forgone output, higher fiscal deficits and lower real household incomes. GDP and investment are predicted to decline. Prices of staple goods are already going up, food supplies are dwindling and jobs are being lost as some countries close border posts [9], airlines suspend flights and people's free movement is banned in attempts to prevent the propagation of the virus. Cross-border markets have been closed, stripping vendors of their one source of income [8].

Recent reports show that COVID-19 has plunged the world economy into a recession that could surpass the global financial crisis of 2008–09 with the potential of deep consequences and historical levels of unemployment and deprivation [10]. Moreover, experience with similar diseases reveals that in addition to the problems and fatalities directly attributable to the pandemic, many more problems and fatalities will have resulted from indirect repercussions due to fail to treat other non-communicable diseases such as heart diseases, diabetes, malaria, diathermia and typhoid, including maternal morbidity and mortality [7].

As a result, many countries are still facing unprecedented socioeconomic challenges because of the COVID-19 pandemic [11]. However, the speed and scale of the spread, the severity of cases and the societal and economic disruption has already been dramatic and could be more so as it takes hold in developing nations [12]. These nations generally have lower health care capacity, larger informal sectors, shallower financial markets, less fiscal space, and poorer governance [10]. Studies indicated that societies with a lower economic status are more vulnerable to rising rates of chronic illness from the COVID-19 further complicated by economic and social welfare hardships [13].

Among scholars there is an agreement that psychosocial and economic impacts of pandemics are strongly considered as one of the thematic areas to be included, to understand the level of socioeconomic effects, to evaluate government interventions and advocate for policy recommendations for

recovery. Hence, although the disease is still unfolding, several studies on those impacts have been conducted this year, including those by the World Bank, the International Monetary Fund (IMF), and the World Food Programme (WFP). Country Reports have been prepared by United Nations Country Teams (UNCTs) under the leadership of the United Nations Development Programme (UNDP) country offices and the World Health Organization (WHO). But a very few reports have focused on Ethiopia, and virtually none in South Wollo and Oromia Special Zones. Moreover, most early prospects and projections on corona virus pandemic socioeconomic impacts were based on patchy data and reflected uncertainty about the disease's future epidemiological path. The overall objective is to assess the psycho-social and economic impacts of the corona virus in the study area, both the real costs entailed and growth and development prospects, so as to devise policy recommendations to accompany mitigation efforts.

Coming to Ethiopia, as of May 17, 2020, 317 confirmed COVID-19 cases have been reported, from whom 5 of them have died and 113 of them have recovered. Although the number of confirmed cases in the nation seems small, still the true magnitude of the spread and psychosocial, educational and economic impact of the virus is unclear. Without conducting a research, no one cannot be certain that what the corona virus creates in context where there is strong community ties, and densely populated towns. Therefore, the situation in our context requires further investigation.

1.3. Objectives of the Study

1.3.1. General Objective

This study assessed the effect of COVID-19 on local small business on south wollo and Oromiya zone administration, Ethiopia.

1.3.2. Specific Objectives

Study specifics objective is to

- 1) Assess the effects of COVID-19 on small business owner's income.
- 2) Identify the Effect of COVID-19 household's food security.
- 3) Identify major opportunities that help to resilient local business crisis.

1.3.3. Research Question

- 1) What are the major effects of COVID on local business activities?
- 2) Which factors significantly affect local small business activities?
- 3) Which options have resiliency benefits for local small business crisis?

1.4. Significance

Mass of the population particularly women and youth are engaging on local and small business in LDCs, including Ethiopia. Local small businesses have importance to enhance the living condition for low income households in cities.

However, local small business activities are mainly affected by various factors. Among major factors that local small business are today severely affected by pandemic COVID-19 due to the fact that it affects the exchange between buyers and sellers behaviour in the market. Moreover, government lock down decision has some effects on local business in cities. This study, thus, will have importance to forward possible alternative option that resilient local small business recession and crisis in South Wollo and Oromiya administration and at large Amhara regional state, Ethiopia. Moreover, it will be used for further research bench mark and inputs for students, planners and practitioners in the business field.

1.5. Limitation and Scope of the Study

This study is as usual is limited by respondent's unwillingness to provide transparent response about COVID-19 effect on local small business. This might be the cause that local small business owners called respondents feared about taxation collection and payments. COVID-19 was by itself one of the factors that limited this study further analysis and data collection in selected cities such as, Haik, Dessie, Kombolecha and Kemissie.

However, this study scope was delimited by four major cities in South Wollo and Oromiya administration zone. This was due to prevalence of COVID-19 and data collectors and researchers treats to combat this disease. This study scope, due to financial, and prevalence of disease and its effect on researcher, in general delimited this study in Dessie, Haik, Kemissie and Kombolecha. Major focus areas were local and small business owners. This was due to the fact that major population, particularly; unemployed, low capital owners, youth and women were engaged on local and small business activities in Ethiopia cities, in particular to this study area.

2. Methodology

This study employed a descriptive type of research design using cross sectional surveyed data during 2020. Local small business owners in Dessie, Kombolecha, Haik and Kemisse were the target population. Out of this, different types of business owners and the various business activities will be taken using stratified sampling techniques. Proportional sampling techniques were used to determine the sample size and meanwhile we used random sampling techniques since respondents have equal chance of selection in the period of data collection.

This study used structured questionnaire so to gather relevant information from local business owners. Triangulation methods, which consist of both quantitative and qualitative methods, employed so as to analyze the collected data. Quantitative methods was employed and binary logistic regression (Logit Model) that will help to identify major effect of COVID-19 on local small business owners in Dessie, Kombolecha and Kemissie, South Wollo Zone. Stata and SPSS latest software version was used to compute the inferential statistical and model results.

