CLUSTER METHODOLOGY: THE STRATEGY FOR SUSTAINABLE LOCAL DEVELOPMENT IN THE RURAL COMMUNITIES OF SOUTH AFRICA

ROBERT WALTER DUMISANI ZONDO

Associate Professor, Durban University of Technology (DUT), Faculty of Management Sciences, Department of Entrepreneurial Studies and Management, Durban.
E-mail: dumsaniz@dut.ac.za, Orcid: http://orcid.org/0000-0003-0214-860X

Abstract

Rural communities are making efforts to implement sustainable development initiatives in their regions. However, there is a lack of capacity, specific development strategies, expertise, infrastructure and finance to achieve their developmental goals. These deficiencies disadvantage self-reliant initiatives in rural areas as the development interventions and investments are directed to better-off urban communities. Hence, this paper proposes the cluster approach as a sustainable local development in rural areas of South Africa. Clusters are referred to as the agglomeration of inter-related firms and related institutions. They are employed to show a geographical and a sectoral focus of firms that produce and sell a range of related or complementary goods and services. These firms normally experience the same challenges and opportunities. The clusters are assisted by a spectrum of supportive institutions situated within spatial proximity, including business-related associations, technical or training service providers. Cluster development initiatives that improve access for local firms to local and global markets can have positive poverty impacts that enhance income, employment and the well-being of workers and entrepreneurs within a cluster. This study assesses the influence of the cluster approach on sustainable local development in rural areas of South Africa. It establishes the suitability of clusters as strategic methods for local economic growth for South Africa.

Keywords: - cluster, economic development, local community, rural areas, South Africa, sustainable development

INTRODUCTION

It has been established that the empowerment of people can be facilitated by the decentralization of power (World Bank, 2009). Thus, local communities should be empowered, an action likely to result in more sustainable development as local communities are said to be more knowledgeable about the results of local environmental changes (Henfridsson & Bygstad, 2013). Hence, this study addresses the relationship between clusters and sustainable local development for poverty alleviation in South Africa.

Clusters have long attracted the attention of researchers and policy makers. The concept of industrial clusters was first introduced by Alfred Marshall in 1920 (Marshall, 1920). For many years this term had a predominantly theoretical meaning until the 1990s when it caught, once more, the attention of academia. One of the new occurrences of the term 'cluster' is in the work of Porter (Porter, 1990), who views it as "a group of close-by, supporting industries creating competitive advantage". This was followed by his definition as follows: "Clusters are geographic concentrations of interconnected companies and institutions in a particular field. Clusters encompass an array of linked industries and other entities important to competition"

(Porter, 1998). The author periodically returns to "his old love", the concept of clusters, and in 2007, in a new publication, he finally defined the term clusters as "geographic concentrations of firms, suppliers, support services, specialized infrastructure, producers of related products, and specialized institutions (e.g., training programs and business associations) that arise in particular fields in particular locations" (Porter, 2007). They play an important role within a pro-poor agenda by creating jobs and promoting incomes for the poor, especially for marginalised segments of the labour force such as women, migrants and those with low levels of education and formal training; by helping poor entrepreneurs mobilise limited resources; by providing avenues for collective actions that enhance the well-being of poor communities; and by furthering wider social and developmental goals (Sölvell, Lindkvist & Ketels, 2006). Clusters are essential because geographical agglomeration can potentially help small firms overcome constraints associated with size, promote technological development, and enhance their ability to compete in local and global markets. The gains of clustering include localised external economies as small firms specialise and engage in a division of labour (Hisak, 2011). Geographical proximity creates possibilities for local cooperation between firms and local institutions. Clusters allow local small producers to make more effective use of underutilised resources such as small-scale savings or family labour, generating incomes that they could not access by operating in isolation (Sölvell et al., 2006). This is because the process of clustering engenders various benefits, including agglomeration gains to clustered firms, such as externalities in the markets for labour, inputs, skilfulness and information, as well as economies of scale and scope as individual firms take on specialised tasks through a division of labour.

