

The Green Innovation and Green Performance at Small and Medium Enterprises (SME) Auto Supplier

Emad Nasserian

Business and Management university of Salzburg

Abstract

The supporting environmental concepts have changed during current decades. For many companies are main task is that they could attract enough markets and this attraction produce profitability for them. Because of critical situation in the environment, it requires a more rapid response to the requirement of markets. The environmental condition of customers imposes the nations and countries to consider supporting environmental processes and, in this case, the green innovation can be introduced as most important source for the industry to get more efficiency and effectiveness that can influence on green performance. In this research we introduce green performance and green innovation and how they can influence Small and Medium Enterprises (SME)auto suppliers.

Keywords: green innovation, green performance, SMEs, Auto supplier

1. Introduction

Environmental pollution has become a global challenge, and, in this condition, this challenge generated by variable sectors of the economy, and it is at the root of climate change. According to this challenge, the United Nations (UN) at the Kyoto Summit (1995) and in the last decade at the COP21 in Paris in 2015, called for standing against climate change therefore they tried to encourage the world to improve green policies in all parts of the economy but it should be considered that automotive industry is not only the goal of this policy but also they are important industry in this case. Based on 2016 Carbon Project Disclosure, 17% of the global pollution is belong to the automotive industry and it is also one of the important producers of industrial waste. In reaction to pressure from the international community side and consumers, the automotive industry was motivated to reduce pollution and inform more green environmental management. By encountering with this mentioned issue, they should be imposed to produce “green” vehicles result in less polluting moreover they should decrease waste materials during the vehicle producing processes. [1]

Nowadays, sustainable improvement can be introduced as important issue, and United Nations decide to force companies to adapt green rules for green performance then they can achieve sustainable advantage. For example, they are making different innovative groups to decrease paper and water usage and they are trying to develop rainwater harvesting premises. These green services can help the companies to decrease cost. Thus, green performance finds a crucial place in the competitive environment of organizations and companies. [2]

2. Literature review

2.1. Green innovation

Green Innovation provide innovations which are used in the activities that help the industry to guide for improving the conditions of environmental sustainability. Regarding to Chen et al., (2006), green innovation is defined as hardware or software innovation which is referred to green activities as illustrated in the Figure 1. [3]

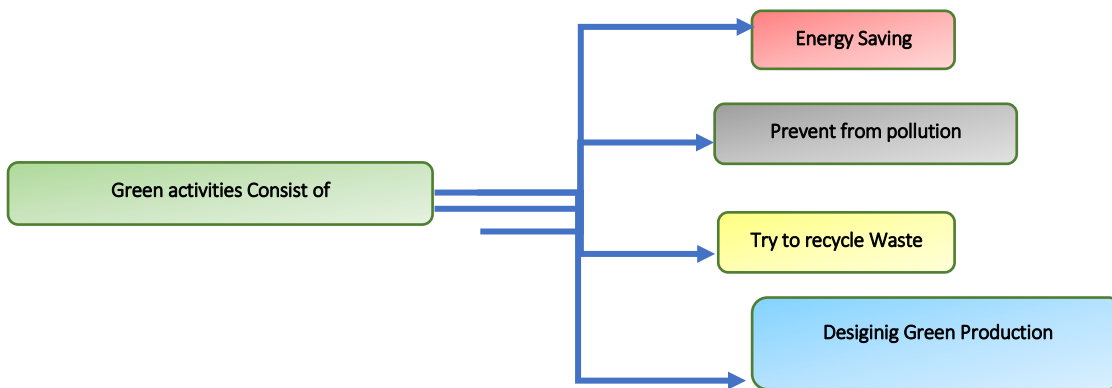


Figure 1. Green process and products [3]

Therefore, Green innovation can be introduced as a method to specify, implement, and monitor the new ideas that have a positive impact on the environment and increase the company's competitiveness.[3]

The success of product development is related to create products which can satisfy the needs of customers and the markets also product responsibilities efforts encompass all parameters of products' functionalities. Nowadays environmental protection become a mainstream issue which support the environment against the impact of environmental pollution and global warming there it can be observed that more companies are willing to develop green products. The successful green innovation can support companies and economies move towards environmental sustainability. This kind of innovation become a strong competitive weapon in the market because more consumers are concerned about the environment and more people are willing to pay more for it and it can be defined as the innovations of product that have less of an impact on the environment also, they are less detrimental to human health, and they are formed or part-formed from recycled components. [4]

