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Kanpur nagar district- a msme cluster hotbed for sustainable economic growth

Ritu Rai

*Research Scholar, Department of Economics, Dr. Shakuntala Misra National Rehabilitation University, Lucknow -226017, India

Article History: Received: 29 May, 2021 Revised: 24 July, 2021 Accepted: 31 July, 2021

Abstract

Research Purpose/Scope: A dichotomy flows between the traditional Micro Small and Medium Enterprises (MSMEs henceforth) cluster and newly established cluster in the context of their emergence, evolution and growth. Now, following the path of big industries, MSME have linked itself with the economies of scale, entrepreneurship, venture capital and knowledge management Here, Kanpur Nagar District has been taken as resource region where the research reflected that this region has the potentiality to become the driver of cluster based economic growth. The research paper dealt with the economic fundamentals of region, comparative advantages of innovation and market technology factors which are responsible for the growth and sustainability of the MSME cluster in Kanpur Nagar District.

Materials and Methods: The empirical study of selected MSME's which have mutual competitiveness & repulsion has been done. The tabular data has interpreted the composition, size, situation and association of MSME's in the region. The linear diagrams has reflected the dooming share of MSME's specially the leather and bristle-based clusters. A need and opportunity-based model will set a functional approach for the complementarity of the market (vertically and horizontally) and capacity building of firms.

Findings of the Research Paper: A declining trend has been witnessed in the MSME's because of sick firms and factories, unavailability of skilled workers and trainers, low capital assets of firms and inefficient companies. Clustering can create an effective supply chain for the viability of the market economy. It can improve the condition of firms and pool the money for the required infrastructure and investment for further upgradation. Therefore, it becomes imperative to go for clusterization based directive policies because there is a huge scope for profit sharing between government and local artisans. Establishment of Kanpur Nagar as a MSMEs cluster hotbed, will be a new challenge with major risks and responsibilities.

Keywords: Clusterization, Economies of Scale, Entrepreneurship, Comparative Advantage, Need & Opportunity based Model, Cluster Hotbed.

Corresponding Author

Ritu Rai

Department of Economics

Dr. Shakuntala Misra National Rehabilitation University

Lucknow -226017, India

Email: ritu1989rai@gmail.com

How to Cite

Rai, R. (2021). kanpur nagar district- a msme cluster hotbed for sustainable economic growth. *The Journal of Multidisciplinary Research*, 1(1), 10-16. <https://doi.org/10.37022/tjmdr.v1i1.220>

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Introduction

The purpose of the research paper was to investigate the scope and strategies of MSMEs clustering in Kanpur Nagar District. The prime question was to find out the supply side gaps that Kanpur Nagar can bridge through entrepreneurship and a technical labour class population. It is poorly performing on productive levels of MSME's and need a refurbished approach. MSMEs have a futuristic vision in India. MSMEs have shared 29% of country's GDP, 50% of the total exports,

45% of employment opportunities and 95% of total industrial units in year 2020. In the financial year 2020, India registered 63.39 million total MSMEs, where 32.49 million are rural MSMEs, 30.9 million are urban [1,2]. Here, Uttar Pradesh accounted for 9 million of MSMEs, which is around 14% of MSMEs of South East Asia [2].

Uttar Pradesh is a fast-pacing state with a latent population dividend, where the working age population will be reaching 446 million by 2031 [3]. Only MSMEs have the specific

potentiality to absorb this huge latent population dividend. Here cluster planning in MSMEs can become driver of economic growth, especially in the resourceful regions such as Kanpur Nagar district. The research questions are:

- How to reap the benefits of both economies of scale i.e., local supply in global market?
- What are the gaps that Kanpur can fill through entrepreneurship and have a gainful profit?
- To list the local external effects which will increase the returns of the profit directly to the firm and its hinterland.
- Which are the new clusters that need promotion and capacity building?
- How do cluster become self-financed and raise their own funds?