Clusters are strategies aimed at driving sustainable development in local communities, particularly the rural areas (World Bank, 2009). Fadara (2010) defines sustainable development as a normative concept and looks at how the world should be, not how it is. Consequently, sustainability is a journey or pathway that needs to be taken so as to meet the goals and principles of sustainable development (Amba, 2010). Hence, the cluster initiative plays an important role in such a development initiative in rural communities. It has been established that rural institutions are viewed as having a potential role to play in rural poverty alleviation and sustainable development. Hence, the enforcement of local institutions in rural areas and capacity building as fundamental elements of strategies for rural poverty alleviation are necessary. Local economic growth, as a poverty alleviation strategy, is a people-centred process and circumstance specific (Fadara, 2010). Common parameters for such growth include improved health facilities, infrastructure services, sanitation facilities, and educational services. Clusters are the alternatives in terms of direct local economic growth and poverty alleviation (Hisak, 2011). This is achieved through generating employment and incomes for relatively low-waged workers and their households resulting in indirect effects on the wider economy.

Problem Statement: lack of a strategy for sustainable local development in rural communities of South Africa

It has been noted that local problems are frequently caused by geographically distant consumers and producers (Blowers, 2012). To counteract the effects of globalisation and the international

economy, a strong sustainability discourse argues for decentralisation and the reassertion of localism, to create a 'protective space' for local communities (Choudhury & Harahap, 2015). Linked to this would be a decreasing dependency on external markets, thus increasing self-reliance, autonomy and self-determination. This involves a focus on meeting the basic needs through self-sufficiency (Choudhury & Harahap, 2015).

Hence, this paper assesses the appropriateness of clusters for sustainable local development as a discourse for local-based economic growth in South Africa. It explores how the interaction of businesses of similar type, healthy competition, networking and collaboration benefit businesses operating in local communities for growth. The study describes how various parts of the industrial clusters fit with its model for innovation and competitiveness. The remainder of this paper discusses theory considered for clusters, the discussion relevant to clusters, as well as the conclusion and recommendations.

Theoretical Consideration of Clusters

This section discusses the overview of clusters in local communities. It describes the concepts of rurality and clusters, while the benefits of clusters concludes the section.

Overview of clusters in local communities

The development of cluster typology is part of the overall clusters' conceptual development. The Scandinavian school of thought represented by Sölvell, Lindqvist and Ketels (2003) makes an interesting differentiation between static and dynamic clusters. They underline that the evolution of a cluster is directly influenced by the microeconomic environment and the general business environment. A dynamic cluster benefits from strong business environment factors and tends to transform its members into internationally competitive companies, whereas a static cluster tends to 'produce' only locally competitive companies. Enright (2000) identifies the following types of clusters:

- **Latent clusters**: These are comprised of a critical mass of companies in related industries, which can benefit from a cluster. However, the link between them is not strong enough to benefit from the co-location factors including the lack of information about other local companies, lack of trust, as well as the lack of common projects.

- **Potential clusters**: These are characterised by the necessary elements of a cluster. However, the lack of interaction, or the gaps in the services and information flows impedes the cluster development.

- **Policy driven clusters**: These are supported by the government, usually based on other types of factors besides economic factors. These types of clusters have a short life cycle.

- **Wishful thinking clusters**: These are ideal types of policy-driven clusters without any critical mass of companies.

The precise identification of clusters themselves is of special importance. Attempts in this direction have been made by Porter (1990). Some primary methods of differentiation on the level for analysing clusters include the national (macro-level), industrial branch (mezzo-level)

and firm level (micro-level) (Stejskal & Hajek, 2012). The increased interest of society in clusters includes their participation in a given cluster thus increasing productivity through an increased availability for access to production factors, such as human capital and information technologies, the economic benefits from cluster participants for attracting new participants resulting to an increase in competitiveness, as well as the presence of clusters formed by firms in a given region resulting in the planning of specific economic activities that will be easily accomplished.

Rurality and cluster approach in rural communities

This section elaborates on the rural settings in local communities. Sustainable local development as an outcome for cluster initiative is discussed. The cluster methodology in rural communities concludes this section.

In the past, the term 'rural' was commonly used as an interchangeable concept for agricultural clusters (Rosenfeld, 2009). With the recent emergence of rural clusters, including those in the field of tourism, information and communication technology, manufacturing, and renewable energy production, clusters in rurality are becoming a meaningful development trend (Crane, Palazzo, Spence & Mattenet, 2014). Clusters are working effectively in the agriculture sectors (Crane et al., 2014). However, they are challenged by competition from less advanced regions, global supply chains, energy costs and environmental concerns, changes in population composition, expanding digital communications networks, new products and emerging markets.

