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Relevance of Rural Periodic Markets: A Review

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ABSTRACT

Literature on periodic markets in rural areas predicts the demise of these markets. Administrative policies support alternative markets for marketing farmer produce. Despite these predictions and administrative actions there are more than 43,000 periodic markets in India. Literature is reviewed to understand the state of knowledge on the influences that shape these periodic markets and to explain the resilience of these markets. The literature is organized into four streams to understand the phenomenon. The economic influences are grouped under the central place theory, microeconomic orientation and exogenous influences of government policies and competition. In addition to the economic factors the fourth stream is the social influences that shape these markets. The evaluation of the literature provides some understanding on the reason for the resilience. The literature clearly indicates the utility of these markets when density of demand is low but the persistence of these markets with increasing population and income is possibly less because of inertia and more because they offer value both to consumers and vendors too.

Issue of relevance of periodic markets in today's context

Administrative planners in India introduced policies that encouraged setting up newer forms of markets for trading in farm produce in addition to the existing periodic markets. Academic research predicts a gradual if not rapid demise of periodic markets. Despite these administrative actions and predictions there are more than 43,000 periodic markets spread across India (RMAI 2011). Business organizations selling consumer products to rural consumers utilize periodic markets as a channel option in addition to the wholesale-retail channel option. The resilience of the periodic markets despite these predictions suggests examining the state of knowledge on the periodic markets.

The review is directed at examining questions related to the relevance of periodic markets. The questions that the review seeks to understand includes: Will all the periodic markets be replaced by permanent retail outlets or will a substantial number of the periodic markets survive? Do they deliver value to rural population and if so under what conditions? While there are some indications that these markets are useful institutions it is not clear whether these markets have relevance with the growth of fixed retail shops, development of large central market places and the government interventions to set-up grain markets and introduction of laws to regulate the wholesale trade in food-grains. These are questions that need answers and the literature on periodic markets is reviewed for the purpose.

Periodic markets provide opportunity for local exchange of goods, initial stage for collection of rural surplus produce, and to retail goods (Hay and Smith, 1980). The characteristics include periodicity, mobility of vendors and vendor agglomeration. Mobility of vendors is considered by one study as the important distinguishing feature of periodic markets compared to the permanent markets in urban locations (Webber and Symansky 1973). The producer farmers and artisans get their products to the market to sell to consumers visiting these markets. The periodic markets are suitable for such small farmer producers as their farm production occupation prevents them from full time trading (Bromley, Symanski and Good 1975). The farmers and artisans participate in the market not only as sellers but also as consumers. These markets are present in many parts of Asia, Africa and Latin America

Four streams of research on periodic markets

The review examines the state of knowledge regarding the influences that shape the periodic markets. It was more than 50 years ago that Skinner carried out a comprehensive study to understand the influences that shape the rural periodic markets. The study observed an initial strengthening of the periodic markets. It however predicted replacement of the local periodic markets by fixed location shops in larger central shopping locations. A later day study by

Rozelle et.al. (1973) seeking to explain the persistence of these markets despite Skinners prediction of its decreasing importance suggests that the historical context of Skinners study did not provide all the variables that influence and shape markets. The Rozelle et.al. study suggests that government taxation policies are an important explanation for the persistence of the market. This study too however expects that periodic markets would possibly be replaced by the fixed location shops. This study suggests the need to carry out additional studies to examine the influence of different variables on the periodic markets in the context of newer forms of markets that may compete with the periodic markets. Studies that examine alternative markets that were set-up through government policies and interventions to meet the needs of farmer producers suggest that these government supported markets complement the periodic markets. Yet another study examined the competition between fixed location shops in the villages and periodic markets. Using the outshopping literature the study concluded that the periodic markets complement local rural retail shops.

Skinner an anthropologist used a historical approach to study rural markets. The study provided largely an economic rationale for the periodic markets. A later study that checked for the reasons for resilience of the periodic markets suggests use of the institutional framework from economics. These studies were preceded by studies using central place theory. The central place theory provided a conceptual basis for the periodic markets. Studies using this concept also examined the network of periodic markets. The research streams that can be grouped under the broad economic approach to the study of rural periodic markets are those that used the central place theory for justifying periodic markets and identifying the network of markets, the microeconomic rationale for exchanges in the periodic markets and effects of exogenous variables like administrative actions and competition from other forms of markets. In addition to the economic rationale for the periodic markets the social and cultural aspects influence the creation and persistence of periodic markets and this literature is the second broad category reviewed. This paper will summarize the four streams of research, three under economic factors influencing periodic markets and the fourth one under social aspects influencing periodic markets. It will discuss the understanding of the influences that shape these markets and highlight some of the challenges facing future researchers in periodic markets.

