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Unfolding ease of doing business led interactive dynamics between formal and informal economy using Leontief model

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Abstract

Purpose of the Study: India has facilitated three dimensional ease of doing business regime and this advancement in the ease of doing business initiatives has augmented entrepreneurial growth. Entrepreneurial growth may lead to structural changes in the organized and unorganized sectors of the economy. This paper is an attempt to analyze the trends emerged in the formal and informal sectors due to entrepreneurial growth facilitated through ease of doing business environment.

Design/Methodology/Approach: Relying on the Lewis theory which states that the informal sector shrinks with the growth of modernization, urbanization and industrialization I have applied Leontief input-output model to examine the behavior of the formal and informal economy. Data have been collected from reports of Doing Business 2019, Ministry of Corporate Affairs and CEIC and Indian Statistical Commission.

Findings: It is concluded that Economic cycle leads to exponential growth in informal sector units along with the growth in the formal sector and entrepreneurial success with economic development leads to informal sector units convert themselves into formal ones. Both sectors are intertwined, interdependent and supplementary to each other.

Practical implications: The attributes discussed in this study of formal and informal economy and there relation thereof shall be helpful for policy makers and economist to maximize the economic growth.

Originality: Existing researches on formal and informal sector are based on qualitative approach while this research paper establishes a quantitative equation between informal and formal sector.

Keywords: Formal Sector, Informal Sector, Ease of Doing Business, Economy, Leontief input-output model, Entrepreneurship

Introduction

For the growth of economy, entrepreneurship is inevitable and accordingly policy makers are not leaving any stone unturned in ensuring ease of doing business to accelerate entrepreneurial activities. Ease of doing business initiatives are mushrooming business enterprises in both formal as well as informal economy. Though entrepreneurial activity in both sectors is leading towards economic progress yet for maximization of benefits, larger share of formal economy is essential. In the complex economic environment both are beneficial and complementary to each other but we need to leverage more upon formal or organized economy (Guha-Khasnobis, Kanbur, & Ostrom, 2006) [16]. Ease of doing business initiatives offer opportunity entrepreneurship and broadly constitutes formal economy focused measures. This paper is based on the theory of Hernando de Soto who conceptualized that informal economy constitutes micro-entrepreneurs who opted to function informally in order to evade cost, time and effort of formal registration and they will go on to function informally as long as regulatory procedures remain burdensome and expensive (de Soto, 1989) [8]. Ease of doing business initiatives are aimed at eliminating burdensome procedures and rationalizing cost of formalization.

Thus, ease of doing business initiatives are targeting formalization of economy yet sub-contracting due to cost competitiveness and inability of formal sector to produce jobs for everyone informal sector will grow around formal sector. Unemployment is a main factor for economic backwardness and it leads to survival entrepreneurship in informal sector if unemployed person engages himself in any economic activity (Davies & Thurlow, 2010) [10]. Unemployment is also increasing due to rise of artificial intelligence and technological upgradation which are byproducts of ease of doing business (Ford, 2013) [13]. These technological changes are creating many business opportunities to displaced workforce but due to non-entrepreneurial background they often engage in survival entrepreneurship (Segal, Borgia, & Schoenfeld, 2005) [38]. Due to prevalent poverty and insufficient employment avenues most of unemployed persons choose to set their own petty business. These phenomena are more appropriately defined as push factor (Vesalainen & Pihkala, 1999) [44]. Contrary to push factor, pull factor motivates entrepreneurs to grab opportunities created out of stimulating economic growth and fruitful technological innovation (Kirkwood, 2009) [23]. Pull factors also incentivize intrapreneurs to become entrepreneurs. On the other hand push factors compel unemployed persons and underemployed to test entrepreneurship by choosing self-employment consequent to limited opportunities in employment sector (Risman, 2006) [35]. Both push and pull factors influences the choice of business organization and on macroeconomic prospective designs the formal and informal economy (Jyoti, Sharma, & Kumari, 2011) [22].