According to Stejskal and Hajek (2012), the debates about rural development are often preoccupied with the operation of public policy, neglecting consideration of wider market trends and business and corporate strategies. It has been identified that the main constraints that hamper sustainability of rural development include a lack of resources (financial, social and informational), a lack of sufficient political will to identify the real problems, and a lack of institutional and administrative capacity. Rosenfeld (2009) alludes to the fact that clusters' capacity to set into motion a significant number of direct and indirect benefits in rural areas questioned the preparedness of local conditions to foster entrepreneurial activity, production processes and division of labour, as well as the joint action and local social capital. Therefore developing a more systematic approach towards regional clusters and those functioning in the rural areas, especially with small business at their core level, is crucial for improving rural architecture, encouraging local authorities as well as for the establishment of legislation at national level. This will enhance sustainable local development.

Fadara (2010) describes sustainable development in local communities as a process of assisting in the integration of the social and economic domain. Manley (2007) defines sustainable local development as a socio-economic practice and a moral guideline; hence, the need for incorporating sustainable development goals with industrial cluster initiatives for local community development. Clusters and networks in rural communities are generally perceived as one of the drivers that lead to renewed economic growth and bring about competitiveness in the less developed areas. The approach, through its collaborative and cooperative activities,

targets a broad range of economic, social and ecological problems to ensure rural recovery and sustainability and to "reinforce the progressive predilection for an economic system that balanced competition with cooperation, individualism with collectivism, and growth with equity" (Rosenfeld, 2009). Clusters have become part of the mainstream of economic development and political agendas, targeting public attention not only towards the economic results of the cluster approach, but also serving as a solution to problems related to areas with lower levels of education, labour mobility, resources and technology-based growth opportunities (Crane et al., 2014). Policies and relevant development mechanisms are drivers for sustainability of these areas in South Africa.

Sustainable local development in South Africa is dependent on the particular local context in which the settlement development is taking place (Coetzee, 2013). It therefore means different things for different rural types. Consequently, different rural types will have different implications for sustainable local development and, ultimately, for achieving rural sustainability. Understanding different rural types in South Africa is crucial to the sustainable development debate for clusters for South Africa. The rural settlements in South Africa comprise the former homeland settlements, named "betterment settlements", with more than 5 000 people, including informal settlements with more than 5 000 people, rural villages with less than 5 000 but more than 500 people, agri-villages servicing commercial farming areas, as well as the dispersed settlements that are mostly unplanned homestead settlements with less than 500 people (Coetzee, 2013). It must be mentioned that the South African settlements are, to a large extent, characterised by major economic differences between traditional suburbs, townships and informal settlements; as well as between large metropolitan areas (often with huge economic resources and high GDPs) and small rural towns. The economic differences are often exacerbated by great disparities between different settlement types and levels of affordability (Bond, 2012). In these terms one can almost start to refer to many settlements as split into 'rich city' and 'poor city'.

Considering the above dynamics for South Africa, the creation of rural clusters might best be built upon existing competencies and connections with industry and service outlets. Once established, two types of strategies are most often associated with their further development (Sölvell et al., 2006). The first one is 'specialisation', directly relevant to a particular kind of industry, while the second one is 'association' based on the relationships and interactions among local firms. According to Sölvell et al., (2006), the drivers of cluster change could be summarised into four groups: political, economic, social and technical. The political factors are usually associated with the large consensus between public authorities and private sector representatives; high influence of unions and organisations; promotion of high quality and origin of production; and focus on the environmental policy. The economic factors are mainly related to the long-standing tradition resulting from a large number of local firms; concentration of retail system; and the competitive advantage of local production. Any progress in social or environmental results are the by-product of competiveness-driven initiatives, in most of the cases driven by resources directed toward those results by rural clusters, by recognition of the market value of socially responsible products, or by the explicit purpose of the cluster itself.

Benefits of Industrial Clusters

The United Nations (2001) provided an important step in defining sustainable development as meeting the needs of the present without compromising the ability of future generations in meeting their own needs. Sustainable development emerged as a core organising principle for planning on a global scale (Amba, 2010; Fadara, 2010; Katsamunska, 2016). This has important implications for understanding the likelihood of communities achieving sustainable outcomes (Staley, 2006). Clusters in rural communities are essential drivers for sustainable local development.

