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Demonetization: In the context of formality and informality

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Abstract
The present paper is an effort to detect the contributory economic factors explaining the policy of demonetization in India in recent past. The study has tried to unfold a few issues in correspondence to the "grey" informal localization of industries and services. It seems that such an exploration is crucial to make a successful policy orientation. The incorporation of the changes in the nature of Formal-Informal linkages makes the scenario further intensified within the realm of diversified heterogeneity with increased volume of informal localized production within the economy. The present paper consciously avoids the issues like digitalization in this context in order to make the present study concise with the expectation to have separate studies with them. The micro-level field surveys, sampling design and data analysis of the study conducted is based upon the standard model approach to avoid spatial homogeneity.

Keywords: Informal sector, Cluster, Location, Mobility
JEL Classification: E26, F02, R10, R12.

1. Introduction
The present paper is an effort to detect the contributory economic factors explaining the policy of demonetization in India fetching far short of its targets in recent past. The study attempts to unfold a few contributory factors in correspondence to the "grey" economy of informal localization of industries and services. To do this, it is accrued that the changes in the nature of Formal-Informal linkages makes the scenario intensified further within the realm of diversified heterogeneity of the informal economy with increased volume of informal localized production of goods and services. To infer this, the present paper consciously avoids the issues like digitalization to make the study more concise one.

2. Methodology of Analysis
The logical argumentation of the study is based upon literature support, case studies conducted and primary survey results. The survey process is exhaustive. The survey is based on qualitative purposive sampling with semi-structured questionnaire and indirect interview method. The micro-level field studies, sampling design and data analysis procedure are based upon the standard model approach. The implication is that the selection of any sampling window does not depend on data availability (or non-availability), hence avoids spatial homogeneity. However, the spatial distribution of sample units is cross-sectional, given and known. Sometimes an ethnographic study has been approached due to data non-availability and data non-responses in the sample survey area under the purview of the study.

3. Hierarchical Structure in Operation: Formal-Informal Linkage Frame
It is to be noted that the "Bottom of the Pyramid" structure of industrial organization after globalization has caused significant arrays to informal sector producers. The notion is that the informal sector producing units may become small in operational unit(s), competing with formal sector firms producing similar products and generating employment for other informal workers by following hierarchical production chains allowing segmentation to the informal labour market of the industry. In the process, the formal sector may purchase intermediate semi-finished products from the informal firms, thereby allowing intermediaries to operate in the chain. The hierarchical structure in operation may be summarized as follows:

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3.1 Own account operators: Some informal producers act as own account operators who exchange produced goods and labour services with the formal firms directly – they operate as "pure" or "open" market exchanges [Chen 2006]. Here, competitive formal firms form networks with independent own account units which is the base for the existence of the informal production units using informal sector labourers.

3.2 Value chains: Some informal enterprises (even own account operators) produce goods within a value chain in production through sub-contracting, putting-out and out-sourcing with some other informal firms. The terms and conditions of such transactions are controlled by the lead firms, mostly formal production units. The event of globalization has simply intensified the operation of increased volume of sub-contracting, putting-out and out-sourcing within the industrial network between nations by finding out the destinations of informal localization that supply industrial inputs cheaper rate thereby reducing cost of production to the producer.

3.3 Sub-sectors: Some informal enterprises (even own account operators) operate through domestic chains in which producers directly collect production orders from the lead firm (often formal) in which the lead firm determines the terms and conditions of transaction. Here, the dominant formal firms operate with domestic chains to their informal sub-sectors operating within the production channels.

3.4 Contractors (Intermediaries): The informal contractors differ from the informal producers in the sense that they may produce, simultaneously they provide service to the formal and informal sector producers by forming a linkage between them. They usually collect production orders from the formal (even from informal) producing firms and out-source them to informal sector firms. To do this, the contractors do not compete directly with formal sector producers over price but occupy a significant position in the production chain by ensuring work orders to the informal producers and timely-delivery of product to the formal firms (particularly when formal sector faces heavy work load). To do this, the informal intermediaries form a long-term network in the industry that ensures a regular minimal income flow through extracting work orders.