Economic influences on Periodic markets

Central Place theory:

Economic geographers have tried to understand the influence of distance and travel cost and density of demand on the spatial distribution of periodic markets and the periodicity or market cycle. Studies using central place theory explain the presence of periodic markets. The central place theory suggests that consumer will travel up to a certain distance for purchasing a product. It also indicates that the trader will offer the product provided the demand generated by those willing to travel the distance is a certain minimum (threshold). Periodic markets then are spread densely across the geography to provide convenience to consumers in terms of travel distance. In order that traders have enough demand these markets meet periodically than on all days. This is true in locations where the density of population and income levels are less and the demand is not high enough for traders to offer their products on all the days of the week. The accumulated demand over the weekly cycle creates demand that would cross the threshold limit. Stine as quoted by Webber and Symanski (1973) argues that when the maximum range of a good is greater than or equal to the minimum range, the firm will survive and be immobile. By contrast, if the minimum range of a good (a firm notion) is greater than the maximum distance a consumer is willing to travel (a consumer notion) the firm will either not survive or will be mobile. Furthermore, the degree of mobility will increase the greater the difference between these two ranges. Stine argues that the two ranges vary with income density, elasticity of demand, and transport costs (Webber and Symanski 1973).

The central place theory also indicates that the markets are spread out in triangular lattice form with the market area as a hexagon and the periodic markets at the central location. The range and threshold varies by product. For the products which are bought infrequently and priced higher the range as well as the threshold levels is higher. The higher order goods then have larger hexagonal markets. This then suggests a hierarchy of periodic markets with higher level markets having both the lower order and higher order goods.

The central place theory predictions of expected network of periodic markets or weekly cycle may not always hold as the variables examined are limited to distance and demand density. The deviations are then explained by relaxing the assumptions on which the theory is based. One of the relaxations to accommodate consumers travelling to higher order markets for lower order goods is the assumption of single purpose trip. With multipurpose trip the range for the goods increase allowing for consumers visiting the higher order markets for lower order goods.

Using graph theory to understand the periodicity and noncompeting markets Tinkler (1973) develops conditions under which markets with different periodicity exists. The assumption of infinite Christaller lattice introduces no inequalities among markets to introduce permanent central place system. In the finite case there could be inequalities. The presence of conflicts between markets functioning on same days and the inequalities suggest some markets to be more important than others. In addition to conflict on same days between markets, increasing income can generate continuous demand for at least lower order goods encouraging permanent markets (Tinkler K.J. 1973).

The central place theory while providing a theoretical basis for the periodic markets had its limitations. Studies relaxed some of its assumptions of single purchase trips but not considering the effects of agglomeration and exogenous factors other than vendor and consumer costs of travel and of demand and also ignoring competition are its limitation.

Economic rationale for transactions in periodic markets:

Using concepts of costs and demand Hay (1971) indicated that the assumption of central place theory explains only a special case of periodic markets. According to him the trading in the periodic market is not limited to only the mobile trader but also the farmer producer trading as a part-time seller. Also the objective of the trader is not just limited to achieving viability but could include forestalling competition and also increasing profits (Hay 1971).

One study extended the central place theory by including the agglomeration of vendors. The study develops a model to check conditions under which variations in periodicity, mobility of sellers and agglomeration of sellers occurs in periodic markets. The low density of demand at a location causes vendors to meet that demand in a relatively short period of time. Second, the ratio of transportation costs for the vendor to vendor overheads when low as in less developed economies there is an increase in vendor mobility. Whether or not the vendors agglomerate depends upon the size of agglomeration, that is, upon consumer savings on transport costs due to the agglomeration, and the extent to which the firm with the larger market area sells to a non-integral number of smaller market areas. If the large firm does sell over an integral number of market areas, it always joins a group of firms. But if it sells over a non-integral number of market areas, it may locate independently, particularly if the agglomeration contains only a few firms. The market areas need not be symmetrical and variation in the size of market for a good is in contrast to the conclusion of central place theory (Webber and Symanski 1973).