The significance of the study was cluster planning of MSME in resource region & to link it to the external economies to bring the forex in native region. Kanpur, earlier known as Kanhpur or Kanahaiyapur became an independent district on 15th August, 1981. It is further divided into 10 developmental blocks namely Kalyanpur, Bidhunu, Sarsol, Bilhaur, Shivrajpur, Chaubeypur, Kakwan, Ghatampur, Patara and Bhitargaon. Kanpur Nagar District has been renowned as an 'Industrial town' of Uttar Pradesh [4]. The district once renowned as Manchester of East, Leather city in the 18th century but lost its accolades because of declining rate of manufacturing and export quality material especially leather-based products. Later on, Sir John Burney Allens companies, Kanpur Woollen Mills, Lal Imli Mill, Elgin Mills, North Tannery Mills, J.K. Cotton and Iron Mills, New Victoria Mills, Ordnance Factories and Duncan Mills are some prestigious clusters which have established Kanpur as industrial agglomeration of north India [5].

Cluster planning is inter-firm or inter -factory specializations of similar functions, challenges, threats and opportunities [7,8]. UNIDO describes clusters as "geographical concentrations of inter-connected enterprises and associated institutions that face common challenges and opportunities" [9] Clusters are not only the agglomeration of firms or factories but they exhibit some degree of complementarity with each other for a common goal of collective monetary profits and sustainable economic growth.

Materials and Methods

This was an exploratory research and focused its aim to finalize the components of need and opportunity-based model. Different statistics and comparable tabular data have been utilized for content analysis. Conclusions have been derived on the basis of secondary data and mixed method research methodology (MMR). The bibliometric analysis (literature review) and inductive approach has been taken into consideration for understanding the evolution and growth of the cluster planning and Functional Innovative System (FIS).

i. Bibliometric Analysis

"Cluster and Spatial Planning -Towards a Research Programme" has critically opined that the theory of locational quotient of clusters and spatial planning go hand in hand for the purpose of welfare economics. The push and

pull factors affect firm migration and reallocation specially in the business dedicated areas and initiative areas (Replacement of agriculture areas by manufacturing and service areas in the context of Indian Economy). In the regional economic compositions, spatial planning has contradictions with the Geographical spatial concentration has scope for the economic clusters. Agglomeration, Innovation and transportation in proximity can become the dialectic of hub-based knowledge diffusion process. Another issue is the mushrooming of unfocused MSMEs, finally culminating in the bad choices for regional innovative system [10].

"Cluster as innovation engines: The Accelerating Strengths of Proximity" has analysed that the neo classical perspective of clusters have deviated their scope from the traditional outlook. Firm and Innovation are linked dynamically. Innovation is the Key driver of Economic performance (Porter, 1998). Now innovation and Knowledge economy are the building blocks of Regional Innovative System (RIS). Cluster Innovation has included social and cognitive economics where the knowledge dissemination of technology is faster and self-reinforcing in itself. The Asian MSMEs cluster and strategize the synergies of interaction, information, competition and adventurism [1]. The technical paper on the theory of cluster planning "The UNIDO Approach to Cluster Development" has picked the case studies and project experiences to develop cluster economies worldwide. It's not only the cluster agglomeration policies for pro-poor planning, but the construction of a socio-economic system, where the virtuous cycle of cluster transform itself for sustainable growth. Therefore, it becomes imperative to find out the causes of stagnation or dissolution of clusters. Here, South Asian Economies have not been included for cluster planning despite of fact that they do possess the greater potentialities and scope for sure [11]

The research paper "The Micro Small and Medium Enterprises (MSMEs) in Manufacturing sector in India- Role of MSME cluster and the idea of MSME Manufacturing Cluster Density" critically analyses the growth of MSME cluster density in Indian states and establish a positive co relation between the number of MSME cluster and their share in manufacturing growth. The critical analysis has the purview of enablers and speed breakers of MSME where the role of leading banks and their priority sector lending has been advocated. MSMEs in India is basically demand driven and export oriented. Therefore, the links for the market access and competitiveness has to be strengthened by the government. This paper didn't include the alternative policies and programmes [9].

For the empirical study of the clusters in India, the research Paper "Development of MSMEs -A decade clusters in developing India" explores the cluster technology for the promotion of networking, local area development and regional economical balances. MSMEs covers almost 90% of the total enterprises of the developing world. The paper critically observes the need of clusterization in various industries an

India and discuss the models and approach which are yet to be explored. The noteworthy role of MSMEs cluster is much visible in the augmentation of the physical, technical and knowledge infrastructure [12].

ii. Economic Fundamentals of MSME cluster in Kanpur Nagar District

Kanpur Nagar has a vast territoriality with the area of 3155 square kilometre. It has an explosive population base where 65.8% population is urban population [4]. This population dividend or human capital can be utilized for the advancements in MSMEs. It also has a very high literacy rate with 79.7 % and many reputed educational institutions such as Indian Institute of Technology (IIT) Kanpur, Chandrashekhar Azad University of Agriculture and Technology (CSAU&T), MSME Development Institute, Indian Institute of Pulse Research (IIPR). Therefore, technical and educated labour is easily available.