2.1. Data Source, Sampling and Data Collection Procedures

This study used sampling techniques like stratified sampling techniques and proportional computation of samples. Primarily, we determined sample city in South Wollo and Oromiya administration zone using spatial clustering techniques. Meanwhile, researcher picked sample kebele and business practitioners in each sub cities. In this study context small business in essence those which engage in less than 100,000 birr capital. Stratification techniques have help of picking sample business owners from each sub sectors. That is business owners stratified as service providers like coffee house, food and etc, shops, fruits, and vegetables sellers, cloth and garment and etc. Along with this stratification, researcher determined 198 sample respondents and use random sampling techniques since they have equal chance of selection. Along with this, research purposively took South Wollo and Oromiya administration zone.

In South Wollo Zone, there are 22 Woreda and 5 city administration. Out of these, researcher decided to pick 3 cities namely, Kombolecha, Dessie and Haik. However, sample Woreda was taken in the course of study. This mega research proposal sample population will be household, who belongs to consumers, producers, retailers, whole sellers, brokers, and etc in Oromiya and South Wollo Zone. However, the sample target population will be traders, households, government offices, and private organizations who engage on business activity in Oromiya and South Wollo zone.

This mega research proposal was employed purposive sampling techniques in order to select Oromiya and South Wollo zone from eastern Amhara regions. Meanwhile, Spatial clustering sampling techniques will be applied to recruiter sample woreda and city administration from Oromiya and South wollo zone administration. In pursuit of this, there are two city and 5 Woreda administration in Oromiza administration zone whereas there are 22 woreda and 5 city administration in South wollo zone. In Oromiya zone, cities such as, Bati and Kemissie have 4 and 7 kebele respectively. Kemissie city was among sample city from Oromiya administration zone. In south wollo zone consists of cities such as Dessie, Mekanesalam, Woreielu, Kombolecha, and Haik. However, this study sample city included Dessie, Kombolecha and Haik city administration. In each sample city, such as Dessie, Haik, Kombolecha and Kemissie, 50 sample respondents were randomly recruited from each city since they have equal chance of selection. In sum, 188 sample local and small business owners were taken from each CBDS in Kebele. Sample respondents were local and small business owners in each city where dense business market opportunities are found like bus station, Pissa and etc.

In order to gather relevant information, researcher prepared structured questionnaires which is being written in English and later translated in Amharic so as to be understandable by respondents. Questionnaire were included

both open and close ended questions which are consistent with local and small business activities and COVID-19. Questions have coded, inserted and interpreted using latest version of SPSS and Stata.

2.2. Data Analysis Methods

Econometric Model (Binary Logistic Regression Model)

Binary logistic regression was employed to identify the major significant factors that will significantly influence COVID-19 on local small business activities.

In this study, business owners were asked whether they affected by COVID-19 or not.

The households who was affected by COVID-19 responses that replied as either “Yes” or “No”, a typical case of qualitative dichotomous variable.

The most commonly and relevant used qualitative response models are the logit model, which corresponds to a logistic distribution function, and the probit model [14].

This study, thus, was used logit model due to its iterative and easy interpretation for binary responses variables.

This logistic regression models specify a functional relation between the probabilities of local business owners affected by COVID-19 and the various explanatory variables.

Independent variables that affect described both quantitatively and qualitatively.

Accordingly, the logit distribution function for the local business owners is specified as:

$$P_i = \frac{1}{1 + e^{z_i}} \quad (1)$$

Where,

P_i : is the probability of small business owner's income who will be affected by COVID-19.

Z_i : is a function of n - explanatory variables (x) and expressed as: income, family size, education level, and etc...

$$\frac{P_i}{1-P_i} = \frac{1+e^{z_i}}{1+e^{-z_i}} = e^{z_i} \quad (2)$$

$$\text{Since, } Z_i = \beta_0 + \beta_1 X_{i1} + \beta_{i2} + \dots + \beta_{in} X_{in} \quad (3)$$

Where:

β_0 is the intercept.

$\beta_1, \beta_2, \dots, \beta_n$ are coefficients of the equation in the model.

The slopes tell how the log-odd in favor of local small business owners and their activities as independent variables change.

P_i is not only non-linear in X but also in the β_i 's, which can be written as:

This means that we cannot use the OLS procedure to estimate the parameters.

But this problem is more apparent than real because this equation is intrinsically linear, which can be shown as follows.

If P_i is the probability of local small business owners are affecting by COVID-19. whereas, $(1 - P_i)$ is the probability of local small business owners are not affecting by COVID-19:

$$1 - P_i = \frac{1}{1 + e^{e_i}} \quad (4)$$

We can take the ratio of the probability of COVID-19 effects on small business activities.

It is the ratio of the probability that the local business activities to the probability that he/she will not affect it.

Finally, taking natural log of equation 5 we get:

$$Y_i = \beta_0 + \beta_1 \text{ age} + \beta_2 \text{ sex} + \beta_3 \text{ educ} + \beta_4 \text{ familysize} + \beta_5 \text{ COVID-19} + \beta_6 \text{ goods price} + \beta_7 \text{ input price} + \beta_8 \text{ transport} + \beta_9 \text{ buyer's behaviour} + \beta_{10} \text{ housing rent} + \beta_{11} \text{ income} + \beta_{12} \text{ credit} + e_i$$

3. Result and Discussion

This study assessed the effect of COVID-19 on local small business in south wollo and Oromia administration zone. It covered four major cities namely Dessie, Kombolecha, Haik and Kemissie city administration. Since COVID-19 is becoming a global issue, Ethiopia faced its dual challenges as like least developing countries. Particularly, COVID-19 causes massive dislocation and triggers on local small business activities in south wollo zone, particularly, in the study area and at large in Ethiopia. Information collected from various respondents revealed that lock done proclamation has been created massive treats and discourages customer's willingness to purchase goods and services from local small business owners. Local small business owners were private and cooperatives. Among them, as evidence, we used 184 respondents, who are being engaging in the local and small business activities, which varied in terms of type, business status as well as capital.

