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Rethinking the role of HRM during COVID-19 pandemic era: Case of Kuwait

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Abstract

The recent pandemic in a shape of the new coronavirus COVID-19 has disrupted global economies and businesses and had unprecedented implications on organizations around the globe. The dramatic changes that were introduced due to the pandemic have influenced human resources management extensively. HR professionals were asked to navigate in the ambiguous present and unpredictable future by managing and guiding employees to cope with stress and adjust with the new remote working practices in an unprecedented speed, rate and scale. The coronavirus pandemic has forced HR professionals to rethink and redefine their role as the organizations started adjusting to enforced social distancing and a new working environment that they may have never imagined. The paper uses qualitative HR expert interviews as a research method. The article tackles to unveil the challenges HRM has been facing in Kuwait, determines the influence the crisis has on HRM and introduces the recommendations for managing the crisis from HRM point of view. The qualitative research findings indicate that organizations, alongside the HR professionals, should channel their efforts towards driving people transformation and enabling change, introducing flexible working practices, relying on new, innovative technology and developing the culture of trust & empathy to deal with the current or future crises.

1. Introduction

All over the world, COVID-19 pandemic has altered everyone's reality in just an overnight. Countries and its' economies, organizations and individuals have experienced the shock of a lockdown and the fear of ambiguity.

HRM professionals have a vital role to play in aiding organizations to navigate in the uncertain situation caused by the dramatic changes due to COVID-19 pandemic (Gigauri, 2020). The newspaper Economist beautifully compared the 2007-2009 financial crises to the current pandemic. If during the financial crises the role of talented Chief Financial Officers (CFOs) were highlighted, the COVID-19 pandemic presented a different challenge and emphasized on the importance and pivotal role of a smart, strategic and hard-headed Chief Human Resources Officers (CHROs). The perception of HR professionals have changed and are considered critical these days. Their duties are constantly evolving (The Economics, 2020).

The purpose of this research is to understand the level and magnitude of the challenges the HR experts have been facing in Kuwait during the COVID-19 pandemic and unveil the impact the crisis has on HRM. By the end of the paper, the suggestions and recommendations are provided to the organizations for managing the crises from HRM point of view.

The research data was gathered by conducting a semi-structured video conferencing interviews. The analytical direction of this study was determined by the research questions, alongside the theoretical framework.

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Below listed Research Questions (RQs) were identified for this study:

- RQ1: What are the challenges HRM has been facing in Kuwait during the Covid-19 pandemic?
- RQ2: How have Kuwaiti based organizations changed the HRM practices since COVID-19 breakout?
- RQ3: What are the recommendations for managing the current and possible future crises from the point of HR professionals/experts?

The rest of the paper is organized as follows: section II reviews the literature on the role of HRM during pandemic and presents the socio-economic consequences of the COVID-19 on Kuwait; section III describes the used methodology to gather the primary data for this research; section IV presents the research findings and results followed by the conclusion.

2. Literature Review

2.1. The role of HRM in the pandemic era

The COVID-19 pandemic has forever altered the role of HR professionals in the workplace. Many experts believe that those days when HR just meant employee relations, payroll, recruitment, and disciplinary action administration are long gone. With the recent pandemic era came a new wave of changes that many organizations and managers are still trying to manage. However, the weight of change is falling more on HR managers and HR professionals (Lumen, 2020).

Around 61% of HR professionals believe that their role has become more difficult during the COVID-19 pandemic and 43% of HR professionals believe that their role has completely changed due to the current crisis (ADP Canada, 2020). However, HR professionals have shown tremendous sense of quick adaptation and agility. (Campbell, 2020). Here is how:

Working from home was a luxury and only around 5% of the workforce worked from home before the pandemic. The number of people working from home has increased gradually over the last five years all over the world (CIPD, 2020a). But the increase was not sufficient enough to prepare the workforce for the upcoming crises. In 2019, more than 50% of HR leaders struggled and were not able to upskill the employees with the necessary expertise to navigate an increasingly digitized workplace. Everybody believed that this "future of work" was a safe distance ahead — far enough, at least, to thoroughly prepare for (Bingham, 2020).

However, the world's response to the pandemic has resulted in the fastest transformation of the workplace. Remote working has become a new normal and the world has gone from digitizing the relationship between organization-customer to employer-employee (Kirby, 2020). HR professionals have a significant role in providing the required assistance to its employees to overcome the difficulties brought by the unexpected and rapid changes in the workplace, not to mention the changes in the society (Carnevalle & Hatak, 2020). Besides the digital skills, which will enable but not guarantee flexibility, rapid adaptation and creativity of the employees, HR needs to concentrate on shoring up the collaboration skills of its digitally dispersed employees to smoothly transition to the virtual work. On the other hand, HR has a vital role in developing leaders, ensuring they are successful and holding them accountable for their team's performance (Brower, 2020).

Other than the employee upskilling, promoting the lifelong learning and developing the talent pipeline is still an important concentration point for HR even during the pandemic (McElgunn, 2020). It is noteworthy that LinkedIn Learning traffic has increased threefold since pandemic. Similarly, other educational portals have also experienced the soar in the demand. The emphasize falls on tech upskilling, mindfulness and stress management (Ark, 2020). This showcases employees' heightened desire to learn, grow and actively harness this time to invest in self-development. HR's role is to use this time to increase talent capability and subsequently foster employee morale and motivation by offering access to these online platforms for free or reimbursing the online training fees. Introduction of the latter achieves a clear win-win situation from employer-employee perspective (Caligiuri and others. 2020).

As remote working is becoming a new normal, employees will have a particularly difficult time working effectively in their stress-induced, cognitively reduced state (Caligiuri & others. 2020). HR professionals will be left to cope with their employees' stress caused by the removal of boundaries between work and family (Giurge & Bohns, 2020). HR professionals are realizing that they need to concentrate on employee well-being and necessary measures need to be taken to ensure it. Measures need to range from supporting employees to regain an effective work-life balance to answering the questions and addressing their fears on returning to the physical workplace (CIPD, 2020b). HR professionals are also required to develop a thorough safety, security and health protection protocols to be shared with employees (Vnoučková, 2020).

Not only HR professionals have a role to facilitate and support employees through this uncertain transformation, but they are also responsible to retain the employees (Buck & Watson, 2002). As we navigate through the current pandemic, organizational leadership and HR professionals require "trust" and "transparency" to serve as a foundation in order to create high-performing and efficient teams working together to tackle the uncertainty and ambiguity (Bingham, 2020). Edelman (2020) research shows that most credible source of communication is named to be an employer and people trust their employers more than their governments or media when it comes to the communications related to the current pandemic. The research was conducted in 10 leading countries, specifically in Brazil, Canada, France, Germany, Italy, Japan, South Africa, South Korea, the U.K. and the U.S. It confirms the role employers and more specifically HR must play as a source of reliable, transparent and timely information (Edelman 2020).

Another role HRM has to play during the current pandemic is to ensure employee engagement, increase concentration and instill the camaraderie. "Managing fully or partially remote teams is a skill that will transcend the pandemic, and organizations will need to adjust how work gets done in response" (Brower, 2020). For that purposes, HR has a role to periodically conduct quick employee engagement surveys and collect feedback that provides leadership with a necessary barometer to understand the gaps. Specifically, whether managers need to double down on monitoring, motivation and keeping people on board.

Overall, HR has been recently entrusted a fundamentally influential role to contribute to the success of the organizations during and beyond the pandemic. "Taking the lead in reimagining the organization, developing talent strategies, addressing wellbeing and work-life, administering HR systems and facilitating reentry to the office are all critical and uniquely skilled contributions HR can make" (Brower, 2020).

2.2. Socio-economic consequences of the COVID-19 pandemic on Kuwait

Since December 2019, when the novel coronavirus, known as COVID-19, first appeared in China, it has spread rapidly around the world and a global pandemic began (World Health Organization, 2020). The first COVID-19 infection in Kuwait was confirmed on February 24, 2020 (Kuwait News Agency, 2020).

In order to protect the society and health system, authorities in Kuwait have taken very strict containment measures *(suspension of schools and universities, suspension of work in government sector, closure of the airport, curfew and lockdown)* as a response to the increasing number of cases that have caused sharp decline in the economic activity. Therefore, the Kuwait's government and the Central Bank of Kuwait have adopted a package of other economic *(fiscal, monetary and macro-financial)* measures to support small and medium-sized enterprises (SMEs), to mitigate the economic damage and to maintain employment (International Monetary Fund, 2020).

According to the preliminary assessment of the United Nations (2020), the possible social and economic consequences of the COVID-19 pandemic in Kuwait go beyond the health crisis. Supply and demand shocks are expected to cause unparalleled sectorial changes, sudden adoption of online learning is anticipated to put learners at risk and disrupt the country's efforts to turn into the knowledge-based economy; however consequences on the labor market may be more considerable.

Supply and demand shocks

The preventive health measures (mobility restrictions, closure of restaurants, entertainment facilities and shops) taken by authorities in Kuwait resulted in a decline in supply and demand at the local and international level.

The COVID-19 pandemic had negative effect on trade dynamics, which declined by 34% during the first half of the year 2020. Import fell by 18,8%. Industrial and transport equipment (capital goods) dropped by 30%, intermediate goods by 26% and primary and processed industrial supplies declined by 26%. In addition, import of consumption goods fell by 6.8% and durable goods by 38%. Food and beverages for households have stayed relatively unchanged. During the same period the price of Kuwait Export Crude sharply fell to $39 per barrel and oil exports (90% of total exports) plunged to 42%. Export of non-oil goods also decreased. Specifically, intermediate goods plummeted by 26%, capital goods by 53%, and consumption goods fell by 33% (Hijazeen, 2020).

The deficiency of supplies has limited organizations' operations, changed domestic consumption, lowered demand for goods, and caused inflation that rose to 2% in the third quarter in 2020 (Al-Matrouk & Al-Nakib, 2020).

Unparalleled sectorial changes

Since the beginning of the pandemic various sectors and industries have been hit differently. Many businesses, especially those in private sector and SMEs have already faced a drastic fall in revenues. To some extent, it was related to restricted supply chains and decreased demand. As per the Kuwait Business Impact Survey (Bensiri

PR, 2020) the hardest hit sectors in Kuwait have been *professional services* (46% have suspended their operations and 37% had revenue drop by more than a half), *contracting, construction, architecture* (39% have suspended their operations and 31% had decline in revenue by 80%) and *retail* (36% have suspended their operations and 46% had revenue drop by more than a half). It is believed that if this crisis continues it may lead to employee lay offs or business closures.

Learners at risk

Closure of academic institutions as a response to the COVID-19 pandemic is putting all students at risk. In order to minimize the negative impact and facilitate the continuity of learning, private and public schools and universities introduced an online learning as an alternative to the traditional face-to-face learning (Alhouti, 2020). Conversely, this shift towards digital approach has raised many questions on the digital preparedness among students and teachers, and consequently quality of education (Sahu, 2020). This may represent a risk to interruption of the government's effort to become knowledge-driven economy.

Labor market changes

Since 2019, Kuwait has experienced slowdown in employment growth. The downward trend has continued, especially in the private sector, due to the implications of COVID-19 containment measures taken by the country from the middle of March, 2020.

Employment growth among Kuwaiti employees showed decline for the third consecutive quarter. In the second quarter it fell to 1.7% from 2.4% in the first quarter in 2020, and from 3,2% in the fourth quarter in 2019. It was led by a slowdown in both public sector hiring, which dropped from 3,6% to 2.9% in the first quarter in 2020 and to 2,2% in in the second quarter, while the private sector recorded a drop from 1.6% to 1,4% in the first quarter and to 1% in the second quarter in 2020. The overall employment growth in Kuwait declined by approximately 1% in the second quarter after an increase of 1.2% in the first quarter in 2020 (Al-Fakir & El-Mahmah, 2020) (El-Mahmah, 2020).

As many expatriates were projected to leave by the end of 2020, after around 5% of the total expatriates population who already left between March and July 2020 due to proposed changes to the residency law, this forecasts further employment decline and skilled labor shortages in both public and private sectors. A continuous fall in the number of expatriates in Kuwait and worsening situation in the labor market may also have negative effect on consumer spending outlook (El-Mahmah, 2020).

If the COVID-19 crisis persists, it may have long-term impact on the social and economic dynamics, job creation and future development. Therefore, this paper focuses on the implications of the crisis on HRM in Kuwait and provides recommendations for managing the current and possible future crises from the point of HR professionals/experts.

3. Methodology

3.1. Research Methodology

For this study an exploratory qualitative research methodology involving semi-structured interviews (SSI) were chosen. The SSI approach was deemed to be the appropriate choice as it produces rich data that can be used in qualitative research analysis (Lofland, 1971). Moreover, it provides a great room for interviewee thought exploration and triggers their reflection (Tracy, 2012), not to mention the benefit of controlling the introduction and flow of topics by the interviewer (Mishler, 1986).

The study used expert interviews to collect the primary data for the research. The research participants were chosen on the ground of their characteristics, hence adopting the purposeful sampling approach.

3.1.1. Expert Interview Method

Expert Interviews, as a qualitative empirical research method, have been developed considerably and widely used since late 20th century. This method is considered to be more efficient and concentrated method of gathering data than using systematic quantitative surveys (Meuser & Nagel, 2009), as respondents are highly qualified in the researched question, hence eliminating the need to use additional screening and probing questions to receive the genuine responses (Libakova & Sertakova, 2015). This type of qualitative research method provides reliable data due to the respondents' high competency (Dorussen, Lenz & Blavoukos, 2005).

Moreover, not only experts have the technical, interpretive (i.e. also referred as "know-why"), procedural knowledge ("know-how") in their areas of expertise, they are also seen as crystallization points for practical insider knowledge (Bogner, Littig & Menz, 2009), have experience derived from their functional status within

the organization (Mergel, Edelmann, & Haug, 2019) and possess the ability to solve problems in their field (Meuser & Nagel, 2009).

3.2. Data Collection

The following criteria have been devised to invite experts for this research as semi-structured interview respondents:

Table 1. Expert characteristics and categories

Expert Characteristic	Category
Having a theoretical knowledge of HRM and being involved in different research activities in the field of HR, thus having connections with HR professionals in Kuwait.	HR Trainers & Educators
Having worked with or currently working with different organizations in regards to human resources management issues.	HR Consultants
Having a theoretical, as well as practical experience in the field of HRM.	HR Professionals

Source: Authors

As a result, all interview participants have relevant factual knowledge about current pandemic and its effect on HRM function and daily HR activities. The latter is due to their position in the organization or their relation to other HR professionals/experts in different Kuwaiti organizations, hence possessing the information or are privileged to access such information (Mergel, Edelmann, & Haug, 2019). The research team agreed that the respondents could come from both governmental and private organizations.

For this study all interviews were conducted via different video-conferencing tools, such as Microsoft Teams or Zoom, depending on the preference of the participant. The interviews were conducted during the month of December and beginning of January. As a first step of the interview process, the participants were informed about the research purpose, expected benefits, and their rights for withdrawal from the research at any time, data protection and confidentiality.

Respondents' approval were sought out to record the interviews for the transcribing purposes. On top of that, typed notes were taken during the interviews to enable researchers to track key points and to return to them later during the interview. Duration of each interview was between 45-60 minutes. All interviews were semi-structured and followed similar guidelines to allow data comparison and to keep the interview within the desired research topic boundaries (Gigauri, 2020). The questions were mostly open-ended to motivate participants to provide their responses freely and openly (Kvale, 1996). The interviewees were expected to provide thorough answers. When the answers were not sufficiently elaborated or clarified, the probing questions were deployed (Rubin & Rubin, 1995). Overall the interview consisted of open-ended questions that were derived from 4 main themes:

Table 2. Interview Themes

Part	Description of the Main Theme
I	Expert demographics, their experience and field of expertise
II	Challenges of HRM professionals in the pandemic
III	Influence of the pandemic on HRM Practices
IV	Future role of HRM and expert recommendations for post-pandemic

Source: Authors

3.3. Sampling

Any research project that is based on expert interviews will be successful depending on the number of conducted interviews and the quality of the interviewed experts. Number of research participants, on the other hand, depends on research question, accessibility of the respondents, available resources and availability of the potential interviewees (Baker & Edwards, 2012). The sampling should be kept as long as it expands the breadth and depth of knowledge of the researched topic and the sampling should be concluded once the research does not gain any new insight or the knowledge about the investigated issue (Cooper & Schindler, 2014). The same was confirmed by Saunders and others (2018) who argued that recruitment and participant interviews should be

terminated when the data saturation is reached and the provided information is beginning to be redundant. Saldana (2013) states that approximately 20 to 30 interviews need to be conducted in order to gain a deep understanding of the researched topic.

For this study, in total **45 experts were contacted** and invited to the video conferencing interview, out of which **28 agreed to participate**, a response rate of **62%**. A summary of expert characteristics is provided in Table 4. Expert recruitment was conducted via LinkedIn and researchers' professional contacts. Preliminary interview questions, alongside the research purpose were sent to those experts, who expressed their interest to participate in the research study.

Table 3. Characteristics of respondents (R) - interviewed experts

Category	**N**
Gender	
Male	11
Female	17
Age group	
18-30 years	6
31-40 years	18
51-60 years	3
61 years and more	1
Expert characteristics	
Educators/Trainers	3
HR Consultants	2
HR Professionals	23
Size of the organization experts work for	
Micro organization (1-9 employees)	1
Small organization (10-49 employees)	1
Medium sized organization (50-249 employees)	2
Large organization (250 and more employees)	24
Part of the executive team	
Yes (Reporting directly to CEO)	6
No (Not reporting directly to CEO)	22
Years of experience in HRM field	
Up to 10 years	16
More than 10 years	12
Company Sector	
Private	24
Public	4

Source: Authors

3.4. Data Analysis

Qualitative content analysis approach was used to interpret and analyze the collected data. The data was reviewed for several times until the recurring regularities emerged (Merriam, 1998). Those thematic parts and passages that had similar elements have been noticed and identified (Bogner, Littig & Menz, 2009). The interview transcripts were re-reviewed for several times until themes, issues and categories emerged that were consistent, yet distinct. The latter were labeled appropriately (Merriam, 1998). Afterwards, the sorting of the data was conducted accordingly based on similar themes and subthemes, as well as conflicting viewpoints (Flick, 2013). Moreover, the passages from various expert interviews that were thematically similar were grouped together (Bogner, Littig & Menz, 2009). The purpose of the latter was to further conceptualize and reveal the commonly shared expert opinions (Gigauri, 2020).

4. Research Findings

4.1. Main challenges of HR professionals in the COVID-19 pandemic

During the interview experts have reported that the pandemic crisis has affected "employee morale", specifically HR has struggled to provide reassurance to its employees, hence keep employee's engagement, motivation and morale high. Due to the curfew and lock-downs that were introduced for several times in Kuwait, HR's challenge became to ensure employees' proper mental health and well-being.

HR had to quickly adapt to a new normal and to devise new safety measures and safety protocols, especially for those employees who would have been returning to the physical workplace. This required HR's constant collaboration with other departments to ensure compliance with the governmental regulations. Moreover, HR had to closely follow-up with the governmental decisions and continuously renew the contingency plan.

During pandemic, some employees were stuck outside of Kuwait due to the sudden airport closure. Hence, HR was to follow-up and recommend the plan of action for those employees. As most of these employees could not continue working remotely, the decision had to be made fast whether to keep, lay off, temporarily suspend their contracts or request to take a mandatory paid/unpaid leave. HR was challenged to maintain regular compensation schemes. Due to the pressure coming from the organizational leadership caused by the financial difficulties, HR had to find a fine balance between cost/benefit reduction to satisfy the management and employee productivity maintenance.

Staff retention was also named as one of the challenges HRM has faced during pandemic. Considering that majority of the workforce are expatriates in Kuwait, most of the employees' have decided to flee the country and return to their home. The challenge was to hire the replacements as government has stopped issuing new work visas and, on top of that the airport was closed. Hence, the overseas recruitment was "out of the picture" (R23). Those organizations who found a replacement in local market faced another issue with visa transferability due to the introduced visa restrictions in the country.

HR experts have also encountered challenges with establishing a transparent communication with its employees. HR had a tedious but utmost important responsibility to keep employees informed by "making awareness leaflets on ongoing basis, following up with developments at the state level, translating it in English and delivering them to employees" (R12).

HR experts have also struggled to ensure and control employees' performance levels. One of the respondent (i.e. R4) has described that the challenge was to "achieve the targets while working remotely" as remote-work required "changing employees' mentality on working from home concept" (R20).

Overall, interviewed experts confirmed that sudden pandemic outbreak was perceived as a shock by most of the organizations and, hence, revealed the ugly truth of not having enough crisis management experience to efficiently deal with the pandemic.

The identified challenges that HR has been facing during pandemic in Kuwait are listed below:

Table 4. Challenges caused by COVID-19 pandemic to HRM in Kuwait

Expert-identified main challenges to HRM
Managing employee morale, motivation and engagement
Ensuring employee mental health and well-being
Devising new procedures and protocols to be followed
Staff retention and problems with local/overseas recruitment
Cost Reduction
Establishing transparent communication
Lack of remote-online management experience
Lack of sufficient crisis management knowledge and experience

Source: Authors

4.2. Changes in HRM practices caused by the pandemic

If HR was considered more administrative function prior to pandemic, currently HR "became the mastermind and consultant of the employer", "as the pandemic revealed the true meaning of human resources" - says Respondent 10. Majority of the experts agree with this statement, emphasizing on that "organizations have realized the importance of HRM more than before. Nowadays, HR is the leading role in the organization. Without proper HRM practices the organizations can plummet" (R1).

Recruitment and selection

Given the COVID-19 downturn, it is unsurprising to hear from the experts that the need for hiring decreased or was put on pause. Hiring became limited either because of the "financial issues, fewer available positions" (R6), or "fewer people on the labor market due to airport closure or work visa restrictions" (R7). Consequently, organizations had to "focus on the local talent, which not always fulfilled the required needs" (R8). More organizations turned to technology to find talent. Experts have stated increased use of "virtual interviews, virtual panel interviews or virtual career days for hiring of university graduates" (R4).

Training and development

It is noteworthy that the majority of the organization's concentration on training has decreased substantially during the pandemic. The decrease has been manifested either in offering less formal training hours and/or not offering the trainings at all to the employees. Those organizations that continued to emphasize on the employee training have ensured to cover the changes in the working conditions during the trainings. The topics of the training varied in different organizations and included remote working, use of new technology/ software/applications and etc. The latter was more specifically noticed in the experts coming from the educational/training field. They had to quickly adapt to online teaching in order not to distract the course-delivery process. The trainings were conducted remotely/online even for those employees who were asked to physically report to work. Only 2 experts mentioned about face-to-face on-the-job trainings or hybrid training method - mixture of both online and face-to-face.

Performance management

The experts were asked to compare the purpose of performance evaluation before and during the pandemic. The finding was rather interesting: if prior to the pandemic, majority of the organizations used performance evaluations to identify promotion/increment opportunities for its employees, currently the emphasize has shifted. As per the experts' answers, currently the performance evaluation is conducted to control/monitor employee performance and with no or rare consequence of promotion/increment. Performance evaluation has become a "formal procedure. No consequence is followed" (R1). The experts explained the latter due to economic recession and financial crises. Experts have identified that in those organizations where promotions were still given to the employees, the latter was decided based on KPIs, specific project achievements and going an "extra mile" (R26). While for other organizations, the decision was purely based on management preferences and was approved on an exceptional, case-to-case basis. Respondent 1 has summarized the latter point very well: "Promotion is given to only those staff who proved to be critical during pandemic or the organization was afraid to lose the employee as the replacement would be very difficult."

Compensations and benefits

When it comes to the correlation with performance evaluation and pay rises, the majority of the experts have claimed that pay raises, promotions and incentives are not related or moderately related to performance evaluations since pandemic. Half of the respondents have mentioned that the organizations overlooked and modified their compensation and benefits practices during pandemic. "Due to the pandemic effect" and "low income, benefits were decreased to cover the loss" (R10). Others have opted to use different measures, such as "50% deduction" of the salary till July (R3), "introduction of a new type of leave (COVID-19 leave)" (R16), exclusion of out-of-the-country staff from the payroll (R21), and salary delays. Mainly incentive packages, increments and promotions were frozen temporarily and benefits were only exceptionally granted to key staff.

Employee well-being

The experts were asked to specify what measures have been taken by their organizations during the pandemic to monitor employee well-being. The below categories were identified and listed below based on the frequency of use.

Table 5. Measures taken during pandemic to monitor employee well-being

Category
HR helpline
HR e-connects
Leadership memos
Leadership calls
Well-being "learning sessions"
Activity trackers/tools/apps
Counselling helpline

Source: Authors

It is noteworthy that only 4 experts mentioned about implementing counseling helplines. While others believed the latter idea was excellent, they either did not think about it or did not have the right, qualified staff to introduce such a measure in their organizations.

Employee engagement

As for the employee engagement, organizations opted to 4 main practices outlined below:

a) Virtual team meetings

b) Employee surveys

c) Teleconferences

d) Leadership briefings

The abovementioned methods were used in combination or individually. The experts have noticed that the employees' engagement was increased when more than one engagement method was followed.

Employee morale

In order to tackle the current pandemic situation and especially to maintain employees' high morale, majority of the organizations in Kuwait ensured frequent communication with its staff. The experts have stated that listening to an employee feedback and ensuring full transparency & discretion was the key point to keep high morale in the organization. It is noteworthy that some organizations opted to provide employee recognition during the pandemic to boost their staff motivation and others chose to utilize the pandemic period to ensure staff training and their development. On the other hand, there were organizations that ignored the importance of safeguarding their staff morale and, as a result, did nothing to boost it, not to mention to maintain it on the same level.

4.3. The future of HRM in the face of the pandemic

Experts state that organizations have realized the value of HR during this pandemic, recognized that people are the backbone to its success and, hence, there should be more emphasize on people management in the future by providing HR executives the right to participate in executive decision making process to echo the people's opinion.

Experts believe that most important recommendation for managing current and/or possible future crises is to have a crisis management plan in place. Not only there should be a specific team of people dedicated for a crisis management, but key employees should be trained in it to embrace a forward thinking mindset. The latter will ensure the organization's readiness and potential of successfully navigating through the crises. Experts believed that those organizations that were successful during the current pandemic were the ones who devoted their time and energy on crises management and contingency plan developments and the ones who adopted long-term instead of short-term thinking/planning.

Experts also believe that adopting a transparent communication with its employees, being empathetic, supportive and providing the necessary trainings are another utmost important recommendations to be considered for current and future crises situations. Respondent 1 has rightfully highlighted that "emphasize should be on your employees - they are the backbone of the organization's success". Investing in people and developing their soft skills were also the recommendations provided by the experts during the interview. From the recruitment

perspective, the experts have emphasized the need to alter the priorities by concentrating on hiring those who are stress resilient and showcase its full potential while working under pressure.

Experts believe that remote working has become a new normal, hence the organizations and HR professionals need to adapt to a new reality. This can be done by improvement of the systems for easier remote working experience, offering more flexible working hours to ensure work-life balance and proper stress management. Respondent 17 has also rightfully identified another recommendation: "replacing full-time employees with contingent workers as a cost-saving measure" to allow more flexibility.

As the pandemic has showcased that remote working is possible and can potentially replace the traditional employment, HRM's emphasize on maintaining employee engagement has also soared. As new technologies are being adopted more frequently, HRM's function became to supervise this process and ensure employees' conformity. Moreover, the new focus is on building better employee-manager relationships; teamwork and team dynamics are now encouraged more than ever in the workplace.

When it comes to future concentration of HRM, majority of the experts specified that HRM would require adjustment to a new normal and "channel efforts towards driving people transformation and enabling change" (R26). "Developing organization culture of trust and empathy to build work from home workplace relationship dynamics" (R21), introducing flexible working practices and relying on new technology were also identified as important concentrations of the future of HRM. As employees' retention is already becoming problematic, HRM's future concentration would be to assist business in recovery by getting involved in business decision-making. Maintaining healthy and safe working environment would continue to be important through coming years and HRM will play the major role in ensuring it.

5. Conclusion

The objective of this research was to provide the foundation for understanding the implications of COVID-19 for the role of HRM. The interview study enabled us to identify the key challenges faced by HR professionals/experts and explore how the crisis affected HRM practices. The major shift in HRM practices resulting from the crisis is highlighted below.

Major shift in HRM practices due to COVID-19 in Kuwait

- Digitizing recruitment process
- Driving the people transformation and enabling the change
- Emphasizing on upskilling the employees
- Providing trainings and developing crisis management skills
- Establishing transparent communication based on trust and full discretion
- Replacing short-term thinking with long-term thinking mindset

The research results showcase insightful findings for HR experts and organizations in Kuwait. HR professionals need to understand their pivotal role to help organizations to smoothly maneuver into this crisis. On the other hand, they need to know how to boost employee morale, motivation and engagement during remote-working, develop soft skills to easily adapt to changed workplace practices and digitization, provide assistance to cope with personal stress and, most importantly, find the right balance between cost reduction and employee productivity maintenance.

The research findings have shown that primary concern of HR professionals and experts in Kuwait is to boost employee morale, motivation and engagement. Failing to keep employees motivated and engaged is related to a range of outcomes, including dissatisfaction, lower job performance, and turnover. Therefore, future research should focus on identifying strategies that organizations in Kuwait could apply in order to prevent the loss of talent, reduce turnover and its related costs.

As for the limitations, lack of accessibility of experts and inability of having face-to-face interaction with interviewees, mainly due to the pandemic situation in the country, was a main downfall. Time was another limitation as interviews and data analysis were time consuming to conduct. Finally, lack of prior research studies on the topic in the region is considered to be another limitation.

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Interrelation of working capital management and efficiency of the company

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Abstract

Effective management of working capital gives the company the opportunity to create its value by reducing the need for additional funding, increasing profitability, improving liquidity, and increasing the efficiency of operations. Working capital acts as a lever for the creation of value and value for its owners. An effective management model of working capital allows a company to gain competitive advantage and increase the well-being of shareholders. The relevance of the study is due to the need for quality management in the short-term aspects of the company's activities to achieve its maximum effectiveness. The purpose of this article is to determine the nature of the relationship between the components of working capital and the effectiveness of the company in the Azerbaijan market. Working capital management is an important aspect of management aimed at increasing the competitiveness of a company and creating value for business owners and key stakeholders in the long run. To achieve long-term goals, the company must be paid and provide a level of profitability, satisfying stakeholders. As part of the study, as an indicator of the quality of working capital, the length of the financial cycle of the company was used, as well as the period of turnover of reserves, accounts payable and accounts receivable. There was also a criterion for the effectiveness of the company - an indicator of return on assets (ROA). As a basis for research, a selection of Azerbaijan small and enterprises of various industries, except for companies involved in the financial sector and the service sector, from 2015 to 2019. The course of the investigation showed that there is a significant reciprocal relationship between the long financial cycle of the company and the effectiveness of its activities. In the period between the turnover of the creditor's indebtedness and the effectiveness of the company's activity, a reciprocal relationship was also identified. With the growth of the period of turnover of receivables, the efficiency of the company's activities falls. The periodic turnover of the company's stocks and the effectiveness of its activities are also reflected in the reciprocal relationship.