MSMEs are dispersed very widely in the rural area of 2832.2 square kilometres and much more concentrated in the 322.8 Square kilometres of urban area [5].

Table 01: Statistics of Kanpur Nagar District in Uttar Pradesh

| | |
|-------------------------------|-----------------------|
| Area | 3155 Square Kilometre |
| Population (total) | 4581268 |
| Rural Population (total) | 1565263 |
| Urban Population (total) | 3015645 |
| Urban Population (%) | 65.8% |
| Decadal Population Growth (%) | 9.92% |
| Literacy (%) | 79.65% |

Source: District Census Handbook. (2011) Series 10. Part XII b Kanpur Nagar District. Census of India [5].

Kanpur Nagar is situated on the bank of two rivers Ganga and Pandu. Therefore, availability of bajri sand, balu sand and brick soil form a cluster in the backward regions (outward growth of MSME). There are only 92 registered medium scale industry and the turnover of small-scale industry is only Rs.89671 [5,6]. The average of daily workers in SSI is 74980.

Table 02: Statistics of Registered Units, Employment and Investment in MSMEs in Kanpur Nagar District (Year 2000-2011)

| Year | No. of Registered Units | Employment | Investment (In lakh Rupees) |
|-----------|-------------------------|------------|-----------------------------|
| 2000 - 01 | 704 | 3230 | 2832.00 |
| 2001- 02 | 752 | 3054 | 2272.00 |
| 2002 - 03 | 833 | 3135 | 2482.00 |
| 2003- 04 | 805 | 3019 | 378.00 |

| | | | |
|-----------|-----|------|----------|
| 2004 - 05 | 815 | 2932 | 1069.00 |
| 2005- 06 | 827 | 2969 | 1919.00 |
| 2006 - 07 | 792 | 3259 | 2651.00 |
| 2007- 08 | 877 | 3652 | 5577.00 |
| 2008- 09 | 875 | 8648 | 11149.00 |
| 2009 - 10 | 875 | 4942 | 19088.00 |
| 2010 - 11 | 874 | 5015 | 21110.00 |

Source: District Industries Centre (DIC), MSME Development Institute, Kanpur Nagar, Government of India [4]

Table 03: Statistics of Micro, Small and Medium Enterprises in Kanpur Nagar District (Year 2000-2011)

| Year | Micro | Small | Medium | Total |
|---------------------------------|-------|-------|--------|-------|
| 2007-08 | 810 | 67 | 1 | 878 |
| 2008-09 | 775 | 7 | 2 | 784 |
| 2009-10 | 799 | 76 | 3 | 878 |
| 2010-11 | 789 | 85 | 3 | 877 |
| 2011-12 | 753 | 119 | 11 | 883 |
| 2012-13 | 968 | 30 | 1 | 999 |
| 2013-14 | 2400 | 215 | 11 | 2626 |
| 2014-15 | 2424 | 240 | 11 | 2675 |
| 2015- September,2015 | 656 | 126 | 06 | 788 |
| September 2015- 15 October 2019 | 25250 | 3160 | 135 | 28545 |

Source:

<http://www.dcmsme.gov.in/publications/EMII-2014-15.pdf>
https://udyogaadhaar.gov.in/UA/Reports/DistrictBasedReport_R3.aspx [4]

Analysis & Interpretation

The tabular data presents the wide picture of MSMEs development from year 2000-2011, where from the year 2007-2011, no of registered units have increased marginally, employment has shrunk. From year 2014, only micro industries have shown tremendous growth. Small and medium industries have just survived and couldn't take the pace with economy.

i. Comparative Advantage of Innovation and Market Technology (ICT) in resource region