This study result depicts the same notion up on COVID-19 effect on local and small business studied by [15] who suggest that the pandemic had already caused massive dislocation among small businesses just several weeks after its onset and prior to the availability of government aid through the Coronavirus Aid, Relief, and Economic Security (CARES) Act. Across the full sample, 43% of businesses had temporarily closed, and nearly all of these closures were due to COVID-19. Respondents that had temporarily closed largely pointed to reductions in demand and employee health concerns as the reasons for closure, with disruptions in the supply chain being less of a factor. Local and small business owners, monthly sale, saving, expenditure were affected by consumers' willingness to purchase product and services besides to raw material price rise due to local down proclamation that combat COVID-19 in South Wollo zone.

3.1. Respondent's Demographic Characteristics

Table 1. Respondent's gender.

Ser No.	Cities	Female		Male	
		Frequency	%	Frequency	%
1	Dessie	22	44	28	56
2	Kombolecha	11	22	39	78
3	Kemissie	15	34.9	28	65.1
4	Haik	22	52.4	20	47.6
Total		70		115	

Source: Data survey, 2020.

Thus, if the stochastic disturbance term (U_i) is introduced, the logit model becomes:

$$l_i = \ln \frac{p_i}{1-p_i} = Z_i = \beta_0 + \beta_1 X_{i1} + \beta_{i2} + \dots + \beta_{in} X_{in} \quad (5)$$

$$Z_i = \beta_0 + \beta_1 X_{i1} + \beta_{i2} + \dots + \beta_{in} X_{in} + u_i \quad (6)$$

Predicted logit of local small business activities (Y_i) i.e

As it is indicated in the table 1 above, COVID-19 affected both female and male local business owners in Ethiopia specifically in south wollo administration and cities such as Dessie, Kombolecha, Haik and Kemissie. Most local small; business owners, for instance, coffee houses were female respondents and then highly affected by COVID-19 prevalence in Ethiopia. Study result depicted that most local and small business owners were female and then engage using low capital to begin their business. However, COVID-19 is still affecting the local and small business owner's daily, monthly sales and expenditures amount in Birr compared to previous periods (before COVID-19 prevalence). As it is indicated in the table above, 70 and 115 female and male local and small business owners were participated whether COVID-19 was affected their business activities or not in south wollo administration. Along with this, respondents were agreed the effect of COVID-19 on local and business transaction via prohibiting consumer's willingness to purchase final goods and services.

3.2. Local Small Business Status in South Wollo Zone

Local and small business activities status was categorized as those who have registered license and not license in the period of business operation from each city trade and industry office. In pursuit of this, four major cities local and business practitioners and owners were participated in this study. Most local and small business activities such as coffee, café, shopping, and etc were found licensed so as to operate and exchanger goods and services in the market. COVID-19 were affected both licensed and non-licensed local and small business activities and their final goods and service supply in the market.

Table 2. Local and small business Legal status & certification.

Ser No.	Cities	Licenced		Not licenced	
		Frequency	%	Frequency	%
1	Dessie	30	60	20	40
2	Kombolecha	40	80	10	20
3	Kemissie	30	69.8	20	30.2
4	Haik	35	83.3	7	16.7
Total		135		57	

Source: data survey, 2020.

As it is depicted in the table above local and small business activities and their status were quite different across cities in south wollo zone administration. Among surveyed local and small business activities, 135 and 57 have licence and non-licence in the period business operation and

exchange in markets respectively. Among major cities in south wollo zone, local and small business activities in Dessie and Kombolecha were relatively have no license to supply goods and services compared to Kemissie and Haik city administration.

The number of informal local and small business activities which have no yet license in period of business transaction influenced the completion between formal local and small business and market. So that concerned institution should deliver trainings and create awareness which alters the local and small business owner's perception towards shifting into the formal business activities.

Table 3. Local and small business establishment.

Ser No.	Cities	Private		Cooperatives	
		Frequency	%	Frequency	%
1	Dessie	31	62	19	38
2	Kombolecha	46	92	4	8
3	Kemissie	36	83.7	7	16.3
4	Haik	38	90.5	4	9.5
Total		151		34	

Source: Data Survey, 2020.

3.3. Local Small Business Establishment (Formation)

Local and small business formation determines their final goods and supply growth in the market. In this study, local and small business establishment and formation were categorized in to two major groups., namely local and small business which could be established privately⁶ and with non-private status were surveyed in the period of data collection,. It was found that 151 and 34 local and small business activities were found private and non-private formation in South Wollo Zone. Particularly, local and small businesses which have private ownership and formation statuses.

Out of 190 respondents, 62 and 92, local and small business owners were private compared to non-private local and small business owners. This private and non-private local and small businesses ownership status were keenly played a role for decision making whether they should give up to supply goods and services in the market in the period of COVID-19. However, cooperative and other forms of non-private local and small business activities have possible chance and an opportunity to share experience, knowledge and diversify the risks compared to the privately owned local and small business activities.