1. Introduction

Working capital management plays a significant role in the financial management and planning of an enterprise, as it is directly related to the management of short-term assets and liabilities. The quality of use of working capital allows you to increase or decrease the company's performance, depending on what goals the company pursues now.

Currently, there are several approaches to working capital management with different goals. First, working capital management allows the company to provide a continuous flow of investments in its current assets to maintain a balance between assets and liabilities, and therefore, to ensure coverage of various operating expenses. It seems natural that a company needs a certain minimum amount of cash and inventory to meet a variety of day-to-day tasks, from paying payroll to acquiring various licenses or securing its office space. The next important goal is to ensure the constant growth of the company, which, of course, includes the growth of the company's sales. Along with the growth of the company, it needs to increase the resources on which this growth will be based, which leads to the need to increase investments in inventories, receivables, etc. The third goal is to finance additional costs that arise during critical periods of the company's seasonal cycles. In this case, additional

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funds ensure the fulfillment of guarantees for obligations arising in the periods preceding the direct use of raw materials or materials for these obligations acquired. Finally, the competent use of working capital contributes to the internal development of the company to support its competitiveness by improving the quality of products, business processes of the company and entering new markets. All costs associated with these aspects are often small, but constant, which determines the use of working capital for these purposes.

An effective working capital management policy of a company includes several components: inventory management, accounts payable and receivable. This fact, in turn, means that the quality of working capital management depends not only on the period of capital turnover, but also on its components. The increased turnover of these components reflects a better use of the investments made in them. The competent use of these components will allow the company to reduce its dependence on less available external sources of financing, as well as increase the company's performance.

Thus, all criteria for the efficiency of working capital can be divided into four main components: the length of the financial cycle, the period of turnover of accounts payable, the period of turnover of stocks, the period of turnover of receivables.

2. Literature review

At the present stage of development of market relations, the constant development of competition requires companies to search, develop and improve algorithms for optimal business management. Because of this, the developed and applied models and methods of capital management are one of the most important competitive advantages of the company. Working capital management is one of the important areas of a company's financial management. According to many experts, effective working capital management is to ensure financing of funds required for the current activities of the enterprise.

There are many studies on working capital management. The authors studied the individual components of working capital, as well as the impact of the operating and monetary cycles on the company's performance.

The problem of managing the working capital of companies is of relevance for a number of reasons. Firstly, for all companies, the issue of effective working capital management is quite acute since the level of solvency and financial stability depends on the working capital management policy. Secondly, the problem of increasing operating efficiency for companies comes to the fore in the emerging crisis phenomena in the global and Azerbaijani economies, when companies need to improve the working capital management system to maintain a high level of solvency and financial stability, which in turn will lead to increased competitiveness and strengthening the market position of the company.

Most of the studies revealed a significant inverse the relationship between the criteria for working capital and the performance of the firm. Thus, M. Deloof examines the relationship between working capital, expressed by the financial cycle, as well as accounts receivable and payable and the company's performance on a sample of non-financial Belgian firms. The author found that reducing accounts receivable increases the company's profitability, while at the same time, smaller firms prefer to stretch the period of its repayment. Along with this, no relationship was found between the length of the financial cycle and the company's performance. (Deloof, 2003)

Subsequently, in the work of other researchers (J. García-Teruel and P. Martínez-Solano), studying the impact of working capital management on a sample of Spanish small and medium-sized enterprises, it was found that, along with the reduction of accounts receivable, the growth of the company's profitability is affected by and shortening the length of the financial cycle. (García et. al.,2007)

The next work on this topic was the study by H. Nobanee and M. Abdullatif, in which the authors study the influence of the financial cycle of an enterprise on its profitability on a sample of Japanese firms. As a result, the authors found a significant inverse relationship for companies in all industries, except for the consumer goods industry. (Nobanee et. al., 2011)

Several authors analyzed the relationship between financial cycle and rentability of the enterprises. The conclusions of the authors of the works certainly does not mean that issues related to working capital management are not relevant for large enterprises. It would be more correct to say that working capital management has different strategic importance for these groups of enterprises. For small ones, working capital management allows you to solve problems of survival, and for large ones - to increase efficiency. (Grablovski, 1984; Peel, Wilson, 1996)

In the work of A. Pais and G. Miguel, studying the relationship between working capital management and the performance of Portuguese firms, it was found that an increase in the company's profitability is possible by

reducing accounts payable and receivable, as well as reducing inventories. The non-linear relationship between these indicators was also considered and the analysis of the relationship, taking into account industry effects, which confirmed the results obtained earlier. (Pais, Gama, 2015)

In a study by P. García-Teruel, P. Martínez-Solano, and S. Baños-Caballero on a sample of Spanish small and medium-sized companies, in addition to previous studies, the possibility of a non-linear relationship between working capital management indicators and company profitability was examined. As a result, it was determined that the relationship between these indicators has a concave character and there is an optimal value of working capital that maximizes profit, and companies deviating from the optimum reduce their profitability. (García et. al.,2012)

P. García-Teruel, P. Martínez-Solano and S. Baños-Caballero continue their research on the nonlinear relationship between working capital management and company profitability. So, the authors, studying a sample of nonfinancial UK firms conclude that there is a significant concave relationship between working capital investment and firm performance. It was also found that the optimal level of working capital for companies prone to financial constraints is lower. (García et. al.,2014)

Thus, in the work of J. Ebben and C. Johnson, devoted to the relationship between the financial cycle and liquidity, invested capital and the profitability of the company, the authors determined that a shorter financial cycle increases the company's performance. (Ebben, Johnson, 2011)

The earlier findings are confirmed by the work of H. Lyngstadaas and T. Berg. As a result of the study of the relationship between working capital management and the profitability of Norwegian companies, the authors found that the shortening of the financial cycle really has a positive effect on the performance. Moreover, these results were corroborated by industry-specific analyzes and nonlinear relationships. (Lyngstadaas, Berg, 2016)

In general, the results presented in (Padachi, 2006; Garcia-Teruel, Martinez-Solano, 2007), are consistent with the conclusions of (Jose, Lancaster, Stevens, 1996; Shin, Soenen, 1998; Lazaridis, Tryfonidis, 2006): all other things being equal, it is beneficial for firms to reduce the size of their financial cycle in order to increase profitability. Recent studies on this topic have been carried out on the material of the markets of developing countries: on the Malaysian market (Zariyawati et al., 2009), on the Nigeria market (Falope, Ajilore, 2009), on the Kenyan market (Mathuva, 2010). In general, the results obtained are in line with previous studies. They demonstrate that there is an inverse relationship between the financial cycle and a firm's return on assets.

Thus, the analysis of the empirical and theoretical literature on the topic under study made it possible to formulate the following hypotheses.

Hypothesis 1. There is an inverse relationship between the length of the financial cycle of the company and the profitability of its activities.

Hypothesis 2. There is a positive relationship between the period of accounts payable turnover and the results of the company.

Hypothesis 3. There is an inverse relationship between the period of accounts receivable turnover and the results of the company.

Hypothesis 4. There is an inverse relationship between the inventory turnover period and the company's performance.

3. Data and Methodology

Within the framework of the econometric model, the return on total assets (ROA) was chosen as a factor of the achieved results. ROA allows you to assess how effectively the management uses assets to make a profit. In our model we use the operating indicator as a performance criterion, so we are excluding financial assets that reflect investments in the assets of other companies and imply control over them or any other type of activity associated with their management; in particular, such assets include investments in valuable assets [2]. Thus, the calculation of the indicator is carried out according to the following formula:

$$ROA = \frac{NI}{TA - FA}$$

where:

NI is the company's net profit;

TA - total assets of the company;

FA - financial assets of the company.

This criterion is an operational indicator and takes into account only those incomes of the company, the receipt of which is directly related to the production activities of the company and does not depend on changes in the long-term parameters of the company, such as, for example, the capital structure.

The duration of the company's financial cycle was chosen as the main independent variable. In addition, alternative specifications of the model were considered, where individual components of working capital were selected as an independent variable: the turnover period of the company's inventory, the turnover period of accounts receivable and the turnover period of accounts payable.

Also, control variables were identified that can affect the company's performance but are not directly related to working capital management. The first control variable is the size of the company, which is calculated as the natural logarithm of the company's sales. This indicator allows you to reflect the influence of the size of the company on how it can improve its performance. Thus, larger companies, as a rule, have greater opportunities to attract additional investment and receive benefits and softer lending conditions. In addition, large companies can purchase larger quantities of goods and materials, which also allows them to reduce their cost or receive additional discounts. All this allows the company to improve its performance, as well as to better operate the length of its financial cycle. The values of the firm's sales are indicated in terms of 2011. The sales in subsequent years are deflates by annual inflation.

As a second control variable, the company's current liquidity ratio was added, calculated as the ratio of current assets to short-term liabilities. This ratio allows you to reflect how the company can meet its short-term obligations at the expense of its working capital. Thus, the current liquidity ratio can be considered as an indicator of the degree of the company's solvency, and hence its profitability.

Along with the company's ability to attract investment and the degree of its solvency, the fact of the possible risk for its activities remains important. A control variable – leverage ratio is used that reflects this risk; the risks associated with uncertainty that the companies are subject to. The ratio allows to reflect how the company uses its borrowed capital to change the return on equity, while maintaining the required level of financial stability of the company. It should be noted that in this study, the financial leverage was calculated taking into account short-term loans, since the risk of these loans is higher, in addition, the short-term aspect of companies' activities is directly related to working capital. This indicator is calculated as follows:

$$FL = \frac{TD}{E}$$

where:

TD is the total liabilities of the company.

E - is the company's equity.

One more parameter of the company's performance was added - its growth rate. This indicator is associated with almost all indicators of the company's performance, whether it is profit or its operating activities.

According to all studies variables were identified which are presented in Table 1, that allow to assess the impact of working capital management on the performance of the company. Also, based on the selected variables, the following model will be evaluated:

$$ROA_{it} = \beta_0 + CCC_{it}\,\beta_1 + INFSIZE_{it}\,\beta_2 + GROWTH_{it}\,\beta_3 + LIQ_{it}\,\beta_4 + FD_{it}\,\beta_5 + m_i + \varphi_t + \varepsilon_{it} \quad (1)$$

$$ROA_{it} = \beta_0 + DL_{it}\,\beta_1 + INFSIZE_{it}\,\beta_2 + GROWTH_{it}\,\beta_3 + LIQ_{it}\,\beta_4 + FD_{it}\,\beta_5 + m_i + \varphi_t + \varepsilon_{it} \quad (2)$$

$$ROA_{it} = \beta_0 + CL_{it}\,\beta_1 + INFSIZE_{it}\,\beta_2 + GROWTH_{it}\,\beta_3 + LIQ_{it}\,\beta_4 + FD_{it}\,\beta_5 + m_i + \varphi_t + \varepsilon_{it} \quad (3)$$

$$ROA_{it} = \beta_0 + INV_{it}\,\beta_1 + INFSIZE_{it}\,\beta_2 + GROWTH_{it}\,\beta_3 + LIQ_{it}\,\beta_4 + FD_{it}\,\beta_5 + m_i + \varphi_t + \varepsilon_{it} \quad (4)$$

where $\beta_0 \ldots \beta_4$ - parameters of models; μ_i is a variable of specific characteristics of the firm;

ϕ_t - dummy time variables that change over time, but equal for all firms in the time period under consideration; ε_{it} - random components of models; i = 1 ,, ..., 425; t = 2015, ..., 2019.

In the initial specifications of the models, the usual indicator of the company's ROA was used as a dependent variable. However, in the course of the regression analysis, it was decided to bring this indicator at the level of

the 5th and 95th percentile, which made it possible to reduce the abnormality of the distribution of the performance indicator, expressed by the ROA.

Table 1. Variables to the model

Variables	**Formula**	**Indicator**
Return on Assets, (in days)	Net Income / (Total Assets – Financial Assets)	ROA_t
Accounts Receivable Turnover, (in days)	(Accounts Receivable$_t$ / Sales Revenue$_t$) × 365	DL_t
Accounts Payabale Turnover, (in days)	(Accounts Payable$_t$ / Sales Revenue$_t$) × 365	CL_t
Inventory Turnover, (in days)	(Inventory$_t$ / Cost of Goods Sold$_t$) ×365	INV_t
Financial cycle, (in days)	$INV_t + DL_t - CL_t$	CCC_t
Company Size	ln (Sales Revenue$_t$)	$INFSIZE_t$
Growt rate	(Sales Revenue$_t$ - Sales Revenue$_{t-1}$) / Sales Revenue$_{t-1}$	$GROWTH_t$
Liquidity ratio	Current Assets$_t$ / Short term Liabilities$_t$	$Liquid_t$
Financial leverage ratio	Borrowed Capital$_t$ / Total Assets$_t$	FD_t

Source: Compiled by the author

An empirical analysis of the relationship between working capital management and the company's performance is based on a sample of Azerbaijan SMEs from 2015 to 2019. To collect information about companies the annual financial statements were analyzed separately.

To form the final sample, only small and medium companies were selected, whose average number of employees is under 1000, and the annual revenue 10 million dollar and under. Also, due to the specifics of their activities, companies related to the financial sector were excluded from the sample: the banking sector, insurance, rent, etc., as well as service companies. Sample includes 425 Azerbaijan companies for the period 2015–2019. The total number of observations was 2125.

Table 2. Statistics of variables

	Minimum value	**Maximum value**	**Average value**	**Median values**	**Standard=d deviation**
ROA	-0,143	0,72	0,12	0,065	(0,21)
CCC	-1429,4	2711,67	65,72	36,05	(137,64)
INV	-9,843	1522,81	83,81	43,98	(121,09)
CL	0,004	2533,07	86,32	45,09	(114,98)
DL	0,018	1761,32	77,93	40,87	(97,98)
LIQUID	0,0035	114,62	1,76	0,97	(2,86)
FD	0,003	5,52	0,72	0.61	(0,31)
INFSIZE	9,593	17,75	11,09	11,97	(0,87)
GROWTH	-0,692	116,32	0,86	0,14	(3,73)
Observations	2125				

Source: Compiled by the author in STATA

Statistics of variables are reflected in table 2. As can be seen from the table the average return on assets of companies is 12%, the median value is only 6%. Several companies have a negative profitability value, which indicates that their activities are unprofitable. The average value of the company's financial cycle is 65.72 days (2 month), the minimum value of the financial cycle of companies is 1429.4 days, along with a rather small median value (36.05 days), this indicates that some companies have additional free funds.

Companies spend an average of 86.32 days on paying off debts and they spend 77.93 days for collecting accounts receivable from their customers. It means that collecting the debts from counterparties is faster than giving them away. Regarding the sale of products from the warehouse, companies spend an average of 83.81 days on this.

Average indicator of ensuring their short-term liabilities with working capital is 1.76. In other words, the amount of working capital is more than twice the size of the short-term liabilities of the Azerbaijani companies according to our samples and estimations. The average company size is expressed by the logarithm of revenue and is 11.09, while the average annual growth rate of the company's revenue is 86%. The median growth rate is only 1%, which means that more than half of the companies have a very insignificant growth rate. A matrix of pairwise correlations between the variables was built for a preliminary assessment of the hypotheses put forward. The final indicators of the correlation matrix are shown in table. 3.

Table 3. Correlation matrix results

	ROA	**CCC**	**CL**	**DL**	**INV**	**LIQUID**	**INFSIZE**	**GROWTH**
ROA	1							
CCC	0,0211***	1						
CL	-0,126***	-0,287***	1					
DL	-0,0489***	0,352***	0,469***	1				
INV	-0,212***	0,531***	0,311***	0,198***	1			
LIQUID	0,130***	0,265***	-0,132***	0,0342***	0,127***	1		
INFSIZE	0.073***	-0,0474***	-00386***	0,00654	-0,098***	-0,0473***	1	
GROWTH	0,0198***	-0,0185***	-0,000675	-0,00198	-0,0175***	-0,0138***	0,153***	1

Source: Compiled by the author in STATA

As per result in correlation matrix reflected in table. 3, all components are significantly correlated with the company's performance indicator, but the correlation values are too small to speak of any strong relationship.

To assess the relationship between working capital management and company performance several regression models including OLS, panel regression models were built. The result is shown in table 4.

Table 4. Model parameters

	Return on Assets		
	OLS	**Random effects**	**Fixed effects**
CCC	-0,000119	-0,0000647***	-0,0000648***
	(0,00001)	(0,00001)	(0,00001)
Growth	0,000294	-0,000389	-0,00198***
	(0,00031)	(0,00030)	(0,00035)
INFSIZE	0,0129***	0,0156***	0,0302***
	(0,00195)	(0,00143)	(0,00201)
	(0,00027)	(0,00023)	(0,00030)
LIQUID	0,00356***	0,00330***	0,00215***
	(0,00053)	(0,00042)	(0,00041)
FD	-0,132***	-0,168***	-0,184***
	(0,00548)	(0,00513)	(0,00752)
Constant	-0,00798	-0,101***	-0,238***
	(0,01689)	(0,01624)	(0,02598)
Observations	2125		
Number of companies	425		
R2	0,129		0,117
Wald Chi^2		1853,36	
F-statistics	352,75		190,93
Company Fe			
			YES

Source: Compiled by the author in STATA

The value of the financial cycle is significantly different from zero and has a negative sign in all three models. According the values of the t-statistic, there is no reason to reject hypothesis 1 that there is a negative relationship between the length of the financial cycle and the company's performance.

In general, except for the growth rate of companies which is significant only in the model with deterministic effects, all components of the models were significant. For comparison the Breusch – Pagan test was used, and it showed that the model with random effects more accurately and correctly describes the data compared to OLS.

The results we obtained are presented in table. 5 allow us to reveal the presence of a statistically significant relationship between working capital management and the performance of Azerbaijan companies.

Table 5. Assessment models

	Return on Assets		
	1st Model	**2nd Model**	**3rd Model**
CCC	-0,0000648***		
	(0,00001)		
Growth	-0,00198***	-0,000187***	-0,000192***
	(0,00035)	(0,00035)	(0,00035)
INFSIZE	0,0302***	0,0195***	0,0198***
	(0,00201)	(0,00209)	(0,00213)
LIQUID	0,00215***	0,00108***	0,00174***
	(0,00041)	(0,00049)	(0,00048)
FD	-0,184***	-0,156***	-0,159***
	(0,00752)	(0,00760)	(0,00759
CL		-0,0000598***	
		(0,00001)	
DL			-0,0000296*
			(0,00002)
INV			-0,000176
Constant	-0,238***	-0,239***	-0,302***
	(0,02598)	(0,02672)	(0,02758)
Observations	2125		
Number of companies	425		
R2	0,129	0,127	0,128
F-statistics	352,75	354,69	298,78
Company Fe	YES	YES	YES

Source: Compiled by the author in STATA

An inverse relationship was found between the length of the company's financial cycle and the profitability of its assets which is consistent with hypothesis 1. An increase in the length of the financial cycle by 100 days can lead to a decrease in the return on assets by 0.006%.

The results of models assessed reflects that the components of working capital have a reciprocal relationship with the indicator of the company's efficiency. Thus, the period of turnover of the creditor is inversely related to profitability of assets, which in turn means that we reject Hypothesis 2.

According to Model we can confirm the hypothesis 3 about the cashback relationship between the period of turnover of accounts receivable and the effectiveness of the company's activities, so the parameter given the variable value is significantly different. Thus, the acceleration of the period of receivables repayment is positively reflected in the effectiveness of the company. The size indicator of the company (INFSIZE) was statistically significant at 1% level of significance and positively correlated with the profitability of the company in all models. This agrees with the general presentation that large companies have greater opportunities to attract additional investment in their activities.

Based on the results of the research, for the analysis of the relationship between management of working capital and the effectiveness of the company were built 3 models with fixed random effects. All indicators of working capital were statistically significant and have a reciprocal character in relation to the effectiveness of the company. Hypotheses 1, 2, 4 were confirmed and Hypothesis 3 was rejected.

4. Conclusion

Working capital management is an important aspect of management aimed at increasing the competitiveness of a company and creating value for business owners and key stakeholders in the long run. To achieve long-term goals, the company must be paid and provide a level of profitability, satisfying stakeholders. In other words, the management policy of working capital is reduced to the growth of the company's profitability at an adequate level of liquidity. To achieve the goals, set by the company, it is necessary to take into account the short-term planning, which will be based on the long-term promotion of long-term tools.

As part of the study, as an indicator of the quality of working capital, the length of the financial cycle of the company was used, as well as the period of turnover of reserves, accounts payable and accounts receivable. There was also a criterion for the effectiveness of the company - an indicator of return on assets (ROA). As a basis for research, a selection of Azerbaijan small and enterprises of various industries, except for companies involved in the financial sector and the service sector, from 2015 to 2019.

The results show that in other words, to increase the profitability of the company, it is necessary to reduce the length of the financial cycle. In the period between the turnover of the creditor's indebtedness and the effectiveness of the company's activity, a reciprocal relationship was established. The result obtained indicates that the increase in the term of payment of the creditor's debt increases the risk of reducing the trust of the parties to the supplier, and therefore, the introduction of different fines, penalties and interest. Thus, companies need to be very careful to work with creditor indebtedness, assessing the risk of deterioration of relations with each counterparty.

With the growth of the period of turnover of receivables, the efficiency of the company's activities falls. The faster the company's counterparties pay off its debts, the higher its profitability. Another result of study states that excess stocks in warehouses or irrational use of stocks, increasing their unnecessary quantity, reduces the efficiency of the enterprise. To deal with such situations, it is important for companies to competently assess the structure of reserves, as well as the rationality of the volume of these or other reserves in the face of market conditions. In this way, it is possible to conclude that the purpose of the study was achieved, and the advanced tasks were solved.

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Economic globalization in the 21st century: A case study of India

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Abstract

Globalization has integrated the economies of the world, especially the developing countries. With that, there has been considerable progress in economic globalization. Economic globalization, is defined as increased interconnectedness through higher trade volumes and enhanced capital flows. Factors such as better transport and communication facilities, relaxation in government policies, and advancement in technology (digitally and physically) have led to rapid economic globalization. In case of India, Multinational Corporations (MNCs) have contributed a lot towards the globalization process. The MNCs have attracted non-debt creating flows and imported technology for the benefit of the country. The liberalized government foreign trade policies have helped in increasing trade openness. In spite of the progress, numerous challenges in various forms such as lack of strong and efficient institutions, favorable redistributive and regulatory policies, domestic companies unable to compete with foreign MNCs, increase in the volume of foreign portfolio flows and MNCs adopting oligopolistic practices. Suitable policies and corrective measures can help the economy in matters of further progress in globalization.

1. Introduction

The term globalization began to be used more commonly in the eighties. The process reflected the following features such as technological advances and international transactions in the form of both trade and financial flows. The process extended beyond the national borders at all levels of human economic activity. Globalization is a phenomenon of incorporation and interaction among different people residing in different parts of the world. It incorporates companies, governments among people, and industries of various countries. In other words, it is a phenomenon which is motivated and fueled by the expansion of global trade, investment, and technological upgradation. The process of globalization has made a deep impact on the various elements including environment, culture, politics, economic growth, prosperity and human well-being in society's residing in the planet.

Globalization has the following characteristics:

Firstly, it involves a transformation of social affairs by connecting them together. In other words, the human activity are extended across areas the frontiers. It is seen that activities in one part of the world have a consequence for the other parts of the world, especially in remote regions. Secondly, there is a transregional interconnectedness and a broadening of networks. There is a growing scale of interconnections interactions and movements across peoples, societies and countries. Further, the speeding up of world-wide interactions and procedures is a result of the heightened growth of transport and communications. The global dissemination of ideas, goods, statistics, wealth and people's faster. Lastly, the influence of distant happenings is exaggerated. Local changes and growth can have big global significances. The frontiers between local and international affairs have widely become distorted. Lastly, Globalization involves the interplay of many factors such as markets, latest technology, skill and tech-knowhow and the Government. These are the most ancient and most unique form of human inventions.

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Research Goal: The objective of the Chapter is to examine the extent and magnitude of economic globalization for the Indian Economy since the economic reforms (1991). The main research question, is to study the extent of integration of the Indian Economy with the international market in the form of higher trade and capital movement. Furthermore, the objective is also to look as to how the process of economic globalization have influenced the growth rate of economy, since the opening of the economy in 1991. To study such aspect, some statistics and data on Trade, GDP and capital flows were collected from Reserve Bank of India (RBI) and other sources.

To look into all these matters/aspects, the Chapter is sub-divided into a number of sections. The first section is the Introduction discussing the Overview of Globalization. The second section provides an outline on Globalization in India. The Third section summarizes the literature Review, Methodology and Data Sources. The fourth section discusses the factors contributing towards Economic globalization. The Fifth section discusses the Present FDI status and announcements. The Sixth section describes the new Foreign Trade Policy developments and Announcements. The Seventh section discusses the Challenges to Economic Globalization followed by Conclusion and Remedial &Policy Measures including the Limitations section.

2. Globalization in India

Economic globalization is a "historic process mainly as an outcome of human invention and technological advancement. In normal connotation, it is the growing integration of economies throughout the world via movement of goods, services, and capital across the international frontiers". The term mainly indicates the movement of people in the form of labor and knowledge in the form of technology across the international boundaries and frontiers.

Globalization began with the emergence of capitalism and created an influential wave in the Nineteenth Century. This process continued in the Twentieth Century till emergence of the First World War. The IMF, World Bank (IBRD) and the US Treasury together augmented the globalization process. The form was known as the "Washington Consensus". Under this term "Washington Consensus", a number of policy reforms were suggested. Some of them were notably fiscal reforms in the form of Fiscal Discipline; public expenditure priorities directed towards sectors of national importance such as health, education and infrastructural development. The other notable reforms were in the form of Tax reform, higher Trade Liberalization; Increasing FDI inflows; Privatization; and Deregulation respectively.

2.1. History of Globalization

The process of Globalization has always been used in economic terms. Globalization is normally labelled as "an increase in economic integration among nations". Even before numerous nation-states were non-existent, the countries around the world had gone for the globalization process. The concept of globalization was popularized by the Organization of Economic Cooperation and Development (OECD) in the mid-1980s. Hence, the OECD suggested the replacement of GATT by the WTO and was supported by the developed economies and led to the creation of WTO. The official meaning of globalization for the WTO was movement of the economies towards "unrestricted cross border movements of goods and services, capital and the labor force". India was one of the founding members of the WTO. Henceforth, it was obliged to promote the process of globalization. It started the process of globalization through the "*economic reforms in the year 1991"*.The economic reforms in terms of "Liberalization, Privatization and Globalization (LPG)" was targeted to make the Indian economy achieve a higher growth rate and export competitiveness. The series of economic reforms were primarily taken in selected sectors such as industrial sector, trade sector, and financial sector.

Economic Globalization started in India through the export and import channels associated with International Trade and short term and long term capital flows in connection with Foreign Direct investment and Foreign Institutional Investment respectively. Newer trading activities were brought under the ambit of the new global trading system. Notable examples include trade in services, trade related investment measures, and agricultural produce etc. Quantitative trade barriers removed and trade barriers & export subsidies had been brought down.

The history of economic globalization began with India launching its economic reform program in the year 1991. They were characterized by the following features.

(i) *Promotion to the Private Sector:* Through de-reservation, de-licensing, reducing MRTP Limit, streamlining environmental laws etc.

(ii) *Public sector reforms:* To make the public sector more profitable and efficient.

(iii) *External Sector Reforms:* Consisted of policies like abolishing quantitative restrictions on import, switching to the floating exchange rate, full current account convertibility, reforms in the capital

account, permission to foreign investment (direct as well as indirect), promulgation of a liberal Foreign Exchange Management Act (the FEMA replacing the FERA), etc.

(iv) *Financial Sector Reforms*: The notable areas of reforms were banking, capital market, insurance, mutual funds, etc.

(v) *Tax Reforms:* Consisted of policy reforms such as simplifying, broad basing, modernizing, checking evasion of taxes etc.

2.2. Economic Globalization

The *Economic globalization* was initiated after the economic reforms, 1991. The economic globalization was mainly through Trade Policy reforms, Foreign Direct Investment reforms and Attracting Foreign Capital.

Trade Policy Reforms: The decade after 1991 had been noticeable by considerable trade liberalization. Some liberalization measures were as a result of opinion among government circles. It was felt that to make the exports competitive in the international market, this step was required. Some of the policy reforms were undertaken under the pressure of the international bodies as a part of the stabilization and adjustment programme. Moreover with India joining the WTO (World Trade Organization) in the year 1995 had an obligation and compulsion to cut down all the quantitative restrictions on imports and tariffs. In the process, this led to the opening up of the economy and globalization. The main characteristics of trade policy 1991 are described below:

(i) In the pre-reform time-period, the trade policy was of a very complex nature. There were different types of importers, import licenses, different methods of importing etc. Furthermore considerable simplification and liberalization in all forms was carried out in the reform period. The new import policy on tariff-lines was declared in March, 1996. Nearly, 6,161 tariff lines was announced free and by March, 2000, the total items went up to 8,066. Thereafter, the Exim policy, 2000-01 was announced and it further removed quantitate restrictions on 714 items. Presently, all quantitative restriction on all the import goods have been abolished. This was in-line with India's obligation to World Trade Organization.

(ii) There was some form of rationalization of the tariff structure. This was done on the recommendation of the Chelliah Committee. The Committee recommended that the prevailing rates of import duties be lowered by 1998-99. This was done to establish parity in prices between the domestically produced goods and internationally produced goods. Going by the recommendations, the Government of India (GOI) have reduced the duty over the years.

(iii) Items such as newsprint, rubber and non-ferrous metals were decanalised over the years.

(iv) *Convertibility of rupee on Current Account*: There was an adjustment of 18-19 percent in the downward direction on the exchange rate of rupee. This was done in July, 1991 followed by partial convertibility of rupee and full convertibility on current account (August 1994). Presently the Indian exchange rate is being pegged to a market related system.

(v) The 1991 trade reform policy allowed the setting up of trading houses. Furthermore the trading houses have also been given 51 percent of the foreign equity with the objective of boosting exports.

(vi) Setting up of Special Economic Zones to promote exports was proclaimed and the aim was to promote exports and investment.

(vii) Market Access Initiative scheme was launched by the GOI for select products for promotion of exports from India through fairs, showrooms, warehouses set upon rental charges.

(viii) *Foreign Exchange Management Act 1999(FEMA*) replaced the FERA (1973). Lastly, the *Free Trade policy (2004-09)* was introduced to establish Free Trade and Warehousing Zones. The main aim of this policy was to facilitate the import and export of goods and services in any currency and make India a leading global trading hub. Foreign direct investment was permitted upto 100 percent for the development of new zones and infrastructure.

Foreign Direct Investment Reforms and Attracting Foreign Capital: Some important measures were announced. They are as follows:

In 1991, a list of high-tech industries was declared and FDI upto 51 percent was granted to these industries. With time, the FDI limit was raised from 51 percent to 74 percent and finally to 100 percent. Further, the 1991 policy invited foreign equity holdings upto 51 percent by international trading houses. For example, foreign companies have been allowed to use their trade marks in India and carry on trading activities. Further repatriation of profits by foreign companies has been allowed. Foreign companies wanting to borrow money or accept deposits do not require the permission of the Central Bank.