A business unit may be established in different types of business organization. Each form of business organization offers its own advantages and disadvantages. The final selection of the form of business organization depends upon maximizing advantages, available resources, financing options and risk perspective of the entrepreneur. For, example limited liability has its own advantage and limits the risk factor but entrepreneur may be unable to bear compliance cost. Hence right choice of business organization in the beginning is very crucial for the success of business and in the long term an entrepreneur has to change his form of business organization according to the growth and risk factors. In general there are four types of business organization namely, (1) sole proprietorship, (2) partnership, (3) limited liability partnership and (4) limited liability companies. The first two types are unincorporated bodies and thus carry lesser compliance cost but having risk of unlimited liability with reference to personal asset and tort liability due to agency theory. Limited liability partnerships (LLPs) and companies are incorporated bodies with limited liability but higher compliance cost. However, limited liability partnerships are flexible model of partnership and limited liability Company having ease of lesser compliance as compared to companies. The sole proprietorship and partnership mostly fall under informal sector unless thoroughly governed by any specific Act like Factories Act or any other labour/taxation laws. LLPs and companies fall under purview of formal economy except activities which are not accounted and reported.

Current economic environment and ease of doing factors are mushrooming business units either by survival or opportunity entrepreneurship. Ease of doing business initiatives are limiting bureaucratic hurdles and also providing ways to transforming informal economy into formal one. It offers comfortable entry and exit options. Failed entities have window to exit easily so that further economic loss may be prevented (Baumol, 1968) [2]. New and growing entities are getting chance to establish smoothly. Successful entities web the formal economy. Therefore, the present study analyses the role of ease of doing business in transforming informal economy into formal economy or vice versa. For the purpose of this study, three independent variables namely; incorporated bodies, taxation and technological upgradation have been taken into consideration.

Review of Literature

Many researchers have opined that informal economy is limited to non-monetary transactions or illegal activities (Lomnitz, 1988) [28] (McInnis-Dittrich, 1995) [29] (Reimer, 2006) [33]. Informal economy is not only constituted with non-monetary transactions or illegal activities rather it includes all economic activities which are neither government regulated not fully taxed like cash economy, domestic economy, household economy, shadow economy and hidden economy (Levitan & Feldman, 1991) [26]. (Thomas, 2001) [40] has propounded an important theoretical model of informal economic activity where he proposed “economic activity as the production of goods & services whose value is not included fully, if at all, in the National Income Account of a country”. The present research has used informal economic activity in a broader sense and conceptualized it as household economy where self-employed person or small business units engaged in economic activity but due to their tiny size their transactions go unaccounted in national income. Non-reporting of these transactions may be due to exemption limits prescribed by the governments or due to not having any kind of registration with the authorities.

The evolution of formal economy dates back to beginning of industrialization era. During the late 19th and early 20th century industrialization facilitated establishment of large scale factories where job insecurity, labour exploitation and inhuman working conditions provoked workers protest resulting in emergence of trade unions. Trade unions influenced the political environment and as welfare measures nations promulgated labour laws. In view of revenue generation for welfare state tax structure was broadened and set of economic activities came under the purview of national accounting system which were started regulated for monitoring, licensing, recording and taxation purpose become known as ‘formal economy’ sector (Leonard, 1998).

The advantages of informal and formal economy have been comprehensively documented but there are very limited researches in exploring inter-linking between these both sectors. Authors (Chen, Martha Alter, 2005) investigated the linkages of the informal sector to the formal sector and to the formal regulatory system and found that most informal establishments and employees are intrinsically linked to the formal sector. The study of Chen was based on theoretical foundation concluded on the qualitative basis while the present research is an effort to establish quantitative relationship between formal and informal sectors with the help of Input-Output model.

The origin of entrepreneurship has been extensively researched by various scholars like Schumpeter, Drucker, Wennekers, Thurik and others. Originally, the word ‘entrepreneur’ is coined from the French concept “entreprendre” which is similar to English concept “to undertake”. Here to undertake simply means to start a business. Historically, (Schumpeter, 1934) [37] states that the French economist Richard Cantillon, was the first who propounded the concept “entrepreneur” in his work theories of entrepreneurship. Richard perceived entrepreneur to be a risk taker (Cantillon, 1755). Peter Drucker identified entrepreneur as person who explores business opportunity and he is also considered as a risk taker (Drucker, 2014) [11]. In the present study, the emphasis upon risk taking ability is a focal point because this is an objective of the study to establish that ease of doing business initiatives facilitates a person to take risk of starting a business and cover its risk through appropriate forms of business organization. Another author (Onuoha, 2007) [32] explained that entrepreneurship is an activity to start a new organization or reorganizing a mature organization with regard to new opportunities. This preposition is also helpful for in this research it is presumed that with economic growth a business unit changes its constitution form from unincorporated to incorporated form and thus leads to formalization of economy.