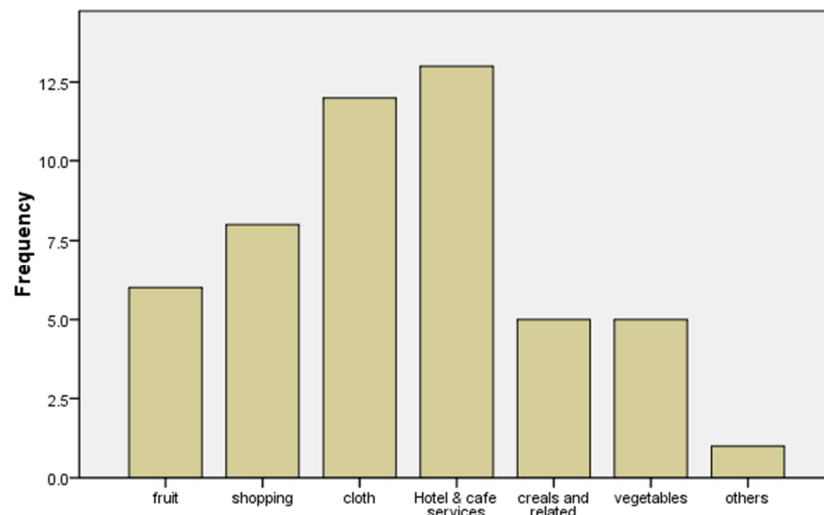


Figure 1. Types of local and small business activities in Dessie.

There are different types of small business activities in Ethiopia cities, Among major local and small business activities fruits, shopping, cloth seller, hotels and café service, cereals and related trades, vegetables (gulit) and others were found in Dessie city. These sectors were part of this study. However, among surveyed households in local and small business engagement,

most of them were engaged in hotel and café service provision. Particularly coffee houses and café were main business activities along street roads and edges in Dessie. Moreover, business activities such as cloth seller and shopping business activities were the next local and small businesses which were found in Dessie city which are affected by prevalence of COVID-19.

Table 4. Types of Local and Small Business Activities.

Ser. No.	Cities	Fruits		Cloth		Shopping		Hotels & café		Cereals trades		vegetables		Others	
		Freq	%	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
1	Dessie	6	12	8	16	12	24	13	26	5	10	5	10	1	2
2	Kombolecha	2	4	12	24	13	26	3	6	6	12	14	28	0	0
3	Kemissie	5				18		11		5		4		0	
4	Haik	6	14.3			14	33.3	7	16.7	2	4.8	3	7.1	10	23.8
Total															

Source: Data Survey, 2020.

3.4. Types of Local Small Business Activities (Data Survey)

Local and small business activities as like other sector also share their economy in Ethiopia. Most local and small business activities were created job opportunity and keenly plays role to alleviate poverty and reduce unemployment in cities in south wollo zone administration. However, local and small businesses were highly affected by COVID-19 and consumer willingness to purchase their product and services. There were

various types of local and small business activities in south wollo zone. However, this study were taken major types of local and small business activities in south wollo zone, particularly in Dessie, Haik, Kombolcha, and Kemissie. Most local and small business owners were engaged in fruits and shopping activities beside to cloth and café service provision. Female respondents were engaged on coffee houses and fruits supply near to street along main street roads.

Table 5. Respondent's Average Monthly Sale, Saving and expenditure before and after covid-19 in Dessie.

	Monthly Sale Before COVID-19	Monthly Sale After COVID-19	Monthly Saving Before COVID-19	Monthly Saving After Saving
Mean	9352.7000	3151.3600	721.0000	522.0000
Std. Deviation	6648.47897	2319.61174	931.53867	1483.41718
Variance	4.420E7	5380598.602	867764.286	2200526.531
Range	34965.00	10000.00	5000.00	7500.00
Minimum	35.00	.00	.00	.00
Maximum	35000.00	10000.00	5000.00	7500.00

Source: Data Survey Result (2020).

3.5. Average Monthly Sale, Saving & Expenditure/birr Before and After COVID-19 in Dessie City

As it is indicated in the table above, COVID-19 is still affecting local and small business owners sale, saving and expenditure amount in Birr. For instance, the average sale was 9352.7 and 3151.36 Birr before and after COVID-19 prevalence respectively. It highly deprived and decreased local and small business owner's sale amount by 6201.34 birr p. In other words, COVID-19 reduced local and small business owner's monthly sale by 33.7 percent. This confirms that COVID-19 alters and seriously influenced local

and small business owners.

COVID-19 also affects local and small business owners monthly and annual saving and expenditure in Dessie city. This study result depicted that among surveyed households, local and small business owners' saving was decreasing from 721 birr to 522 birr. In essence, COVID-19 decreases local and small business activities owners saving by 72.4 percent. This reveals that there should a need of making incentives and support for local and small business owners so as to resilient form COVID-19 crisis and further continuous deprivations. Local and small business owners' saving was seriously affected by COVID-19 compared to their monthly sale amount.

Table 6. Average Monthly Sale, Saving and expenditure Before and after COVID-19 in Haik.

	Sale Before COVID-19 in Haik	Sale After COVID-19 in Haik	Saving Before COVID-19 In Haik	Saving After COVID-19 in Haik	Expenditure Before COVID-19 in Haik	Expenditure After COVID-19 in Haik
Mean	13166.6667	9626.1905	5385.7143	3404.7619	9640.4762	7516.6667
Std. Deviation	8114.02480	5356.60338	3098.74652	2395.11213	5263.35975	4695.08911
Variance	6.584E7	2.869E7	9602229.965	5736562.137	2.770E7	2.204E7
Minimum	500.00	200.00	1000.00	.00	500.00	800.00
Maximum	43000.00	21000.00	13000.00	9000.00	20000.00	18000.00
Sum	553000.00	404300.00	226200.00	143000.00	404900.00	315700.00

Source: Data Survey Result (2020).