Several policy changes were made in the course of FDI Liberalization. (i) 100 percent FDI was permitted for business to business e-commerce; (ii) There was elimination of limit on foreign investment in the power sector; and 100 percent FDI was allowed in oil refining. FDI cap was raised from 49 percent to 74 percent in basic cellular and telecom services. FDI up to 100 percent allowed in airports (with approval of the GOI). FDI upto 100 percent for development of integrated township and regional urban infrastructure, hotel and tourism sector, Mass Rapid Transport Systems. The defence industry was opened up to 100 percent FDI. (Mishra Puri, 2013**)**

In January, 2004, the GOI raised FDI limit to 100 percent in petroleum sector, printing scientific magazines, and journals etc. Foreign investment in banking sector have been liberalized to a greater extent by raising FDI limit in the private sector banks to 74 percent (automatic route) by Foreign Institutional Investors. Further on January, 2008, the GOI relaxed the foreign ownership norms in aviation, mining, oil-refining, real estate, commodity exchanges and credit information companies. FDI limit in non-scheduled airlines, chartered airlines, and cargo airlines was raised to 74 percent (100 percent NRI investment approved). FDI in ground handling services and non-scheduled airlines was increased from 49 percent to 74 percent. FDI upto 100 percent was approved in maintenance, repair and overhaul. And in the field of mining, 100 percent FDI was allowed in titanium mining. From November, 2011 onwards, the GOI decided to permit brownfield investment in the pharmaceutical sector under the government approval route. The GOI further liberalized the FDI policy on January, 2012 in single-brand retailing. FDI upto 51 percent was permitted subject to specific conditions and up to 100 percent subject to GOI approval. Further in September, 2012, further liberalization measures was taken by the GOI. The measures included 51 percent of FDI to be allowed in multi-brand retail subject to state Government approval; FDI upto 74 percent allowed in the broadcasting sector; 49 percent of the foreign investment allowed in power trading exchanges and foreign airlines allowed to invest upto 49 percent in domestic airlines. **(**Mishra Puri, 2013**)**

The next section summarizes the earlier works done by prominent people in the field of globalization.

3. Literature Review, Methodology and Data Sources

Held et al. (1999) found that "globalization as new but not unique open-ended. According to him, globalization may go in many different directions. It may vary in the form as it takes by place and class over time. Waters (2001) found globalization as a process rather than end. However, Holton (2005) said that, "Globalization is more than movement and consist of few individuals (e.g. as in early trade). Holton also perceived "globalization as comprising awareness and identification of the world as a single place. Osterhammel and Peterssen (2005) stressed regularization and stability in global relations as a prerequisite for something being globalization.

3.1. Case-Studies for the Indian Economy

Sharma (2009) examined how China and India had transformed themselves in terms of economic powerhouses. However, there were challenges which both the countries were facing and further examined how such challenges were required to be mitigated over the time. Pilania (2008) in his study found that the Indian foreign trade have progressed at a steady pace since independence. His results also concluded that exports have accelerated since post liberalization. Goyal (2006) in his study explored the various forms of the processes of globalization. Singh (2012) examined the reform process of India. He began his study from the pre-British decade to the economic reforms (1991) in terms of "Liberalization, Privatization and Globalization". His study concluded that India needs a new set of reforms to become a global powerhouse in the coming decades.

3.2. Other country studies

In view of foreign capital flows, Prasad et al. (2007), examined the impact of foreign capital inflows on the growth process for 78 countries. The findings conclude a positive growth benefits from foreign capital inflow for the industrial countries. Kose et al. (2006) conducted a study consisting of 71 countries. This study concluded no evidence of positive remunerations of capital account liberalization. Samimi and Jenatabadi (2014) examined the phenomenon of economic globalization on the growth process of OIC countries. Complementary policies and the growth effect of globalization on the income levels of the countries were examined. Using GMM framework and a dynamic panel data approach results indicated that economic globalization had a good impact on economic growth in OIC countries. Kilic (2015) examined the effects of economic, social and political globalization on the economic growth levels of 74 developing countries between the periods, 1981-2011. Results indicated that developing countries were positively affected by both economic and political globalization. Ying, Lee and Chang (2014) investigated the impact of globalization on economic growth of ASEAN countries from the period 1970 to 2008. Results indicated that economic globalization had a positive influence on economic growth. Suci, Asmara and Mulatsih (2015), analyzed the impact of globalization on economic growth of 6 ASEAN countries using a panel data analysis. The findings concluded a positive impact of globalization on economic growth of the ASEAN region including the positive impact of economic globalization. Reza and Hassan (2017) examined the economic globalization and the shadow economy nexus in Egypt. The study used time-series data from the

period 1976 to 2013 and the results obtained tells the importance of promoting economic globalization through minimizing the costs of doing business. Reeshan and Hassan (2017) examined the overall impact of political, social and economic globalization on the economic growth of 86 developing countries for the year 2015. The study used Gross Domestic Product and Foreign Direct Investment as the dependent variables. Multiple regressions were employed to find out the impact of globalization on the economic growth of the developing countries. Out of the other forms of globalization, Economic globalization was found to have a positive impact on the FDI inflows and negative impact on Gross Domestic Product.

Our study differs from the previous studies in the sense that we examine our study since the first economic reforms (1991). Our study broadly tries to examine economic globalization via two channels, i.e. trade openness and cross-country capital flows in terms of foreign direct liberalization flows since 1991. In other words, the time-period is chosen as such where we can capture the degree of openness through the process of globalization after suitable reforms initiated by the GOI since 1991. For this purpose, we extract data from secondary sources.

3.3. Research Methodology and Data Sources

An empirical analysis in the form of descriptive, graphical and tabular analysis have been done to explain the extent of Economic Globalization. The present study have used secondary data. Data and information related to economic globalization was obtained from books, journals and from official sources like RBI Annual Report, RBI Bulletin, World Investment Report, World Development Indicators, Monthly statistics of Foreign Trade of India-DGCI &S. However, to prove the process of increase in economic globalization, the factors assisting phenomenon of globalization needs to be examined.

4. Factors assisting the phenomenon of Economic Globalization in the 21st Century

With the beginning of the new millennium, the share of developing and emerging economies in global commerce increased from 31% (2000) to 43% (2015) of global exports. There has been an increase in the capital flows between advanced industrial and developing nations. The surge is mainly the outcomes of both "pull" and push factors. The cause behind the pull factors are liberalization of capital accounts, domestic stock markets and privatization programs launched on a massive scale. The "Push factors" mainly include the trade cycle situations and macroeconomic policy changes in the advanced countries.

In case of the Indian Economy, the main reasons attributed behind this spread of economic globalization are as follows:

(i) There has been a reduction of government controls in terms of deregulation.

(ii) Better transport and communications have led to expansion of business opportunities which further indicates more business ventures and opportunities.

(iii) More awareness of profit opportunities resulting in quick movement of resources between nations.

(iv) Advancement in technology have resulted in unskilled workers with minimal education participating in the modern production techniques. As a result, multinationals have increased their presence in the low-income countries where education standards are not very high. This implies expansion of markets for affordable high-tech commodities world-wide.

(v) The trade and investment policies implemented by the GOI from time to time are integrated to the world economy. These policies have immensely benefitted the Indian Economy.

(vi) Another reason behind the acceleration of the globalization process is a widespread trust that persons living in the wealthier nations will provide assistance to people residing in the Developing and Third World nations. The objective is to help make better material living standards for all. The simple explanation runs something like this. Globalization will help in the removal of tariff protection and encourage countries to specialize in specific areas of production in which they have some form of cost advantages.

In addition to the above mentioned factors, Multinational Corporations have also played a prominent role over the time.

Multinational Corporations (MNCs): The role of private foreign capital was explicitly recognized since the first economic reforms in the year 1991. Since the economic reforms, 1991, the bulk of foreign capital and investment were mainly done by the MNCs. Multinational corporations (MNCs) have become the chief way towards economic globalization. Their main role of MNCs is organizing production, allocation of resources for profit maximization, and reshaping macroeconomic tools.

Role of MNC's: The unwillingness of the developed countries to contribute towards the financial assistance to the developing countries have allowed the MNCs play a prominent role. The MNC are capable of providing the foreign investments. The liberalized foreign investment policy in India have allowed the MNCs to increase their investment limit. In some cases, 100 percent of foreign investment in the export-oriented units (EOUs) have also been allowed. There are numerous channels through which the MNCs can invest in the economy.

Non-Debt Creating Capital Inflows are one of the main source of external commercial borrowing (ECB). MNC'S invest in non-debt creating capital inflows and the servicing of non-debt capital. It begins when the MNC firm have reached a stage for profit repatriation. Therefore, MNCs help in minimizing stress and pressure on the balance of payments account.

Technology Transfer: MNCs are capable of transferring high sophisticated technology, technical know-how, new equipment and machinery to the developing countries. The skilled Indian workers and engineers get to know about the advanced technology. Apart from this, the large MNCs can spend a larger amount on advanced technologies to promote Indian exports.

Promotion of Exports: With widespread links and producing products resourcefully at a lower cost, the MNCs can play an important role in stimulating exports. Multinationals have made large investment in the economy. For example, Maruti cars are not only domestically sold but are also exported to foreign countries. The Government of India have granted permission to the MNCs to export the product and earn a foreign exchange in return (subject to certain restrictions).

Investment in Infrastructure: The multinational corporations have the capability to investment in infrastructure for the growth of the Economy. The investment takes several forms such as power projects, modernization of airports, greater telecommunication connectivity and posts etc. The increased investment in the infrastructure projects have given a boost to industrial growth. Further, the acceleration in the investment have also helped in creating higher income levels and employment. The external economies generated by investment in infrastructure by MNCs and stimulate economic growth in the economy. According to the ***Emerging Market***

Private Equity Association (EMPEA), "India have developed as the most attractive emergent market for worldwide partners to invest in the future. Further, the annual FDI inflows are expected to rise to US$75 billion in the upcoming years". Lastly, the ***World Bank*** said that the "Indian private investments is projected to grow by 8.8 percent in the year 2018-19".

5. Recent FDI status and announcements

Asia has regained its position as the largest FDI recipient region. The largest recipients were China, Hong Kong (China) and Singapore. Looking at the Indian Economy, we find India has improved its ranking from 44 to 40. This is the evident from the table below:

Table 1. FDI Flows in the top 20 host countries 2016 and 2017 (Billions of dollars)

Countries	**Rank**	**2016**	**2017**
United States	1	457	275
China	3	134	136
Hong Kong, China	4	117	104
Brazil	7	58	63
Singapore	6	77	62
Netherlands	5	86	58
France	14	35	50
Australia	9	48	46
Switzerland	8	48	41
India	11	44	40
Germany	19	17	35
Mexico	16	30	30
Ireland	20	15	29
Russian Federation	13	37	25
Canada	12	37	24
Indonesia	47	4	23
Spain	18	20	19
Israel	27	12	19
Italy	17	22	17
Republic of Korea	26	12	17

Source: World Investment Report, 2018

Till date, the main sectors receiving maximum foreign inflows are services, computer software and hardware, telecommunication, construction, and trading in automobile respectively. India has attracted highest FDI equity inflows from countries such as Mauritius (US$15.94 billion) followed by Singapore (US$12.18 billion), Netherlands (US$2.80 billion), USA (US$2.10 billion) and Japan (US$1.61 billion). According to Department of Industrial Policy and Promotion (DIPP), FDI investments in India stood at an amount US$44.86 billion in 2017-18 and the Indian service sector has attracted FDI equity inflow amounting to US$6.71 billion. The FDI equity flows stood around US$3.31 billion (March, 2018).

5.1. FDI announcements

A key number of announcements were made from time to time regarding FDI investments. They are as follows:

(i) Idea's petition for 100 percent FDI have been approved by Department of Telecommunication.

(ii) 39 Memorandum of Understanding (MOUs) were signed for investment of Rs. 4000- 500 crore in the North East region.

(iii) DIPP have approved FDI applications of Damro Furniture and Super Infotech Solutions.

(iv) The Department of Economic Affairs, have sanctioned two FDI applications worth Rs. 532 crore.

(v) International Finance Corporation (IFC), is scheduling to spend about US$6 billion in numerous sustainable energy programmes by 2022.

(vi) The GOI have given permission to overseas airlines to collaborate with Air India subject to a limit of 49 percent.

(vii) No government approval required for FDI in Real Estate Broking Services.

(viii) The GOI have asked the states to focus on the strengthening of the single window clearance system for improvement of Japanese investments.

(ix) The Ministry of Commerce and Industry, Government of India has eased the approval mechanism for future foreign direct investment (FDI) proposals

(x) The GOI have given permission of 100 percent FDI in single brand retail via automatic route.

6. Foreign Trade Policy Developments and Announcements

The integration of the domestic economy has resulted in growth of trade from Rs. 32 trillion (US$474.37 billion) in 2004 to Rs. 153 trillion (US$2.3 trillion) in 2016. The total merchandise exports reached approximately US$25.83 billion (Ministry of Commerce). [For details refer to the Appendix].

(i) Bilateral trade between India and Ghana is expected to reach around US$5 billion in the future years.

(ii) India had reviewed its suggestion on trade facilitation for services at the World Trade Organization (WTO).

(iii) Indian exports of merchandise goods is projected to touch US$325 billion in 2017-18.

(iv) The GOI have permitted the planned MOU between Export-Import Bank of India (EXIM Bank) and Export-Import Bank of Korea (KEXIM).

(v) In March, 2017, the customs convention on the international transport of goods was signed.

6.1. Trade Announcements:

(i) The possibility of Merchandise Exports from India Scheme (MEIS) and Service Exports from India Scheme (SEIS) has improved after the mid-term review 2015-20.

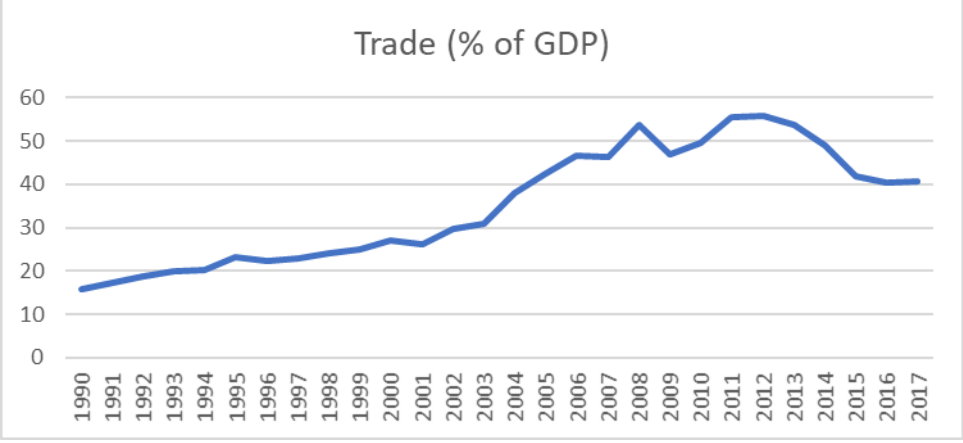
(ii) Support for export under the Merchandise Exports from India Scheme (MEIS)have increased for several items under export.

(iii) The Central Board of Excise and Customs (CBEC) has established an “Integration declaration” process.

(iv) Comprehensive Economic Partnership Agreement was signed between South Korea and India.

(v) RBI has streamlined the rules for exporters to obtain loans in the future.

Recent data and figures obtained over the years from the World Development Indicators show that India has improved its trade as a percentage of GDP over the years. This fact is clearly evident from Graph 1.



Graph 1. Trade as a (% of GDP)

Source: World Development Indicator

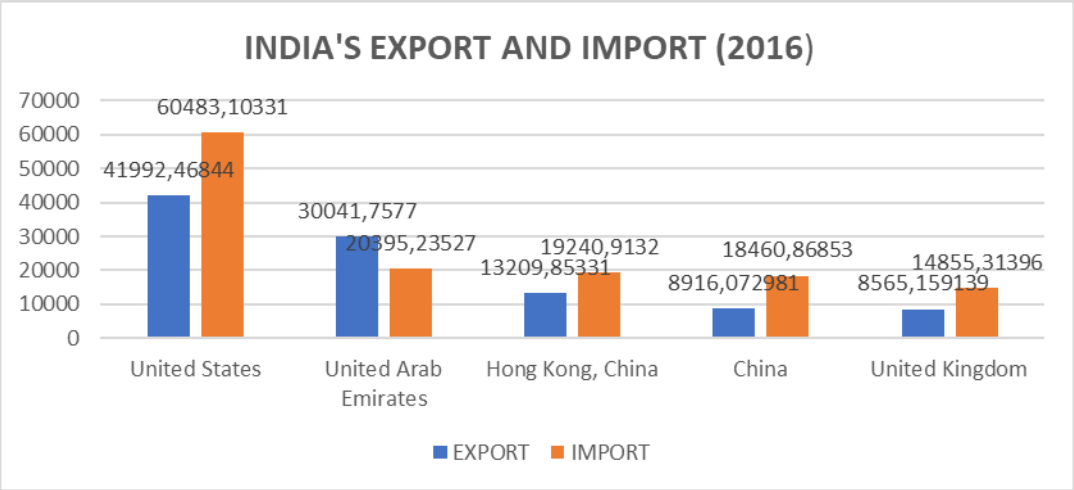


Figure 1. India's Trade Volume Its Trading Partners (2016)

Source: World Development Indicators (2016)

From Figure 1, it is evident that India's main export destinations are United States, United Arab Emirates, Hong Kong, China and United Kingdom. The largest trading partner till date is the United States. However, in spite of the rise in the trade volume and agreements, there lies certain challenges and barriers which creates obstacles in the path of economic globalization.

FDI flows, Trade integration and Economic growth: With the onset of the economic reforms in 1991, the flow of FDI rose considerably. This is evident from the figures available with the RBI. Furthermore, with the increase in the cross –border flows in the form of direct investment, gross investment and portfolio flows, there was an increase in the magnitude of exports. Available figures prove that with opening of the economy, India witnessed a higher economic growth indicate through the rise in Gross Domestic Product rate over the years. (For details, refer to the Appendix for details).

7. Challenges in the way of India's economic globalization

With the onset of economic globalization, numerous risks and challenges come in the path of the developing countries, including India. According to the classical theory, the integration of global economy is accompanied by prosperity. This is especially true in the context of the developing country. The developing country can easily access imported capital goods and latest technology. However, on the contrary, it also shows a diminution in the ability of the governments to establish regulatory and redistributive policies. This in turn limits the social wellness. In a number of incidents, the developing countries are found to be lacking in strong and efficient institutions. They are not capable of managing the impact of economic globalization completely. There are inherent threats in the form of global completion with local or domestic companies.

There are numerous difficulties on trade and investment fronts. For example, imports have increased over time as the demand for foreign goods have surged. The local goods may not be competitive enough or of sound quality as compared to their foreign imported goods. The domestic companies have to bear the loss as they might not be able to compete with the foreign goods (produced through superior technology). The second challenge is the persistent rise in trade deficit and a negative trade balance over the years. Tacking of negative trade balance is a difficult task as it needs considerable balance of payment corrections. The third challenge lies in the rise of the number of regional integration over the years which have resulted in the share of intra-regional trade in total trade remaining constant. The fourth problem is associated with the international investment in the form of foreign portfolio investment. This foreign portfolio investment is found to cause more damage to the economy. This is due to its volatile nature. There needs to be suitable solution or measure to correct this problem. Lastly, the MNC's are sometimes found to distort the economic structure of the host country by adopting several oligopolistic practices. This leads to suppressing of domestic entrepreneurship which is harmful for further growth of domestic startups and enterprises. As a result, the emergence of small scale, local enterprises and growth of indigenous technology is being affected in the long run.

8. Conclusion, remedial measures and limitations of the study

In the past 20 years, India have experienced many true economic success stories. The result is upgradation of status of from developing country to that of the emerging country. The success have increased manifold mainly because of the growing integration of India with other international markets. The BRICs (Brazil, Russia, India and China) have become a promised land for many foreign investors as it offers plenty of opportunities.

Globalization is a phenomenon of incorporation and interaction among different people residing in various parts of the world. In the real sense, it involve the interplay of the market, technology, and State. With time, the share of the developing countries have increased their share in the world trade and witnessed an improvement in capital flows. Economic globalization have been found to have a greater impact on the developing countries. The usage of advanced transport and communication facilities have resulted in greater movement of capital and trade across borders. The other factors involved are technological improvements, relaxation in government controls and better trade and foreign investment policies. MNCs have been found to play a vital role and is consistently attracting non-debt capital flows, upgraded technology & know-how, accelerated exports and improved the infrastructural developments in the country.

In matters of FDI flows, India continues to receive a good volume of FDI inflow. It improved its ranking from 44 to 40 in terms of FDI attractiveness. The GOI have taken numerous measures from time to time to improve the business climate. There have been an improvement in liberalized FDI flows in new and existing sectors of the economy. On the trade front, the GOI has liberalized and reformed the trade policies conducive with the requirement of the economy. For example, it has simplified the rules for providing credit to exporters. In addition, export subsidies are always there to boost exports. Looking at the statistics, we clearly see that trade as a percentage of GDP have improved over time. India has successfully ventured itself into a number of trade agreement with nations such as Japan, South Korea and other European countries.

However, despite the progress on economic front, challenges such as favorable regulatory & redistributive policy, threats from the global MNCs to local companies, MNCs adopting oligopolistic practices (leading to distortion of economic structure) and share of intra-regional trade in total trade remaining constant continues to be there.

Some remedial measures can be taken to address the challenges. Measures include reducing the value of the exchange rate can help in matters of reducing trade deficit. In addition to this, imposition of higher tax and lower government spending will also help in improving the export competitiveness. In matters of foreign portfolio investment, stricter control and regulation by Securities and Exchange Board of India (SEBI) can control the problem of volatility of money referred to as “hot money”. Lastly, the GOI can always use the latest services and technology to differentiate its product in the market and increase its intra-regional share of trade.

Policy Suggestions: The GOI should formulate policies to improve the Infrastructure of the Indian Economy. Efficient institutions and frameworks would help in resisting global shocks (via Economic Globalization). Suitable business environments would also attract foreign companies in the form of collaborations and mergers with Indian Domestic Companies.

Limitations of the study

The study fails to capture the phenomenon of economic globalization in terms of econometric analysis. A future research work could be done through a detailed empirical analysis using better econometric exercise. This would succeed in capturing the true picture and magnitude of economic globalization. A Panel data exercise may be conducted from the time-period starting from economic reforms (1991). The study can further be extended by capturing the other important aspects like income level, education, skilled labor force and technological know-how etc. The chapter is expected to throw a preliminary knowledge of the phenomenon of economic globalization and how far the Indian Economy had succeeded in integrating itself with the global world since the first set of economic reforms in 1991. With time, as further technological advancement and new developments have taken place more spillover of economic globalization on the growth process is expected.

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Fiscal decentralization and economic growth in Ecuador: Panel data on provincial council and municipalities since a heterodox vision

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Abstract

The objective of the present investigation tries to determine the nature of relationship between fiscal decentralization and economic growth for Ecuadorian case from heterodox perspective. A panel data model is used, where the dependent variable being GDP pc (proxy for economic growth), and variables of interest and control (proxies of fiscal decentralization) are public investment, public consumption, the export ratio, poverty and inflation. The results indicate that greater fiscal decentralization affects economic growth, in which the public investment of the Decentralized Autonomous Governments (GADs) from the application of Organic Code of Territorial Organization, Autonomy and Decentralization (COOTAD) since 2010 has allowed its impact on the provincial GDP per capita to be stronger.

1. Introduction

The relationship between fiscal decentralization and economic growth has always been manifested from the neoclassical perspective, where, representative agent and the stimulus of taxes on economic activity have been the ruler to determine this relationship. In addition, private income has been considered as a fundamental variable in relation to economic growth. From Tiebout (1956), Musgrave (1959) and Oates (1972), was presented the relationship between fiscal decentralization and economic growth as the conditionality of the inverse relationship, and how the level of economic growth is affected for fiscal decentralization.

In the present study, we analize this relationship between economic growth and fiscal decentralization by a heterodox vision of measurement from public spending, the field of public investment and consumption, as determinants of economic growth. This different approach should review the actions of the state through public policy, to promote the conditions of economic growth, based on a decentralization process that allows the state (from the GAD's) to generate through investment and public consumption, the conditions necessary for the relationship between economic growth and fiscal decentralization to have an influence on investment and public consumption.

This alternative approach seeks to present the role of the state as the dynamizer of the economy, hence the importance of measuring the relationship of economic growth and fiscal decentralization from the definition of investment and public consumption, as determining variables in a process of fiscal decentralization. Defining for this also the existence of fiscal decentralization or not, a dummy variable, in a dynamic of change of economic growth measured from investment and public consumption, before and after decentralization.

Furthermore, this approach aims to capture the role of the state, not only as an engine of the economy in a process of fiscal decentralization, but as a determinant of social improvements. Considering since 1980, Latin

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America becomes one of the geographical areas with the greatest inequality in the world, a situation that has made it increasingly necessary to apply public policies that pursue a sustained improvement in income redistribution and income as their objective wealth. In this sense, fiscal policy plays a fundamental role, considering fiscal policy as the set of public income and expenditure policies applied in order to guarantee the economy and social conditions of the population, in distributional settings (Varela, 2011).

When referring to the Ecuadorian case, the Constitution of Ecuador in force (Asamblea Nacional, 2008) refers to decentralization in Art. 238, Art. 262, Art. 270. Everything indicated in Art. 262 and 270 refer to the importance of local governments against public consumption and investment as a component of improvement in the economy and social conditions of Ecuador.

In the international arena, the theoretical interest in the relationship between economic growth and fiscal decentralization dates from the 1950s of the previous century. All the aforementioned have focused on the main agent and the incentive for private investment and consumption, as mechanisms of relationship between decentralization and economic growth. In this study, we will no longer focus on the main agent and the private sector as the engine in the relationship between decentralization and economic growth, but we will refer to the public sector as the engine of this relationship, a situation that frames us in a different approach than traditionally has analyzed the relationship between decentralization and economic growth.

However, we must emphasize that all studies have focused on analysis at the level of countries, or federations, but in developed countries. In developing countries such as Ecuador there are no studies in this regard, but studies have been carried out in Colombia at the regional level, but considering the restriction of the representative agent in a production function of constant returns with standard preferences of a representative household based on the Ramsey-Cass-Koopmans model.

- ✓ This work is organized as follows: The second section addresses the literature review, the process from centralization to decentralization in Ecuador, and theoretical and empirical evidence. The third section addresses the methodology based on the use of panel data. The fourth section deals with the results at the level of Provincial Council and Municipalities of Ecuador. The fifth section are conclusions.

2. Literature review

2.1. Ecuador: Since Centralization to Decentralization

Centralization from 1830 to 2009: From the beginning of the Republic, Ecuador was characterized by maintaining a state operation based on the centralization of functions and powers in the central government. However, political events in the country, with continuous overthrowings mainly in the 1920s, 40s, and mainly in the 1990s, which exposed the corrupt and manipulative practices of the economic and financial oligarchies to the governments of the day ended with the financial crisis of 1999 and the adoption of the dollarization system, events that allowed a broad debate on the importance of carrying out decentralization processes in Ecuador.

Thus, faced with the exhaustion, discredit and ineffectiveness of the central government, decentralization appeared in the Ecuadorian debate as a way to strengthen public action at all territorial levels, with wide spaces for citizen participation that allow the transfer of responsibilities, functions and mechanisms for provide public services effectively and equitably, from the different local governments.

Decentralizing reforms: The first reforms occurred with the National Participation Fund (FONAPAR) in 1971, which created unified taxes to carry out transfers from the central government to subnational governments. Subsequently, the National Development Council appeared in 1984 as part of the fiscal capacity of subnational governments, and shows the existing deficiencies in FONAPAR, which led to its disappearance, due to the ad hoc distribution that was made from the central government to the other levels of government. In 1990, with Law 72, the National Sectional Development Fund (FODESEC) appeared to manage allocations to the Provincial Council.

The Decentralization debate between the years 1990-2006: It realizes mainly from the academy, as well as from political organizations and governments of the moment, circumscribed in an almost ideological confrontation on how to apply Decentralization in Ecuador.

Neoliberal approach: Directed from the Social Christian Party, oligarchic groups and the mainstream media have tried to focus the Decentralization process since the 1990s, in order to define that any decentralization policy must be aimed at privatization of public services and public companies, to achieve greater productive efficiency and effectiveness in the decentralization process of the Ecuadorian state; However, this the carte

decentralization could not be carried out, due to the massive mobilizations by the indigenous movement and the various social groups in Ecuador, which have always faced the oligarchic and regional interests of the country.

Neocontractual approach: Later, as a consequence of the financial crisis of 1999 and the adoption of the dollar as currency, a confrontation was generated between the Post Consensus of Washington that looked for in the governments of Jamil Mahuad (1998-2000), Lucio Gutiérrez (2003- 2004) and Alfredo Palacio (2004-2006) continue with the neoliberal measures that had been left halfway, and the social demands led by the Confederation of Indigenous Nationalities of Ecuador (CONAIE), specifying the pressure for an inclusive political system, the Neo contractual approach, which seeks to recover the role of the state as a mechanism for improvements in the strengthening of the state at any level of government, from the ethnic and regional diversity of the country.

Social - Participative Approach: Distinguishes as part of the debate, the difference between decentralization and autonomy, as well as the difference between decentralization and deconcentration, to direct decentralization towards the definition of public policies as part of citizen participation. In this social - participatory approach, the constituent process of Montecristi of 2008 brought together all the organizations of the Coast, Sierra, Amazon and Galapagos, as well as the Association of Municipalities of Ecuador (AME) and the Council of Provincial Governments (CONGOPE), with whom the Constitution regarding Decentralization was drafted, but also on citizen participation as part of the decentralization process. This is how part of this conjunction between decentralization and citizen participation, the empty chair or participatory budgets were incorporated into Ecuadorian legislation, in which citizenship is part of the decisions made by local or sub-national governments.

Organic Code of Territorial Organization, Autonomy and Decentralization (COOTAD), 2010: Created from the Constitution of 2008, and its approval in 2009, which underwent improvements in 2014. It should be considered that COOTAD reallocated resources to the autonomous governments as follows:

- ✓ 15% of permanent income and 5% of non-permanent income of the general state budget correspond to Metropolitan Districts.
- ✓ 21% of permanent income and 10% of non-permanent income from the general state budget for Decentralized Autonomous Governments (GAD's), with a distribution of 27% for provincial councils, 67% for municipalities and 6% for parish councils according to two components:

1) “Starting in 2010, the amount corresponding to the autonomous governments is distributed,

2) The difference between the total to be distributed and the amounts assigned by the first component distributed based on seven criteria; population, population density, unsatisfied basic needs, improvement in living standards, fiscal effort, administrative effort, fulfillment of goals of the national and regional development plan”.