After liberalisation, world top economies are witnessing vertical disintegration. Small businesses are gaining specialization in manufacturing intermediate goods for large industries (Jacobides, 2005) [20]. Liberalisation is taking place through structural reforms and easy business policies. It facilitates in establishing and running business without much bureaucratic interferences. Consequently people are more engaged in business activities. The huge rate of unemployment coupled with efficiency and cost cutting endeavors in large industries are creating opportunities for small scale businesses (Wennekers & Thurik, 1999) [46]. The small scale business man often chooses unincorporated business organization according to his capabilities and risk perspectives. The nature of business is another important factor in choice of business organization. Extent of operation area like local, national or international and scale of operation like small, medium and large are also considered for choosing forms of business organization. Other important factors are degree of control, project investment, nature of finance and tax implications (Bhatia, 2011) [3]. The factors discussed by Bhatia are conventional factors and in the present study it is to be examined whether facilities rendered through ease of doing measures have any impact upon choice of business organization?

The sample chosen for the present study is territory of India. In India division of labour has been framed according to caste status namely; Brahmin, Vaishya, Kshtraiya and Shudras. In this system business activities were completely earmarked for the Vaishya communities. However, fundamental rights enshrined in the Constitution of India have guaranteed equality among its citizens and thus members of all communities are now engaged in the business activities (Jarwal & Kahal, 2017) [21]. Indian economy comprises largest portion out of unincorporated sector i.e. informal sector. The classical development theory of growth in the view of Lewis provides that the informal sector shrinks with the growth of modernization, urbanization and industrialization. He also suggests that the informal sector in the developing economies would gradually disappear with the formulation of right policies resulting in employment generation in the formal sector. In the present study I would see whether the policies initiatives being taken under ease of doing business are instrumental in converting informal sector into formal sector.

(Report of the Committee on the Unorganised Sector Statistics, 2012) of Indian Industries presented a survey report in the year 2012 which reveals that 90 percent of the workforce of India is employed under informal sector and this sector contributes around 50 percent of the national GDP. The share of formal sector accounts for 12 to 14 percent of the GDP. In the process of evolution of entrepreneurship, informal sector is easy to approach due to its fundamental characteristics. It grows in easy forms of business organization like sole-proprietorship and un-registered partnerships with no division between capital and labour i.e. owners usually operate the units. Units in informal sector also run on small scale and usually employ fewer workers including immediate family members. Due to unincorporated and unregistered nature there is easier entry and exit as compared to formal sector. Majority of units under informal sector starts for survival activity with minimal capital investment. Units are less capital intensive and more labour intensive requiring low level of skill. There is lack of institutional financing among informal sector and entrepreneurs arrange funds at their own risk and are personally liable for the debts of the business (Vaidyanathan, 2004) [43]. The characteristics described by the author like easy formation, entry, exit, low level of skill and less capital investment are smoothly handled through ease of doing business initiatives. Yet in the developing economies there is constant even growing presence of informal sector. This phenomenon has been analyzed in this study.

The World Bank Group publishes on yearly basis Index of Doing Business through comparing business regulations as prevailed in 190 economies. The most notable economies on the improvement basis in Doing Business 2020 are Bahrain, China, India, Jordon, Kuwait, Nigeria, Pakistan, Saudi Arabia, Tajikistan and Togo. India occupied 63rd position and has registered a commendable progress in features like easy to start a business, dealing with construction permits and ease of trading across borders. India, which has implemented impressive reforms, figured in the list of top ten improving economies for the third time. The World Bank Group specifically appreciates the reform efforts conducted by India considering the size of its economy (Doing Business 2020, 2019). The advancement in ease of doing business indicators has laid resources to facilitate business activities. Liberalisation reforms have restructured size distribution and resource allocation. With easier startup rules, the number of small and mid-sized firms has increased (Alfaro & Chari, 2014). Similarly, economies have to provide convenient and effective exit points. If a unit is easy to start then it must also be equally easy to windup and resolving insolvency. Ease of doing Business also considers parameters like getting electricity, registering property, finance availability, protecting minority interest, taxation, enforceability of contracts. In this paper, an attempt has been made to analyze the impact of ease of doing business on the dynamics of informal and formal sectors of the economy.