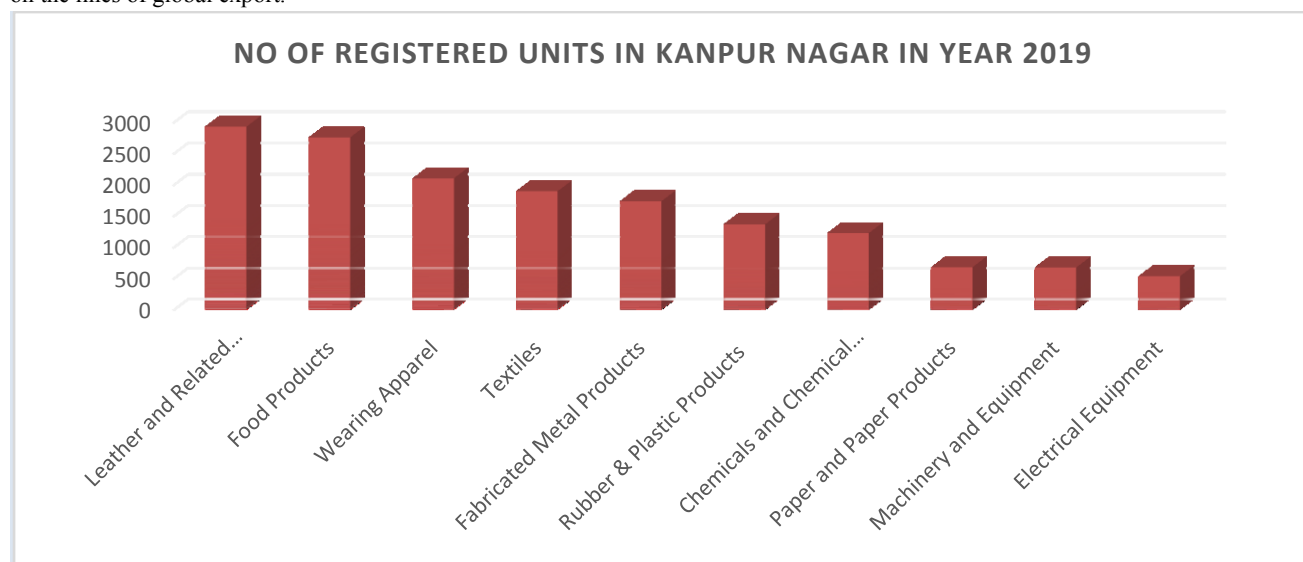
The old and traditional MSME clusters dealt with the firm establishment, proximity to the sources of factor production, profit maximization and investments [13-14,18,19]. Porter's (1990) comparative advantage has a leading role in the cluster economics. Here, in Kanpur Nagar, the theory of Comparative Advantage has a significance in market competition. In Kanpur Nagar, some isolated enterprises have faced many serious problems

in connecting with the global demands and ended up in the local market. They couldn't pool money or credit for transfer of technologies, trade in world market, linking to the GVC (global value chains), for example, soap & detergent cluster, cold storage cluster. Complex regulations and book keeping compulsions have distorted MSMEs. Kanpur Nagar is neither an aspirational nor an advanced district. It's important to study the availability & variation of skills. Technical and service class labour is readily available for the development of ICT based market.

**Table 04: Categorization of MSMEs Clusters in Kanpur Nagar District
(On the basis of their Economic Performance, Year 2019)**

| Star Clusters | High Performing Clusters | Low Performing Clusters | Clusters in threat |
|----------------------------|----------------------------|-------------------------|-----------------------------------|
| Readymade Garments | Cotton Hosiery Cluster | Steel Furniture | Paint and Allied Industry Cluster |
| Harness & Saddlery Cluster | Soap & Detergent Cluster | Power loom Cluster | Pan Masala |
| Leather & Leather Products | Sandals & Chappals Cluster | | Leather Tanning |
| | Plastic Cluster | | |

Source: Derived from the District Industries Centre (DIC), MSME Development Institute, Kanpur Nagar, Government of India [4] Studies showed that some clusters are doing well, other are vanishing or shifting in the lack of market, even local one. Leather Tanning industry is shifting to Kolkata and Noida because they don't have raw material (leather hides). For threatful clusters, no research has been taken to revive these MSMEs. Knitting wear, fleece and readymade garments have a newly formed cluster and performing well on the lines of global export.



Source: MSMEs Development Institute, Ministry of MSME. Government of India [4].