In addition, the generation of surcharges on existing taxes to finance infrastructure works, where the criterion is decided by the National Competencies Council (CNC) in conjunction with the Planning and Development Secretariat (SENPLADES) and the Ministry of Finance. Regarding the decentralization of spending, COOTAD defined certain conditions: 30% of resources to permanent expenses and 70% to non-permanent or capital expenses, with art reviews by the CNC, SENPLADES and the Ministry of Finance, every 4 years.

2.2. Theoretical and empirical evidence

From the neoclassical perspective, fiscal decentralization is based on Tiebout's Theory of Voting with Feet and Oates's Theory of Decentralization, in which the link between fiscal decentralization and economic growth is centered on the principle of economic efficiency given by the supply of public goods and services, according to the entrepreneurial and individual capacity to choose where to live, given the heterogeneous preferences that exist between the different localities. In this heterogeneity, localities compete with each other to stimulate choice and efficiency as a positive effect on the economy, with which the relationship between fiscal decentralization and economic growth is established. Thus, fiscal decentralization increases economic efficiency and thus economic growth.

In the first-generation theories, efficiency in the allocation of resources manifests itself as beneficial in decentralization, this is reflected in the works of Musgrave (1959), Oates (1972) and Tiebout (1956). The assumptions of decentralization based on efficient allocation of resources are based on the ease of effective governance, such as is carried out in developed or advanced countries that have facilitated the decentralization process based on the existence of relatively transparent and effective subnational governments. However, this first-generation theory has focused on the representative agent, on income, consumption and private investment through a production function with a budget restriction based on incentives to the entrepreneur, where the state must generate the best conditions for the economy through public policy. market to the detriment of society.

In second-generation theories, expressed in the work of Weingast (2006, 2009), the traditional assumptions of Musgrave, Oates and Tibout are questioned. Also, authors said its applicability to middle-income countries is not feasible due to the limitations imposed by low income, precarious housing and citizen mobility tied to strong ethnic-regional ties. In addition, it is mentioned that economic elites dominate public institutions, preventing broad citizen participation.

From the traditional view, Hatfield and Prado (2012) reviewed the classic problem of fiscal competition in the context of federal nations and derive a positive theory of partial decentralization. This theory explains that using redistributive taxes on capital to provide public goods leads to high taxes setting what supposedly results in a small stock of capital that lowers the returns from redistribution. Therefore, all this leads to the implementation of a lower level of taxes on capital, and this must be done by establishing in the Constitution, a partial degree of decentralization. On the other hand, fiscal decentralization is very important in economic growth because it generates a higher level of fiscal competition in Local Governments that would supposedly bring efficiency gains in the productive apparatus.

Fiscal studies of decentralization of the OECD (2015, 2016) said the rules and practices that govern fiscal relations between the different levels of government administration, and their respective responsibilities in taxes, expenses and debt management, all of them influence economic efficiency and growth.

From the neoclassical perspective, a decentralized system must necessarily be more receptive to the demands of society in order to increase well-being, that is, to increase consumer efficiency, while meeting the well-being and demand of society from decentralization. However, although the evidence may show a positive impact with a greater fiscal decentralization of expenditures, “there are other factors - such as physical capital, human capital, fiscal pressure, inflation rate, unemployment rate and the instrumental variable - that explain the growth of per capita income to a greater extent ”(Pérez González and Cantarero, 2001, pp. 24-25).

The proposition that horizontal equalization between locations improves both equity and efficiency, referred as early as the 1950s by Buchanan's seminal papers (1950), generated important later papers including Flatters et at (1974), Boadway (2001, 2004), Kim and Dougherty (2018). A key idea of these studies on horizontal equalization between localities indicates that the choice of a household's location is affected not only by labor productivity but also by the fiscal capacity of subnational governments. In case, when households choose their locations taking into account not only wages and productivity, but also the fiscal capacity of subnational governments, migration between localities will not be efficient in the sense that the total productivity of the economy is not maximizes. Therefore, if a household faces differences in the local tax burden or in the benefits of public services between localities, migration leads to an inefficient allocation of resources. Therefore, fiscal equalization that guarantees equal treatment among equals, also eliminates the differential network of tax benefits to improve both efficiency and equity (Kim and Dougherty, 2018).

In the field of fiscal equalization as a determinant of fiscal decentralization and inclusive growth. Kim and Dougherty (2018) define that the theoretical argument related to the differential and fiscal net tax benefits in equalization is interesting and important because it implies the perspective of achieving both efficiency and inclusion (equity), and for this, there is a solid theoretical basis for redistribution between localities. However, the extent to which tax incentives lead to mobility amongst localities is an empirical question. The tax equalization system of the Nordic countries is a good example (Kim and Lotz, 2008). Viewed from these perspectives, there is a strong inclusive growth rationale for the fiscal equalization role. However, the implementation of intergovernmental transfers, in the practice faces many challenges due to incentive problems. For example, intergovernmental transfers create an incentive for recipient local governments to manipulate local tax bases and spending needs to increase the amount of transfers they receive.

From the empirical evidence, Zou in 1996 considered two levels of government, one local and the other federal, both levels of government with their own income based on consumption taxes, transfers between levels of governments and budget balances. With this, based on the accumulation of local public capital, he sketches a regional economic growth model to examine “how variations in taxes and transfers affect the long-term equilibrium values of consumption and the stock of private capital, as well as the consumption and local public capital stock” (Zou, 1996, p. 12). Starting from a dynamic system, he establishes four differential equations and four endogenous variables: public consumption and private consumption, and public capital and local private capital. This dynamic system is obtained starting from a utility function of the family (producer) from private consumption (c) and local public consumption (E). Under these conditions, the total income of the local government will be determined by what it receives from the central government, that is, taxes and transfers, and its spending determined by consumption and local investment from the public sector. Assumes again a balanced budget with a budget constraint from the local and central governments.

Xie et al. (1999), like Zou, determined a framework of understanding from a CES production function: with a substitution parameter, the constant elasticity of substitution. Following the same procedure like Zou, the authors

arrive in the long term to determine the growth rate of per capita income, and in contrast to the previous work "they determine the tax rate that maximizes economic growth (τ *)", that is, the tax rate that influences economic growth (Xie et al., 1999, p. 8).

Zhang and Zou (2001) studied the effect of the composition of public spending on growth based on Devarajan (1996) proposed, that is, from a nested Cobb-Douglas production function, they identify contributions at each level of government to starting from different types of public spending. To do this, these authors work with an invariable tax rate with a budget restriction that maximizes utility, achieving in the long term a higher per capita income from the allocation of the public budget between different levels of government and different types of capital within each of these levels.

Agúndez and Chaparro (2002, p.23) based on the works of Zou (1996) and Xie et al. (1999) proposed a model of decentralization of income and economic growth to recognize that "given a certain degree of decentralization of public spending, the dependence of sub-central governments on their own resources up to a certain level, would have positive effects on economic growth". In this sense, according to the allocation of spending and considering the various sources of financing of local governments, there is a different degree of efficiency in these governments, and according to that degree of efficiency of public spending, economic growth is maximized, reaching "an optimal composition of the total resources of the representative local government from the point of view of economic growth" (p.34). Also, Rodríguez and Ezcurra (2009) in a study for 17 autonomous communities of Spain with a common financing scheme analyzed the regional difference in the growth rate of the Gross Domestic Product per capita as a function of the difference in the level of regional public spending per capita. While, Feld et al (2004) in a study for 26 Swiss cantons analyzed the cantonal growth rate per capita in relation to the cantonal decentralization of spending, cantonal decentralization of income, leveling transfers received by the canton, indicator of fiscal competence and canton fragmentation indicator.

In recent decades, a large number of countries have sought decentralization as a means of seeking a more efficient and effective public sector. Other countries were disenchanted with the performance of previous planning and centralized policies. In fact, fiscal decentralization addresses how the public sector is organized and how to create opportunities for greater growth and well-being. Kim and Dougherty (2018) perform an analysis for member countries with panel data in an OECD study, where they define the logarithm of gross domestic product (GDP) per capita to depend linearly on the logarithm of the stock of human capital and the logarithm of the investment rate (Mankiw et al (1992). In the long run the relationship is embedded in a convergence growth equation, where the potential growth of the GDP per capita rate depends on the past potential of the GDP per capita, factor production and a set of structural variables that influence growth.

For the Latin American region, Lozano and Julio (2016) establish a panel data analysis to measure the relationship between fiscal decentralization and economic growth at the department level in Colombia. The applied model "takes as an initial reference a simple version of the endogenous growth model of Barro, according to which the government acquires a fraction of the product from the private sector to provide free public services to private producers (infrastructure services, right ideologys property, among others)" (Lozano and Julio, 2016, p.3).

3. Methodology

To carry out the analysis of the relationship between fiscal decentralization and economic growth, we will use as dependent variable per capita Gross Domestic Product (pibppl) and as independent variables the following: consumption per capita (cgpl), investment per capita (lnppi), income poverty (ppil), inflation (inf), national foreign trade ratio (rcel), and population (pobl). The collection information was realized from Central Bank of Ecuador (BCE) and Ministry of Economy and Finance (MEF) at 2000-2018 period. The period 2000-2009 is considered as dummy with value 0, an period 2010-2018 is considered as dummy with value 1. The statistical packages or software used for making research analysis was Stata. The econometric model used is panel data with N and T larges, an longitudinal model.

Generally, the starting point in longitudinal models is the grouped Ordinary Least Squares (OLS) model. According to Cameron and Trivedi (2009, p. 248), this estimate uses the variations within (in time for an individual) and between (for individuals at the same time) simultaneously. The resulting estimators are consistent if the appropriate model is the random effects model and inconsistent otherwise. Furthermore, it assumes that the regressors are not related to the error. It has the following form in equation (1), where a common intercept is included and the individual effects (αi- α) are centered on zero:

$$y_{it} = \alpha + \beta_k X'_{it} + (\alpha_i - \alpha + \varepsilon_{it}) \quad (1)$$

This type of model has a variation, when considering the structure of the errors, giving rise to a grouped model FGLS or estimator of the averaged population. It is possible to specify if the model presents, as an example, an Autoregressive process of order one with the following error specification in equation (2), where the model error presents a significant lag:

$$\mu_{it} = \rho_1 \mu_{it-1} + \varepsilon_{it} \quad (2)$$

The random effects estimator is consistent if this model is appropriate. This model assumes that the time-invariant component of the error can be treated as random and also is not related to the regressors. It captures both individual effects over time and those between individuals. Presents the following specification containing a weight and unobserved heterogeneity (3):

$$(y_{it} - \widehat{\theta_i}\bar{y}_i) = (1 - \widehat{\theta_i})\alpha + (X_{it} - \widehat{\theta_i}\bar{X}_i)'\beta_k + \{(1 - \widehat{\theta_i})\alpha_i + (\varepsilon_{it} - \widehat{\theta_i}\overline{\varepsilon_{it}})\} \quad (3)$$

According to Cameron and Trivedi (2009, p. 256), the component (θ_i)ˆ, is consistently estimated as shown in equation (4). It should be mentioned that if (θ_i)ˆ = 0, then it is a case of grouped regression OLS. Whereas if (θ_i)ˆ = 1, the model implies fixed effects.

$$\theta_i = 1 - \sqrt{\frac{\sigma_\varepsilon^2}{(T_i\,\sigma_\alpha^2 + \sigma_\varepsilon^2)}} \quad (4)$$

The fixed effects model (within) eliminates the unobserved individual effects through the calculation of means. So, αi is removed from the equation. The model is consistent when it is appropriate, and inconsistent if the random effects model is ideal. Efficient estimators are achieved despite the fact that there may be endogeneity with the time-invariant component of the error. The specification of the model is as follows in equation (5), the STATA program includes an estimated intercept that expresses the average of the individual effects of αi, and the large means of: $\bar{y}$, $\bar{X}$, $\bar{\varepsilon}$ (6).

$$(y_{it} - \bar{y}_i) = (X_{it} - \bar{X}_i)'\beta_k + (\varepsilon_{it} - \overline{\varepsilon_{it}}) \quad (5)$$

$$(y_{it} - \bar{y}_i + \bar{\bar{y}}) = \alpha + \left(X_{it} - \bar{X}_i + \bar{\bar{X}}\right)'\beta_k + (\varepsilon_{it} - \overline{\varepsilon_{it}} + \bar{\bar{\varepsilon}}) \quad (6)$$

Finally,according Cameron and Trivedi (2009), if the fixed effects model is appropriate, one way to deal with endogeneity caused by omitted variables that do not change over time is to calculate the estimator of the first differences. It provides better estimators than those of fixed effects if the regressors show lags in the first order. Features the following specification (7):

$$(y_{it} - y_{it-1}) = (X_{it} - X_{it-1})'\beta_k + (\varepsilon_{it} - \varepsilon_{it-1}) \quad (7)$$

In this way, the model is defined as presented in equation [8]. The variable of interest in the model is the Investment of the GADs, to show the change in the slopes of the variable caused by the application of COOTAD, two dummys have been created and dummy variables have been constructed, described in equation [9].

$$pibppl_{il} = \propto + \beta_1 cgpl_{il} + \beta_2 igpl_{il} + \beta_5\, ppil_{il} + \beta_6 inf_{il} + \beta_7 rcel_{il} + \beta_8 pobl_{ij} + \mu_{il} \quad (8)$$

$$pibppl_{il} = \propto + \beta_1 cgpl_{il} + \beta_3 igpld1_{il} D1 + \beta_4 igpld2_{il} + \beta_5\, ppil_{il} + \beta_6 inf_{il} + \beta_7 rcel_{il} + \beta_8 pobl_{ij} + \mu_{il} \quad (9)$$

Donde:

pibppl = First difference of the natural logarithm of the GDP per capita GAD´s.

∝ = Time trend effect in the model ∝_t-∝_ (t-1) = ∝.

cgpl = First difference of the natural logarithm of the consumption of GAD´s per capita.

lnppi = First difference of the natural logarithm of the Investment of GAD´s per capita.

lnppid1 = First difference of the natural log of GAD´s Investment per capita 2010-2018

lnppid2 = First difference of the natural log of GAD´s Investment per capita 2000-2009

ppil = First difference of the natural log of income poverty.

inf = First difference of national inflation.

rcel = First difference of the National Foreign Trade ratio.

pobl = First difference of the natural logarithm of the GAD´s population.

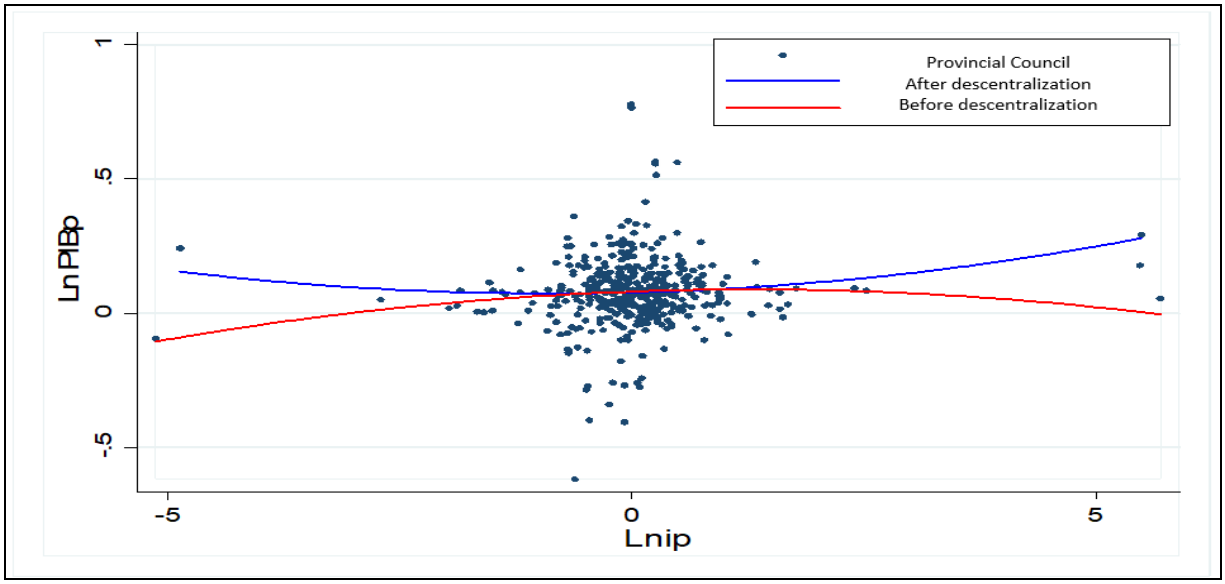
4. Results

4.1. At the level of Provincial Council of Ecuador

4.1.1. Descriptive analysis Provincial Council of Ecuador

Graph 1 shows in aggregate the relationship between GDP pc and public investment pc in the Provincial Council. Concentration continues to occur both in decentralization and without fiscal decentralization, between a GDP pc and a low investment pc, however, in the process of decentralization, both GDP pc and investment pc increase considerably, especially in provinces with natural resources such as oil or mining. The per capita Gross Domestic Product (GDPpc) variable is directly related to public investment, that is, when GDP per capita increases in the same way, does the Investment per capita of the GAD's. In general, the Eastern region is the one that concentrates the highest levels of public investment, on average in the study period, it is $ 97.96, followed by the Sierra region $ 34.98 and finally the Coast region $ 30.23. Meanwhile, when relating the GDP per capita by province with respect to the consumption per capita of the GAD's, a positive but little accentuated relationship between the variables can be observed in Graph 1.

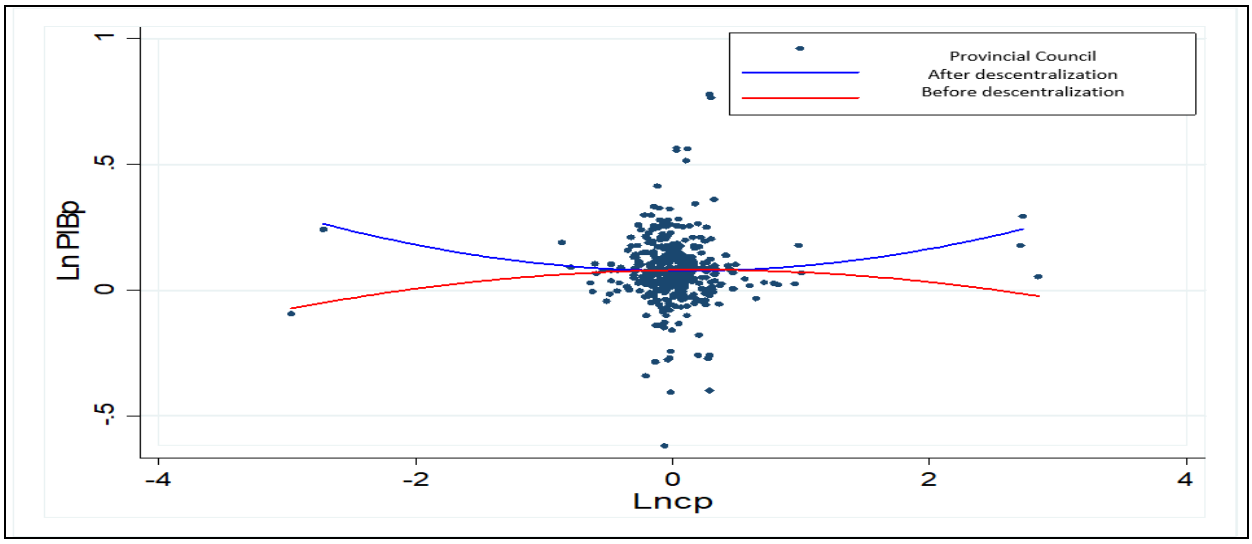
Furthermore, eastern provinces (Orellana and Sucumbíos) are in the upper right ideology; that is to say, they are those with the highest levels of public consumption and GDPpc with respect to the other provinces of the country. While in a contrary scenario, provinces such as Morona Santiago and Zamora Chinchipe have the lowest levels at the national level. On the other hand, provinces of the Coast (Guayas and Esmeraldas) and Sierra (Pichincha and Azuay) have higher levels of GDPpc and public consumption in these regions. Being the Coastal region the one with the lowest average CGP ($ 35,385), where the Guayas province is the one with the lowest public consumption on average, $ 24.20 given the inverse relationship between GAD's Consumption with respect to the total population.



Graph 1: Relationship between GDP per capita and Investment, Provincial Council 2000-2018.

Source: Central Bank of Ecuador, Ministry of Economy and Finance. Elaboration: Authors.

Graph 2 shows a low GDP pc with a constant higher public consumption, in almost all the country's provinces. However, in the process of decentralization, this relationship between GDP pc and public consumption pc varies much more, especially with increases in public consumption pc, more than in GDP pc. This condition indicates that, although in the process of decentralization, public consumption is growing, not necessarily this higher consumption affects the growth of GDP. This condition is possibly due to the fact that there is a greater destination for public consumption, but it is not intended to stimulate production, unlike public investment, which is mainly aimed at improving the conditions of the productive sector, such as the infrastructure carried out to a greater extent from fiscal decentralization.



Graph 2. Relationship between GDP Per Capita and Consumption, Provincial Council 2000-2018.

Source: Central Bank of Ecuador, Ministry of Economy and Finance. Elaboration: Authors.

In graph 1 and 2, it can be observed that the effect of fiscal decentralization on economic growth is greater after the fiscal decentralization applied in Ecuador since 2010, and the period 2000-2009, the effect of fiscal decentralization on economic growth is lower. In the same way, this decentralization process is affected to a greater extent in the period 2010-2018 due to a greater investment made by the provincial governments.

4.1.2. Empirical evidence Provincial Council of Ecuador

The results obtained from the econometric model applied to the first differences of the series of the 24 provinces of Ecuador are presented in Table 1. It is evident that, in all the models, there is a positive and significant impact towards the GDP per capita, generated by the investment of the GADs, which acquires a greater slope after the application of COOTAD (see coefficient lnipsd and lnipcd), demonstrating the positive benefits of decentralization. In addition, it should be emphasized that the R2 is low because the model is not predictive but rather an autocorrelation model (table 2), also, it should be emphasized that, due to lack of data at the provincial level on poverty, inflation and foreign trade, the national index is considered, possibly making the R2 low, however all tests and results of the 8 models presented show the existence of model fit.

Table 1. Econometric model results, Ecuador Provincial Council 2000-2018.

Variable	MCO (1)	EA (2)	EF (3)	AR1 (4)	FGLSH (5)	FGLSC (6)	FGLSHA (7)	FGLSCA (8)
lnipsd	.01384468	.01384468	.01403177	.01286867	.0033229	.01310621***	.00326281	.01306052***
lnipcd	.0254912***	.0254912***	.02584129***	.02797552***	.02128365***	.02375446***	.02137383***	.02384971***
lncpsd	-.01299263	-.01299263	-.00924595	-.01669052	-.00501073	-.01158243***	-.00495319	-.0117307***
lncpcd	-.02633301*	-.02633301*	-.02680185*	-.02837399*	-.01744429	-.02468052***	-.01756331	-.02475433***
lnce	-.14710782*	-.14710782*	-.14760453*	-.13453802*	-.15653511**	-.1272718***	-.15649721**	-.12676109***
inf	-.0015579***	-.0015579***	-.00155302***	-.00161033***	-.00174743***	-.00162906***	-.00175138***	-.00163183***
lnppi	-.50018791***	-.50018791***	-.50125811***	-.51128758***	-.39056783***	-.50659402***	-.39184557***	-.50706874***
lnea	.01905313	.01905313	.01877182	.02819514	-.02108786	.02470783	-.02123376	.02506136
_cons	.04005696***	.04005696***	.03999018***	.03912415***	.05139156***	.04023189***	.05130316***	.04018031***
N	432	432	432	432	432	432	432	432
r2	.14444826		.14754685					
re_o								
r2_b		.08642805	.12737734					
r2_w		.14747463	.14754685					
sigma_u		0	.01770543					
sigma_e		.12366913	.12366913					
rho		0	.02008531					

Note: ****significant 10%, **5% and *1% respectively.* **Source:** *Authors.*

Table 2 describes the tests applied to select the most appropriate estimators. The null hypothesis that the model does not present omitted variables with the Ramsey test is accepted. The model presents heteroskedasticity problems; to have a correct inference, cluster or robust errors are used. The model does not present first-order autocorrelation, the Wooldridge test is accepted. With the Breusch and Pagan test, the OLS estimators prevail before EF or EA. This is corroborated with the acceptance of the null hypothesis of the Hausman test.

Table 2. Test applied to the model in first differences Ecuador Provincial Council 2000-2018.

Test	**Null Hypothesis (Ho)**	**Prob> "Statistical"**	**Result**
Ramsey	Model does not have omitted variables	0.2944	Ho with significance greater than 10% is accepted
Wald	Sigma (i) ^ 2 = Sigma ^ 2 for all i	0.0000	Ho of constant variance is rejected and we accept Ha of heteroscedasticity
Wooldridge	No first order autocorrelation	0.5764	Ho with significance greater than 10% is accepted
Breusch and Pagan	Unobservable component that generates heteroscedasticity. Var(u)=0	1.000	Ho is accepted. MCO model prevails before EA or EF.
Hausman	Non-systematic difference in coefficients	0.9996	Ho is accepted Prevail EA model over EF.

Source*:* Authors.

Table 3 shows the interpretation of the betas for the grouped OLS model. To summarize, the investment of the GADs from the application of COOTAD since 2010 has allowed its impact on the provincial GDP per capita to be stronger, going from 1.4% to 2.5%. Additionally, it is observed that the control variables used in the model

have a negative impact on GDP, that is, both national poverty, national inflation, population growth, and foreign trade ratio, decrease the provincial GDP per capita.

Table 3. Interpretation of grouped OLS model betas

Variable	Nomenclature B	Significant	Valor B	Interpretation
Lnipsd	β_1	1%	0.0138447	Faced with an increase of 1% in the differences in lnipsd, it is expected that on average the differences in lnpibp will increase by 1.3%.
Lnipcd	β_2	12%	0.0254912	Faced with a 1% increase in the differences in lnipcd, it is expected that on average the differences in lnpibp will increase by 2.5%.
Lncpsd	β_3	1%	-0. 0129926	Faced with a 1% increase in the differences in lncpsd, the differences in lnpibp are expected to decrease by 1.3% on average.
Lncpcd	β_4	1%	-0. 026333	Faced with a 1% increase in the differences in lncpcd, it is expected that on average the differences in lnpibp will decrease by 2.6%.
Lnce	β_5	10%	-0. 1471078	Faced with a 1% increase in lnce differences, it is expected that on average the lnpibp differences will decrease by 14%.
Inf	β_6	1%	-0. 0015579	Faced with a unit increase in inf differences, it is expected that on average the differences in GDP will decrease by 0.1%
Lnppi	β_7	20%	-0. 5001879	Faced with an increase of 1% in the differences in lnppi, it is expected that on average the differences in lnpibp will decrease by 50%.
Lnea	β_8	12%	0. 0190531	Faced with a 1% increase in line differences, it is expected that on average the differences in lnpibp will increase by 1.9%.
Lnpob	β_9	1%	0.0138447	Faced with an increase of 1% in the differences in lnipsd, the differences in lnpibp are expected to increase by 1.3% on average.

Source: Authors.

Compared to the previous model, the income poverty variable is significant and negatively affects GDP per capita. The variable that considers suitable employment is not significant. It is observed in this case, the investment of the autonomous governments has a positive impact on the growth of the GDP per capita, only in the decentralization processes. The opposite is the case with government consumption.

4.1.2.1. Structural change test

To verify if the results presented in the three models correspond to a structural change in the slopes of Investment and Consumption per capita of governments.

$$Fexp = \frac{\frac{6{,}121966 - 6{,}1163311}{1}}{\frac{6{,}1163311}{432 - 8}}$$

Fexp = 0,3906

Prob (Fexp) = 0,5322

Therefore, the null hypothesis that there is no structural change in the model slopes in the variable lnppi is accepted. So, it is not necessary to create dummy variables to capture the change in the coefficient of lnppi. However, the structural change implies a strong variation, while the use of the dummy variables showed that

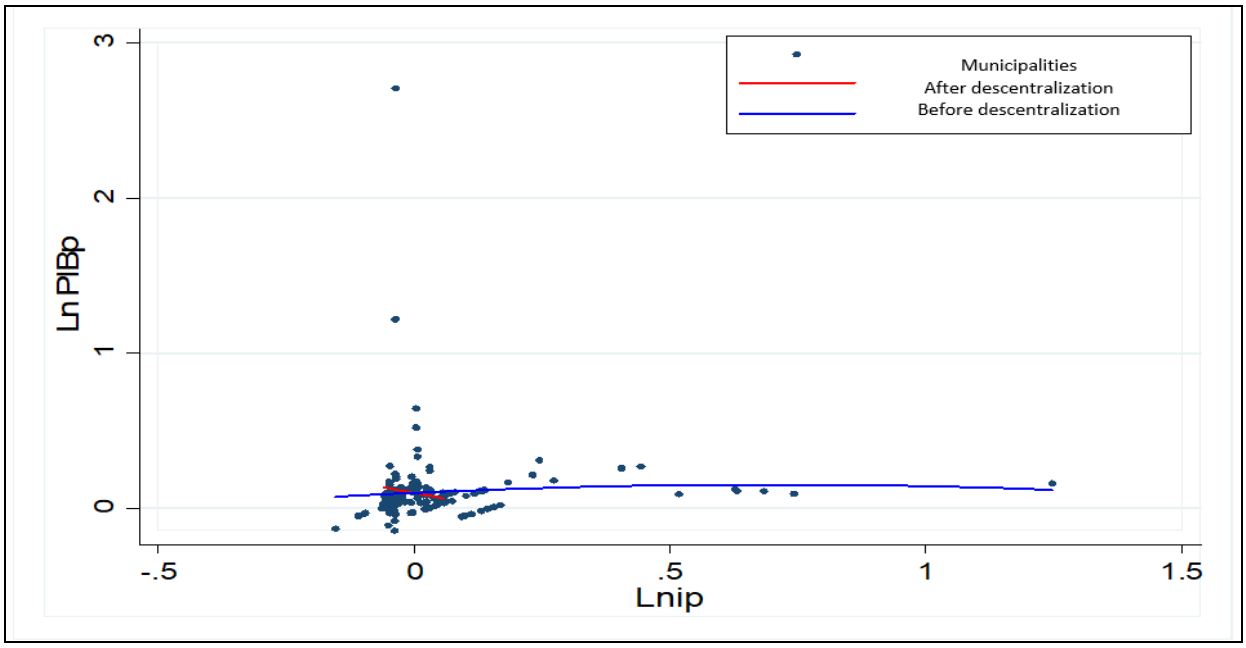
after the application of COOTAD, the investment of the provincial governments generates a greater impact on the provincial GDP, despite not being excessively high.