The traders' time cost of selling a commodity is assumed by Webber and Symansky (1973) to be variable. The assumptions on cost and demand are that the trader would visit as many markets that the trader can physically serve. This may not be empirically supported (Hay 1977). Hay (1977) also argues that the central place theory and the average cost analysis both allow a theoretical justification for periodic marketing but under situations that allow for only a single vendor. Increase in number of vendors based on these approach make the system unviable (Hay 1977).

Hay and Smith (1980) examine the issue of consumer welfare in periodic markets. They use the triangular lattice form to examine the influence of periodicity and spacio-temporal sequence of periodic markets on consumer welfare. Consumer welfare is examined in terms of the variety of goods, price, choice and access in time and space. The expectations are based on the regular grid form and this is examined using data from available published studies for the correctness of the expectations based on the regular grid form. The study suggests that periodicity provides goods that otherwise would not be available. There is also increased competition because of periodicity and this allow for better price. The study examines consumer welfare under different space-time sequence. The study examines the consumer versus trader sequence along with the location of the consumer at the market. The longer periodic week is a disadvantage to consumers in terms of distance to the market. Consumer welfare increases in terms of choice of traders with interlocking markets and shorter market week. The authors conclude based on the results from the study that there is a need to examine whether the periodic markets contribute to the welfare of rural people before judging the relevance of periodic markets (Hay and Smith 1980).

Other studies indicated additional variables influencing the growth of periodic markets. The need for interregional trade is indicated as an influence on the creation of periodic markets. In Sierra Leone the periodic markets were absent as the villages were producing similar products and there was not much interregional trade. With colonisation and demand for palm products there was a need to procure these products from the villages. The agents purchasing locally and bulking these products allowed an opportunity for interregional trade. Along with this the development of urban centres created demand for foodstuff and this had to be procured from the villages. The study observes that interregional trade, presence of outside traders and motivation of administrators stimulate the development of periodic markets (Riddell J.B. 1974).

The exogenous influence from traders is also indicated as an influence on the setting up of periodic markets in one other study. Profits of traders in long interval markets tend to be higher than those in short interval market. Also quite a number of rural traders participate in many markets to improve their income (Yusuf 2011).

Skinner's (1964) study was unique in that it examined the changes in periodic markets over time in China. He used historical method to capture the changes over time. He also examined these changes over the hierarchical network of these markets. Each of the market towns was part of a hierarchical marketing network. They were linked up with intermediate market towns which, in turn, linked up with central market towns. The higher-level markets served central place functions for the markets below them-bulking and shipping out goods coming from below and wholesaling and distributing goods coming from above.

As population, production and demand in an area rose, more people initially would crowd into the existing market site on its scheduled meeting day, and the volume of trade would rise. When demand rose further, the number of days that the market met per week would increase. Finally, when trade was sufficiently extensive, new open-air market sites would open at points closer to some of the clients.

According to Skinner, improved roads within the intermediate marketing systems reduce the "friction of distance" at the local level, raising the effective demand at the higher, more distant market to a level that can begin to support daily markets or large numbers of permanent shops. When the process of modernization proceeds far enough, it is supposed to lead to a disappearance of rural periodic markets. This process of decline should begin in the most developed rural areas next door to core metropolitan areas, and could proceed even while activity in periodic markets continued to expand in the more outward regions (Skinner 1964).

A study in the Indian context however indicates strengthening of the periodic markets with increased development and transportation infrastructure (Khan and Ai, 1998). This study possibly used the larger markets (intermediate markets in Skinner's study) and in which case may not contradict the Skinner's conclusions.

There are other studies that also indicate the resilience of periodic markets. Skinner's (1964) study predicted the demise of periodic markets but another study more than 25 years later of the less developed interior locations in China indicates the utility of periodic markets in these locations. In low income and hard to reach locations the viable system according to this study is periodic markets. The periodic markets are also a place for exchanging information and meeting friends and relatives (Veeck, G. 1992).