Data

Doing Business report examines regulatory reforms in 190 economies. For the analysis purpose, India has been chosen as sample. For consecutive three years, India has figured in top ten nations making impressive progress in doing business environment and in terms of GDP it is one of the top five economies of the world (Silver, 2020) [39]. India is an interesting country to use data due to heterogeneity involved in economic status among different states of India. India has adopted Doing Business parameters as core components in guiding its regulatory reform strategies. The nation has scored an impressive leap upward from 130th ranking in the year 2015 to 63rd ranking in the year 2020. Doing Business report has also been considered for status of Goods and Service Tax (GST) implementation. For data regarding incorporated bodies like companies, limited liability partnerships and foreign companies, reports available on website of Ministry of Corporate Affairs of India have been extracted. For assessing the un-incorporated units, data has been extracted from Economic Census reports of India. Doing Business 2020 report has also been analyzed. For the status of digital penetration and technology inclusion, government reports published in newspapers and data released by CEIC Data (SG) Pte. Ltd. have been considered. Performance indicators of formal and informal economy in terms of GDP and employment generation have been extracted from reports published by National Statistical Commission, Government of India.

Research Methodology

Objective of this study is to analyze the interaction between the formal and informal economy due to enhanced ease of doing business initiatives. It has been assumed that informal and formal economies are complementary to each other and both are instrumental in each other's growth (Godfrey, 2011). Ease of doing business initiatives have accelerated formal economy which, due to vertical disintegration, are proving numerous business opportunities for informal sector in the form of subcontracting from units of formal economy (Moreno, Pieters, & Erumban, 2012). Informal sector is supplying intermediate goods to the formal sector and eventually also consumes products of formal sector besides end consumers (Bhinetawati, 2018). So, for theoretical expectation on expected benefits of both the formal and informal sectors, Leontief Input-output model (open model) has been employed. According to this model, some portion of the production is absorbed by the production chain and rest of the output is meant for end-users like household consumers, government, exports and so on (Leontief, 1986). The following Input-Output table explains the interaction of formal and informal economy using Leontief matrix:

Table 1: Basic Input-Output Model

	Consumers (Input)			
Producers (Output)	**Formal Economy**	**Informal Economy**	**GDP contribution**	**Final Output**
Formal Economy	X_{11}	X_{12}	C_1	X_1
Informal Economy	X_{21}	X_{22}	C_2	X_2

In the above matrix, first column will represent ratio of number of units established in both sectors, second column will represent ratio of employment generated in both sectors. The number of units established has been assumed as employment generated. From the ratio of GDP, to enhance one percent share of GDP from formal sector, it requires $\frac{x11}{x1}$ of formal sector, $\frac{x21}{x1}$ of informal sector, and so on. Accordingly, setting will be as follows:

Setting: $a_{ij} = \frac{xij}{xj}$

Construction of the technology matrix: $A = \begin{bmatrix} a11 & a12 \\ a21 & a22 \end{bmatrix}$

Observing the technological coefficient a_{ij} shows the share of respective economy required from ith sector to generate 1 percent of GDP from the jth sector. If

$$X = \begin{bmatrix} y1 \\ y2 \end{bmatrix}$$

Is the output matrix showing the contribution of each sector in the economy to generate the final contribution to the GDP. Thus the following balancing equations will be computed:

$$a_{11}y_1 + a_{12}y_2 + d_1 = y_1$$
$$a_{21}y_1 + a_{22}y_2 + d2 = y_2$$

In terms of the matrix notation, this requirement is equivalent to the equation

$$AX + D = X \Longrightarrow (1 - A)\, X = D$$

If $(I - A)^{-1}$ exists, then the contribution to GDP X is equated by $X = (I - A)^{-1}D$

The above calculations have to be test through Hawkins-Simon Conditions for the viability of the system (Thukral, 2012). Where

1. The determinant [I – A] of the Leontief matrix must be positive; and
2. The diagonal elements: $1 - a_{11}$, $1 - a_{22}$, $1 - a_{mn}$ of the Leontief matrix I-A should all be positive, or in other words $a_{11}, a_{22} \ldots a_{mn}$ should all be <1.