4.2 At the municipal level of Ecuador

4.2.1. Descriptive analysis Municipalities of Ecuador

Graph 3 presents an almost directly proportional relationship between GDP pc and public investment pc. Throughout the analysis period, the evolutionary process denotes greater growth accompanied by greater public investment, although it is from 2010 that public investment pc grows considerably in accompaniment with GDP pc, especially in cities known as the development poles of the Ecuador: Quito, Guayaquil and Cuenca. Also, between 2000-2009 period (before fiscal decentralization) there is practically no change in public investment pc, although there is a variation in GDP pc, while between 2010-2018 period, the relationship is directly proportional and to a greater extent, that is, greater fiscal decentralization shows greater public investment. Therefore, greater fiscal decentralization, greater economic growth. This situation can be made visible by seeing this change, for example, in the city of Quito, where the year prior to decentralization, 2009, the GDP pc is 6,563.13 dollars, and public investment pc is 3,868.82 Dollars. While in 2018, 8 years after fiscal decentralization, the GDP pc is $ 9,207.13, with a public investment pc of $ 9,116.44. It is evident that greater fiscal decentralization produces greater economic growth, in conditions where public investment is greater. In other words, when analyzing Quito for example, we can see that the pc GDP grows from 1,936.31 current dollars in 2000 to 9,207.13 current dollars in 2018. This growth has been accompanied by a higher PC public investment, which grows from $ 4,827.98 in 2000 to $ 9,116.43 in 2018. The same happens with Cuenca or Guayaquil. Although the dynamics in the relationship between GDP pc and public investment pc of the municipalities, before and after fiscal decentralization is different, as analyzed below.

In the relationship between GDP pc and public consumption pc with fiscal decentralization, the GDP pc is higher than without decentralization, and public consumption pc has the same trend. The relationship between GDP pc and public consumption pc, before fiscal decentralization shows a condition of low public consumption under conditions where GDP pc is lower than in the period of fiscal decentralization. While in decentralization it is evident that not only is public consumption pc higher compared to periods of no fiscal decentralization, but GDP pc is much higher in all cities compared to the process of no fiscal decentralization.

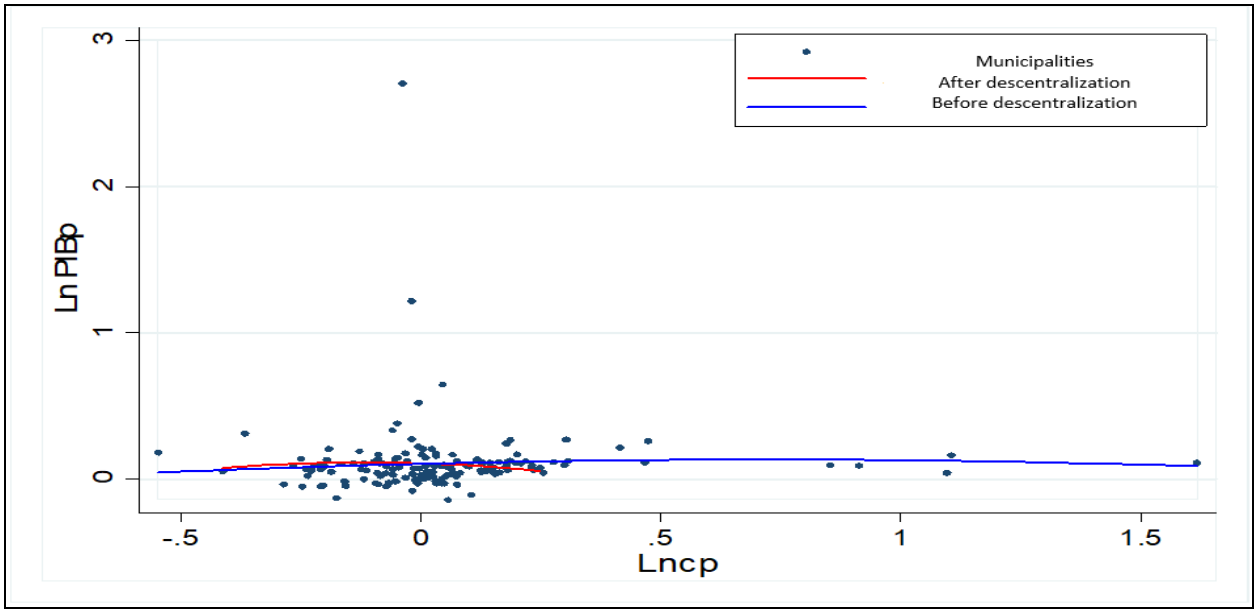


Graph 3. Relationship between GDP per capita and Public Investment, Municipalities 2000-2018.

Source*:* Central Bank of Ecuador, Ministry of Economy and Finance. Elaboration: Authors.

Also, graph 4 shows that GDP pc grows in conditions where public consumption pc does not very much. However, the largest cities such as Quito, Guayaquil or Cuenca, have higher public consumption rates than the rest of the country. Thus, for example, while in 2018, Santo Domingo had a pc GDP of $ 4,000,51 dollars with a public consumption pc of $ 79.91, the capital of the country, Quito, presented a GDP pc of 9,207,13 dollars in 2018, with a public consumption pc of 432.41 dollars. The same happens with cities like Loja and Ambato, with

great differences in GDP pc and public consumption pc, with respect to large cities such as Quito, Guayaquil or Cuenca.



Graph 4. Relationship between GDP per capita and Public Consumption, Municipalities 2000-2018

Source: *Central Bank of Ecuador, Ministry of Economy and Finance. Elaboration: Authors.*

4.2.2. Empirical evidence Municipalities of Ecuador

The results obtained from the panel data econometric model are presented in Table 4 applied to the first differences of the series of 9 municipalities of Ecuador. The model applies the considerations described in the Provincial Council section. It is evident that, in decentralization processes, per capita investment by municipalities positively affects GDP per capita, while in the process without decentralization the effect was negative. Similarly, the negative effect of government per capita consumption is reduced. In addition, it is evident that, in all the models, there is a positive and significant impact on the GDP per capita, generated by the investment of the GADs, which acquires a greater slope after the application of COOTAD (see coefficients lnipsd and lnipcd), demonstrating the positive benefits of decentralization. In addition, it must once again be emphasized that the R2 is low because the model is not predictive but rather an autocorrelation model, also, it must be emphasized that, due to lack of data at the municipalities level on poverty, inflation and foreign trade, the index is considered national, possibly making the R2 low, however, all tests and results of the 8 models presented show the existence of model fit.

Table 4. Econometric model results in first differences, Ecuador municipalities 2010-2018

Variable	MCO (1)	EA (2)	EF (3)	AR1 (4)	FGLSH (5)	FGLSC (6)	FGLSHA (7)	FGLSCA (8)
lnipsd	-.26954167	-.26954167	-.67771696*	-.69192234	-.14796651	-.42858951	-.1762679	-.39018202
lnipcd	.22702521**	.22702521***	.23576315**	.25484937***	.23918373**	.29235718***	.23213962***	.31690461***
lncpsd	-.14997664*	-.14997664*	-.18113367*	-.20412505*	-.0502993	-.05012846	-.05393525	-.04874743
lncpcd	-.05295445*	-.05295445*	-.03580831	-.03635167*	-.04067108	-.05151704***	-.02906964	-.03348511***
lncesd	-.86743884	-.86743884*	-.88759955	-.86012732*	-.21613285**	-.58070784***	-.22517014***	-.56287414***
lncecd	-.45513868***	-.45513868***	-.47486571**	-.43432402***	-.43073775*	-.5383558*	-.39864236**	-.5203327**
infsd	-.03011966	-.03011966	.01822503	.01866221	-.02645879	-.03077249**	-.00020877	.01382318
infcd	.00962205	.00962205	.00718557	.00596855	.00425903	.00524138	.00278995	.00566436**
lnppisd	-.55101516*	-.55101516*	-.87796417**	-.46974845**	-.46146375**	-.31488126***	-.36101505*	-.2920997***
lnppicd	.05550311*	.05550311*	.05967635*	.04418183*	.0451559	.01949*	.03314954	.0307454***
lneasd	13.500.024	13.500.024	.75566171	.8180795	.75325177	.85815758***	.55603658	.48246101***
lneacd	.10861886*	.10861886*	.21281816**	.08026717*	.0967699	.02403105	.0488064	.06832572***
_cons	.07893266**	.07893266***	.08039566***	.08626041***	.05728907***	.05998425***	.06256429***	.07544033***
N	162	162	162	162	162	162	162	162
r2	.14847612		.18902016					
re_o								
r2_b		.03180469	.35485796					
r2_w		.1782561	.18902016					
sigma_u		0	.09585074					
sigma_e		.22377583	.22377583					
rho		0	.15502703					

, ** and * significant 15%, 5% and 1% respectively.* **Source:** *Authors.*

Table 5 describes the tests applied to select the most appropriate estimators. The null hypothesis that the model does not present omitted variables with the Ramsey test is not accepted. The model presents heteroskedasticity problems; to have a correct inference, cluster or robust errors are used. The model presents first-order autocorrelation, the Wooldridge test is accepted. With the Breusch and Pagan test, the OLS estimators prevail before EF or EA. This is corroborated with the acceptance of the null hypothesis of the Hausman test.

Table 5. Test applied to the model in first differences, Ecuador Municipalities 2000-2018

Test	Null Hypothesis (Ho)	Prob> "Statistical"	Result
Ramsey	Model does not have omitted variables	0.0002	Ho is rejected
Wald	Sigma (i) ^ 2 = Sigma ^ 2 for all i	0.000	Ho of constant variance is rejected and we accept Ha of heteroscedasticity
Wooldridge	No first order autocorrelation	0.000	Ho is rejected
Breusch y Pagan	Unobservable component that generates heteroscedasticity. Var(u)=0	1.000	Ho is accepted. MCO model prevails before EA or EF.
Hausman	Non-systematic difference in coefficients	0.000	Ho is accepted EF model prevails over EA.

Source: *Authors.*

Table 6 presents the interpretation of the coefficients of the regressors for the grouped OLS model. The minimum significance of the independent variables is determined by the population. It is observed how the decentralization process improved the relationship between investment and consumption per capita of the municipalities with the GDP per capita.

Table 6. Interpretation of grouped OLS model betas.

Variable	Nomenclature B	Significant	Valor B	Interpretation
Lnipsd	β_1	12%	-0. 6919223	Faced with a 1% increase in lnipsd differences, the average lnpibp differences are expected to decrease by 69%.
Lnipcd	β_2	2.5%	0. 2548494	Faced with a 1% increase in lnipcd differences, the average lnpibp differences are expected to increase by 25%.
Lncpsd	β_3	3%	-0.20 41251	Faced with an increase of 1% in the differences in lncpsd, it is expected that on average the differences in lnpibp will decrease by 20%
Lncpcd	β_4	9%	-0. 363517	Faced with a 1% increase in the differences in lncpcd, it is expected that on average the differences in lnpibp will decrease by 36%.
Lnce	β_5	13%	-0. 8601273	Frente a un incremento del 1% de las diferencias del lnce se espera que en promedio las diferencias de lnpibp disminuyan en 86%.
Inf	β_6	17%	0. 0059686	Frente a un incremento del unitario de las diferencias de inf se espera que en promedio las diferencias de pibpl aumenten en 0.05%.
Lnppi	β_7	13%	0. 0441818	Frente a un incremento del 1% de las diferencias del lnppi se espera que en promedio las diferencias de lnpibp aumenten en 0.4%.
Lnea	β_8	8%	0. 8180795	Frente a un incremento del 1% de las diferencias del lnea se espera que en promedio las diferencias de lnpibp aumenten en 81%.
Lnpob	β_9	12%	-0. 6919223	Frente a un incremento del 1% de las diferencias del lnipsd se espera que en promedio las diferencias de lnpibp disminuyan en 69%

Source: Authors

4.2.2.1. Structural change test:

To verify if the results presented in the three models correspond to a structural change in the slopes of Investment and Per capita Consumption of governments.

$$Fexp = \frac{\frac{8.4714801 - 8.40801562}{2}}{\frac{8.40801562}{162 - 11}}$$

Fexp=0.569

Prob = 0.450

Therefore, for the municipalities model, there is insufficient evidence of partial rupture in the model. However, the structural change implies a strong variation, while the use of the dummy variables showed that after the application of COOTAD, investment and public consumption generate a greater impact on GDP per capita.

5. Conclusions

Fiscal decentralization in the public sector must be understood from two perspectives: revenues and expenditures to include the transfer of authority and management mechanisms from the central level to local governments. In Ecuador, decentralization is defined through the Organic Code of Territorial Ordering of Decentralized Autonomous Administrations (COOTAD, 2017), which defines four levels of government: a metropolitan level and three levels of local government: Provincial Council, Municipalities and Boards Parochial. In this study, we have focused on Provincial Council and Municipalities.

The theoretical discussion in economics on fiscal decentralization and growth focuses on the efficiency aspects of a decentralized arrangement and the financing of public services. While the empirical discussion analyzes fiscal decentralization tied to spending on public investment, governance, taxes, health, inequality and even economic policy. In addition, it should be mentioned that there are theoretical studies of the relationship between fiscal decentralization and economic growth at the country level. There are also studies at the regional level in countries. Therefore, the quantification of the impact of fiscal decentralization on macroeconomic behavior, be it economic growth, the size of the public sector, budget stability or inflation, has considered the use of the expenditure (or income) ratio indicator of subnational governments or the self-sufficiency ratio of subnational governments - their own resources over their total resources -.

Therefore, the relationship between fiscal decentralization and economic growth are defined by public policies that promote a more effective local policy than that carried out by the central government, because local officials can control the situations of policy promotion from the side of supply and demand. Empirically, the relationship between fiscal decentralization and economic growth will be analyzed in the context of the Ecuadorian economy from a time series. For this, the decentralization indicators and explanatory variables proposed by various authors were used.

This work follows the methodology proposed by Cameron and Trivedi (2009) among other authors, to select the most appropriate estimators. Thus, the Breusch and Pagan test is carried out, where it is identified if there is a component that generates heteroscedasticity in the model. Next, the Hausman test is calculated to select between fixed and random effects. Finally, several tests are carried out to validate the classic assumptions in the model.

The tests applied for the selection of the most appropriate estimators determine that the null hypothesis that the model does not present omitted variables, for this reason, the Ramsey test is accepted. The model does not show first order autocorrelation and the Wooldridge test is accepted. With the Breusch and Pagan test, the OLS estimators prevail before EF or EA. This is corroborated with the acceptance of the null hypothesis of the Hausman test.

In the interpretation of the betas for the grouped OLS model. In summary, the investment of the GADs from the application of COOTAD since 2010 has allowed its impact on the provincial GDP per capita to be stronger, going from 1.3% to 2.5% in provincial council, and decreases from -69% a 25% in Municipalities. Additionally, it is observed that the control variables used in the model have a negative impact on GDP pc, that is, both national poverty, national inflation, population growth, and foreign trade ratio, decrease the provincial GDP per capita.

Finally, the null hypothesis is accepted because there is no structural change in the model slopes in the variable lnppi. So, it is not necessary to create dummy variables to capture the change in the coefficient of lnppi. However, the structural change implies a strong variation, while the use of the dummy variables showed that after the application of COOTAD, the investment generates a greater impact on the provincial GDP, despite not being excessively high.

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Adapting macro-prudential instruments to achieve monetary policy objectives

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Abstract

Monetary policy is used by governments to adjust financial market conditions to the needs of economic growth. But its application has certain limits, the biggest one being the interest rate limit on monetary policy instruments, which cannot be lesser than zero (although, at least in the euro area, this is already the case). Can monetary authorities use other instruments under these conditions? Currently, in the context of the COVID-19 crisis, most countries have injected huge sums of money into the financial market to maintain the consumption capacity of the population. Can macro-prudential policy instruments manage the existence of money supply to prevent it from entering the financial speculation market and inflate speculative bubbles / this article aims to analyze the behavior of macro-prudential policy, which can be used to achieve monetary policy objectives. The research is theoretical and contains reflections on the need for efficient use of macro-prudential policy instruments in optimizing monetary policy.

1. Introduction

Monetary policy starts from the quantitative approach to the needs of money in the economy and the ability to stimulate aggregate demand by impacting the volume of money supply (Friedman, 1998). The instruments it can use depend on the available transmission channels and have the effect of reducing or enlarging the available money supply. One of these instruments - required money reserves or split reserves, comes from the prudential approach of banking activities and can serve as an example of the takeover of regulatory instruments by monetary authorities. Thus, some central banks in the early stages of their creation required commercial banks to keep part of the deposits drawn from their clients to ensure their reimbursements (Kindleberger, 2007). Later, the Mandatory Reserve Requirements (MRR) become the traditional instrument of monetary policy, currently used in countries where qualitative channels of transmission of monetary policy do not work, especially in economies with emerging and developing markets. An increase in the MRR rate slows down the mechanism of money multiplication. It makes the money multiplier smaller (lesser) and vice versa. However, in the last two decades, several central banks in advanced economies have abandoned, de jure or de facto, this instrument.

Regulation in the banking and financial sector can have a similar, albeit sometimes less direct impact on the money multiplier. Most regulatory requirements limit the ability of banks to lend and respectively to create the monetary mass. An example of such limitations may be the liquidity coverage requirement (LCR) and the capital adequacy rate (CAR). If supervisory authorities increase the LCR limits, banks are obliged to maintain a higher volume of liquidity in accounts. In the case of fractional reserves, this requirement has a negative effect on the money multiplier and the broad creation of money. The CAR growth can also reduce the money multiplier at least in the short term, as the need to increase the capital and reduce risky assets will affect banks' lending capacity and reduce the monetary mass.

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The way of defining different regulatory standards can also affect the changes in the money multiplier. This refers, for example, to the methods of calculating risk-weighted assets introduced by the Basel II agreement, which restricts lending activity and limits the ability to create money based on economic cycles, (Repullo and Suarez, 2008) and has a pro-cyclical impact on the money multiplier and the money supply.

Finally, the size of the money multiplier also depends on a bank's liquidity and capital adequacy preferences according to the bank's risk appetite. At a time of financial difficulty and market uncertainty, commercial banks may operate a more prudent business model. They will prefer to keep additional liquidity and capital margins above those required by macro-prudential requirements. In terms of monetary policy, this means a smaller multiplier than when banks are working at their maximum lending capacity in times of economic upturn.

Macro-prudential policies also have a certain impact on money demand. Stricter banking regulation increases the costs of financial intermediation and can increase the demand for cash. Unfortunately, policymakers do not always understand the impact of changes in the regulatory regimes in the banking sector on the money supply and demand. As a result, they are rarely taken into account in monetary policy-making and regulatory policies (Boeckx and overs, 2015).

2. Adapting the objectives of monetary and macroprudential policy

Monetary and macro-prudential policies are primarily defined by their objectives (Smets, 2013). The key objective of monetary policy is to ensure and maintain price stability in the medium term. It can be defined as a situation where price increases are sufficiently low and stable so that they do not exert a significant influence on the economic decisions of the company.

Macro-prudential policy, in turn, is oriented towards financial stability, which, as part of the prudential oversight function in the Eurozone, is defined by the ECB as "a condition under which the financial system, represented by intermediaries, markets and market infrastructures, can withstand shocks to major disruptions in financial intermediation or the actual allocation of productive investment savings." (ECB, 2011)

Although both monetary and macro-prudential policies operate with different instruments to achieve specific objectives, they interact closely to the extent that their instruments affect both the general and specific volume (Shin, 2015). Cost-conditions of money and their effects are spread simultaneously across the financial system. In this context, three types of transmission channels can be distinguished – the monetary channel, credit and risk-taking channels, and those related to the scope and range of macro-prudential instruments.

Monetary channels influence the behavior of non-financial agents through price adjustments between the supply of the currency generated by the central bank and demand for financial and real assets. These adjustments are reflected in:

- the cost of capital has a direct effect on the real return on investment,
- interest rates on both bank placements and resources attracted, affecting the decision to substitute the current consumption with that of savings consumption,
- prices of assets, in the broad sense, through portfolio effects.

Financing decisions taken by the non-financial sector are based on estimates of the real interest rate, which also include inflationary expectations. Thus, through the cost channel, the central bank not only manages inflation but also gets information about the efficiency of the promoted monetary policy.

Another monetary policy instrument is the volume adjustments of the monetary mass through credit channels (Bernanke and Gertler, 1995). These channels are possible to be operated because the real sector does not have sufficient own funds to finance investments with banks willing to lend in the form of a loan. The Central Bank, in this case, can influence the amount of money that banks are willing to make available to companies and the public by means of compulsory booking or open-market operations, limiting the volume of money. At the same time, the imperfections in the credit markets, and information asymmetry in particular, but also the need to protect depositors, allow the central bank to intervene. It is setting the maximum amount of credit that may be granted, the degree of its cover by pledge the requirements for the creditworthiness of the debtor. Thus, the ability of the central bank to influence bank lending conditions, as well as the net amount of debtors and thereby the risk premium, ensures the transmission of monetary policy by adjusting the banks' credit conditions (rates and other conditions governing new loans and/or the amount of additional credit). This influence of monetary policy on credit terms, as well as on the price of assets used as collateral by borrowers, leads to side effects that extend and improve the initial monetary stimulus.

At the same time, the effects of monetary policies on bank financing decisions trigger another channel – the risk-taking one, which can act in the opposite direction to central bank expectations. A lax monetary policy does not necessarily stimulate the increase of the volume of credit in the economy, but may have a different purpose. Thus, too much confidence behind an excessively free monetary policy and a summary economic environment encourages financial and non-financial investors to take more risks and create excessive debt. In addition, a prolonged period of low interest rates could trigger a search for higher return assets from financial institutions and lead them to engage in higher risks than would be desirable for the central bank as a last resort creditor.

Macro-prudential instruments directly affecting the balance sheets of financial institutions, in particular those of banks. They are used to address excessive risks stored by banks during periods of relaxed monetary policy. These instruments aim to make them less vulnerable to adverse shocks and to reduce systemic risk. The submission of macro-prudential measures takes the form of adjustments in the behavior of financial institutions in response to the balance sheet restrictions at which they are imposed. Capital restrictions, in particular those relating to its reporting to risk-weighted assets, of which loans are part, and the need to maintain a reasonable level of liquidity, limit the ability of banks to lend and influence their supply by reducing the volume, acting in the same direction as monetary policy, which uses quantitative instruments. Risk restrictions increase credit management costs, enhancing interest rates, and reducing the number of projects that are eligible to be financed at higher rates. At the same time, the requirements for debtors' solvency, which are indirectly manifested by the need to maintain an acceptable level of asset quality, limit quite severely the number of bank customers able to lend, particularly in times of economic stagnation. Thus also having the same impact on the volume of credit in the economy. In this way, monetary and macro-prudential policies can be complementary. The macro-prudential policy, by ensuring the stability of the banking system, creates necessary conditions for the promotion of monetary policies. In this case, more capitalized financial institutions can ensure a smoother transmission of monetary impulses through interest rate and credit channels. Also, by reducing the probability of systemic stress, the macro-prudential framework supports monetary policy as it reduces the chances of the latter facing the lower limit, while financial institutions are highly vulnerable and poorly functioning markets pose risks to price stability. Instead, financial stability may benefit from a decision to implement monetary policy instruments in response to financial developments considered to be significant risks to price stability in the medium term. Interactions between monetary and macro-prudential policies are thereby beneficial for both sets of objectives. However, the 2008 financial crisis has shown that negative spillover effects cannot be excluded (Benigno and others, 2012).

The problem of distortions between monetary policy objectives and the stability of the financial system is different from the goals set by the central bank as a promoter of this policy, and commercial banks as intermediaries transmit their impulses to the real economy (Borio and overs, 2012). If price stability is to be sought at the macroeconomic level, profit maximization is sought at the level of the financial institution. So decisions to finance non-bank clients are taken from a cost-effectiveness perspective. As a result, some channels of transmission of monetary policy may generate instability in the financial markets. Their effects are analyzed below:

1. *Excess operation of the credit channel*. Higher interest rates, formed as a result of a reduction in the financial resources supply, are accepted only by businesses with a higher risk or speculative profile. This inevitably leads to a worsening of the portfolio of banking assets quality and increases the systemic risk.
2. *Low-rate policies*. The decline in the profitability of traditional credit operations is pushing banks into speculative financial markets, which are characterized by a higher level of risk. As a result of a policy that is relaxed in these circumstances, it will not be to stimulate the economy, but a speculative bubble, to which the banking system contributes from cheap resources.
3. *Asset prices*. Low interest rates may help to increase the prices of assets, including those used as collateral. As a result, the ratio between the credit balance and the value of its insurance increases in a disproportionate manner, and bank clients are willing to increase their debts in their accounts. If the pledge, in a market-growing situation, becomes overvalued, the bank balance sheet is increased by rather small amounts of uninsured or secured loans and the next crisis becomes deeper. On the other hand, high interest rates lead to a fall in asset prices, leading to a tightening of bank pledge requirements or low-cost sales.
4. *Increase in basic interest* rates. In an open economy any decision to change the interest reference rate results in an inflow of capital and an increase in foreign currency credit, which will have a disastrous defect in the period immediately following the decrease in the value of

the national currency. Thus, the risk of default of loans is exacerbated by foreign exchange risk and can lead to a systemic crisis in the banking market.

Thus, in cases where monetary policy inconsistencies harm the financial system, there is a conflict between the objective of price stability and the maintenance of financial stability. This conflict can be mitigated by the application of macro-prudential policies by applying the following instruments:

1. *The debt*-to-income ratio restriction (DTI) in a situation of rising interest rates, this restriction reduces the volume of loans granted at higher rates and then reduces the number of loans not repaid.
2. *The restriction on* the ratio between the amount of debt and the value of the pledged asset (LTV) can prevent the formation of speculative bubbles in mortgage markets as a result of the increase in the volume of loans granted during the low-interest rates period.
3. *Increasing the level of capital adequacy* by introducing various buffers to reduce leverage in periods of low interest rates and discourage banks from engaging in risky investments.
4. *Liquidity restriction* - setting the required minimum liquidity rates to encourage banks to seek long-term resources in more stable financial markets. Banks' fixed-term availabilities will protect them in times of tightening monetary policy, reducing the negative effect on the brokerage margin and, consequently, on profits
5. *Restrictions on foreign currency financing* may considerably reduce banks' financial problems in periods of the volatility of the national currency rate. These restrictions may be complemented by the requirement to maintain a proportion of the foreign currency reserve requirement (in the case of Romania, the Republic of Moldova) or taxes on foreign currency liabilities (in the case of South Korea).

3. Choosing the right monetary policy instruments

The correct application of macro-prudential policy instruments can mitigate the negative effects of monetary policy, generating synergy effects by responding to the real sector's impulses. Thus, each of the macro-prudential policy instruments analyzed above can amplify the expected results, requiring a lower central bank involvement in monetary policies (Table 1):

1. The restriction of the amount of credit in relation to the income of the borrower or the cost of the pledged asset mitigates price increases in the real estate market and reduces demand for the credit, as well as its volume. This, while reducing the indebtedness of bank customers, allows the central bank to activate the credit transmission channel more slowly. Research into the effects of macro-prudential policy on reducing systemic risks on the real sector has shown that the reduction in investment in the economy is taking place at a much slower pace, allowing the central bank to abandon the zero-interest-rate area earlier (Antipa and Matheron, 2014) The conflict between monetary and macro-prudential policy only manifests itself a few years after the crisis, and its negative effects are less than the benefits of applying the instruments of both policies during the crisis.
2. Increasing the level of capital adequacy through the introduction of various buffers during the period of economic growth does not affect the banking system, which slightly complements them from current profits. Critical situations can occur when capital growth requirements are suddenly introduced and banks are unable to satisfy them from the profit reserve account and exit to the capital market is impossible or costly. In this case, the negative effects of the application of macro-prudential requirements can be offset by softening monetary policy.
3. The restrictions on the required level of liquidity do not directly affect monetary policy, but complicate its implementation and slow down the process itself due to the banks abandoning the interbank money market. Thus, central banks should consider other monetary policy instruments, which activate the interest channel, such as open-market or REPO, assessing not only the size of operations but also their impact on banks' balance sheets. Otherwise, the banking system will remain overliquid, affecting the lending level of the real economy.
4. Restrictions on foreign currency financing allow the central bank to save resources in the management of currency volatility to mitigate its impact on residents' foreign currency credit balances. Research into this phenomenon in Hungary (Balog and overs, 2015) has shown that the application of an exposure limit to foreign currency risk (the ratio of foreign currency

liabilities to foreign currency assets must exceed 0,65) has allowed the central bank to pursue a softer monetary policy, without fear of the negative impact on the exchange rate of forints and, consequently, on the banking sector.

Table 1. Simultaneous effects of macro-prudential policy

Tool	Financial Stability Effects	Monetary Policy Effects
Limits on the debt-to-income ratio	- Risk decreasing by reducing the credit volume.	- Decrease in the need to apply quantitative instruments.
limite privind raportul dintre suma datoriei și activul gajat	- Prevention of speculative bubbles.	- Faster abandonment of the null interest area in periods of crisis.
Increasing the level of capital adequacy	- The systemic risk mitigation; - The too sudden application may lead to the decapitalization of banks	- The necessity to relax the monetary policy to allow the banks to increase their capital from cheaper resources
Liquidity limits	- Increasing of banking system liquidity; - The systemic risk mitigation;	- Slows down the application process; - It is necessary to use with care the alternative instruments that activate the interest channel in the absence of an active interbank market.
Limits on foreign currency financing	- Decreasing credit risk in foreign currency.	- reducing the costs of managing the volatility of the national currency rate

Source: Elaborated by the author

4. Conclusions

The simultaneous implementation of monetary and macro-prudential policies causes tensions mainly arising from the fact that both types of policies have overlapping transmission mechanisms, acting through the financial system. Tensions between both types of policies could become more pronounced in times of crisis when monetary policy runs out of instruments. Once the lower nominal interest limit has been reached, monetary policy remains with non-standard instruments, whether it is credit facilitation, quantitative easing, or an influence on the risk premium, which can make credit operations more attractive to banks. Thus, by their very nature, they can achieve objectives that conflict with macro-prudential policy at some point, as monetary policy that seeks to boost credit in the recovery phase conflicts with countercyclical macro-prudential policies, which, once implemented, mechanically cancel some of the credit growth.

Monetary and macro-prudential policies thus influence each other and central banks, which do not take into account the extent of the synergy effects of the instruments applied, risk losing both the resources allocated to maintaining price or banking stability and the very objectives.

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The causes of school drop-out among scholars in rural areas

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Abstract

One of the problems facing European countries is that of early school leaving among young people, especially those from rural communities. The phenomenon of school drop-out among school pupils is a reality that we are facing today's Romania and is constantly increasing. The health crisis generated in the pandemic context of SARS COV-2, as well as the measures taken by Member States to reduce the spread of the virus, has been the context for intensifying this phenomenon. Romanian schools have become unable to have the infrastructure necessary to carry out normal school hours, because the space is an improbable one and does not obey the necessary measures of social distance. The passage of schools into the online regime in Romania has made the shortcomings of the Romanian school went worse. I will analyze this topic from the perspective of a qualitative analyses based on some interviews realized. The general objective of the research is to identify the causes of school drop-out among the existing rural schools and how was affected the rural pupils of moving school courses in an online system of teaching.

1. Preliminary analysis: Causes of school drop-out among rural school population

The health crisis generated in the pandemic context of SARS COV-2, as well as the measures taken by Member States to reduce the spread of the virus, has been the context for intensifying this phenomenon. Romanian schools have become unable to have the infrastructure necessary to carry out normal school hours, because the space is an improbable one and does not obey the necessary measures of social distance. The passage of schools into the online regime in Romania has made the shortcomings of the Romanian school worse.