3.5 Formal Labour: The formal labour operates in some formal sector units working with better work conditions and coverage of effective social security benefits and social protection measures. They often collect work orders for the informal sector operators and collect their semi-finished products to deliver them to the formal sector producers. In this way, sometimes they work as a bridge-way between the formal and informal sector producers [1].
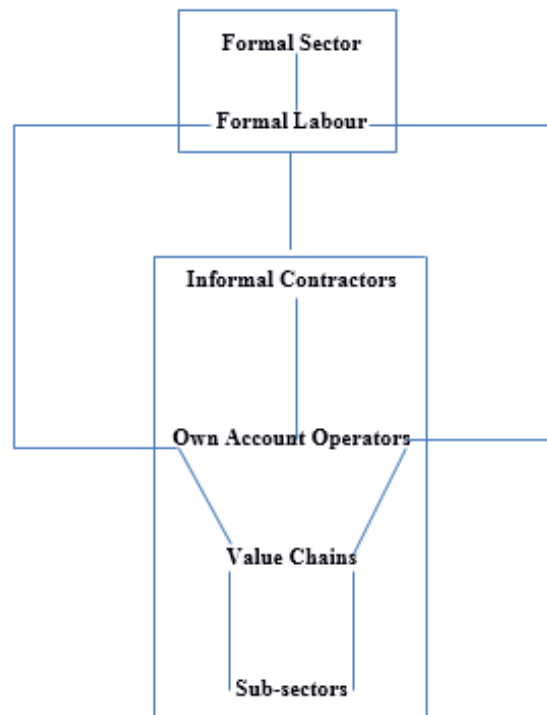

Fig 1: The Formal-Informal Linkage
And Hierarchical Structure of Operators

The evil effects of demonetization have started to function from here. The crunch of cash in the days immediately after demonetization in the hand of informal small operators at the "Bottom of the Pyramid" of the structure have conveyed significant arrays to the "relay" functions in the next few months in a multiplies effect that has impeded lack of out-sourced orders form the "Tops" to the "Bottom" of the "Pyramid" due to lack of aggregate demand in the market after the immediate cash crunch. The lack of work orders from the formal sector to the small informal operators has further intensified the situation in an adverse manner. All these have caused a loss of faith and lack of expectation on the market to a majority of operators in the "Pyramid" in near future immediately after demonetization – sufficient to reduce the growth of the market.

4. Informal Localization: Privately-initiated Industrialization at a Crunch

What is crucial here is that many of the informal operators are operating in informal localization [2]. Then it appears to be much easier to further intensify the problem of cash and demand crunch within an informal localization. To capture the idea of informal localization it is referred that informal localizations do not develop arbitrarily. There are significant economic factors that influence formation of an informal cluster of industry or a group of industries and businesses in particular geographical spaces. It is worth to mention that the industry or business in one location within a cluster with repeated transactions among themselves promote better coordination, trust, and informal linkages between industries or businesses, better efficiency, effectiveness, flexibility, management linkages in partnerships and alliances, and many others. The random shock of the event of demonetization became sufficient enough to transfer a harsh and negative contribution to all these factors in their co-ordination.

With the stochastic behavior of the industrial enterprises in the outskirts of the towns within any informal localization, the chance of horizontal spread of the problematic became easier due to the presence of Marshallian "primitive localization" within an informal "industrial district" with improved transport and communication facilities existing therein. In the Scitovskian (1954) sense, "information spillover" due to "labour market pooling" has influenced firm's production function by adverse execution of "pure" external economies of the scale economy consistent with imperfect competition with some market power of influential local producers in an informal set up [3], contributing to the internal economies of scale at the firm level [4, 5].