Long and Zhang (2011) describe clustering as the interaction of businesses of similar type, healthy competition, networking and collaboration between them. Cluster theory emphasises the role of networks and relationship between the various parts of a cluster (Tambunan, 2008). It fits with models of innovation and competitiveness. The following Figure 1 provides an example of an agribusiness cluster.
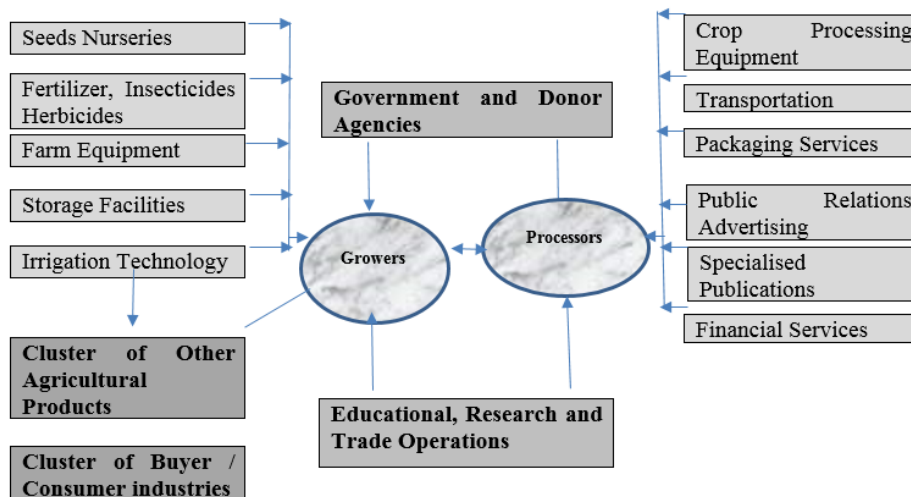

Figure 1: example of an agribusiness cluster

Source: Cluster for Competitiveness- A Practical Guide and Policy Implications for Development Cluster Initiatives (World Bank, 2009).

The benefits of clustering for the development of individual companies and for improving the competitiveness of a specific sector or region cannot be underestimated. At the level of the firm, clusters help companies to take advantage of market opportunities that they could not achieve alone (World Bank, 2009). Clusters can reduce the 'pain barriers' of cost and risk and adapt international rules and standards to the local context. According to Sölvell et al. (2006), companies on cluster formation can no longer rely solely on their internal processes and strengths. If the objective is to achieve innovation, technological development and evolving consumer expectations, companies adjust quickly and develop appropriate responses at a higher speed (Bond, 2012). This is when combining efforts, making use of synergies and pooling resources increases competitive advantage while at the same time reducing the risks

involved in launching new products or entering new markets. Clusters enable improvement of firms' capacity building by offering inter-company learning, experience sharing and mutual use of know-how. Further benefits include the use of joint sales channels that augment the sales networks of each individual cluster member; personnel sharing (especially specialised functions such as R&D) reduce costs and time to market (World Bank, 2009).

Besides the contribution of a cluster in improving businesses represented in its network and sustainable local development, the cluster initiative require firms to grow beyond their current levels. This includes economic development. According to Lee (2014), one key drivers for realising the economic development is innovative, competitiveness and global markets. The relationship between competitive and economic development resulting from cluster approach is displayed in the conceptual model in Figure 2.

Figure 2: the influence of cluster and network involvement on firm competitiveness and economic development

Source: Adapted from Foghani, Mahadi and Omar (2017)

As shown in Figure 2, local firm competitiveness, economic development and networking including clusters and networks are closely interlinked. The survival of local firms depends largely on being competitive. Furthermore, being involved in networks and clusters is recognised as an effective approach for local firms to maintain their competitiveness. Similarly, clusters in industries are largely regarded as industrial systems that are based on networks that assist companies to adapt to the rapidly developing technologies and markets in a holistic and organised manner (Niu, 2010 in Foghani et al., 2017).