3.6. Average Monthly Sale, Saving, & Expenditure Before and After COVID-19 in Haik

Prevalence of COVID-19 also influenced local and small business activities in Haik town. For instance, most of business activities include fruits, shopping, hotel and café, etc. Among these business sectors hotel and café, fruits and vegetable business activities were highly affected by COVID-19 lock don and proclamation by government. Meanwhile, local and small business owners sale, saving

and expenditures were decreased after prevalence of COVID-19. This study quantitative result in the table above indicates that average monthly sale was decreasing from 13166.6667 to 9626.1905 birr before and after COVID-19 in Haik town. In other words, it reduced average local and small business' owner's monthly sale by 73.11 percent. Similarly COVID-19 affected local and small business owner's monthly saving amount. For example, the above table indicated that COVID-19 decreased monthly average sale 5385.7143 to 3404.7619 birr before COVID and after COVID-19.

However, indeed it decrease by effect of COVID-19, local and small business owners monthly expenditure was not such much decrease compared to their monthly average sale and

saving amount. Local and small business owner's monthly average expenditure was decreasing by COVID-19 from 9640.5 to 7516.7 birr.

Table 7. Average Monthly Sale, Saving, and Expenditure Before and After COVID-19 in Kemissie.

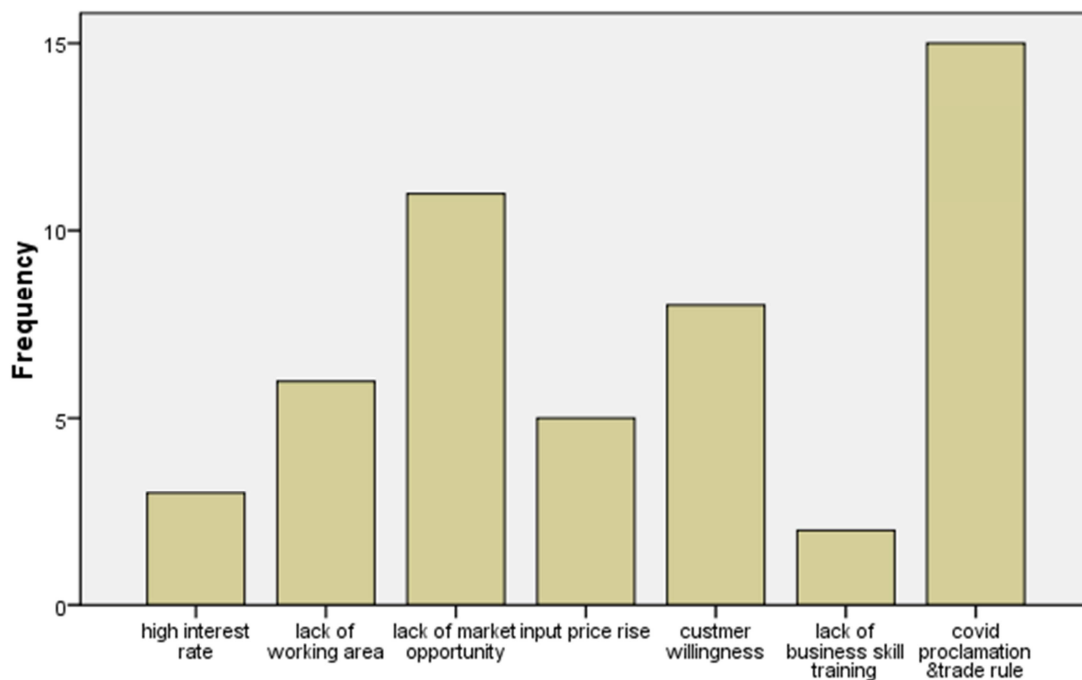
	Monthly Sale Before COVID-19	Monthly Sale After COVID-19	Monthly Saving Before COVID-19	Monthly Saving After Saving	Monthly Expenditure Before COVID-19	Monthly Expenditure After COVID-19
Mean	28976.7442	10895.3488	3945.2381	614.6341	5944.1860	9197.6744
Std. Deviation	12732.57609	5589.69943	1942.86718	495.25800	1945.85057	2962.34209
Variance	1.621E8	3.124E7	3774732.869	245280.488	3786334.441	8775470.653
Minimum	3000.00	1000.00	1000.00	.00	600.00	1000.00
Maximum	61000.00	25000.00	10000.00	2000.00	11000.00	16000.00
Sum	1246000.00	468500.00	165700.00	25200.00	255600.00	395500.00

Source: Data Survey (2020).

3.7. Average Monthly Sale, Saving, and Expenditure Before and After COVID-19 in Kemissie

As it is depicting in the table above, COVID-19 was influenced local and small business owners monthly sale, saving and expenditure. For instance, local and small business owner's average monthly sale was decreasing from 28976.74 birr to 10895.35 birr prevalence of COVID-19. It was similarly

influenced local and small business owners average monthly saving from 3945.24 birr to 614.63 birr after COVID-19 prevalence in Kemissie town. However, this study found that local and small business owner and their business activities expenditure was increasing alarmingly since COVID-19 emergences. For instance, COVID-19 increased local and small business owner's average monthly expenditure from 5944.19 birr to 9197.67 birr in Kemissie town.