It is to refer that Becattini (1989, 1990) has raised the issue that government and/or government-sponsored institutions are not able to create an industrial organization with collective efficiency - rather a minimum concentration [6] of privately initiated industrial activity may involve therein. The impact of demonetization has simply conveyed a negative influence to this private initiation thereby affected agglomerated concentration of small informal enterprises in an adverse manner [7].

The result may be accrued to the new growth theory by Paul Krugman (1991), in which it is referred that a combination of (1) Transportation costs, (2) Economies of scale and (3) Knowledge spillover results in increasing returns at the firm level which largely influences geographical structure of the industrial economy by attracting a large number of competitive informal enterprises within the localization – which was not the case after demonetization. The outcome is attributed to the absence of the dominance of small and medium firms producing with the Marshall-Arrow-Romer (MAR) externality allowing an increased concentration of an industry within a specific geographical region facilitating knowledge spillovers across the producing firms within the localization, thereby promoting incentives to further inter-firm spillovers executing positive economies of scale. Moreover, the execution of Jacobs and Porter externality suggest that local competition is suitable to extract knowledge externality by the producing firms, which was absent there. The negative incorporation to the two factors that of Economies of scale and Knowledge spillover, has made negative incorporation on concentration of firms within informal localizations.

A circular causation [8] of all these provides maximum individual interaction in the informal industrial periphery from the industrial 'core' with well-established social capital network [9], which have not worked. The functioning of the "spread effects" accrued from the "core" has impeded negative influences to the process of eventual development of the peripheries through multiplier effect on their employment and output and a "relay" function has appeared to function through urban hierarchy at the peripheries from the "core" of the localization. Here, the negative "spread effects" accrued from the "core" to the peripheries have resulted in a growing negative incentive to the informal "localized" producers to form adverse influences to the firms within the localized informal industrial peripheries which has made significant arrays to the spatial production pattern dramatically.

5. Inverted-U Migration: The HME is in Veil

To Venable's (1996) New Economic Geography Synthesis, immobility of entrepreneurial income at destination due to inverted- U migration by the return migrants at their origin after losing their jobs at destination has resulted in increased volume of industrial investment, production, and employment generation at destination. An increased "labour market pooling" inheriting the Home Market Effect (HME) due to larger knowledge externality by which the geographically concentrated industry generates an additional demand for its products particularly in the peripheries of large urban locations and other distant destinations has not worked. This further appeared in a veil to attract a pool of imperfectly competitive firms, even the younger generation entrepreneurs, towards this large and growing market. An increased volume of vertical (hierarchical) labour mobility further contributes to faster industrial growth. In the process, previously (skilled) workers appear as independent individual entrepreneurs who now attract a pool of investments and employ skilled and semi-skilled labourers from the peripheral areas, which were not working after demonetization. All these have acted as influential factors failing to make spread of the peripheries in the hinterland of the region.

The event of demonetization has caused the execution of the inverted U-curve (the migration hump) approach in its fullest extent with an influx of jobless informal return migrants form destination to their origin. With this, the migration-sending regions are transformed to migration-receiving ends [10]. With the establishment of migration "networks [11]", an increasing proportion of population is able to migrate – in this case, however, the selectivity of migration made the migrants at destination to prefer to return to their origin in order to reduce their living cost at destination in a "job-loss" situation. The loss of HME has caused a decrease in aggregate demand at destination in multiplier arrays. All these has caused in reduced work orders at destination, thereby a decrease in market growth, thereby further decrease in aggregate demand, hence growth again.

6. The Concluding Remarks

It is the hierarchical "Bottom of the Pyramid" structure of industrial organization after globalization that has changed the nature of the Formal-Informal linkage paradigm. Out-

sourcing, putting-out and sub-contracting are at an increasing pace – indicating "jobless growth" of the formal sector. All these are causing to a horizontal spread of informal localization in different industries and services. To make a successful policy implementation, the policy makers have to capture this changing scenario at proper. Further, it is quite ambiguous that what is a "grey" economy is confusingly treated as the "black" economy. A combination of all of these has hindered to grab the desired successes of the policy of demonetization in India in recent past.