Exogenous economic factors: Government policies, interventions and competition

Rozelle et. al. (2003) examined the resilience of periodic markets in China despite Skinners prediction of the weakening of these markets. Skinners study was before the Chinese revolution and therefore the changes in the social and political situations in China and the intervention of the planner in shaping local markets is not considered. A complete model of marketing patterns needs to account for tax, land and banking policy, as well as the density of demand and the construction of national and local infrastructure. According to the authors the use of a more general conceptual basis, such as transaction-cost analysis or the ideas of new institutional economics that identify other forces of economic transformation, may provide broader explanatory power. Such a general transaction-cost approach allows for all of the elements in Skinner's original model, in addition to explicitly considering the tax transactions, property rights issues, imperfections in markets and the regulatory obstacles that the authors' inquiry into the persistence of periodic markets had uncovered. Even if demand conditions are such that they will support the transition to a new marketing form, such as permanent shops, the tax policies and imperfect land and capital markets could be generating such high transaction costs for prospective shop-owners that they choose to forego the opportunity. The authors also note that some of the forces that were supposed to lead to a demise of periodic markets could be strengthening them, in that modern transport not only reduces the transaction costs of consumers to get to the permanent shops, but also reduces the costs of the itinerant vendors who sell and buy in the periodic markets, which helps keep periodic markets in business.

The use of a more general theoretical framework also broadens the inquiry beyond the dual options of periodic markets or permanent shops. The rise of commercially oriented state-owned trading firms (grain companies, seed enterprises and other outlets created by administrative edicts of the socialist government and liberalized by Deng's reformers) provide additional marketing channels. The appearance of these new participants in markets throughout rural China has implications for the future evolution of periodic markets. Coming up with a model to explain the impact of these alternative marketing forms presents a new challenge (Rozelle et. al. 2003).

Competition to periodic markets:

Law of retail gravitation suggests that the reason for consumers' preference for markets is because of its attractiveness and not just the distance. This and outshopping literature is used to examine the continued presence of periodic markets despite the growth of local fixed location retail shops. While this study focused on the effectiveness of the periodic markets

and the evolution of fixed location shops another study compared the periodic markets to the markets promoted through government interventions.

Government regulated markets and its influence on Periodic Markets:

Wanamali (1980) examines the marketing of agricultural produce in a location in Nagpur district to understand the role of regulated markets and periodic markets. The study suggests that the regulated markets do not replace the periodic markets and that they possibly complement each other. The regulated markets are located in large centres and it is possible that the small producer seller may not have the capacity to stock, and transport the produce to these central markets, (Wanamali 1980)

Law of retail gravitation/ Outshopping influences

There is evidence of small fixed location stores developing in the villages themselves and they provide convenience to consumers and therefore a competition to periodic markets. A study on the prevalence of the periodic markets suggest that the growth in periodic markets could be because of the rural consumers' preference to outshop in periodic markets. The preference to outshop in the periodic markets is possibly because of the variety offered in these markets (Velayudhan 2014).

Social and cultural influences on periodic markets

The economic reasons possibly do not fully explain the origins of the periodic markets or its persistence. Once the periodic markets are established the existence of these markets is possibly explained by the economic factors. The origins of periodic markets are indicated as exogenous with external traders playing an important role in encouraging the setting up of markets. This would happen with societies where there is specialization of labour and therefore more likely in stratified societies. The early markets were adapted to the needs of producers who sought to sell their produce and also buy other items. The markets were required to be periodic as they were not only traders but also producers and periodicity was suited to their needs. The periodicity and the day for trading were based on already existing routine based on production, religion, administration, and rest and recreation. These may later change according to requirements of avoiding competition or even pressure from religion or administration. Established market locations gain reputation and scale economies and therefore persist because of inertia. The increase density of demand and development of transportation may allow for establishing daily markets and permanent shops but the periodic markets may persist because of inertia or it may operate along with permanent shops. It is possible that they meet on certain days along with the urban markets and so those days

exhibit intense activities or there may be separate location for these markets or there may be these producer sellers selling alongside the permanent markets. The authors suggest that the transition from periodic markets to permanent markets is difficult to identify.

Initial advantage and the weight of tradition, variables which are cultural and historical as much as they are economic, give two economic benefits to consumers by prolonging the life of periodic markets. One is the presence of high order goods that otherwise would not be available in a given market centre, and the other is the presence of high order goods at a greater number of locations within a given area (Bromley, Symansky and Good, 1975).