"History has shown that countries that have experienced major crises have managed to overcome them through massive investments in education," said Professor Remus Pricopie (SNSPA Interview) and for this reason, it is important to continue to invest in the education of Romanian pupils. They must continue to learn in normal conditions, despite the fact that courses are now developed in the online system and both Government and schools must sustain children with IT equipment for better online conditions of study.

The phenomenon of school drop-out among school pupils is a reality that we are facing today's Romania and is constantly increasing. Statistics by sociologists in recent years show that this phenomenon has increased and the number of early school leavers has increased significantly. One of the most vulnerable social groups is the rural population, where the school drop-out rate is higher than the urban population. Early school leaving is also an important indicator of the performance of the education system and its gaps in educational attainment levels.

Viewed from another analysis point of view, this indicator also highlights some aspects of social and economic life, which can influence people's access to education. In recent years, the issue of early school leaving has become a common topic of analysis and debate. On the one hand, educational policy documents propose concrete strategies to improve the phenomenon, in line with European strategic targets. On the other hand, education practitioners (managers, teachers, parents alike) or the media often raise questions about early school

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leavers or assess the overall efficiency of the Romanian education system from this perspective (UNICEF, 2012).

1.1. Objectives

The general objective of the research is to identify the causes of school drop-out among the existing rural schools, and we will use a model of bad integration of pupils in Vrata commune, Mehedinti county, Romania. Here we found disadvantaged people, with poor conditions of leaving and poor access to the educational system. This general objective may be complemented by the following specific objectives: the understanding of the phenomenon of early school leaving among the school drop-out from the countryside and its area; the causes of school drop-out among school pupils; the drivers of early school leaving; ways of preventing and reducing the phenomenon; the consequences of the school drop-out and the prospects for this phenomenon.

Starting queries/assumptions:

As research is intended to be qualitative, hypotheses related to the issue under consideration can be integrated. The aim is to make sure that, on the basis of interviews with respondents, the scale of the phenomenon of early school leaving in rural areas is taken into account and that it is understood, to identify the causes of early school leaving and to identify the factors that favor it. The mentioned measures include identifying the consequences of the school drop-out and identifying ways of preventing and reducing the phenomenon.

Hypothesis 1 - the most common cause of early school leaving it is the lack of family material resources and poverty;

Hypothesis 2 - early school leaving occurs most often in the case of students in rural areas;

Hypothesis 3 - early school leaving hinders the professional development of the individual making it unable to adapt to the demands of the labor market.

Research methods

As the research method used for this research, a qualitative perspective of research will be used, applying an interview guide to respondents. The interview will be semi-structured, starting from 8 pre-defined questions, with the possibility of asking the respondent and additional questions to get more into the research.

Questions in the interview applied:

1. *What do you mean by dropping out of school?*
2. *How do you judge the frequency of school drop-out?*
3. *What are the main causes of school drop-out?*
4. *Under what circumstances does early school leaving occur more frequently?*
5. *What are you thinking of the people who exert a certain influence on the school leaver?*
6. *How can we prevent this school phenomenon?*
7. *How does early school leave influence young people's social and professional development?*
8. *How do you see the evolution of this phenomenon?*

The sampling used in this research work is homogeneous because similar cases have been used, on the basis of which a normal and similar variation is illustrated on a case-by-case basis. The sampling unit refers to the selected cases in Vrata, Mehedinti county and is one of an individual nature, carried out at the level of the person.

Difficulties encountered

Difficulties encountered during the qualitative stage of research on early school leaving and early school leaving in rural areas have largely emerged at the data collection stage. Some of the local authorities refused to cooperate and therefore I managed to interview only two people in the school, about the situation of the school drop-out in the town under consideration. The teachers asked to send the material by e-mail, which is why the completion of the sheet was in places where it could not be carried out or supervised.

Another difficulty we encountered during the course of research was that of people's reluctance to respond to interviews, some of those with whom we discussed, did not want to attend the interview. I also faced the refusal to have recorded the interview, but also the transcript of the interview, while the respondent was telling about the phenomenon I interviewed. The difficulty involved the remembrance and transcription of the answers based on the notes I managed to draft on the draft. Many of those interviewed refused to record interviews because they

were afraid of their processing and the purpose of the research they carried out, although I explained to them from the very beginning that the answers would remain anonymous and would not be used for purposes other than those presented.

Last but not least, a difficulty in interviewing a real school drop-out case was the fact that the subject concerned refused to give an interview about the problems he faces and the reasons why he chose to leave school.

2. Interpretation of interviews : Secondary data analysis.

2.1. Definition of early school leaving

The phenomenon of early school leaving is one of the top topics on the educational policy agenda in Romania and in the European Union. Confirmed as a serious social problem among the underdeveloped and developing countries, early school leaving in Romania has grown in recent years, especially in rural areas. Over the last 10 years, the school drop-out rate in Romania has fluctuated: in 2004 it stood at 22,9%, then fell to 15,9% in 2008 and then increased to 16,6% in 2009. In 2009, out of a total of 27 EU Member States, Romania ranked 6th among the highest school drop-out countries (16,6%), with two positions ahead of Bulgaria (14,7%), but well behind Malta, Portugal and Spain. Countries with a drop-out rate of more than 30% (Commission Staff working Paper, reducing early school leaving, accompanying document to the proposal for a Council Recommendation on policies to reduce early school leaving, p.71). At European level, trying to define the phenomenon of early school leaving is more difficult due to the numerous and different definitions used. This phenomenon is subject to different concepts, so it is quite difficult to compare the data collected by various institutions, since they do not use the same indicators. Thus, the school drop-out rate for the same country may differ depending on the international body that monitored the phenomenon. In addition, questions may arise such as: how long must you have missed a student at school to consider that she has abandoned school – a few weeks, a few months? Should it or not include those who choose to enter the labor market, those who resubscribe to courses as adults, or those who do not have cognitive capacity to obtain a high school degree? As migration is on the rise, particularly in the European context of the free movement of people, are those who go to another country and continue their education there registered in national systems as people who have abandoned school? (http://ec.europa.eu/education/school-education/doc/earlywp_en.pdf, visit 9 Jan 2018, Page 7). These are only a part of the questions that have not yet been found to have a unified answer. Moreover, what happens to those who, although no longer learning, no longer accumulate any information, are forced to stay in school - the reticent? Being physically present does not automatically mean knowledge or skills acquisition (Annexes to the draft Policy Paper on early Education Learning, Netherlands, Rotterdam, page 22). The question of those with low educational attainment who, in some education systems, are forced to choose another educational institution that offers them a qualification that does not necessarily reflect their talent is also raised at the level of refining the concept of early school leaving (How many times has it not happened in Romania that "problem" students have been made to move to a lower school or to a vocational school?) (Annex to the draft Policy Paper on early Education Learning, Netherlands, Rotterdam, page 33).

The Eurostat definition of early school leaving refers to an early school leaver aged 18 to 24 who has not received an upper secondary qualification and who does not receive any other form of education or training. The definition was accepted by all Education Ministers of the Member States of the European Union at the Council in 2003 (EU 15, when the European Union had not yet seen its first enlargement wave) (early school leaving in Europe guide, p. 17).

The OECD definition of early school leaving also refers to early school leavers who are between 20 and 24 years of age without a lower secondary education qualification. and that is not part of any education scheme. European Commission definition: children leaving school early are those who have not completed their second education (Council recommendation on policies to reduce early school leaving, p. 28), Commission staff working paper, reducing early school leaving, accompanying document to the proposal for a Council Recommendation on policies to reduce early school leaving, p. 59).

2.2. Causes of school drop-out in rural areas, in literature

In the experts' view, early school leaving is a multi-rooted process. (Hunt, 2008, pp. 20-22). To really understand the causes and trends of the phenomenon, an interdisciplinary approach is needed, both theoretical and empirical. The youth Forum Jeunesse (Annexes to the draft Policy Paper on early Education Learning, Netherlands, Rotterdam, page 514) lists four comprehensive factors leading to early school leaving.

The individual characteristics - Demographic characteristics (sex, ethnicity) play an important role: Men and ethnic minorities show high predisposition when leaving school. Then, the results of the Pisa 2003 suggest that those with low cognitive abilities (e.g. those repeating classes) tend to have low results and are more likely to

abandon due to low motivation. Another factor is participation and identification – participation in hours leads to identification; those who have a low level of self-identification with school start to stop enjoying them at school and finish by leaving it.

Family characteristics - Studies show that children from families with low educational attainment or low socio-economic status are much more likely to leave school early. Thus, the human capital of the family of origin matters very much. Similarly, the social capital of the family has a great influence: children who come from single parents or who do not have a very good relationship of communication with parents are more at risk of school drop-out.

The characteristics of the school - This is the only place to intervene directly at government level; it is much less likely that pupils in homogeneous schools (also ethnically) will leave school – they receive the same education and thus feel „similar", with little social distance between them.

The characteristics of the company - Whenever there was economic growth and a shortage of labor, the school drop-out rate has increased. This was the case when - they had a great deal of employment opportunities for unskilled labor.

2.3. Analysis of good practices for preventing rural school drop-out in Romania

Considering that until the change of the communist regime there was not much public talk about the issue of early school leavers, early school leaving was reported as a social problem in Romania in the '90 years in the press and in the academic world. The development of the phenomenon has increased significantly since 2000, which has also led to intervention to prevent and combat the problem and to help people at risk and to drop out of school. In the period 1990 -1995, the national solution found for this problem was to guarantee the state allowance only for children attending compulsory education.

As the problem worsens, involvement in combating and preventing the phenomenon has also increased. In this context, intervention has taken place at all levels of action, both bottom-up and top-down, from educational establishments and local authorities. The intervention was also carried out at national level through the Ministry of Education, but also at European level through strategies to reduce early school leaving. At school level, good practices have been implemented to prevent and reduce early school leaving, which consisted of educational activities to increase the attractiveness of the school and increase the educational involvement of pupils. Empirical studies in Romania (Voicu, 2010:25-29) and literature reveal some good practices to prevent the phenomenon in areas with high school drop-out rates. These include: partnerships between school, family, community, based on collaboration, involvement, support; teams made up of community members involved in the school reintegration of children; extracurricular activities (excursions, performances, museum visits, thematic contests, etc.); classroom accountability, open relations and support between colleagues; valuing students in difficulty through extracurricular educational activities to increase their attachment to the school; informing and advising parents on children's needs; raising awareness of the benefits of appropriate education, implementation of second chance education programs for those who abandoned school and school advisory activities, advising pupils and parents to access and funds legal allowances.

The practices listed above are broadly applicable and can be adaptable both in rural areas with a high incidence of early school leaving and in urban areas. The vast majority of these good practices call for the involvement of the community, local authorities, but most of all for the involvement of teachers and parents. The last two are key actors in implementing good practices, as they are in constant contact with pupils and can draw the attention of competent bodies (authorities or non-governmental organizations) to potential needs for intervention.

On the other hand, the measures to prevent and reduce the school drop-out in the rural areas in Romania are not only a matter of authorities and key players at the level of each community, but also of trans-national, European actors. With its integration into the European Union, Romania was given the opportunity to intervene in preventing and stopping large-scale school drop-out through projects co-financed by the European Social Fund and carried out by the sectoral Operational Program Human Resources Development.

3. The qualitative research analysis

3.1. Causes of early school leaving and early school leaving according to results research

The responses from those interviewed also showed the trend of increasing school drop-out rates, which was also highlighted by previous studies and reports from professionals, and that the main causes of school drop-out among children were: precarious financial situation (poverty), the family (especially when we talk about families where parents have not completed any form of education), but also the student's background. It was also noted that in order to reduce the school drop-out rate, there is a need for state involvement through concrete measures,

financial incentives to support the student, but also for more involvement of teachers in motivating the student to attend classes and not to leave school.

An understanding of the phenomenon of early school-leaving and its inclusion, which are the causes of early school-leaving, which are the drivers of early school-leaving, and how to prevent and reduce this phenomenon, what are the consequences of the abandonment on the child and what are the prospects we have on this phenomenon are the objectives to which we aim to find a response from the analysis and interpretation of the results collected from the interviews on the ground.

After analyzing the answers received from the respondents, we can say that the phenomenon is aware of and all respondents know the meaning of the term. Most respondents defined early school leaving as "[…] *leaving all levels of education before completing primary, secondary or secondary school or obtaining a qualification*" (quoted from the collected responses). The development of this claim was more or less explained by the respondents, depending on their age, their degree of training or the information luggage available to each of them. It was found that pupils' responses were simpler, while teachers tried to provide a broader definition.

The next question of the interview referred to how the respondent assessed the frequency of early school leaving. The general trend of respondents was to say that the phenomenon of early school-leaving is on the rise and some of them have even seen its increase over the last few years Another general trend for respondents was to point out that school drop-out is mostly found in rural areas, but also that *"The state does not have specific measures and will not be able to monitor this phenomenon"*, also due to other problems with the this phenomenon has an impact on rural areas and on the rate of growth, as well as on the lack of methods for combating early school leaving, as seen from the point of view of their effectiveness.

From the answers that respondents gave us to the question *"What are the main causes behind school leaving?"*, we can say that all those interviewed have identified as the main actors causing school drop-out, family influence and lack of material resources. The best practice model of the family on the teenager has been found to have a significant impact on the decisions it takes in its personal and professional course. The low level of parent education also sets a precedent for the child, and their lack of involvement in school life and non-participation in meetings with parents can cause parents to lack understanding of the importance of education for him or her. The family can influence the behavior of the child when one of the parents or, in most cases, both parents are gone abroad because in these cases, in most cases, the child remains unattended or supervised by persons who do not have parental authority and in this case the child's self-regulation in decision-making is close to 100% (which is not very encouraging).

The second factor mentioned above in the analysis and interpretation of interviews is the lack of material resources of the. This factor is manifested in two forms: Either the child cannot attend school because of lack of requisites, clothes, means of transport, or because he has already become a source of income for the family.

The issue of abandonment among Romani people, *"increased unemployment among parents, quality of primary, secondary and secondary education, lack of schools and teachers in disadvantaged communities"* was raised in the marginal discussion (passage extracted from the interview).

The question "under what conditions does early school leaving occur more frequently?" he emphasized that the phenomenon of abandonment occurs most frequently among the rural population and the lack of financial and moral support from parents. The idea was highlighted by all respondents to the interview and 1-2 respondents underlined that this phenomenon is triggered mainly by the Romani population where the trend is to abandon education, to the detriment of early family life, marriages from an early age, etc.

In the question *"Who in your opinion are those who exercise a certain influence on the school leaver"* all respondents stressed that the main people who exert a significant influence on them are: the family (especially parents), friends or family of teachers and the education system itself, and to a lesser extent.

On the question *"How can we prevent this school phenomenon?"*, respondents consider that the most important tool is young people's training programs during class hours, but also of after-school programs through which they could be helped and assisted by specialized persons. Another significant part of respondents stressed the importance of providing financial incentives to encourage pupils and motivate them to fine-tune at school.

One of the interviewed respondents underlined that *"The teacher must explain to them how important education is; teaching classes in a most pleasant way, in a way that makes the student want to come next time and not abandon the school; try to treat everyone equally and make them all feel important at school"*. From this we can infer that the teacher has a significant influence and impact on the student. For the student, the teaching staff is a model of moral conduct that he tries to imitate and multiply. At the same time, the student observes and punishes through his own filter the small mistakes a teacher can make with or without intention. One of the examples is the tendency not to treat all students equally by the teaching staff or simply the fact that the good student is

praised and the one who does not perform very well is put in the corner and given as a negative example to the class. This behavior can have serious repercussions on the pupil, not taking care of him or even causing him marginally to leave school because he thinks he is unable to keep up with the class standard. In this case, I believe that the teacher or the homeroom teacher should talk to him and see what the problem of his motivation is, what is his social and cultural background, and what alternatives the school can offer to him so that he does not get out of it. The role of teachers is also to try to explain in particular to students from disadvantaged backgrounds or those whose parents do not have education, why it is important and how it will help them later in their daily lives.

To the question *"How the young person's social and professional development influences the early school leaving"* the answers were varied and several aspects were taken into account in relation to the negative social, professional and even emotional effects of the young person's harmonious development. One of the interviewed teachers claimed that the school drop-out *"simply stopped the development of the school drop-out suddenly. From a social point of view, it will gradually close in it, lose its own trust in its capabilities, not adapting to new groups and living in its world, making it difficult for them to think openly and adapt to change. In terms of employment, it will always be very limited, and it will be very difficult to find a job (perhaps in agriculture, in the field of work), and will never be able to take a career. In terms of employment, it will always be very limited, and it will be very difficult to find a job (perhaps in agriculture, in the field of work), and will never be able to take a career." In terms of employment, it will always be very limited, and it will be very difficult to find a job (perhaps in agriculture, in the field of work), and will never be able to take a career".*

The answers to the question *"How do you see the evolution of this phenomenon?"* we can link them to the question of how we judge the frequency of school drop-out, and the particularities and similarities of this question can be linked to those of the previous question. Most respondents consider that this phenomenon is growing and that the state is currently unable to stop or at least discourage it. Only one respondent is optimistic or at least hopes that *"the school drop-out rate will decrease in the next few years or at least stagnate, as we have seen that the importance of this phenomenon has started to be signaled and a number of projects have been implemented to combat it".*

4. Conclusion

This qualitative research confirms the problems of research: The most common cause of early school leaving is lack of family material resources and poverty (confirmed problem), school drop-out occurs most frequently for students in rural areas (confirmed problem) early school leaving also hinders the professional development of the individual, making him/her unable to adapt to the needs of the labor market (confirmed problem).

The responses from those interviewed also showed the trend of increasing school drop-out rates, which was also highlighted by previous studies and reports from professionals, and that the main causes of school drop-out among children were: precarious financial situation (poverty), the family (especially when we talk about families where parents have not completed any form of education), but also the student's background. It was also noted that in order to reduce the school drop-out rate, there is a need for state involvement through concrete measures, financial incentives to support the student, but also for more involvement of teachers in motivating the student to attend classes and not to leave school.

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Economic Analysis of Fish Traders Access to Formal Finance in Cameroon

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Abstract

One of the major constraints to fish trading is limited access to formal credit. The main goal of this research was to carry out an economic analysis of fish traders' access to formal finance in Cameroon. This research makes use of primary data on total weekly income of traders, availability of surety, interest rate charged, loan payback period, experience, market information, and fish traders' access to formal credit collected with the use of a questionnaire. The Logit model was used for analysis and the logistic regression done using STATA. Descriptive statistics and econometric estimation revealed that, educational level, total weekly income of traders, availability of surety, interest rate charged, loan payback period and experience are significant determinants of fish traders' access to formal finance. This study therefore, recommends that government should intervene through the use of its specialized tools in creating agricultural banks with low interest rate and adequate loan payback period so as to improve financing of agricultural activities.

1. Introduction

Finance relates to monetary products and services used as transaction enablers for the development of business firms or living conditions. These products are cash, loans/credit and stocks/bonds. Formal finance deals with commercial banks, micro financial institutions, development banks, central banks and stock markets exchange. It is through the formal finance that the government employs direct monetary control on the money using the instruments that include bank credit, government papers, government debt/bonds and commercial papers. In Cameroon, commercial banks are the most important formal finance institutions. There exist also micro financial institutions which are dominant within the financial market. The decision to grant a loan application by bankers depends on factors such as security (customer's worthiness and loan's security), life insurance, and liquidity of the asset being presented as collateral. Bankers prefer collateral to be an asset which is easier to convert into cash within a short period of time. Most banks usually grant short term loans lasting less than two years. However, long term loans (five years) can also be granted on special terms purpose of the loan. Loans on risky ventures are hardly granted or when granted they carry a high rate of interest.

For Small and Medium Enterprises (SMEs), there are two external financing that are mostly important for financing the businesses. The first is the equity financing which is provided in the form of venture capital to new small businesses (Shkodra and Shkodra, 2018). However, due to lack of equity financing, the small businesses

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go after debt financing that is mostly provided by the banks and non-banking institutions. Access to debt financing is very limited especially for SMEs due to the requirements for the provision of debt. Formal sources of finance are organizations which are owned, controlled, licensed and registered or regulated by the government. These include the commercial banks, state owed banks, agricultural development banks and rural banks. Examples of formal sources of finance in Cameroon include; BICEC, SGBC, CIC, ECOBANK, UBA, Atlantic Bank amongst others. Most of the commercial banks are active in urban centres financing trade business while the agricultural development banks are usually situated in rural communities serving mostly farmers. They provide transfer, savings, and lending services. Chowdhury (1993), opined that the number of loans from the formal financial institutions in the developing countries obtained by rural borrowers is low. The reason for that is complicated and lengthy loan procedures that often overwhelm the poor and uneducated farmers. Also, obtaining loan from formal sources overburdens the rural borrowers in terms of slow release of the funds and higher transaction costs, which lead them to borrow from informal sources instead. Moreover, some restrictive features of loans also affect them. One is the credit scope which is limited to only a specific commodity, and another is the security required by the borrowers to support their credit (collateral securities). In some cases, many remote rural areas lack banking and other institutional facilities and credit services. The direct competition in the banking industry may impact growth of new firms and younger firms. If there is low competition, this will undermine the overall stability of the banking industry. In addition, the products and services might be expensive and there will be less growth of new firms (Anzoategui et al., 2010).

Agricultural finance is the principal sources of rural credit. Moreover, Micro Finance Institutions (MFI), whose number is increasing constantly, play an important role in savings and short term credit. There are also networks, saving societies and non-affiliated credit schemes, thrift and credit groups as well as organisations under the framework conventions (Aschauer, 1989; African Development Bank, 2009, Gelb et al., 2015). Their financial services depend on the institutions of commercial banks, investment, mutual or cooperative credit banks, revolving savings and credit association, NGO, input suppliers, agricultural processors and dealers, retail and trade, friends and neighbours, pawnbrokers, among others. The World Bank underscored the diversity of the informal financial sector, as well as its importance and operational advantages, while showing that pawnbrokers are only a small proportion of informal credit agents (IMF, 2010; World Bank, 2020). Financial institutions must be sustainable if not would be portend to the rural population only transitory advantages and their difficulties might impede the possible emergence of other rural financial institutions.

In the Cameroon's economy, fish production keeps increasing due to rising urban demand and the growing importance of intra-regional markets with other neighbouring countries such as; Chad, Central Africa Republic, Gabon, Equatorial Guinea, Nigeria and others. Commercial fish production was introduced in Cameroon in 1948 and the country has since then launched several projects in aquaculture to enhance the adoption of fish farming (MINEPIA, 2009, UNCTAD, 2006). Fish products are one of the most important group of vertebrates serving as food for human. They possess great economic, nutritional, medicinal, industrial, aesthetic and religious values. Fish value chain activities provide employment for millions of people. They contribute to food security in many regions of the world, providing a valuable supplement for diversified and nutritious diets. Edible tissues of fish are appreciably greater than that in chicken, pig and sheep/goat. It provides tasty, low calorie meal but is also a good source of high quality protein. Fish is an almost zero carbohydrate food, good for diabetes and other such patients. The protein content in fishes varies from 15-30% on wet weight basis and 60-80% on dry weight basis. Fish is a good source of vitamins A, B and D and also offers a good source of calcium, iodine, fluorine, magnesium and zinc. Fish is rich in poly unsaturated fatty acids containing omega-3. Regular consumption of fish can reduce the risk of various diseases and disorders (FAO, 2010; FAO, 2012). Some findings indicate that fish helps in the treatment of certain diseases such as Asthma, brain and eyes, cancer, cardiovascular disease, depression, diabetes (Adger, 2010; Esemu, 2014; Nguyen et al., 2016) . Recently, the government has started giving priority to the fish sector to set up a legal strategic framework governing fisheries and aquaculture in Cameroon.

In Cameroon, fish farming occupies an area of about 250ha, with an estimated population of 10,000 fish farmers, and a population consumption rate of 247,500 tons/year (FAO, 2019). Artisanal fish production in Cameroon has faced an upward trend from 1950 till date. From 1950 to 2016, the production stood at around 20000 tons/ year to 170,000 tons in 2016 respectively (figure 1). Artisanal fish production in Cameroon has faced an upward trend from 1950 till date. The sector witnessed a drop in production between 2000 and 2005 from about 90,000 but for over a decade now, the production continues to rise.

Fish traders living in rural areas far from financial institutions find difficulties increasing their scale of production since there is a complexity in the administrative service procedures in acquiring formal finance; this will always lead to poor performance in terms of output due to low capital. With all this challenges, fish traders access to formal finance will only be resolved if some of the constraints are identified and better recommendations made. Generally, both the users and providers of financial services face some common

obstacles in getting and providing financial services including high transaction costs. This is due to the underdevelopment of infrastructures, inadequate communication and information technology, and the remoteness of the areas. Higher risks: credit risk is too higher because the incomes of the operating households depend on seasonality that is being susceptible to natural disasters including flood, drought, pest and diseases, and fluctuating weather (Busch and Bain, 2004; Berger, 2011; Esemu, 2014; Fadeyi, 2018).

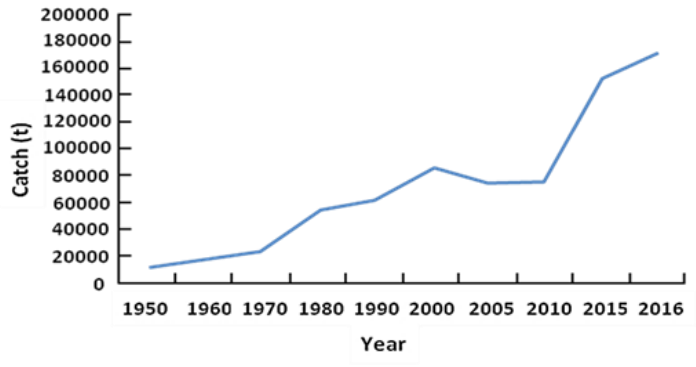

Figure 1. Reconstructed artisanal fishing in Cameroon waters from 1950 – 2016

Source: FAOSTAT, 2020

According to World Bank (2000), the most common factors inhibiting the rural financial markets include: weak institutional capacity of Rural MFIs due to poor governance and operating systems and low skills of management staffs, low business and financial skills of potential customers especially; policy constraints on financial and agricultural markets that limit profitability, inadequate physical and financial infrastructure, dominance of state-owned banks operating on none-commercial principles.

Agricultural credit is one of the important interventions to solve poverty, and plays an important role in agricultural development. Expanding the availability of agricultural credit has been widely used as a policy to accelerate agricultural and rural development (Berger, 1998; Alston et al., 2000; SIDA, 2004; Akinyinka, 2014). Credit continues to appear prominently in developing strategies for the agricultural sector in Cameroon. Credit plays an important role in agricultural development and it is also a key to poverty alleviation, livelihood diversification and increasing the business skills of fish traders. The formal financial system is currently meeting some of the demand for financial services from the agricultural production and fish trading sectors, but access to finance is generally limited to larger operators, both fish farmers and fish traders (Brummett et al., 2008; Blakeney et al., 2011). Sometimes, even for larger customers, there is unmet demand for less traditional financial products, including term loans and price buffering mechanism. Handling large volumes of commodities requires more working capital. Only the largest fish traders currently benefit from bank advances secured by warehouse receipts. There is a scope to improve the efficiency and lower the cost of managing stored products as collateral, this is to enable more fish traders to take advantage of the mechanism and the improved borrowing terms that can result. Efficient trading needs better logistics specially equipment, storage facilities and appropriate transport for larger volumes (Beck and Demirgüç-Kunt, 2008; Berger, 2011; Al Balushi, 2019).

Access to finance has heavily been reported by other farmers. Other scholars around the world have shown that finance is significant to agricultural development. Poor or limited access to finance really affects the economy of the country (Chowdhury, 1993; Beck et al., 2003; Osei-Assibey, 2011; Akinyinka, 2014; Fadeyi, 2018). It is the case of Cameroon where the banking sector is traditional, with low saving schemes and also the perception that agriculture is a very risky venture. Poor access to formal financial institutions is among the major constraints to the development of fish farming in Cameroon, both state-owned and private banks are reluctant to finance fisheries' projects because they are unfamiliar with the sector and are not prepared to carry out proper risk assessment analyses. The sector is considered to be highly risky due, among other things, to the concerns about stock mortality. The banks ask for specific guarantees and most of the fish traders are not able to provide them (FAO, 2007; Brummett et al, 2008; FAO, 2013). One of the major constraints to fish traders in the country is limited access to formal credit. This is due to the complex administrative service procedures that are beyond the knowledge and understanding of the fish traders. So this research examine economic factors limiting the access of fish traders to access to finance.

Fish traders are mostly on very small scale because most of them being illiterates have problem of acquiring assistance from the banking institutions. Illiteracy is one fundamental financial risk because interpretation and filing of forms at banks for loan processing may be done by another person. In consequence, they prefer the

informal financial system which is characterized by easy access, flexibility in loan provision, rapid processing, flexibility in interest rates and collateral requirements (Pouomogne et al., 2010; Simonovska et al., 2012). Due to the nature of operation of women in the informal sector including "buyers and sellers", they also find it very difficult to get close links with banks to acquire financial assistance in order to expand their business (Lamberte and Manlagnit, 2003; Kihimbo, 2012). The general perception includes high interest rates charged on loan by the formal financial institutions, physical collateral required, intimidating form filing, slow disbursement of loans, untimeliness of loans, delays in withdrawing funds, mistrust when banks fail/officials abscond and distance to travel (Osei-Assibey, 2011; Shkodra and Shkodra, 2018; Anonymous; 2020). Although the interest rate offered to borrowers is regulated, transaction costs in terms of the number of trips to be made and the documents to be furnished, plus the illegal charges to be paid, result in increasing the cost of borrowing, thereby making loans less attractive for borrowers.

Fish trading is the marketing and sale of fish products. It can be dedicated to wholesale trade between fishermen and fish merchants, or to sale of seafood to individual consumers, or to both. Retail fish markets, a type of wet market, often sell food as well. Retailers buy fish from wholesaling centres and secondary markets. They sell fish directly to consumers either through fixed stalls or by vending from head/rickshaws. From the start of the distribution channel for fish at the secondary markets to the city or terminal markets, intermediaries operating on different levels perform marketing functions like cleaning, sorting, boxing, icing, re-packing and arranging of transportation (Twerefou et al, 2011; World Bank, 2014). At each market traders may be supplying fish to local consumers. Most of the farms are located in rural areas and transport costs are high. This affects the cost of raw materials, the cost of production and thus the earnings. Farmers produce fish to make money. Domestic markets, particularly around urban and sub-urban zones, may provide the impetus for change, with urbanisation, due to population growth and rural-urban migration growing at some 7-10% per year (Beck et al., 2003; Brummett et al., 2008 World Bank, 2014).