As per report of the Committee on the unorganized sector statistics, around 90 percent of the workforce and 60 percent of the GDP is accounted for by the unorganized sector. As per fifth economic census there were 41.83 million establishments under informal sector in the year 2005and there were 58.5 million establishments under informal sector in the year 2013. Using compounded annual growth rate formula the establishments in the year 2018 shall be approximately:

$\sqrt[8]{\frac{58.50}{41.83}} = \left(\frac{1+r}{100}\right)$ = 4.3, thus annual growth rate is 4.3 percentages and accordingly number of establishments in the 2018 shall be approximately 72 million units. As per Ministry of Corporate Affairs number of active incorporated bodies (domestic & Indian companies and limited liability partnership) is 1275557. Therefore ratio of establishments in informal and formal sector is 98:02 percentages.

Table 2: Input-Output Data

	Consumers (Input)			
Producers (Output)	**Formal Economy**	**Informal Economy**	**GDP contribution**	**Final Output**
Formal Economy	$X_{11} = 02$	$X_{12} = 10$	$C_1 = 40$	X_1
Informal Economy	$X_{21} = 98$	$X_{22} = 90$	$C_2 = 60$	X_2

An estimated contribution of formal and informal sector to the economy is 40% and 60 percent respectively. If we wish to get 60% from formal sector and 40% from the informal sector, then equilibrium for vector $\begin{bmatrix} 60 \\ 40 \end{bmatrix}$ shall be as follows.

Let A be the technology matrix. Then A = $\begin{bmatrix} \frac{02}{52} & \frac{10}{248} \\ \frac{98}{52} & \frac{90}{248} \end{bmatrix}$ = $\begin{bmatrix} \frac{01}{26} & \frac{5}{124} \\ \frac{49}{26} & \frac{45}{124} \end{bmatrix}$

To test Hawkins-Simon conditions, we consider

$$I - A = \begin{bmatrix} 1 & 0 \\ 0 & 1 \end{bmatrix} - \begin{bmatrix} \frac{01}{26} & \frac{5}{124} \\ \frac{49}{26} & \frac{45}{124} \end{bmatrix} = \begin{bmatrix} \frac{25}{26} & -\frac{5}{124} \\ -\frac{49}{26} & \frac{79}{124} \end{bmatrix} \therefore [I - A] = \frac{1975}{3224} - \frac{245}{3224} = \frac{1730}{3224} > 0$$

Also, the diagonal elements $\frac{01}{26}$ and $\frac{45}{124}$ of the technology matrix are both less than 1. Hence Hawkins-Simon conditions are satisfied and the system is viable (Fujita, 1991).

Let X = $\frac{x}{y}$ denote the total output i.e. desired contribution to the economy and D = $\frac{60}{40}$ denote the demand vector. Then

$$AX + D = X \Longrightarrow (I - A)\, X = D \Longrightarrow X = (I - A)^{-1} D$$

$$\text{Now, } (I - A)^{-1} = \frac{1}{[I-A]} \text{ adj } (I - A) = \frac{3224}{1730} \begin{bmatrix} \frac{79}{124} & \frac{5}{124} \\ \frac{49}{26} & \frac{25}{26} \end{bmatrix} \quad X = \frac{3224}{1730} \begin{bmatrix} \frac{79}{124} & \frac{5}{124} \\ \frac{49}{26} & \frac{25}{26} \end{bmatrix} \begin{bmatrix} 60 \\ 40 \end{bmatrix} = \frac{3224}{1730} \begin{bmatrix} \frac{4940}{124} \\ \frac{3940}{26} \end{bmatrix} = \begin{bmatrix} \frac{15874976}{214520} \\ \frac{12702560}{44980} \end{bmatrix} = approximately \begin{bmatrix} 74 \\ 282 \end{bmatrix}$$