2.2. Green environmental performance

Margaretha and Saragih (2013) presents that nowadays 'being green' is a significant guideline. The green firms are environmentally sensitive, socially responsible, and resource productive. It can be observed that by analysing a company's performance and environmental management approach, it can be named that performance as a company's environmental (green) performance that consists of two fields: [5]

- Environmental performance
- Competitive advantage

ISO 14000 s in 1996 can be defined as an internationally norms for environmental and green institute that concentrate on improving organizational potentials to guide the environmental influences. [5]

Hervani et al. (2005) showed that green performance parameters are necessary for success in green supply chain management, and there is research in the companies, and he recommended a method to measure green performance and these parameters can be introduced for measuring green performance as explained in the Table 1 and these parameters are for measuring green performance. [5]

Parameters for measuring green performance	Environmental action efficiency
	Environmental (green) performance
	Environmental reputation
	Pollution Emission/Waste

Table 1.Parameters for measuring green performance.[5]

2.3. SME small and medium enterprises

Nowadays Small and medium-sized enterprises (SME) play the most important role for developing economic and it should be considered that the global crisis has effect on Small and medium-sized enterprises (SME) economy, restriction for bank credit, foreigner direct investment, remittances, and international capital inflows. [6]

In many researched literatures of social and management sciences, the critical role of small and medium enterprises (SMEs) can be observed also Small and medium-sized enterprises (SME) has main role in impacting upon strategic activities in every modern society. Small and medium-sized enterprises (SME) are active in dynamic business environments, and they have been influenced by the forces of change. According to these changes they have an attempt to preserve and protect their market position and they focus on human capital as an indispensable organizational competence.[7]

In advanced industrialized countries, Small and medium-sized enterprises (SME) are introduced as a key source of dynamism, innovation, and flexibility, as well as in emerging and developing economies. They have an important role for net job creation in the countries and contributions to innovation, productivity, and economic growth. In some cases, there is not any access to external investment funds for the Small and medium-sized enterprises (SME) sector and they try to raise capacity investment per worker and improve productivity and wages. The Small and medium-sized enterprises (SME) with high growth potential play an important role in raising productivity and maintaining competitiveness.[8]

2.4. Small and Medium Enterprises (SME) auto supplier

The automotive industry can be introduced as one of superior industries in research and development. Nowadays small and medium-sized enterprises (SMEs) consist of many producers and sub-producers that specialize in special production, and in this case, companies have focused on manufacturing the components. Since now, the activities of automotive companies have been many challenges for environment so there is an environmental focus on them, and the government try to establish laws that help environment and regarding to these laws, the trends in producing are changed to be better efficiency in source of energies. [9]

It should be considered that Small and medium-sized enterprises (SME) are different from their large company counterparts, and in comparison, with large companies, they are not good in their use of “mechanistic”. Also, it should be considered that larger companies are based on people’s knowledge but both Small and medium-sized enterprises (SME) and larger companies highlight knowledge management as resource of cost efficiencies. [10]

3. Green innovation and green performance in SME Auto industry

The activity of automotive industry can be classified in the different process of environmental movement, and it is faced with an important demand for better environmental performance. In the recent century many automotive firms try to investigate into innovation of the productions which are modern system, and, in this case, it provides lower costs as well as reducing pollution and protect environment.[12][13]

The main purpose of green innovation was to inform green training because of expanding environmental challenges for whole of the world. According to previous studies, scientists can introduce different parameters that influence the performance of Small and medium-sized enterprises (SME); however, linking the environment and green training can be focused by scientists. [14]

The studies presented the advantages of green training, and in this case if the leaderships are transformational, they encourage green conceptions. It should be considered that if the green challenge for any country is so important, the requirement of this kind of leadership can be important.[14]

The studies and research present that enforcement of green training and practices can lead to improving green performance of Small and medium-sized enterprises (SME). Previous studies show that the significance of green product creativity and innovation is as a negotiator between green transformational leadership and the green performance of Small and medium-sized enterprises (SME). Moreover, this creativity can be invoked by environmental concerns, and they can relate them to the performance of Small and medium-sized enterprises (SME). The research shows that when the company tries to investigate the influence of investigating the impact of societal factors in terms of green transformational leadership, and green product innovation so it would have additional advantages for companies. [14]

Previous studies show that the performance of Small and medium-sized enterprises (SME) can be linked to green SME training and this process can be successful. The results of studies are very useful for researchers that they can focus on green product innovation, and for developing a positive image of the enterprises has good potential. Adopting green training, practices and innovating green products can compete with other companies for improving green performance. [14]