Since fish traders do not always make meaningful profit, they are mostly scared to attempt for assistance from formal financial institutions and then do not attempt to acquire such facilities at all. There is always no record keeping on their sales and if there is one, it is poor because most of them have no fixed addresses and management skills. Another problem faced by fish traders is the perception of policy makers and bankers. Policy makers feel that farmers/fishers and poor people need low interest or subsidized credit (Osei-Assibey, 2011; Languitone, 2016; Osano and Languitone, 2016). And then, the interest rate is regulated. The administrative costs of servicing small loans are high. Apart from that, small loans have been used as a tool for disbursing political patronage, undermining the norm that loans must be repaid and thus making the mainstream institutions feel that such loans are risky. The diagram below (Figure 2) shows the causes and effects relationship of access to finance by fish traders;

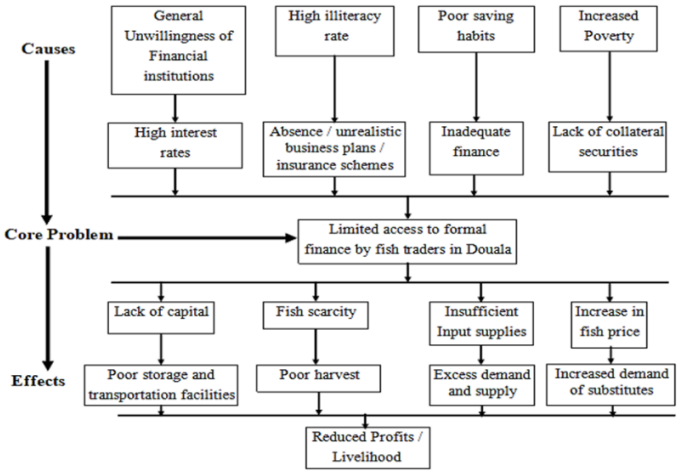

Figure 2. Cause and effect diagram of fish traders' access formal finance

Source: Author's conceptualization, 2019

A customer has to show collateral before loans are approved in banks institutions. Another problem encountered by the fish traders is storage. There is limited storage facilities in markets as they are open sheds and not enough lockable stores, their goods (fish) are sometimes stolen. Also, no or very little security has been out in place to ensure safety of their products (fish). The instability of the inflows of the market of fish traders also contributes to their inability to acquire loans from the formal financial institutions. Mostly, fish traders lack finance to purchase more goods to be productive or even meet their capital requirements. The loan accessibility issues in

formal financial institutions by fish traders requires more assessment. This research seeks to investigate the relationship between the access to formal finance and the profitability of fish traders.

The present research is supported by the Risk Theory, the Asymmetric Information Theory (AIT), and the Pecking Order Theory (POT). Risk theory captures all theories in economics that deal with risk. Understanding risk is a starting point to ensure producers make good management choices in situations where adversity and loss are possibilities. Although measurement of risk is clearly important, quantification does not always tell the whole story, and not all risks are quantifiable (Adger, 2010). The Asymmetric Information Theory (AIT) argued that smaller and younger firms tend to report higher financing obstacles than larger and older firms (Berger, 1998; Becks et al., 2003; Beck and Demirgüç-Kunt, 2008; Berger, 2011; Becks, 2003, 2008). However, imperfect information and high transaction costs are factors driving the limited access to external formal finance by small and medium enterprises (Stieglitz and Weiss, 1981; Stigtizt, 1990). The Pecking Order Theory (POT) developed by Myers (1984) states that enterprises finance their businesses in a hierarchical manner. The theory suggests SMEs prefer to choose internal financing sources (personal funds, retained earnings and profits) with relative lesser costs and they only turn to external finance (debt and equity) when internal funds are exhausted or inadequate. The theory is very much relevant to fish traders financing based on its low capability features and acute lack of external debt and equity in developing countries like Cameroon.

Hence, steady and consistent access to finance for the smallholder farmers is critical for the much required growth needed in the agricultural sector, hence agricultural financing. Many benefits relate to reduction of vulnerability, poverty and increased farm efficiency and sustainability. Recent findings also show that income has positively influenced access to formal credit. Farmers with high farm income have more probability of access to formal and informal credits and have better abilities of repaying loans given to them by financial sources. Furthermore, most of smallholders are borrowing credit from relatives, input suppliers, and fellow farmers. Large famers have more access to credit from institutional sources compared to smallholders. The main reason for this is their possession of more collateral, high income level and social status. A significant difference between women farmers who accessed credit and their counterparts who had no access. The role of finance is important to grow the firms including farmer which is argued by many researchers and experts. Microfinance is the provision of a broad range of financial services such as deposits, loans, payment services, money transfers, and insurance to poor and low- income households and, their micro-enterprises. Poor credit supply is one of the factors responsible for the poor performance of the agricultural sector in Cameroon. Agricultural credit can enhance farmers' managerial efficiency and encourage efficient resource allocation and profitability

In 2012, the import of fish in Cameroon increased by 30%. This was evaluated at 200 million US dollars. And yet Cameroon offers enormous potential for the production of fish. Investors and youth (men and women) have been urged to invest in the sector that generates employment and income (MINEPIA, 2009). To achieve this, a framework for the development of the rural sector has being undertaken by the government in order to boost the production. Cameroon set about reviving aquaculture in order to meet the strong demand as a result of the increasing population and to reduce massive outflows of foreign exchange (FAO, 2012).

Loans are considered as an important instrument for increasing agricultural production and revenue growth, through new technology to get inputs and increase productivity (Shkodra and Shkodra, 2012). Policies such as concession lending practices, interest rate coverage, and credit crunch programs could create barriers to private sector lending, creating problems for the government to provide agricultural loans (World Bank, 2020). Osano, and Languitone (2016) conclude that private lending promotes local economic development by increasing entrepreneurial possibilities for farmers and increase their non-agricultural income. Osei-Assibey (2011) indicates that rural households reduce their precautionary savings if they have access to the informal credit market. However, Fadeyi (2018) argues that microfinance formal or informal loans increase farmers' income by increasing their off-farm working time. Many factors have been considered for the purpose of explaining the scarcity of bank financing by SMEs. Anzoategui et al., (2010) have suggested that competition in financial sector is more crucial. The lack of it can actually raise the price of financial products and influence directly the growth of small firms and the younger firms in the world. They have also added that the low level of competition in the financial sector can probably affect the stability of the banking industry. Esemu (2014) argued that agricultural finance can be profitable even in a country like Uganda as banks in other countries have demonstrated. But the agricultural sector demands a specialized, innovative approach and that loan terms must be matched to the agricultural cash cycle, food example, and mechanisms must be built in to guard against the risk of unforeseen changes in prices. Examples of such development include: the use of non-traditional forms of security, agricultural equipment leasing, developing the agricultural insurance market, developing hedging mechanisms and exploring the use of international lines of credit and risk mitigation.

Financial challenges facing by fish traders are lack of adequate finance access to credit, high interest rates and new laws and regulation. These factors are interconnected and intertwined in terms of policy direction and overall effectiveness in addressing fish trader financial challenges. The literature clearly documented fish traders financing constraints from the formal financial sector in developing countries due mainly to weak financial and institutional development, collateral issues and inability of economies to address supply-side constraints. These financial challenges affect fish trader performance, they have lots of impacts on business growth, profitability and financial innovation. All these issues demand the development of a clear policy framework in order to mitigate the financial challenges and release the fish traders from current quagmire they are facing. This will improve the overall performance of fish traders, create employment opportunity, innovative products and enhance the overall economic growth. It was also clearly observed that better financial institutions in terms of structure and policy, favourable regulations improve the performance of fish traders in terms of growth. The literature confirms that institutional and financial developments matter in enhancing enterprise access to formal external financial debt; in this regard, building institutional capacities, it the strategic role of the government (Beck and Demirgüç-Kunt, 2008). Increasing research and financial innovation due to the availability of credit facilities from lenders has a positive effect on product innovation and this enhances sales and profitability. Information technology is very critical for information dissemination and for provision of competitive edge. If all these issues are consolidated and addressed through policy framework and infrastructure, the performance of fish traders will improve and this has a positive impact on the economic performance. Consequently, the study contributes to literature by examining the impact of access to formal finance by fish traders in Cameroon. This is basically a descriptive study that focuses specifically on the experiences of the beneficiaries of finance. Further, understanding the factors that drive stakeholders' perceptions may yield information that can be strategically used to improve these attitudes.

2. Research Methodology

This study was carried out in the coastal city of Douala, Littoral Region, of the Republic of Cameroon from March to June 2019. It is the economic capital of Cameroon and is the principal seaway into the country. The city is located at latitude 4° 0'0'N and longitude 40° 0'0'E. It is the outlet of the river Wouri. The climate is the equatorial type, hot and humid with a dry season from December to May and a rainy season from June to November. The coastal zone is characterized by production and transformation of fish.

Finance is a significant element for determining the growth and survival of fish traders. Without finance, fish traders will probably not be able to compete both in national and international markets, to expand the businesses and strike linkages of business with the large firms. Furthermore, access to finance is the most severe hurdle to expansion of businesses. This can be viewed on the figure 3 below:

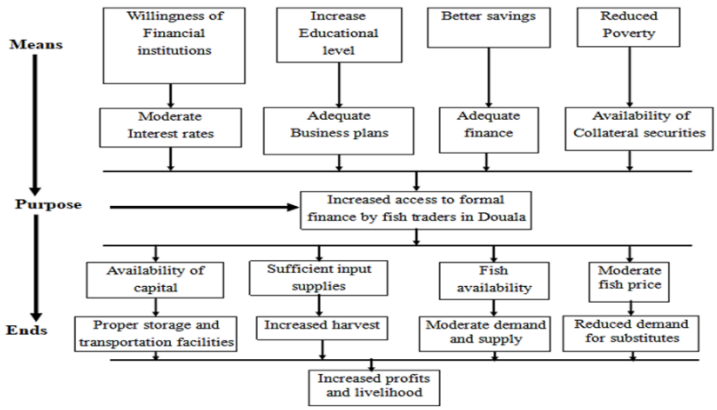

Figure 3. Means and ends diagram of fish traders' access formal finance

Source: Author's conceptualization, 2019

The indicators of access to finance include the amount of financing provided to the fish traders as total funding, increase in the number of fish traders accessing bank loans, and percentage of financing as a total of fish traders' funding. Improvements in access to formal finance affecting fish traders will lead to the improvement of availability of capital, improvement in sufficient input supplies, increased fish availability and moderate fish price.

The primary data was collected from fish traders using structured questionnaires. Beside this, informal survey was also employed to gather information from different market participants in the fish marketing chain. The purposive sampling technique was used for the selection of respondents. The study had two parts: the market and the household surveys. The market survey was employed in three markets, Youpwe market in Douala II subdivision, Bonassama and Mambanda in Douala IV subdivision. The selection of local sample markets was based on the number and availability of local fish markets in the Municipality. The marketing information was collected using purposefully selected market participants (Fish traders) in fish markets based on the number and category of traders, mobility of the traders among the sample markets and also informal discussions with key informants in the marketing system. Informal discussions were held with respondents selected from fishermen, traders, and consumers groups in the fish marketing system. Moreover, Rapid Market Appraisal (RMA) technique was employed using checklists from market participants in all stage to obtain additional supporting information for the study.

Data generated was analysed using descriptive statistics and logit model. The logit model was used to examine the determinants of access to credit by fish traders in the study area. It is specified thus as equation (1) below:

$Y = Ln\ (P_i/1\text{-}P_i) = \beta_0 + \beta_1 X_i + e_i$ ……...…… (1)

Where Y is the dichotomous dependent variable which takes the value of 1 if the fish trader has full access to finance that is $[P_i\ (Y=1)]$ and 0 for otherwise that is, $[P_i\ (Y=0)]$;

β_0 = the intercept;

β_i = the regression coefficients to be estimated;

e_i = the error term;

Xi = the independent variables (i = 1, 2, 3… n).

The explicit form of the model is given as equation (2):

$Y= Ln\ (Pi/1\text{-}Pi) = \beta_0+ \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + \beta_6X_6 + \beta_7X_7 + \beta_8X_8 + \beta_9X_9 + \beta_{10}X_{10} + \beta_{11}X_{11} + \beta_{12}X_{12} + \beta_{13}X_{13} + e$ …..... (2)

Where,

X_1 = Gender of fish trader, dummy variables 1 if male and 0 if otherwise

X_2 = Age in years

X_3 = Household size, in numbers

X_4 = Marital status, dummy variables that is, if married = 1 and 0 if otherwise

X_5 = Educational level, total number of years spent in school

X_6 = Total weekly income of traders in FCFA

X_7 = Availability of Collateral, dummy variables that is, 1 if yes and 0 if no,

X_8 = Interest rate charged in percentage

X_9 = Loan Payback period, dummy variables that is, 1 if long-term and 0 if short-term

X_{10} = Cost level of fishing, dummy variables that is, 1 if large size business and 0 if small size business

X_{11} = experience, in years of fishing and trading

X_{12} = market information, dummy variable and assigned with 1 for those households who have easy access marketing information and 0, otherwise

X_{13} =access to extension services, dummy variables that is 1 if yes and 0 if no

3. Findings and discussions

Analyses revealed that, 68.6% are full time fish traders and 31.4% are part time traders out of the 70 fish traders interviewed in fish markets in Douala. The age range examination shows that most of the fish traders fall in the range of 20-30 years (38.6) followed by 25.7% within the range of 41-50 years and 25.7% in the range 31-40 yearsThe survey reveals that 20.0% of fish traders are single, about 60.0% are married while 5.0 % are divorced, and about 15.0 % of the farmers are widows (ers). 57.1% of the fish traders are males while 42.9% are females, showing that there are more males involved in fish than females. It shows that 56.7% of the fish traders don't

have other income generating activities while 43.3% have. This research work reveals that 31.7% of the fish traders' household composes of 1-3 persons, 55.4 % are 4-6 persons, 10.0% are 7 – 9 persons, and 2.9% are 10 and above persons. The level of education This reveals that 17.1% of the farmers have no formal education, 41.4% are primary school leavers, 22.9% are secondary school leavers and 18.6% are University/higher education leavers.This reseach also reveals that 31.4% of the fish traders belong to cooperatives and 68.6% do not. About 31.7% of the household heads said their main source of proteins is fish, while 35% said chicken, meanwhile 20% choose chicken and the least 13.3% responded mushroom. Only 31.4% of fish traders have access to extension service while 68.6% of them do not. About 35% of the fish traders have access to formal agricultural finance while 65% do not and only 32.9% of the traders are in possession of collateral securities.

In estimating fish traders' access to finance in Douala, the logistic regression technique was employed. The results obtained are presented in table 1, below. Results show that the estimated coefficient for the intercept is the magnitude of the fish traders' access to formal finance given that the predictor variables are held constant.

The coefficient is -6.476319, this means fish traders' access to formal finance when gender, age, household size, marital status, educational level, total weekly income of traders, availability of surety, interest rate charged, loan payback period, experience, market information, and access to extension services are held constant, the coefficient is decreasing. The gender coefficient is 1.186856; it depicts a positive relationship with fish traders' access to formal finance. Male fish traders are more likely to have access to formal finance than female fish traders. More specifically, male fish traders have 18.7% more access to formal finance than female traders. This can be attributed to the fact that, male fish traders may possess more assets.

Table 1: Factors affecting fish traders' access to formal finance

Variables	**Coefficients**	**(P-Values)**
Educational level	1.507792	0.048
Weekly income	1.805100	0.039
Availability of surety	2.580166	0.050
Interest rate charged	- 8.562318	0.019
Loan payback period	-3.684782	0.010
Experience	0.3881638	0.036

Source: Analysis by author, 2019

Age coefficient is positive; for an increase in age of fish trader by 1%, the likelihood of access to formal finance may increase by 19.5%. This is because, age is a major determinant of fish traders' access to formal finance. Age goes with experience and sense of responsibility. Financial institutions will be more willing to give loans to those older than youths who can easily flee. Formal financial sources have track records of loan delinquencies especially by youths. There is a positive relationship between household size and access to formal finance. In specific terms, 1% increase in household size will lead to 51.4% more chances of accessing formal finance. This is evident especially due to the fact that larger households, provide more labour force in the fishing activity and this gives more assurance/ guarantee to the financial institutions. There is a direct relationship between marital status and fish traders' access to formal finance, implying married fish traders will have the higher likelihood of accessing formal finance than unmarried, divorced, widows(er). Increase in number of married fish traders, will increase access to formal finance by 46.6%. The coefficient for educational level depicts a positive relationship with access to formal finance. This in in accordance with economic and finance theory. The more educated the household head is, the more likely is he to have access to formal finance. An increase in the years of formal schooling, the more educated will the fish trader be and hence be aware of the different lending sources as well as the requirements. This will enable the fish traders to be able to draw up comprehensive and feasible business plans which will increase possibility of obtaining loans from formal financial sources.

Fish traders with higher total weekly income will have more access to formal finance. An increase in total weekly income by 1 franc is expected to increase fish traders' access to formal finance by 80.5%. This ties with the economic and finance theory and it can be attributed to the fact that fish traders with higher total weekly income will proof of profitability of the business and hence loan repayment capacity. Financial institutions will be willing to grant them loans because they see the fish trader's business as feasible and profitable. The surety coefficient shows a positive relationship with access to formal finance. For fish traders who have available sureties are 2.580166 times more likely to have more access to formal finance than without surety. The interest rate coefficient is negative. A unit increase in interest rates by 1% will lead to 56.2% decrease in fish traders' willingness to access formal finance even though formal financial institutions will be willing to give loans at

higher interest rate. On the other hand, fish traders will not be willing to go for the loans because of the negative implications on their total earnings and hence profitability. Interest rate is a key determinant of fish traders' access to formal finance. An increase in the loan repayment period of one year will lead to 68.5% decrease in access to finance by fish traders. Loan repayment period is also a key determinant of fish traders' access to formal finance. This is because it is expected that, the longer the loan repayment period, the more willing will fish traders go for loans. Long term loans give the fish trader the space/ time to recover and make more profits and repay.

The coefficient for experience is positive, therefore, an increase in years of experience of the fish trader by 1 year, the likelihood of access to formal finance might increase by 38.8%. Years of experience in the fishing activity is a major determinant of fish traders' access to formal finance. Experience goes with sense of responsibility and ability to understand how the fish trading business environment functions. Financial institutions will be more willing to give loans to fish traders with more experiences. The coefficient for access to market information is positive and indicates a direct relationship with fish traders' access to formal finance. Market information such as demand, price signals are key indicators and if the prices are expected to be high, it may trigger the fish trader to go for more loans to meet up with the high demand. But if the demand or prices are expected to be low, the trader will not be willing to go for loan. The coefficient for access to extension service indicates a positive relationship with fish traders' access to formal finance. An increase in the fish traders' access to extension agents will increase his access to formal finance by 88.3%. Extension service beefs up the fish traders' capacities, helps them through trainings on value chains, increase fishing techniques, as well as providing them with market information such as price signals demand, which are key indicators and if the prices are expected to be high, the fish trader will be willing to go for more loans to meet up with the high demand. But if the demand or prices are expected to be low, the trader will not. The significance level was obtained using the 95% confidence interval and at 5% level of significance. Results show that educational level, weekly income of fish trader, availability of surety, interest rate and experience are significant determinants of access to formal finance by fish traders in Cameroon.

Developments of policies to increase easy fish traders' access to formal finance will have a positive multiplier effect on our economy. This is fish traders are key players in the agricultural value chain because they are the bridge between the producers and consumers, and production is incomplete until it reaches the hands of the final consumer (UNCTAD, 2008; World Bank, 2020). Given the importance of finance in facilitating agricultural activities in Cameroon which is the economic capital of Cameroon, it is therefore important for there to be easy access to finance, effective value chains, price stabilization, so as to ease fish trade. The creation of financial cooperatives will aid enabling fish traders to adequately carry on with their daily activities.

4. Conclusion

The main goal of this research was to carry out an economic analysis of fish traders' access to formal finance in Cameroon. The econometric estimation reveals that, educational level, total weekly income of traders, availability of surety, interest rate charged, loan payback period, experience are significant determinants of fish traders' access to formal finance. Furthermore, the results show that 78.5% of the variation of fish traders' access to formal finance is determined by the predictor variables analysed. This study therefore recommends that government should intervene through the use of its specialized tools in creating agricultural banks with low interest rate and loan payback period so as to aid in financing agricultural activities. Fish trader should be encouraged to join farmer financial cooperatives thereby pulling their limited resources so as to reap economic benefits such as; thrift and loans, and also to establish rural savings and financial cooperatives that can help mobilize savings which can be used to create finance for those who want to borrow short term loans. Specialized farmer schools should be created to provide training and extension services in the fisheries sector so as to create effective value chains. The government should set floor and ceiling prices so as to stabilize fish prices and hence a positive multiplier effect on the fish traders. This study was limited to the economic analysis of fish traders' access to formal finance in Cameroon, further studies can focus on fish traders' access to informal finance, other agro-ecological zones. Not all the variables that affect fish traders' access to formal finance were analysed in this study, it thus proposes other research works be carried out with analysis of other predictor variables such as; collateral securities, cooperative membership, as well as technology.

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Causes and consequences of higher COVID-19 cases in India

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Abstract

As of February 5, 2021, India ranks second in terms of total Coronavirus disease (COVID-19) with more than 10 million positive cases in the world. This has a huge negative impact on the poorer almost 30% of its population severely. In this backdrop, the present study tries to understand why the spread of COVID-19 cases is higher compared to other countries and its consequences on the economy. The study suggests that state-level higher total urban population has a positive impact on the total confirmed (or total active or total deaths) COVID-19 cases. However, the relationship between the state-level percentage of urban population and urban population densities with total COVID-19 cases are not robust. The relationship between state-level urban population and the total number of returned migrants is positive but the relationship between the state-level percentage of urban population and the total number of returned migrants to that state is negative. This indicates that states with the percentage of the higher urban population received a lower number of reverse migrations from urban to rural. Festivals such as Onam and the Vande Bharat Mission are also responsible for spreading COVID-19 cases in India. Furthermore, the lack of remote work opportunities is also supportive for the same. The consequences of higher COVID-19 cases are enormous that includes the significant number of job losses, an increase of higher poverty, and reduction of a higher amount of GDP. Therefore, for a quick recovery of the Indian economy, we need to promote higher state-level urbanization with higher opportunities for formal jobs and remote work opportunities.

1. Introduction

According to the World Health Organization (WHO), Coronavirus disease (COVID-19) is an infectious disease caused by a newly discovered coronavirus. The first known human infections were discovered in Wuhan, Hubei, China in December 2019. The human-to-human transmission was confirmed by the WHO and Chinese authorities on 20 January 2020. On 11 March 2020, the WHO announced the COVID-19 outbreak as a pandemic. The United Nations Development Programme stated that the COVID-19 pandemic is the defining global health crisis of our time and it is the greatest challenge humankind has faced after World War Two. As of 5th November 2020, almost 219 countries in the world have suffered from 48 million confirmed COVID-19 cases with 1.2 million dead. Many countries in the world not only suffered life losses but also economic destruction with job loss, GDP contraction, and extreme poverty.

The first COVID-19 case in India was reported on 30th January 2020. But the continuous rise in COVID-19 cases started from 3rd March 2020 onwards. Though initially, the number of cases was very small but later on it has started to rise steadily. As of 5th November 2020, India has 8.36 million positive confirmed COVID-19 cases with 0.12 million deaths. In terms of the number of cases, India ranks second in the world after the United States that has about 9.6 million confirmed cases on the same date.

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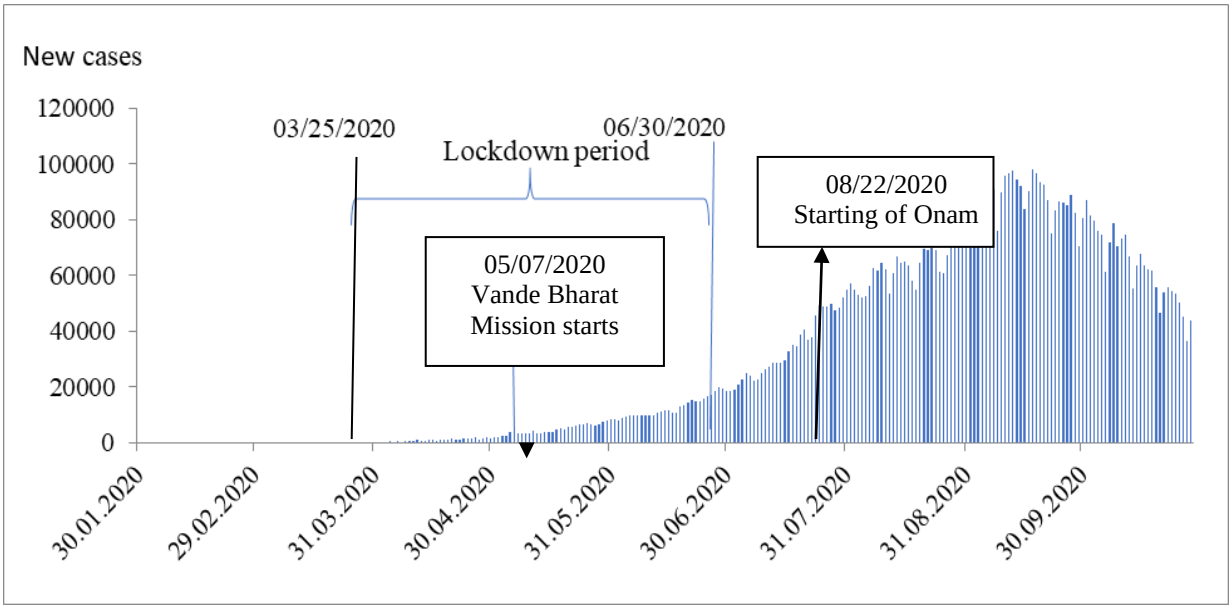

Figure 1. Daily new COVID 19 cases in India

Source: https://www.worldometers.info/coronavirus/country/india/

Figure 1 presents the daily new COVID-19 cases in India from 1st January 2020 to 28th October 2020. It indicates that India has reached it's highest COVID-19 cases on 17 September 2019 with 97894 new cases. Initially, to control the spreading of COVID-19 cases the Central Government of India imposed a national level strict lockdown policy. Though it was declared in four phases but continued from March 25 to June 30, 2020. However, some of the states even extended lockdown after June 2020. During the lockdown, the Indian economy was severely damaged by the loss of jobs, reduction of GDP, and extreme poverty. Most importantly, during lockdown migrants from village to cities have experienced a miserable situation. Therefore, though still, international level travel restriction is on, but the national level movement was relaxed. However, Vande Bharat Mission was started on 7th May 2020 to bring back stranded Indians from foreign destinations after the suspension of regular international flights. After the lockdown period though several restrictions and precautions were imposed on the movement still it has been noticed that more Indians gathered to celebrate famous festivals such as Onam.

So far very few studies in India have attempted to assess the impact of COVID-19 on the Indian economy. Biswas and Das (2020) argue that the supply chains of virtually all manufacturers are facing multiple obstacles. Dandekar and Ghai (2020) state that reverse migration in the age of COVID-19 will perhaps usher in the greatest crisis in the rural landscape of India. An extensive study by Dev and Sengupta (2020) indicates that the COVID-19 pandemic is an unprecedented shock to the Indian economy. The study provides a macroeconomic outcome due to this pandemic and argues that the Indian economy is likely to face a protracted period of slowdown. Sharma and Sharma (2020) attempt to understand the impact of the COVID-19 pandemic on the Indian Economy by applying sentiment analysis. They urge to take immediate steps to not only contain the spread of the COVID-19 but also to address the most affected sectors of the industry. Kappor's (2020) study emphasizes the generation of a clear and comprehensive plan of productive employment which includes strengthening and expansion of employment guarantee programs and adoption of an industrial policy that focuses on the construction and labor-intensive manufacturing as important elements of such a strategy. Pathak et al. (2020) find that the underlying demographic, socioeconomic, and health infrastructure characteristics drive the vulnerabilities related to COVID-19 in India.

Priya et al. (2020) argue that a national lockdown involving 1.3 billion persons would have been more prudent to initiate suppression measures only where the infected were concentrated, in the metro-polises. Karnik (2020) finds that a significant spatial spillover effect across the wards of Mumbai city is likely to make the exit from the enforced lockdown a major challenge. Altaf (2020) points out that social and living conditions play a more dominant role than population density in explaining the spread of COVID-19 in India. Chakraborty (2020) found that the unequal gendered division of domestic chores existed even before the onset of the pandemic, but the COVID-19- induced lockdowns have further worsened the situation. Ray (2020) explains the trajectory of the government's response to the health crisis in the poorer state of Bihar. Mahara (2020) argues that the COVID-19 pandemic and the ensuing lockdown has meant immense hardship for many sections of society. For children, and

especially those from marginalized communities, the impact has been harsher. Jha (2020) indicates that informal workers, migrants in cities, farmers, and small businesses are worst hit by the COVID-19 crisis.

In this backdrop, the present study tries to understand why the spread of COVID-19 cases are higher compared to other countries and its consequences on the economy. It considers several factors such as state-level urbanization, reverse migration from cities to villages, celebration of festivals, Vande Bharat Mission, and remote work opportunities to find out the reason behind the spreading of COVID-19 cases. It also investigates the impact of the spreading of COVID-19 cases on job losses, reduction in GDP, and an increase in extreme poverty with the availability of limited data from different sources. Finally, it proposes policies to control the spreading of COVID-19 cases and damaging the economy.

2. Causes of new COVID-19 cases in India

2.1 Higher level of urbanization: State level analysis

India is the second-largest country in the world in terms of the size of the total urban population after China. India had about 471 million urban population in 2019 whereas China had 843 million. However, in terms of the percentage of the urban population, India had 34% and China had about 60% of the urban population in 2019. Among the Indian states, there is a huge variation in the level of urbanization. For instance, Kerala has about 70% urban population, Himachal Pradesh (or Bihar) has only 10 % (or 12%) urban population in 2020. In fact, among the number of confirmed cases which include the total number of active cases, cured/discharged/migrated, and deaths, there is a lot of variation. As of 22nd October 2020, Mizoram with 54% of the projected urban population in 2020 reported only 2341 cases whereas Maharashtra with 48% urban population reported more than 1.6 million cases in the same period. Therefore, it is interesting to see whether urbanization has any impact on the spreading of COVID-19 cases at the state level in India.

Table 1. Description of the data

Variable	Obs	Mean	Std. Dev.	Min	Max	CV
State wise active cases (active)	34	21053.29	33677.52	44.00	159346.00	159.96
State wise cured/discharged/migrated (cured)	34	202191.70	291937.80	2174.00	1415679.00	144.39
State wise deaths (death)	34	3429.88	7528.50	0.00	42633.00	219.50
State wise total confirmed cases (confirmed)	34	226674.90	328485.00	2341.00	1617658.00	144.91
State wise projected urban population in 2020 (urban)	34	13522.38	15751.59	169.00	58826.00	116.49
State wise projected percentage of urban population in 2020 (percentage)	34	41.96	22.35	10.25	99.66	53.28
State wise projected density of urban Population in 2020 (density)	32	4.93	3.13	1.11	17.32	63.59

Source: Author

Table 1 presents the descriptive statistics of the variables that are considered to link the spreading of COVID-19 cases and urbanization at the state level in India. State-wise projected percentages of urban population and density of the urban population appear to have only little differences in their means, implying a more symmetrical distribution. However, it is not the case for the state-wise total number of deaths, active cases, and confirmed cases due to COVID-19, where the difference is significant.