According to above equations and subsequent results, new ratio of formal to informal economy will be 74:282, presently it is 52:248. Presently 52:248 is around 17% of the formal economy {[52/(52+248)]*100} and 83% of the informal economy{[248/(52+248)]*100}. As per demand vector 74:282 is around 20% of the formal economy {[74/(74+282)]*100} and 83% of the informal economy{[282/(74+282)]*100}. Thus, by three percent increase in the formal economy we can enhance its contribution to the GDP by 40 percent.

Result Findings

Approximately with one percent increase in formal economy there is six percent increase in the share of formal economy to the GDP and according to new ratio 74:282 with every increase in one unit in formal economy there is new four additional units established in the informal economy because both are interrelated and affect each other. Vice versa unit in informal economy will be converted to unit in formal economy through growth and development. There is fixed trend in the supply chain. Products are largely manufactured in the heavy industries of formal economy and later on distributed through distribution and wholesale channel. Lastly, it reaches to the end consumers through retail merchants who are majorly falls under informal economy. Small scale units in informal economy are supplying intermediate products to be finally manufactured under formal economy (Moreno, Pieters, & Erumban, 2012). For example if any factory established in any area then in nearby areas there will be establishment of refreshment facility like tea stalls, transport facility like auto rickshaws and part-time labours like sweepers/porters, etc. Thus, both the economies are supplementary and complementary to each other.

The interaction between formal and informal sector is an organic behavior of the macro-economy. Economic perspective classifies the interaction as producer driven and consumer driven. In producer driven phenomena formal enterprises outsources its activities to the informal units for the sake of cost competitiveness (Zlolinski, 1994). In the consumer driven phenomena high income consumers open window for small enterprises for getting customization services for the products which are in standard form developed by the formal sector players at the time when market is at high end. When the market is at slump side low income consumers provides opportunities to small enterprises to develop products at cheap prices as small firms do not comply with formal sector regulations thus they can afford to produce at low cost (Sassen, 1994). Apart from these two concepts, the interaction and interlinking is also augmented by the economic policies like digitization, technology inclusion, industry aggregators, taxation regime, simplified corporate labour insolvency and business laws and electronic governance.

India is cash based economy and its cash to GDP ratio was 11.4% in the month of March 2019. The cash mostly circulates in the unorganized sector. Digitization of transaction can reduce cash transaction. In the digitization process, emphasis has been laid upon digital transactions. Digital transactions are recoded transactions which are traceable and add up to the formal economy. National Payment Corporation of India has been doing a commendable job in this regard. For a structural system of digital transactions BHIP App, Unified Payment Interface and private digital wallets are employed in the economy. In the financial year 2018-19 digital transactions amounting to rupees 3133.58 Crore have been recorded which is 51 percent more than digital transactions registered in the financial year 2017-18 (Business Standard, 2019). Digital transactions are on increasing trend. More and more digital transactions will lead to the formation of organized sector. Digital Economy may also be measured through Digital Adoption Index which consists of business sub-index, people sub-index and government sub-index. India registered better than average score but it is poor in people sub-index. Its overall index is 0.5107 which is better than many developing countries (Muhleisen, 2018). Though digital transactions are increasing but the pace is tardy. Digital transactions must be further incentivized to attract more and more people. Banking charge must also be rationalized. Some banks are even charging cash deposits into bank leading to many businessmen shying away to deposit their money into the bank.