DISCUSSION

The notion of sustainable local development relates to the need to promote the participation and empowerment of affected local individuals in any development context (Fadara, 2010). Strong sustainability argues for the redistribution of power, allowing for local communities to take control of, or at least contribute to, decision-making that affects their livelihoods and living environment. This requires a commitment to "a participatory framework of decision-making which provides people with effective power" (Blowers, 2012: 167). This describes the essence of clustering in local communities.

According to Fromhold-Eisebit and Eisebith (2005), clusters are typically not created per se, they tend to form themselves and evolve over time - often over a period of decades. The origins of clusters differ. The initial stimulus may have been the availability of a raw material, climatic

conditions, proximity to a nearby market, a chance event, such as the return to a location of an entrepreneur with specific skills and ambitions, the establishment locally of a government-funded R&D facility, as well as the tradition and culture in a location which has generated a reservoir of know-how and experience in a particular area/ specialism (World Bank, 2009).

There are certain challenges that cluster initiators and leaders are confronted with when trying to build a cluster. The most obvious one is in developing a cooperative spirit amongst cluster members and participants (Sölvell et al., 2006). Building trust is a big challenge, hence command and control mechanisms, the rules of engagement and the 'way we will work together' should be carefully thought through at the very beginning and agreed with each cluster member. Hence, a coordinated decision-making mechanism should be introduced and observed.

CONCLUSIONS AND RECOMMENDATIONS

South Africans require sustainable local development in their rural communities in order to realise local economic development (Fadara, 2010). The prominent aspect in driving such a discourse is self-reliance in local communities. It must be noted that self-reliance (or self-sufficiency) are part of sustainable local development processes (Brennan & Withgott, 2005). Hossain and Marinova (2017) define self-reliance as the power of independence in local communities, originality, creativity and belief in strength and resilience, as well as rejecting the need for external support. Hence, Dawkins (2006) indicates that sustainability in local communities is represented by the reproduction of resources in agricultural lands, given their due linkages with agro-based industries and service outlets.

Consequently, clusters add value to the sustainable local development of the economy by creating groups of networked businesses in specific sectors and improving business capabilities by offering tailored support (Hisak, 2011). They improve competitiveness closely associated with innovation and the adoption of 'best practice'. They enable economic specialisation of a particular region, in a range of related activities. Clustering allows for a differentiated approach, targeted at a wide range of economic activities, which takes into account the variation in industrial structures and business needs (World Bank, 2009). Clusters can contribute to an increase in economy-wide competitiveness by facilitating policy reform, fostering private-public dialogue and becoming a catalyst for wider private sector development initiatives (Sölvell et al., 2006). For purposes of this paper, company village and production regional clusters are recommended for South Africa. These clusters may be structured in accordance with their historical formation and unique characteristics. The following Figure 3 presents the framework for a Company Village Cluster.
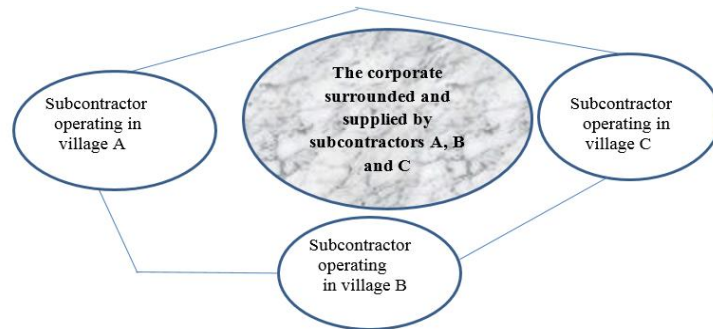
Figure 3: framework for a Company Village Cluster

Source: own diagram (2022)

In distinguishing between the two clusters, the Japan Small Business Research Institute (2006) indicates that company village clusters are created by numerous subcontractor groups established around the mass-production plant of a particular large enterprise. Typical examples include the Hiroshima region around Mazda, the area around Toyota City in Aichi, which has Toyota Motor at its heart, and the Kitakyushu region in Funuoka Prefecture, which has formed around Nippon Steel Corporation.