Figure 01: No of Registered Units in Kanpur Nagar in Year 2019

The data of the industrial profile clearly states that the MSMEs in manufacturing sector have shown a leap (59.62%) in comparison of service sector. In year 2019, no. of leather industries was 2934, food Products were 2762, wearing apparel were 2107, textiles were 1901, fabricated metal products were 1740, rubber & plastic products were 1370, chemical products were 1230, paper products were 684, machinery were 680 and electrical equipment were 540. There is dire need to build up the competitive strength. The major issue is price competition in world market as vendors are not getting the profitable share. The leather industry of Kanpur is famous worldwide, especially industrial leather of Jajmau sub district where about 500 tanneries are currently operational. The saddlers and bristle industry has an export-based manufacturing base.

Results and Discussion

Findings of the Research Questions (Policy Formulation)

The first question (mentioned in Introduction) talks about to reap the benefits of economies of scale. Here, transfer of technology (ToT) can link to the growth points worldwide. Kanpur Nagar has a plenty of engineering labour. It's a golden opportunity where outsourcing will have an edge effect. The second question has a need of entrepreneurship. It's true that the MSMEs can't compete the highest level at global scale now because in that situation it will not take off (direct competition with world products will collapse the investment structure). Therefore, we need to find the gap areas where there is possibility of kickstart growth and indirect complementarity. The representation of women entrepreneur should be increased. The third question has an orientation towards the local external factors Most of the industries (which are in need of land) can be shifted to the areas of sick mill/ barren land areas, even in the central locations where the economic links (labour and transport) merge. Fourth question talks about the new clusters such as a regional market of defence products, readymade garments and pharmaceutical sector. A widespread branding and representation of each

MSME is imperative for the self-sustenance. Linkage and presence of vertical and horizontal market will form the market strategies for continuous demand of products. Lastly, the urban infra structure (waste management, EIA (environmental impact assessment), sanitation, transportation web) will help the cluster in reduction of transportation cost, timely product delivery system, product diversification through competition.

Traditional Approach VS Functional Innovative System (FIS)

Successful clusters are the trophies to the economic system of region. They behold the strength to cope with the shocks of world market. Studies reveal that imitation of the clusters has never performed well for economic growth of region [15]. Though it's easy to imitate the cluster in any other region but they have failed very badly. The study found out that the region needs its own pervasive indigenous model instead of shift and adapt or shift and apply formulae. Through Make in India initiative and indigenization of our own products, growth of MSMEs can be ensured with Digital India, where banks will have a leading role in the market as supplier (for easy availability of bank loans at low/zero interest) and hedger. There are 532 nationalized banks, 157 commercial banks, 47 regional rural banks, 12 cooperative banks and 4 land developmental banks, which is an opportunity for region [4].

Systematic factors of clusterization are different from unique factors of regional clusters. Therefore, the traditional regional cluster perform differently from the nascent regional cluster [16]. The research explores that the traditional approach has created a menace for the growth and upgradation of MSMEs. Kanpur Nagar lacks in adequate financial and physical infrastructure. It has environmental problems such as water pollution, problem of solid, industrial and E waste management, problem of network of roads and connectivity. Kanpur Nagar still doesn't have any airport for regional or international connectivity. In functional innovative system (FIS), MSMEs work as a catalyst for overall economic growth and resource utilization.

FIS can block the employment gaps in Rural, Rurban and urban peri urban. The contractual jobs and outsourcing of the knowledge spill over (especially for the technical labour class population) will have multiplier effects [17]. Specifically, for traditional MSMEs, intervention will have a huge scope instead of directive policy of profit sharing between govt and artisans It's very important to understand that why some of the earliest efforts of cluster policy have failed. This will help in avoiding fallacies in future.

The research paper found out the key factors which indicate that the MSMEs in Kanpur Nagar need a refurbish approach.