The concept of green innovation has emerged as a critical strategy for high tech corporations seeking to become more conscious and it can be found several reasons for this, as illustrated in the following charts.[15]



Figure 2. Reasons for green innovation as critical strategy [15]

Nowadays, green innovation informs the automotive Small and medium-sized enterprises (SME) about their duties for protecting the environment. Moreover, they can compete with other firms. Green innovation can help the companies for avoiding the process against environment. The green innovation can affect the green performance of companies. Green innovation can develop the process which adopt to protect of environment. [13] [14]

During the last decades Small and medium-sized enterprises (SME) automotive try to implement and use green innovation in their producing system. 2016 Carbon Project Disclosure report show that 17% of total global pollution belong to automotive industry therefore this kind of pollution can be introduced as one of the major producers of industrial waste. The international community and consumers put pressure on the automotive industry for green productions so they try to decrease pollution and produce “green” vehicles also they should reduce waste production during their processes. [13]

In these conditions, developing different process according to green innovation for automobile SME companies is introduced and they can review their strategies regarding to green innovation. These improvements according to green innovation consist of supporting the environment process so they try to adopt and modify the regulation and rules in consideration to green innovation then they can modify their green performance and using green technologies. Figure 3 presents classification of green innovation. [14]

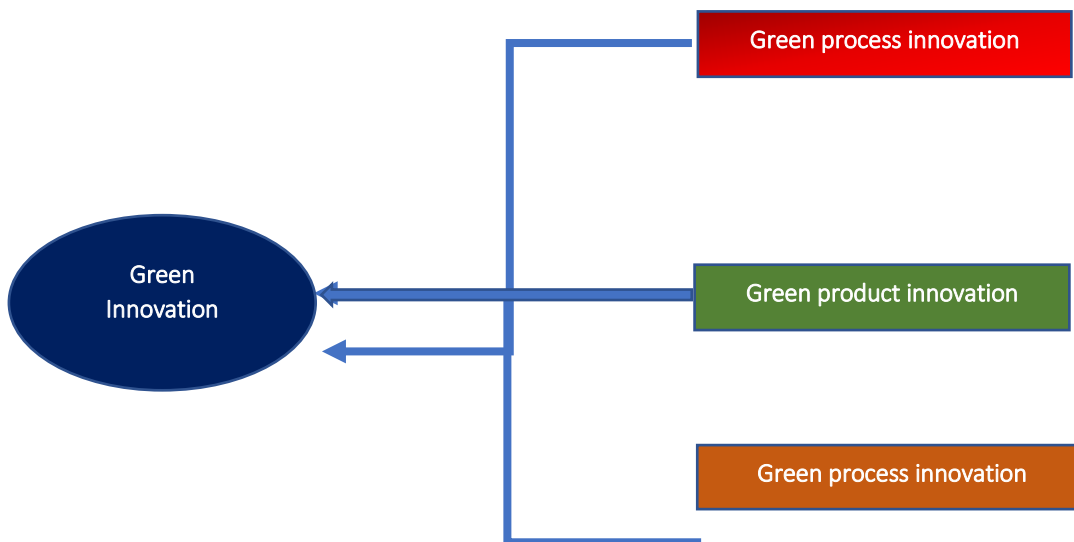


Figure 3. Classification for Green Innovation [14]

Green innovation improves environmental performance. Moreover, green processes and product innovation increase the positive effects of business on the environment. In this case the social and financial performance of a company improves and the cost and waste are

decreased. The company response to stakeholder is not duties of this kind of creativity but green creativity helps companies to have green performance additionally to gain a competitive benefit. [14]

4. Conclusion

Each leadership has main role is not only on the performance of a company but also have a major impact on people and culture.

- Nowadays Air pollution can be introduced as global challenge which is generated by different parameters of economy, and it leads to climate change.
- Green Innovation supports innovations which are used in green production that support the companies and producers for better conditions of environmental sustainability. This green innovation consists of hardware and software for green productions, and it is defined as hardware or software innovation which is referred to green productions.
- Green innovation is a method that innovation can be specified, implemented, and monitored so the new ideas that have a good effect on the environment and improve the company's competitiveness and better green performance for companies also, it should be considered that more consumers are concerned about the environment and more people are willing to pay more for green innovation.
- Green performance elements and parameters are essential for success in green supply chain management.
- Many automotive companies support the innovation of products and processes which are more simple system and in time it provides lower costs as well as save and protect environment and it improves environmental performance moreover green processes reduce the negative effects of the business on the environment alongside increasing the social and financial performance of a company through cost and waste reduction.

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