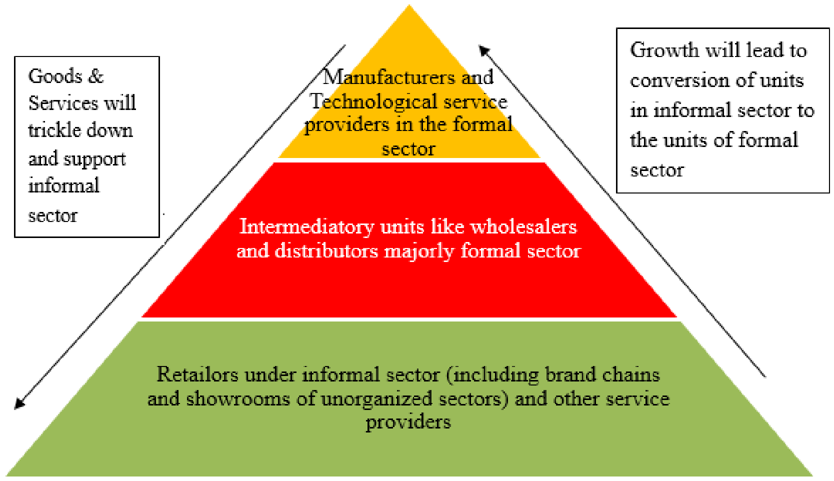

Fig 1: Interaction between Informal and Formal Sector

India has also successfully implemented new indirect tax regime called Goods and Service Tax. To a large extent it has simplified tax compliances for the entrepreneurs. It eliminates the cascading effect of taxation and maps the chain of goods and services delivered from manufacturer/ provider to the end user. It is a type of consumption tax implemented on the supply of goods and services. It is multi-staged and destination based tax. It is referred to as multi-staged because incidence of tax occurs at every step of production and distribution and finally to be paid by the end consumer. For taking input tax benefit goods and services has to be availed through registered user, thus supply chain is forming organized economy. There is reverse charge mechanism for dealing with unregistered, smaller material and service suppliers; in that case receiver pays the tax on behalf of such dealers. However, some items are still out of net of GST.

Technology is also playing its role in organizing the unorganized economy. Many aggregators are major players using technology and pooling the suppliers and consumers. Let's take an example of a cab hailing service by an aggregator. The aggregator pulls are cab drivers on its app platform and offer services to potential travelers. The App connects the driver and the passenger and at the end of the journey issues bill on behalf of the driver. The bill is issued by the aggregator and it is registered with the GST as well which is not practical if the bill was issued by the driver as he may be availing exemption limit. In this way a large number of unorganized and shattered cab drivers have been pooled and made part of the organized system. In this way technology is organizing the unorganized sector. Tele-density is playing a major role in adoption of technology in business operations. India has a tele-density of 91 people per 100 people and there are 40.96 internet users (https://www.ceicdata.com/en/indicator/india/teledensity-mobile, 2020). Now retailers are getting material for their shop on business to business apps. Household items are also being purchased through e-commerce route. All this technology usage has been helpful in making a formal economy. However, offline transactions are still holding a large share in the economy due to purchasing behavior and lack of access to remote areas.

India has also initiated and implemented legislative reforms and the Companies Act 2013 has been a breakthrough in this regard. It has extended risk cover through limited liability concept to sole proprietors in the form of One Person Company. The Limited Liability Partnership Act 2008 was already in force since the year 2009. Both these legislations are catalyst in growth of corporate bodies in India. Now in one day a company may be incorporated in India through an e-form like SPICe+. Though the passing of Insolvency and Bankruptcy code, insolvency proceedings have become more smooth and easier. It is also helpful for corporate creditors. India has also implemented wages code and many labour reforms legislations are in pipeline. Through measures like start-up India and stand-up India all forms new business enterprises getting assistance. In last ten years following number of companies and limited liability partnerships were registered in India:

Table 3: Number of incorporate bodies registered during the last ten years

Year	LLPs		Companies			
	Registered During the year	**Total**	**Registered During the year**	**Total**	**Total number of Incorporated Bodies**	**Ease of Doing Business Rankings**
2009-10	1181	1181	64582	1005902	1007083	133
2010-11	3261	4442	91637	1097539	1101981	134
2011-12	4319	8761	92383	1189922	1198683	132
2012-13	5167	13928	98029	1287951	1301879	134
2013-14	7982	21910	64109	1352060	1373970	142
2014-15	14682	36592	84084	1436144	1472736	130
2015-16	22505	59097	97441	1533585	1592682	130
2016-17	29407	88504	107699	1641284	1729788	100
2017-18	32934	121438	108075	1749359	1870797	77
2018-19	23748	145186	123685	1873044	2018230	63