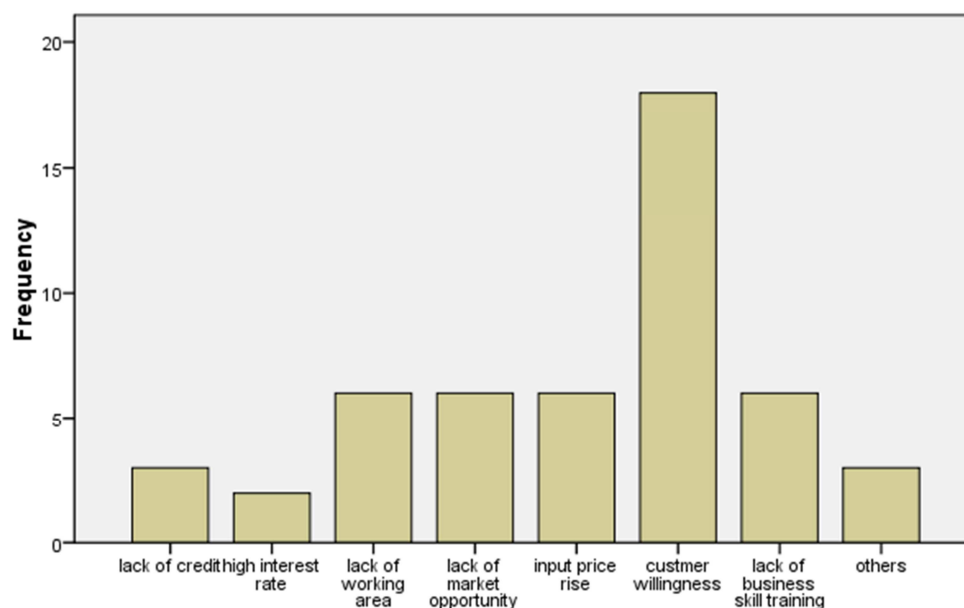


Data Survey, 2020

Figure 2. Major Problems prevailed in Kombolcha.

Local and small business has created vast job opportunity in Ethiopia using low initial capital than large business activities. However, local and small business activities are easily influenced by multiple factors and then forced to shut down due to un able to compete in the market. Along with this notion, this study local and small business activity were affected by multiple factors. Among major problems which

altered and influenced local and small business activities in south wollo zone were includes, lack of working area, COVID-19 itself, consumers' willingness, lack of market access, input price rise, and ect. However, local and small business activities in kombolcha were affected and influenced by government proclamation and lack of market opportunity in the period of COVID-19.

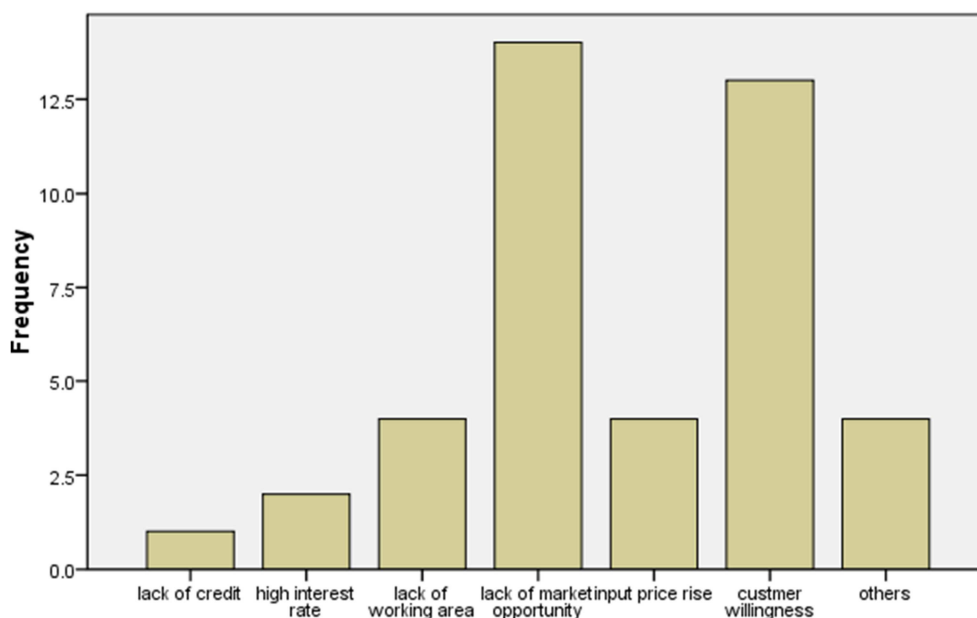


Data Survey, 2020

Figure 3. Major problems prevailed in Dessie.

Local and small business could not overcome endogenous and exogenous factors in the market. As a result, most local and small business is shutting down due to lack of support and loan services. However, today COVID-19, challenges local and small business growth and sustainability in major cities in south wollo zone. This result in the above table includes and determines major problems in Dessie city which alter the survival of local and

small business in the period of COVID-19 in Dessie city. and find out major problems affect local and small business. Out of 50 respondents in Dessie city, For instance, among many problems, customer willingness to purchase 18 (36%), working area, 6 (12%), and input price were major problems which triggered local and small business in Ethiopia, particularly Amhara regional states, south wollo zone Administration.

**Figure 4.** Major problems prevailed in Haik.

In the period of COVID, most local and small businesses were affected by the lack of market opportunity and customer willingness to purchase products in the Haik town. Among 44 respondents in Haik town, 14 (33.3%) and 13 (31%)

respondents were identifying most of their local and small business problem were lack of market opportunity and customer willingness to buy their product and service in the period of COVID-19. Lack of working and area and input

price rise were also major problems which affect local and small business activities. This revealed that local and small business require incentives and economic support such as

revolving fund, loan with low interest rate, exemption of interest rate for few month or year, and etc will resilient their growth.