Table 2. Correlation coefficient

	active	cured	death	confirmed	urban	percentage	density
Active	1						
Cured	0.8669*	1					
Death	0.8367*	0.9131*	1				
Confirmed	0.8921*	0.9985*	0.9202*	1			
Urban	0.7186*	0.8004*	0.7392*	0.8019*	1		
Percentage	0.0803	0.0136	0.0701	0.022	-0.0135	1	
Density	0.0383	0.0655	0.1398	0.0653	0.1376	0.5795*	1

Note: The correlation coefficients are based on 32 observations. * indicates statistically significant at 5 % level or below.

Source: Author

Table 2 presents the correlation coefficients. It indicates that there is a strong positive association among the number of active cases, cured, and deaths due to COVID-19 at the state level in India. On the other hand, the total urban population has a strong positive correlation with total active cases, cured, and deaths at the state level in India. The relationships are statistically significant at the 5% level or below. In contrast, though the spread of COVID-19 cases and the percentage of urbanization and densities of the urban population are positive but not statistically significant. This indicates that the total urban population size is more important than the percentage of urban population and densities of the urban population.

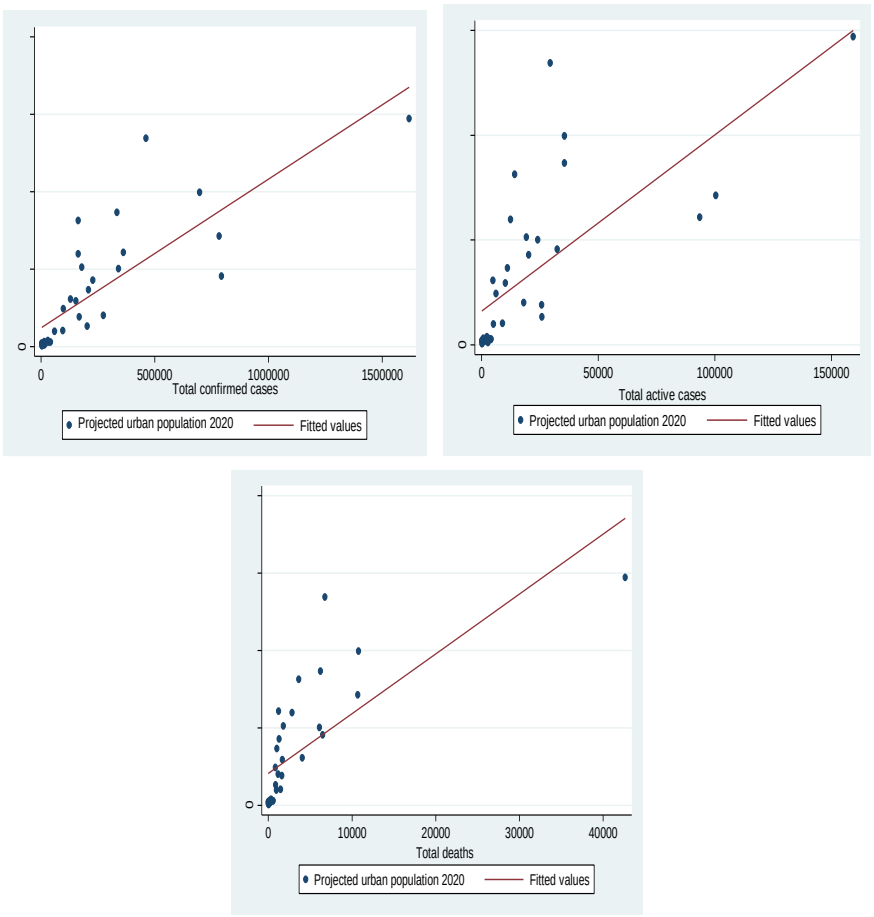

Figure 2. Relationship between state-wise total COVID-19 cases and total urban populations

Source: Author

The relationship between urbanization and total COVID-19 cases in different categories across India's states is shown in Figure 2. In Figure 2, a simple regression equation is fitted to the projected total urban population in 2020 and the total confirmed cases, total active cases, and total deaths due to COVID-19 in 2020. This figure clearly indicates that higher levels of urbanization are associated with higher levels of COVID-19 cases in different categories. The relationship between urban population and total confirmed cases (or total active cases or total deaths) is statistically significant (at the 1 percent level) with an adjusted R^2 of 0.63 (or 0.50 or 0.69). From this initial analysis, it is clear that a higher total urban population is responsible for total confirmed (or total active or total deaths) cases due to COVID 19 pandemic.

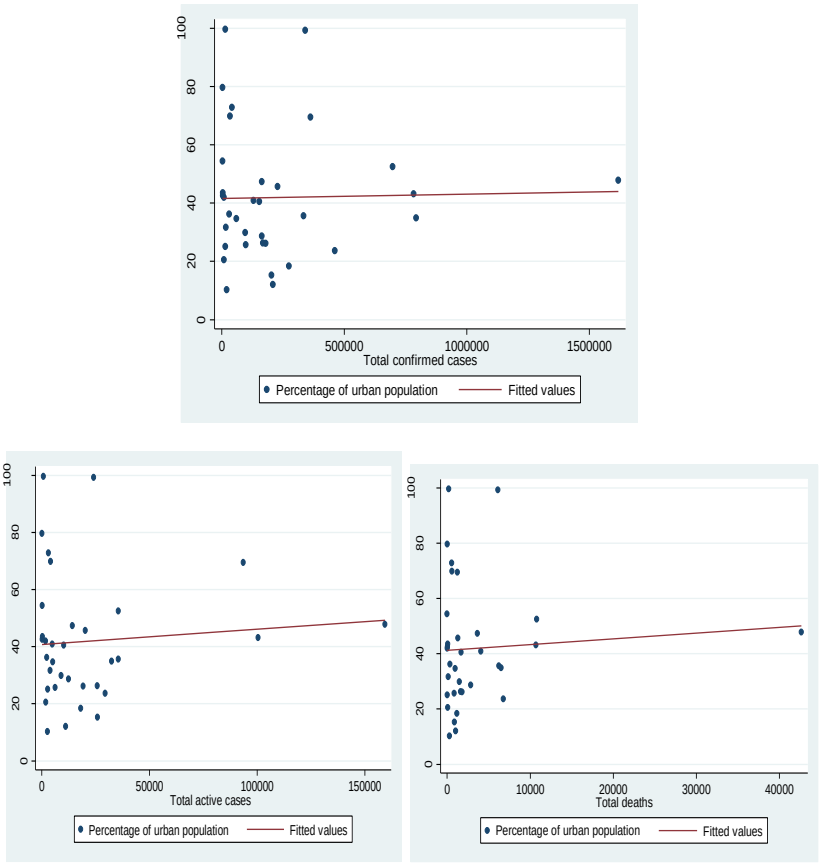

Figure 3. Relationship between state-wise total COVID-19 cases and total percentage of urban populations

Source: Author

The relationship between the percentage of urbanization and total COVID-19 cases in different categories across India's states is shown in Figure 3. In Figure 3, a simple regression equation is fitted to the projected percentage of the urban population in 2020 and the total confirmed cases, total active cases, and total deaths due to COVID-19. This figure indicates that higher levels of percentage of urbanizations are not strongly associated with higher levels of COVID-19 cases in different categories. The relationship between the percentage of urban population and total confirmed cases (or total active cases or total deaths) is not statistically significant with an adjusted R^2 of -0.03 (or -0.0246 or -0.0262). From this initial analysis, it is clear that the percentage of urban population is not responsible for total confirmed (or total active or total deaths) cases due to COVID-19 pandemic. It is important to note here that though India has the second-highest urban population size; it has a lower level of percentage of urbanization.

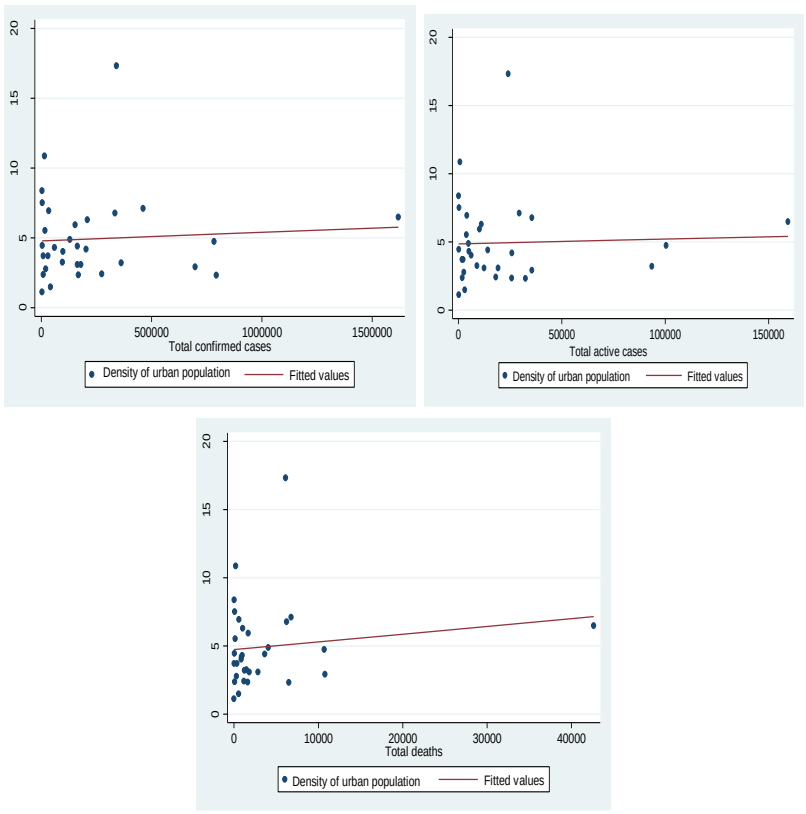

Figure 4. Relationship between state-wise total COVID-19 cases and density of urban populations

Source: Author

The relationship between the density of urban population and total COVID-19 cases in different categories across India's states is shown in Figure 4. In Figure 4, a simple regression equation is fitted to the projected density of the urban population in 2020 and the total confirmed cases, total active cases, and total deaths due to COVID-19. This figure indicates that higher levels of urban densities are not associated with higher levels of COVID-19 cases in different categories. The relationship between the density of urban population and total confirmed cases (or total active cases or total deaths) is not statistically significant with an adjusted R^2 of -0.03 (or -0.0318 or -0.0131). From this initial analysis, it is clear that the density of the urban population is not accountable for total confirmed (or total active or total deaths) cases due to COVID-19 pandemic. This indicates that though India has highly dense metro cities such as Mumbai, Kolkata, Chennai, Bangalore, and New Delhi which may have been responsible for the spreading of COVID-19 cases, but state-level urban densities may not be supportive for this. For example, Mumbai had 21,000 people per square kilometer, the Maharashtra (where Mumbai belongs to) state urban density was about 5572 people per square kilometer in 2011. Therefore, though metro city level density matters for the spreading of corona virus, but it may not be the case for state-level urban densities.

2.2 Reverse migration from Urban to Rural

India had a very strict lockdown over the periods of 3 months and more. During the lockdown, urban unskilled workers and semi-skilled migrant labourers suffered the most. Due to lack of jobs and corresponding unavailability of food and shelter most of these migrant labourers have returned to their home states from large cities like Delhi, Mumbai, Surat, etc. The best example of this miserable situation can be explained by the story of a 15 year old girl named Joyti Kumari. Kumari was forced to cycle more than 1200 kilometers during the lockdown period to carry back her ailing father who was an autorickshaw driver in the city of Gurgaon to her village in Bihar. Her hard work has been praised by senior White House advisor Ivanka Trump.

Therefore, it is interesting to assess whether return migration from cities to villages has spread COVID-19 cases. Figure 5 presents a simple regression equation that is fitted to the number of returned migrants and the total number of confirmed COVID-19 cases. The figure indicates that the number of returned migration and COVID-19 cases has a positive association. The relationship is statistically significant (at 5% level) with an R^2 of 0.02.

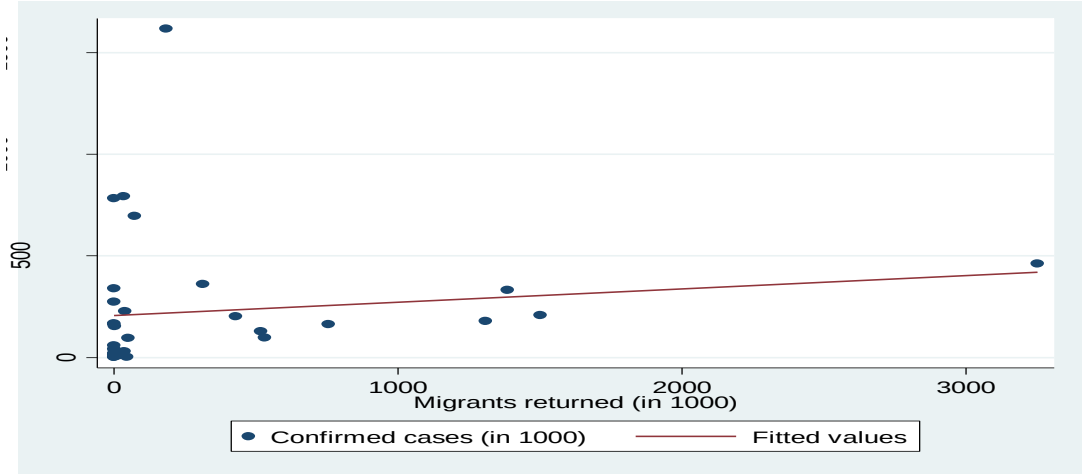

Figure 5. Relationship between state-wise total COVID-19 cases and migrants returned

Source: Author's estimation

Our analysis suggests that returned migration has a positive and statistically significant effect on the number of COVID-19 cases. Similar results are also found in other descriptive studies. Singh et al. (2020) argued that migrant workers returning to native places in COVID-19 times were the host for urban to the rural transmission of cases as the migrant-receiving states witnessed over five times increase in the number of districts having a more significant concentration of COVID-19 cases from 1 May to 31 May 2020. This is also confirmed by Kumar (2020) who indicates that 651 people who had come from outside the state tested COVID-19 positive out of 8,337 tested people in Bihar, a poorer state that sends more people to cities in other states, until May 18, 2020.

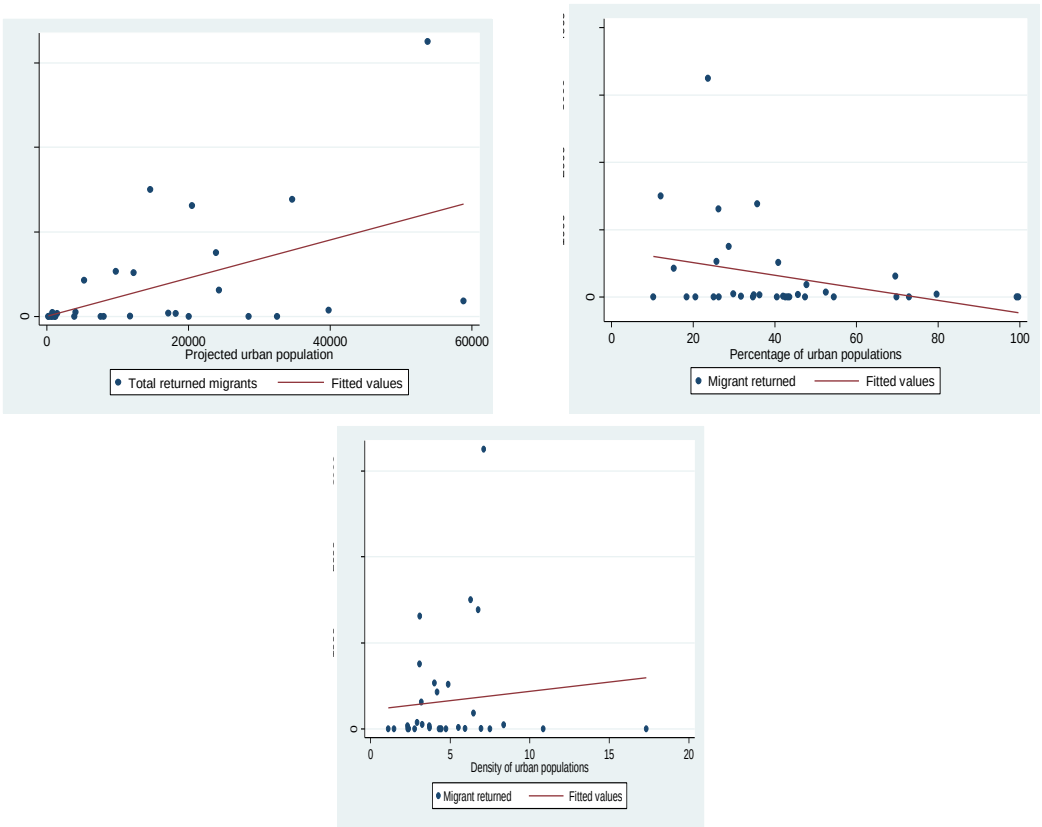

Figure 6. Relationship between state level urbanization and migrants returned

Source: Author's estimation

Figure 6 shows the relationship between the total number of returned migrants to their home states and the total urban population (or percentage of urban population or density of urban population) of that state of India. The relationship between state-level urban population and the total number of returned migrants to that state is positive and statistically significant (at 1 % level) with an adjusted R^2 of 0.2611. In contrast, the relationship between the state-level percentage of urban population and returned migrants is negative and statistically significant (at 10% level) with an adjusted R^2 of 0.069. Finally, the positive relationship between the density of the urban population and returned migrants is not statistically significant. This indicates that states with a higher percentage of urban population are more developed and do not send their workers to other states hence suffered less due to COVID-19 pandemic.

2.3 Festival celebrations

India is a country of festivals. Almost throughout the year, different states celebrate different types of religious and cultural festivals. The Ministry of Culture, Government of India indicates that there are 20 religious and 5 cultural festivals in India in 2020. The major religious festivals include Milad-Un-Nabi/Id-E-Milad, Ram Navami, Buddha Purnima, Janmashtami, Dussehra (Vijay Dashami), Diwali (Deepawali), Muharram, Makar Sankranti, Pongal, Onam, etc. During the festival, a large number of people gathered to celebrate it. As COVID-19 is one of the infectious diseases, the festival has an important role in spreading it.

Kerala is one of the most developed states in India. It did very well and won international acclaim for effectively managing COVID-19. However, after the celebration of Onam which is an annual harvest festival celebrated to commemorate King Mahabali whose spirit is said to visit Kerala at the time of Onam, the number of COVID-19 cases has surged dramatically. Union Health Minister Harsh Vardhan accused Kerala of paying the price of gross negligence during the Onam festival season in September by unlocking restrictions and promoting inter-state travel for trade and tourism.

Figure 7 shows the daily increase of COVID-19 cases in Kerala. This year the Onam festival was celebrated from August 22 to September 2, 2020. The figure shows a sharp increase in the number of COVID-19 cases after the celebration of Onam. From 2nd March 2020 to 22nd August 2020 the average per day increase of new COVID-19 cases was 324. From 22nd August to 29th October 2020, the average per day increase of new-COVID-19 cases was 5325. This indicates a 1544% increase. The festivities in Kerala once portrayed as a model state has brought down its status. It is obvious that how many people exactly infected due to Onam celebration is almost impossible to say but Onam has brought bad luck for Kerala certainly.

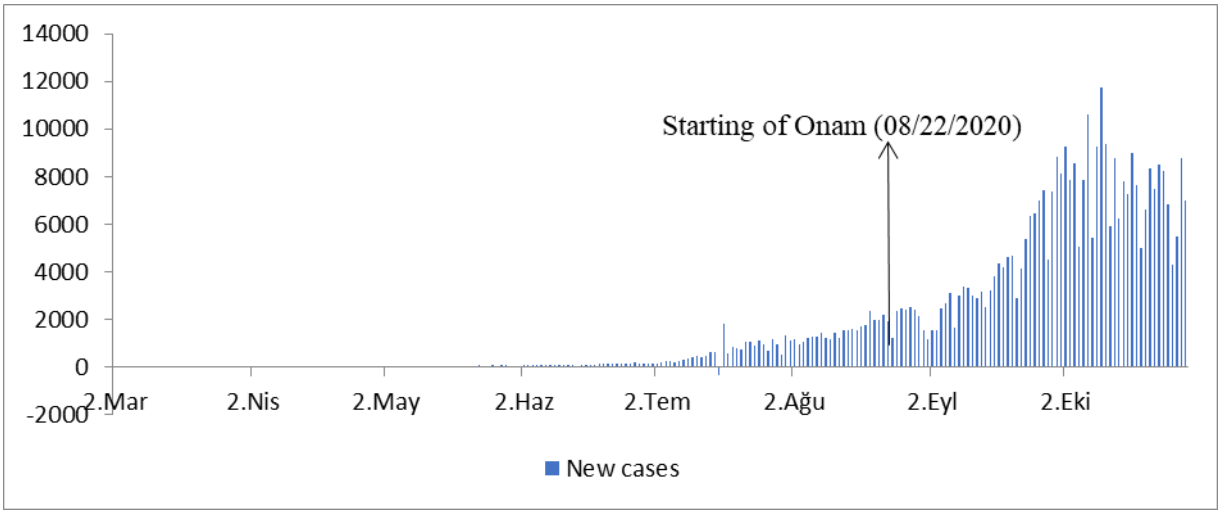

Figure 7. Daily increase of COVID-19 cases in state of Kerala

Source: Author's estimation

Most recently, Navratri, another important festival which is celebrated mostly in West Bengal and throughout India also may have similar results. The Navratri, the nine-day long festival of the goddess Durga, has been celebrated this year from October 17 to 25th and has also impacted the increasing number of new COVIS-19 cases. Press Trust of India has reported on 27th October 2020 that the festival season has increased the new COVID-19 cases. In the last 24 hours, 49.4 percent of the fresh coronavirus cases were reported from Kerala (4,287) West Bengal (4,121), Maharashtra (3,645), Karnataka (3,130), and Delhi (2,832) where Navratri is celebrated widely.

2.4 Vande Bharat Mission (VBM)

India has started VBM to bring back Indians who are stranded in different countries by air, land, and sea. So far India has completed about 7 phases under this scheme and still, it is ongoing. The first phase started on 7th May 2020. As of 11 September 2020, almost 14 million Indians were repatriated. Among the other countries, most of the repatriated Indians arrived from the United Arab Emirates, Saudi Arabia, and Oman where low-skilled workers migrate for a job. Though the mission is following all safety and social distancing norms still it has some effect on the spreading of COVID-19 cases in India. 20 passengers out of 179 passengers who came from Dubai to Mangaluru in the first VBM flight-tested COVID-19 positive on May 15, 2020. On June 5, 2020, Gokhale (2020) reports that 0.38 percent, i.e., 227 passengers out of 58, 867 Indians who arrived under VBM tested positive for COVID-19. On the other hand, 6 asymptomatic passengers who arrived in Mumbai under VBM tested positive on May 25, 2020. The Integrated Disease Surveillance Programme (IDSP) in Delhi has indicated that as many as 80% of Indian COVID-19 positive cases are asymptomatic or have very mild symptoms as of 25 August 2020.

Therefore, two cases emerge; first, there is no sufficient data on exactly how many passengers are tested positive who arrived back to India under Vande Bharat Mission in different states such as, Delhi, Telangana, Maharashtra, etc. This indicates that the number of COVID-19 positive cases may be under-reported. Secondly, it may be the case that passengers who landed in India under this mission may be asymptomatic but later tested COVID-19 positive. This argument cannot be ignored as India has witnessed a huge increase in COVID-19 cases and has become home to the second largest number of COVID-19 positive cases in the world. Therefore, Vande Bharat Mission has some influence on the spreading of COVID-19 positive cases in India.

2.5 Lacking formal job: lack of remote-work opportunities

According to the latest Periodic Labour Force Survey (PLFS), 2018-19 as per the usual status which includes principal activity status (ps) and subsidiary economic activity status (ss), the unemployment rate in India was 5.8 percent. At the same time for educated (highest level of education secondary and above) persons of age 15 years and above, it was about 11.0 percent. This indicates that large numbers of workers are out of the workforce. Table 3 indicates that only 59.3 % of the workers who have post-graduate & above level education are engaged in usual status (ps+ss). This indicates that about 40% of the workers, that have a similar level of education do not have a proper job. Approximately, 76% of workers are engaged in self-employment and casual wage employment, who may not have opportunities to work from home and are completely out of work due to lockdown. Only 24% of the workers are engaged in regular wage/ salary earner categories. Among them 70% of the regular wage/salaried employees who had no written job contract that is they are not proper wage/salaried employees. Therefore, only 7.2% (i.e., 30%) of the workers are engaged in regular wage/ salary earner categories may be eligible to work remotely. This means a very small proportion of better educated people who have regular formal jobs are eligible for remote work. This indicates that lockdown which is essential for stopping spreading COVID-19 cannot be applied to India due to a lack of wage/salaried work opportunities. This is evidenced by the increase in the number of COVID-19 cases. Before the relaxation of national-level lockdown (30 June 2020), the number of new averages per day COVID-19 cases were only 3705 and after the national level lockdown relaxation it was about 61862 average cases per day up to 28 October 2020. This clearly shows that due to a lack of remote work opportunities India is experiencing a higher level of new positive COVID-19 cases.

Table 3. Employment scenario at all India level in 2018-19

*Worker Population Ratios (in percent) in usual status (ps+ss) in different levels of education among persons of age 15 years and above**			
Persons (Male+female)	Rural	Urban	Rural+Urban
Not literate	46.7	38.0	45.2
Literate & up to primary	58.4	49.6	56.1
Higher secondary	38.6	32.5	36.2
Diploma/ certificate course	57.4	63.3	60.6
Post graduate & above	59.0	59.5	59.3
Percentage distribution of workers in usual status (ps+ss) by status in employment			
Self employed	58.0	37.8	52.1
Regular wage/ salary	13.4	48.7	23.8
Casual labour	28.6	13.5	24.1
Percentage of regular wage/salaried employees in different categories			
Percentage of regular wage/salaried employees who had no written job contract	67.8	70.5	69.5
Percentage of regular wage/salaried employees not eligible for paid leave	56.7	52.0	53.8
Percentage of regular wage/salaried employees not eligible for any social security benefit	55.9	49.4	51.9

* The percentage of workers in usual status (ps+ss) having particular levels of education among persons with that level of education is defined as the education level specific Worker Population Ratio.

Source: PLFS (2018-19)

3. Consequences of increasing COVID-19 cases

3.1 Job losses and increase of poverty

Due to national and state-level lockdown and restriction on movement, many people have lost their jobs. Table 3 shows that the majority of the workforce in 2018-19 engaged in the self-employed and casual worker. The PLFS (2018-19) also suggested that about 68.4 % of the workers in the non-agriculture sector were engaged in the informal sector. Therefore, it is clear that millions of Indians have lost their jobs. Table 3 also shows that almost 52 % of regular wage/salaried employees are not eligible for any social security benefit. Therefore, the major impact of COVID-19 in India can be summarized by huge job loss along with a lack of social security.

It is hard to calculate the number of persons who have lost their jobs. Vyas (2020) estimated that this year in April (or May or June or July) 121.5 million (or 100.3 million or 29.9 million or 11 million) jobs were forfeited by the lockdown. Most importantly, an independent body namely the Centre for Monitoring Indian Economy (CMIE) estimated that 18.9 million salaried jobs are lost from April 2020 to July 2020. Another phone survey of 4000 workers across 12 states of India by Azim Premji University revealed that in urban areas 80% of workers lost work compared to 50% in rural areas between April 13 and May 20, 2020. Kapoor (2020) indicates that workers engaged in the manufacturing sector and trade, hotels & restaurants face high risk due to the increase of COVID-19 cases. India's media reports flooded with numerous news about the layoffs across different sectors and salary cuts by companies.

Joblessness and poverty are almost synonymous in the case of India. The latest Consumer Expenditure Survey 2017-18 withholds the Centre cities data quality issues. However, some results have been leaked by Business Standard (2019) indicating that real consumption expenditure has fallen by 4% per annum in India. So, this indicates that poverty even increased further from Consumer Expenditure Survey 2011-12. In 2011-12 as per the Rangarajan Committee recommended the poverty line almost 30% (i.e., 363 million) of Indians were below the poverty line. Recently, the World Bank suggested that COVID-19 has pushed 12 million people in India into extreme poverty. Therefore, the major impacts of COVID-19 in the Indian economy are joblessness and extreme poverty.

3.2 Contraction of GDP

Due to the lockdown Indian economy almost stopped functioning. The major impact of lockdown is the falling of GDP. As per the data estimated by the National Statistical Office, GDP for the First Quarter (Q1) of 2020-21 contracted by 23.9% as against a 5.2 % growth in Q1 of 2019-20. At the same time, private consumption spending declined by 26.7 % and investment demand fell by 47.1%. If we consider the supply side, the decline in Gross Value Added (GVA) evidenced due to mainly 50.3 % falling in construction followed by trade, hotels, transport and communication, manufacturing, and mining. However, only the agriculture sector is seen to have grown by 3.4 %.

The World Economic Outlook October 2020 released by the International Monetary Fund (IMF) suggests that India's GDP will contract by 10.3% in this fiscal year. This figure is even lower than Pakistan (0.4%), Sri Lanka (4.6%), and Afghanistan (5%). Currently, India's per capita GDP (in current dollars) is lower than Bhutan and Sri Lanka and will be lower than even Bangladesh in 2020-21. This indicates that India has sacrificed a lot of GDP to fight against COVID-19.

4. Conclusions

The present study highlights the main reason behind the higher spreading of COVID-19 cases and its consequences in India. The state-level analysis suggests that there is a strong positive relationship between total urban population and total confirmed (or total active or total deaths) COVID-19 cases in India. The relationship between state-level percentages of urban population and total confirmed cases (or total active cases or total deaths) is not statistically significant. The associations between the state-wise densities of urban population and total confirmed cases (or total active cases or total deaths) are also not statistically significant. The returned migration from urban to rural has a positive and statistically significant effect on the state level number of COVID-19 cases. In addition to that, the relationship between state-level urban population and the total number of returned migrants is positive but the relationship between the state-level percentage of urban population and the total number of returned migrants to that state is negative. The festivals such as the Onam festival in Kerala have a significant effect on the spreading of COVID-19 cases in India. The Vande Bharat Mission which was designed to bring back Indians who were stranded in different countries is also responsible for spreading of COVID-19 cases in India. Lack of formal job that hinders remote work opportunities also has a positive effect on the spreading of COVID-19 cases in India. The consequences of higher COVID-19 cases are enormous that includes the significant number of job losses and an increase in poverty. In addition to that, GDP for the First Quarter (Q1) of 2020-21 contracted by 23.9% as against a 5.2 % growth in Q1 of 2019-20. Therefore, it is recommended that for a quick recovery of the Indian economy state-level urbanization has to be promoted with higher opportunities for formal jobs.

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