7. End Notes
1. Ref: King, 1974; Breman, 1976 Bose, 1978; Bienfield, 1975; Weeks, 1975; Breman, 1977; Papola, 1978; Tokman, 1978; and Peattie, 1980; John Harriss, 1990; S. V. Sethuraman, 1992; Breman, 1996; Levenson and Maloney, 1998; Ranis and Stewart 1999; Harriss-White and Guptu, 2001; Maloney, 2004; Kanbur and Guha-Khasnobis, 2006; Devey *et al*, 2006; Marjit and Maity, 2006; Chen, 2006; Perry *et al*, 2007; Pieters *et al* 2010; Breman, 2010; Meagher, 2013.
2. To examine the issue informality and its localization in any particular industry, the search for its literature support may be searched from the literature of Alfred Marshall (1890, 1892) in his "industrial district" concept with spatial concentration of small and medium enterprises – though the analysis of location started much before than Marshall with 'monocentric city model' of Von Thunen (1826) [Von Thunen's "Der Isolierte Staat in Beziehung auf Landschaft und Nationalokonomie"].
3. To Scitovsky (1954), incorporation of imperfect competition initiates internal economies of scale that implies market power. Scitovsky distinguishes between "pure" (technological) and "pecuniary" external economies. The former affects firm's production function (e.g. Marshallian "information spillover").
4. To the revised version of the Central Place Theory of Walter Christaller (1933) by August Losch (1944, 1954), the spatial economy of the region then tend to be dominated by a central primal city, the hinterland of which owes to be characterized by smaller settlements and alternating areas of industrial concentration and dispersion.
5. The Christaller model of central place is, however, inductive rather than deductive in the sense that the model is primarily based on observations rather than exploration of any schema constructed from first principles. To Parr (2002), the Loschian approach is completely deductive and a microeconomic foundation has been approached to understand the urban system. It shows that industrial concentration and urbanization may arise independently of local peculiarity and particularity.
6. The term 'agglomeration' of firms refers to decline in average costs in production as more production occurs within a specified geographic area [Anas, Arnott and Small 1998]. In other words, it relies strongly on increasing returns to scale, considering internal and external economies of scale.
7. Cluster of enterprises is a geographical concentration of micro, small, medium and large enterprises producing same or similar type of goods and services.
8. As referred by Brulhart (1998), while concentration analyzes location across space of a few well-defined sectors, agglomeration analyzes location across space for a larger part of economic activity, and specialization deals with share of a particular location in specific industry in comparison to share of other locations in that industry.
9. In the Big Push theory (Rosenstein-Rodan, 1943), the solution to the insufficient size of the local market is referred to a co-ordinated (government-led) expansion of investment - hence big push enters into. This enables firms to reap the benefits of economies of scale effect, thereby promoting industrialization of a backward region. Without such a big push, the backward periphery cannot catch up with the core.
10. In 1957, Gunnar Myrdal introduced the concept of circular or cumulative causation. In this, once a region (or country) takes lead in the process of economic development, positive external economies of scale in the region (or country) appears there – which ensures that the location will become an attractive place to invest and more attractive location for the labourers to work. The existence of strong localized spillovers leads to the establishment of a core in the region with large market and a periphery [Dicken and Lloyd 1990].
11. Social capital is social organizations (such as trust, norms, reciprocity, co-ordination, interactions belongingness and networks) between producers and workers that facilitate better co-ordinated actions among themselves.
12. Several researchers have shown, by using "labour frontiers", that migration tends to decrease only at later stages of the development process of any region and the region is transmitted from net labour exporters to net labour importers (Bohning, 1994; Rotte *et al*, 1997; Olesen, 2002).
13. Migration "networks" are defined as sets of interpersonal ties that connect migrants, former migrants, and non-migrants at the origin and at destination through bonds of kinship, friendship and shared community.

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