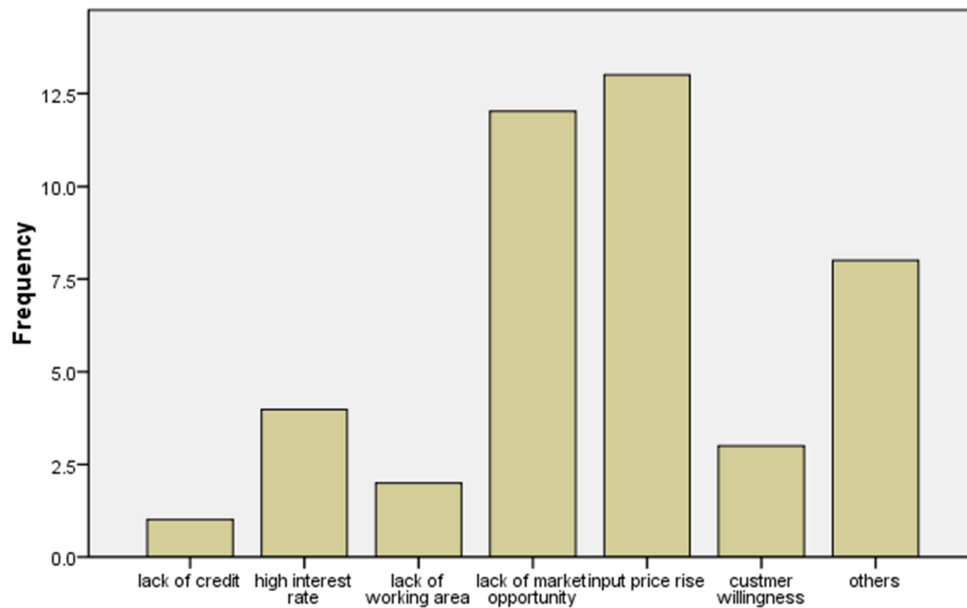


Figure 5. Major problems prevailed in Kemissie.

As like other local and small business problems prevailed in Dessie, Haik local and small business were also faced by adverse challenges since their establishment. For instance, among surveyed respondents in Kemssie, 13 (30,2%) and 12 (27.9%) were replied and determined lack of market opportunity and input price rise were keenly and mainly affecting their local and small business in the period of COVID-19. However, lack of credit and high interest rate were not found as a major problem in influencing local and small business activities in Kemissie town. There were other problems like buyer's perception and attitude towards product quality and price.

3.8. COVID-19 and Factors Affecting Local and Small Business (Consumer's Willingness to Purchase Goods) in South Wollo Zone

Consumer's willingness are quite subjective and different

along with their purchasing decision for local and small business products and services in the period of COVID-19 prevalence in Ethiopia, particularly, in the study area. Consumers' willingness to purchase local and small business products and services were altered and influenced by multiple factors. This study used major factors so as to find out which factors significantly affecting consumers' willingness in south wollo zone cities, such as Dessie, Kombolcha, Kemissie and Haik town administration. Here, in this study context, local and small business services includes coffee, tea, food and related houses, shops which deliver the services either formally or informally in cities in south wollo zone. Local and small business products in this study include fruits, vegetables, cloth, shoes, wood and metal related products and etc. Consumers' willingness to purchase these local and small business services and products were affected by consumer's age, family size, income, education level, types of business attributes in the period of COVID-19.

		Robust				
	Covfwil	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]
HHage		1.753561	1.33682	1.31	0.190	-.8665574 4.37368
HHfamsi		1.989012	1.020529	1.95	0.051**	-.0111877 3.989212
HHeduc		-.0759459	.2442546	-0.31	0.756	-.5546761 .4027844
typBusi		-.2849496	.135792	-2.10	0.036**	-.5510969 -.0188022
_cons		1.568379				

Data Survey, 2020

Figure 6. Logistic Regression Model Result.

As it is indicated in the table above, COVID-19 influenced consumer willingness to purchase goods and services produced and delivered by local and small business owners. This study Binary logistic regression result in the above table shows that consumers' willingness to purchase, and consume local and small business services and products were significantly affected by types of business and their family size at 95 confidence level. In other words, consumers were choosing the types of product for further purchasing decisions. For instance, buyers were not willing to buy, consume coffee, tea, foods and etc in the period of COVID-19.

Moreover, consumer's family size was also major factors which alters and affects consumers' willingness to buy and

consume local and small business in the period of COVID-19. This study binary logistic regression results using stata 15 version indicates that consumers family size were significantly affected their willingness to purchase local and small business products and services. It was found that respondents, who have small family size (less 5 average family size), were more willing to buy local and small business activities product and services than respondents, who have large family size in south wollo zone administration. In other way round, this study results revealed that large family size respondents were not willing to purchase local and small business products so as to protect their family from COVID-19 compared to small family sized households.

		Robust					
	Covefmsa	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
coveflom		14.11177	.731733	19.29	0.000*	12.6776	15.54594
covefloa		4.343805	1.587487	2.74	0.006*	1.232387	7.455223
COefequi		-32.23544	2.362793	-13.64	0.000*	-36.86643	-27.60445
Covfbank		-16.42056	1.529227	-10.74	0.000*	-19.41779	-13.42333
covefsav		32.8061	2.199128	14.92	0.000*	28.49589	37.11632
Coveffin		32.23544	1.209834	26.64	0.000*	29.86421	34.60667
_cons		-30.49732

Data Survey, 2020

Figure 7. Factors Affecting Local and Small Business Sale in the Period of COVID-19.

Local and small business activities and their monthly or annual income was altered and influenced by various factors in the period of COVID-19 prevalence in South Wollo Zone. Local and small business were affected by factors such as accessibility of loan, working area, saving amount, financial, raw material supply & equipment's and etc. This study Stata 14 software version indicated that all

factors were found significantly affected local and small business activities and their monthly income at 95 confidence level. However, supply and price of raw materials, and equipment, bank loan, saving and financial support were strongly and substantially affected local and small business monthly, and annual sale in birr with 0.000 value at 5 percent level of significance.