In addition, the Japan Small Business Research Institute (2006) introduced the Production Region Cluster initiative. The following Figure 4 presents a simplified framework for a Production Region Cluster.
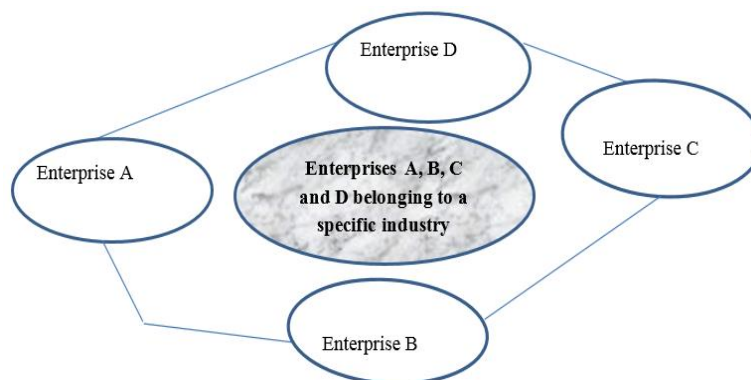

Figure 4: framework for a Production Regional Cluster

Source: own diagram (2022)

According to the Japan Small Business Research Institute (2006), the production regional clusters are enterprises that belong to a specific industry (such as consumer goods) concentrating on a particular region, having grown through their members' mutual use of raw materials and technologies that have accumulated in the region. Typical examples include the Tsubane-Sanjo region in Niigata Prefecture, where cutlery and blade manufacturers have clustered, the spectacle-making cluster in the Sabae region of Fukui Prefecture, and the

furniture-making cluster around Asahikawa City in Hokkaido. The clustering approach for South Africa will improve cooperation towards common goals, linking and aligning the different elements, teamwork as well as business networking (World Bank, 2009).

The development of information technologies allows for the formation of new clusters, the so-called E-clusters (Davidovic, 2014). The factors facilitating their occurrence are numerous, yet macroeconomic policy has a crucial impact on development and growth of clusters, because it determines their main resources and competitiveness (including the availability of skilled human resources, labour and transaction costs, local market protection, and investment in education, science and research). E-clustering is long-term macroeconomic policy that initiates and pushes founding and development of e-clusters in regions. This will improve the efficiency of cluster operation in rural communities of South Africa. Such developments must be understood as a pathway that needs to be embarked upon in order to fulfil the goals, objectives and principles of sustainable development goals for rural communities (Choudhury & Harahap, 2015).

According to Bond (2012), the justification for the participation of the local community is based on the argument that local people organise optimally around the problems they consider to be most important. This includes assessing needs and finding appropriate solutions, making rational economic decisions in the context of their own environment, ensuring voluntary commitment of resources, as well as exercising local control over the quality and distribution of benefits.

References

1. Amba, K., (2010). The need for popular participation in Abuja: a Nigerian story of informal settlements. Journal of Place Management and Development, 3(2):149-159.

2. Blowers, A., (2012). Ecological and political modernisation: The challenge for planning, Town Planning Review, 71(4), 371-393.

3. Bond, P., (2012). Unsustainable South Africa: Environment, Development and Social Protest. University of Natal Press, Scottsville.

4. Brennan, S. & Withgott, J., (2005). Environment: The Science behind the Stories. Pearson/Benjamin Cummings, New York, NY.

5. Choudhury, M.A. & Harahap, S.S., (2015). Complementing community, business and microenterprise by the Islamic epistemological methodology: A case study of Indonesia. International Journal of Islamic and Middle Eastern Finance and Management, 2(2):139-159.

6. Coetzee, M., (2013). Local Pathway to Sustainable Development in South Africa. Prepared for the World Summit IDP-LA21 Partnership DPLG, DEAT, SALGA, CSIR, GTZ, DBSA, UNDP. Pretoria: CSIR.

7. Crane, A., Palazzo, G., Spence, L. J. & Mattenet D., (2014). Contesting the value of creating shared value. California management review, University of California, Berkley, 56 (2), 130-153.

8. Davidovic, M., (2014). Development of e-clusters, Information and Communication Technology, Electronics and Microelectronics (MIPRO). 37th International Convention, Opatija, IEEE, pp. 1563 - 1568.

9. Dawkins, R., (2006). The God Delusion. Transworld Publishers, London.

10. Enright, M. J., (2000). The globalisation of competition and the localisation of competitive advantage:

Policies towards regional clustering in: Hood N., Young S. (eds.): The Globalization of Multinational Enterprise Activity and Economic Development. MacMillan: Basingstoke.