Source: (http://www.mca.gov.in/MinistryV2/indianandforeigncompaniesllps.html, 2019)

According to above table LLPs are becoming favorite choice of business among entrepreneurs. Since the beginning of LLP Act in the year 2009, the share of LLPs in total incorporated bodies have increased from mere 0.11 percent to 7.75 percent at the end of the financial year 2019. In the last five financial years 23.5 percent entrepreneurs chose LLPs as compared to companies. From the year 2009 to 2014 ease of doing business ranking of India was stagnant at around 135 but after 2014 there is significant improvement. If we consider the annual growth rate of incorporated bodies before 2014 then it comes to 7.6 percent year on year growth in terms of incorporated bodies registered. After 2014, the year on year growth arrives at 7.8 percent. There is slight 0.2 percent increment in annual growth in terms of registration of incorporated bodies due to improvement in the incorporate bodies. The growth of corporate bodies is skewed towards four metropolitan cities of India namely Mumbai, Delhi, Kolkata and Chennai. Moreover, the number of inactive companies has also increased from 2,85,845 companies at the year ending 2016 to 6,70,018 companies at the year ending 2019. The total number of One Person Companies registered till the financial ending is just 22760 companies. Thus the improved ease of doing business scenario has not affected the choice of business organization among the entrepreneurs because annual growth rate of unincorporated bodies is constantly 4.3 percent and in case of incorporated bodies it is constantly 7.5 percent. The number of inactive companies has also increased two and half fold in just four years. Rather choice of business organization is still based on survival and opportunity entrepreneurship.

Conclusion

The formal and informal economy is growing at a constant rate due to influential behavior on each other. Ease of doing business initiatives have accelerated growth in the business units. Choice of forms of business organization is not much influenced by the initiatives taken under ease of doing business. Corporate reforms are not influencing in shrinking of informal economy rather technology inclusiveness and simplification of GST like consumption taxation regime are more effective in transforming unorganized sector into organized one. Ease of doing business initiatives are equally supportive to formal as well as informal sector (Moreno, Pieters, & Erumban, 2012) [30]. These initiatives are focused upon growth of formal sector but sub-contracting, supply chain dynamics and peripheral activities around formal sector generate activities in the informal sector as wel (Lewis, 1979) [27]. To be precise, one third of total incorporated bodies registered have become inactive and may be replaced with the unincorporated units. Economic cycle leads to exponential growth in unincorporated units consequently with business growth and expansion these units will get converted into incorporated units (Egger, Keuschnigg, & Winner, 2010) [10]. Even legal framework also requires compulsory registration upon crossing any turnover limit or attaining any specified number of partners/employees so entrepreneurial success coupled with economic development let unincorporated units convert themselves into incorporated ones. The same theory of growth applies in case of a unit transfers from informal economy to formal economy due to compliance of any specific law without getting converted into an incorporated body like registration under labour laws if number of employees exceeds any specified limit.

For conceptualizing the evolution of formal economy researchers and policy-makers must analyze its behaviors with the informal economy (Weeks, 1975) [45]. Significant empirical confirmations derived from the growth experience of various developing and transition economies reveal that informal economies may coincide prominently with the enlargement of formal economy (Transitioning from the Informal to the Formal Economy, 2014). Formal and informal economic sectors are inseparably interlaced instead of distinct and mutually exclusive circles thus both sectors are interdependent and supplementary to each other (Henry & Sills, 2006) [17]. The study concludes that ease of doing business measures like ease of incorporation, getting operational permits and trading across border permits are pre-emptily focused on formal economic activities yet as byproduct informal economic activities being mushrooming around formal economy. Thus policy makers can explore positive aspects where informal economic activities may be turned into formal one to ensure social security of labours, increment in State revenues through taxation and recording of transactions for the calculation of national income.

Limitation of the Study

The study is based on three dimensional approach viz. legislative reforms, technological upgradation and taxation simplification. However, absence of decent employment opportunities, capital requirements and avenues of finance availability also has impact upon behavioral changes in the formal and informal economies. These phenomena are outside the scope of present study but may have significant impact on the results. Thus the present research may be expanded to cover these variables.s

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