Variable		dy/dx	Std. Err.	z	P> z	[95% C.I.]	X
coveflom*		.9979263	.00139	716.51	0.000*	.995197 1.00066	.983784
covefloa*		.0255307	.03148	0.81	0.417	-.036163 .087225	.881081
COefequi*		-.0219601	.01823	-1.20	0.228	-.057681 .013761	.886486
Covfbank*		-.0040589	.0034	-1.19	0.233	-.010724 .002606	.881081
covefsav*		.9997156	.00024	4092.92	0.000*	.999237 1.00019	.978378
Coveffin*		.9997968	.00017	5768.49	0.000*	.999457 1.00014	.967568

Figure 8. Factor affecting local and small business and thiermarginal effect.

(*) dy/dx is for discrete change of dummy variable from 0 to 1
Data Survey, 2020.

As it is indicated in the table above, the marginal value of regressing binary logistic regression using stata 14 version,

local and small business owner's saving was strongly affected by COVID-19 and resulted depressed business activity and monthly sale amount. Among major factors listed in the table which have dimensional association with local and small business activities monthly sale, respondent's saving, monthly income, interest rate rise were substantially and strongly influenced with 0.000 p value at 95 percent confidence level. These factors were strongly altered and reduced local and small business owners monthly sale via affecting consumers' willingness to purchase goods and services besides to proclamation imposed to lock down imposed on business activities in the period of COVID-19.

3.9. Local and Small Business Crisis and the Resiliency Option

Economic activities in cities comprised of many local and small business activities which are yet infant to compete in the formal market. Therefore, local and small business activities are challenged and triggered by multi-dimensional factors in the period of production and distribution of final goods and services. However, COVID-19 prevalence in Ethiopia during 2020 diminished the production and supply of local and small business activities final goods and services into the market. Moreover, COVID-19 altered the consumption behaviour and the willingness of buyers in the market in the period of lock down proclamation. Local and small business activities thus require economic resiliency opportunities in Ethiopia, particularly, in south wollo zone.

Local and small business activities were affected by COVID-19 and its resultant outcome between buyers and sellers. As a result COVID-19 resulted dislocation of supplying and distributing goods in south wollo zone, at large in Ethiopia for which it keenly requires serious resiliency option for infant local and small business activities. Most studies mainly addressed the effect of COVID-19 on local and small business activities. However, none of them were forwarded resiliency option which sustain local and small business activities, which creates vast job opportunities for deprived women and youth in Amahra region, Ethiopia. Local and small business requires economic incentives such as loan provision, interest rate reduction, training and skill building, working area delivery. Revolving fund accessibility, tariff and rent reduction, tax exemption and other resiliency options in south wollo zone, Amhara region, and at large in Ethiopia.

4. Conclusion and Recommendation

4.1. Conclusion

Local and small business is back bone for the urban resident's economic opportunities in Ethiopia. Country's urban economy today relied on different local and small business activities which create job opportunities that can alleviate poverty for the most income deprived women, and youth. These local and small business activities were affected by multidimensional factors such as, rising of raw material price,

machinery, lack of working area, lack of loan and etc. COVID-19 prevalence in Ethiopia, Amhara region and specific to South Wollo zone altered the local and small business annual sale, saving, and expenditure and etc parallel to influencing the buyer's ability and willingness to purchase goods and services. This study, thus, attempted the effect of COVID-19 on local and small business in South Wollo zone and major cities, such as, Dessie, Kombolcha, Kemissie, and Haik. It employed descriptive and binary logistic regression model to find out the effect of COVID-19 on local and small business activities. It was, thus, identified that most local and small business activities such as hotel, coffee, café, food and related suppliers, shopping, fruits, and vegetables, and etc were affected by COVID-19. It was altered consumer's willingness to purchase fruits, and vegetables in the market.

Among local and small business activities in south wollo zone, fruits, vegetable and coffee houses were highly affected by COVID-19 since consumer willingness to purchase and use it regularly. This study binary logistic regression model result determined the effect of COVID-19 on local and small business owner's monthly sale, saving, and expenditure. Along with this, it was found that COVID-19 was substantially and significantly affected local and small business owner's monthly sale, saving and monthly expenditure at the 95 confidence level.

This study is lined and shared the findings of studies in [16] that depicts small growth business (SGBs) need technical assistance to build resiliency and adapt to new market challenges (and opportunities) in the short and medium term. CDOs such as the African Management Institute (AMI) provide one example of what this type of support for SGBs looks like in the short term. AMI has launched a suite of programs through their COVID-19 Business Survival Bootcamp, ranging from cash-flow forecasting to meditation sessions to promote mental well-being, and, soon, tools for leading in a crisis. Techno Serve has also shown its adaptability through the "Reset, Adapt, Engage" framework for navigating crises and digital skills trainings to provide training for remote engagement [17].

4.2. Recommendation

- 1) Local and small business should be supported and subsidized finance from different sources and also they require fast economic incentives and recovery sachems, for instance, tax exemption.
- 2) Local and small business activities require revolving fund and loan without interest rate.
- 3) Small and local business require immediate working area and sheltering as well as rent reduction.
- 4) Local and small business were affected by consumer willingness to purchase and then should create awareness of protecting against COVID-19.
- 5) COVID-19 was seriously affected local and small business in the period of lockdown proclamation. They, thus, require business skill and entrepreneurial trainings which enable them to increase annual income, saving and expenditures.

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