11. Fadara, S.O., (2010). Recent Banking Sector Reforms and Economic Growth in Nigeria. Middle Eastern Finance and Economics, 8(1):21-25.

12. Foghani, S., Mahadi, B. & Omar., (2017). Promoting Clusters and Networks for Small and Medium Enterprises to Economic Developoment in the Globalisation Era. Sage Open, January-March 2017, 1-9. DOI: 10.1177/2158244017697152.

13. Fromhold-Eisebit, M. & Eisebith, G., (2005). How to institutionalize innovative clusters? Comparing explicit top-down and implicit bottom-up approaches. Research Policy 34. Department of Geography, Geology and Mineralogy, University of Salzburg, Salzburg, Austria.

14. Henfridsson, O. & Bygstad, B., (2013). The Generative Mechanisms of Digital Infrastructure Evolution. MIS Quarterly, 37(3), 907–931. doi: 10.25300/MISQ/2013/37.3.11.

15. Hisak S., (2011), Report on the appropriate legal structure of Croatian clusters. Support to Cluster Development Project, December 2011.

16. Hossain, A., & Marinova, D., (2017), Assessing Tools for Sustainability: Bangladesh Context, Proceedings of the Second Meeting of the Academic Forum of Regional Government for Sustainable Development, Fremantle, Australia, CD ROM.

17. Japan Small Business Research Institute. (2006). White Paper on Small and Medium Enterprises in Japan, Tokyo: Japan.

18. Katsamunska, P., (2016). The concept of governance and public governance theories. Economic Alternatives, (2):133–141. Available at: https://www.unwe.bg/uploads/Alternatives/Polya_1_br2_2016_en.pdf (Accessed: 27 July 2021).

19. Lee, Y.J., (2014). Policy considerations for SME globalisation in the creative economy. KIET Industrial Economic Review, 19, 48-61.

20. Long, C. & Zhang, X., (2011). Cluster-based industrialization in China: Financing and performance. Journal of International Economics, 84(3), 112-123. doi:10.1016/j.jinteco.2011.03.002.

21. Manley, M., (2007), Do community-based approaches to natural resources management work? Pacific Economic Bulletin, 22(3): 100-112.

22. Marshall, A., (1920). Principles of Economics, 8th Edition, London: Macmillan.

23. Nui, K.H., (2010). Organisational trust and knowledge obtaining in industrial clusters. Journal of Knowledge Management, 14, 141-155.

24. Porter, M. E., (1998). Clusters and the New Economics of Competition. Harvard Business Review, Nov/Dec98, 76(6), 77-90.

25. Porter, M.E., (1990). The Competitive Advantage of Nations. London, Macmillan.

26. Porter, M. E., (2007). Clusters and Economic Policy: Aligning Public Policy with the New Economics of Competition. Harvard Business School, Institute for Strategy and Competitiveness, ISC White Paper XI.

27. Rosenfeld, S., (2009). Generating Local Wealth, Opportunity, and Sustainability through Rural Clusters. Wealth Creation in Rural Communities, Vol. 1, Regional Technology Strategies, Inc., p. 9.

28. Solvell O.; Lindkvist G. & Ketels C., (2006). Cluster Initiatives in Developing and Transitioning Economies. Center for Strategy and Competitiveness, Stockholm. First edition.

29. Sölvell, Ö., Lindqvist, G. & Ketels, C., (2003). The Cluster Initiative Green book, Stockholm, available at:

www.cluster-research.org/greenbook.htm.

30. Staley, S.R., (2006). Sustainable development in American planning: a critical appraisal. Town Planning Review, 77(1): 99-126.

31. Stejskal, J. & Hajek, P., (2012). Competitive advantage analysis: a novel method for industrial clusters identification. Journal of Business Economics and Management, 13(2), 344-365.

32. Tambunan, T., (2008). Development of rural manufacturing SME clusters in a developing country: The Indonesian case. Journal of Rural development, 31(2), 123-146.

33. United Nations. (2001). World Commission Environment and Development (The Brundlandt Commission), United Nations, New York, NY.

34. World Bank. (2009). Cluster for Competitiveness A Practical Guide & Policy Implications for Developing Cluster Initiatives. World Bank, February 2009.