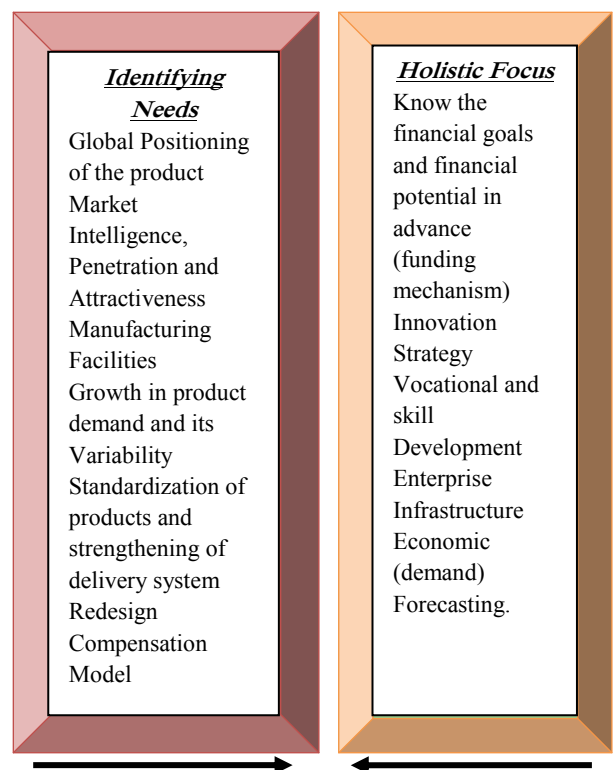
- Most MSMEs have a very low capital asset. They are not investing in technical upgradation of hard and soft infrastructure which is stagnating their outward growth. For example: Tailoring textiles, manufacturing of electrical appliances.
- The similar problems are with the new & emerging entrepreneurs as they have minimal credit assistance and term loan policies. A few no. of trade fairs and loan firs had been organized by the government in

past years. The representation of women entrepreneurs is very minimal.

- MSMEs are facing the technical obsolesces. The technology is available and accessible in the market but to operationalize it, is a real struggle. The criticality is the enabling ecosystem, transfer of technology (ToT), information and knowledge dissemination in MSMEs.
- Establishment of the local consumer market, unavailability of backward and forward linkage, lack of market intelligence is concerning issues. MSMEs (product quality and quantity) need to be scaled up for global trade, especially the handloom and handicraft industry of Kanpur Nagar. Example: Cotton hosiery cluster (inadequate raw material and dying facility, absence of brand image, no land space available for expansion)
- Unawareness about the government MSMEs policies and dysconnectivity with the government institutional programmes such as Digital India (DI), Make in India (MII) .
- Disappearance of cluster competitiveness and repulsion has been observed.

Need and Opportunity based Model

The need and opportunity model points to the advantages of opportunity analysis. The question thrives the model-based approach which can transform the need into opportunity i.e., competitive analysis, economic (demand) forecast, market intelligence and branding reputation of products. The aim of need and opportunity-based model is to create an enabling and innovative environment for MSMEs cluster programmes and its knowledge dissemination. A critical assessment will make a staunch policy base to meet the ground realities for optimum utilization of vast population and resource management of the region.



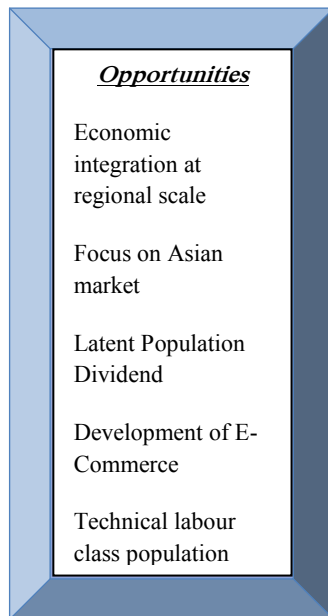


Figure 02: A Blueprint of Need & Opportunity Model for Kanpur Nagar District in U.P.

Source: Author

Conclusion

This research paper has dealt with the facets of the clusterization of MSMEs in Kanpur Nagar district where it envisages the vision of developmental growth & strategized policies. Kanpur Nagar is a futuristic district. To make Kanpur Nagar as a cluster hotbed of MSMEs is a new challenge with a major risks and responsibilities. The notable benefit is world market where MSMEs will have a sustainable future. The refinement & innovation in the cluster policies is very dynamic. New clusters especially defence cluster, food parks and textile industry have a huge potential where as an intervening policy for traditional cluster will bring a positive change for the revival of sick and threatful industries. Physical, financial and innovation infrastructure will focus on redefined scope for MSMEs of Kanpur Nagar.

Acknowledgement

The author is thankful to Dr. Anamika Choudhary and the Department of Economics, Dr. Shakuntala Misra National Rehabilitation, University, Lucknow for their constant support during the work.

Conflict of Interest Statement

None Declared.

Funding of the Research

No Funding

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