An ethnically diverse region is studied by Masaru and Badenoch (2013) to examine the resilience of periodic markets. The study suggests the freedom to buy and sell goods and interaction between diverse groups with presence of a number of actors with no one group dominating and controlling. This freedom to buy and sell and interaction among diverse actors is indicated as a major reason for the strength of this type of market. The market according to this study is not just meeting economic needs but a place for social interaction (Masaru and Badenoch, 2013)

The importance of social exchanges is clearly indicated in one other study. This study of market place to examine the changes in the economic and social exchanges in Sa Pa, Vietnam provides an understanding of the persistence of social exchanges despite numerous changes. Produce cultivated or gathered by highlanders dispersed in isolated hamlets is sold to or exchanged with other members from the clan or to lowlanders for various commodities and consumer goods. The area witnessed changes over the years that include colonial rule, communist planned economy and tourist influx. The planned economy limited the social exchanges and increase in tourism contributed to growth of the marketplace, with the range of goods on display increased to fit both direct and indirect tourist demand. Despite these transformations, for most of the highlanders, the market is still used for the same social purposes as in the past. The social purpose include for the youngsters search for partners and for adults to exchange information, meet relatives and relax after cultivating in harsh climate (Michaud and Turner 2000)

Evolution and evaluation

The initial studies used the central place theory as the conceptual framework to understand the periodic markets. Studies by economic geographers using the central place theory focused on the network of markets and the cycle that these markets were expected to have. Studies sought to explain the deviations from the normative structure of the markets. Skinner (1964) on the other hand performed an empirical study of the rural market structure and the influences that shaped these. This was an enormous contribution. The drawback of the empirical approach was that it limited the understanding to the context of the study and conclusions had reduced relevance with changes over time. Thus a later study observed the non-consideration of government policies and implications of cess on the periodic markets. This study by Rozelle et. al. (2003) recognized the need to understand the influences of competing markets and institutions. Studies that examined the growth of government supported markets and local retail shops did not observe any negative impact of these new competing markets on the periodic markets. Outshopping literature provided the theoretical basis for understanding the effect of retail shops on periodic markets. The different frameworks of central place theory, microeconomic concepts and outshopping literature need to be integrated to develop a better understanding of periodic markets.

The different streams of research acknowledge the relevance of these institutions. Central place theory provided the justification for periodic markets based on the distance travelled by the consumer and viability of vendor in the context of low density of demand. The other economic reason that supports the continued presence of these markets rests on the reason advanced for the origin of these periodic markets. This is indicated as possibly because of interregional trade. Demand for local produce in higher order markets encouraged the bulking of commodities produced locally and traders' efforts at procurement stimulating the emergence of periodic markets. In addition to these certain studies suggest that social exchange is an important component in these markets and therefore explains the persistence of these markets. Many of the research that uses economic factors to understand periodic markets predicted the demise of these markets. They indicate the likely replacement of these markets with other form of markets. The possible reason for this is the increasing density in demand and improvements in transportation. The density of demand possibly may not increase in certain locations to the extent required for permanent retail outlets and possibly the reason that these markets seem to be strengthened with increased income and development of transportation infrastructure. The continued resilience of periodic markets is

also indicated for reasons of changes in government policies and cess influencing the transaction costs. The studies that examined alternative markets to periodic markets suggest the other markets complementing the periodic markets. The expectation of demise of periodic markets or its conversion to location with permanent shops operating on all days needs to be checked for its applicability in different contexts. The demise may not happen in all of the contexts on two counts. One reason is that even though the market may operate on all days these markets may still have some days of intense activities. The rationale for such an expectation is that on the days of intense activities the availability of high order goods in more number of locations than would otherwise be available. The other reason as seen earlier is possibly interregional trade encouraged by the bulking of commodities produced locally and demanded in higher order markets. In locations where such local produce is offered by small producers and required in higher order markets these markets can be expected. In addition to these the studies that examine the social exchanges clearly indicate that the reason for persistence of these markets include the continued social exchanges in addition to the economic exchanges. These studies then suggest that the periodic markets would persist and that even in cases were permanent shops are setup during the market days there would be intensification of activities.

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