

Core Competence and Dynamic Capabilities of SMEs

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Abstract

This study is based on examining the core competence of SMEs of Automation Solution Providers. These twenty companies have formed a cluster/ecosystem/network to collaborate at various levels to better satisfy the need of their manufacturing clients. The study examined the literature on the competence of companies specifically working in co-operative environments including strategic alliances, clusters, and ecosystems. The study uses deductive reasoning for deducing the reason for collaboration among the companies to comprehend their core competence. The study used formal and informal interviews with the managers getting information on reasons for collaboration, qualification, and background of managers, hiring procedures and needs, and benefits of collaboration. The study shows that skilful prototyping is the competence of these companies. It also concluded that these companies were looking for access to new technologies in collaborative companies.

Keywords: Capabilities, Cluster, Collaboration, Core Competence, Dynamic Capabilities, Ecosystem, Small and Medium Sized Enterprises (SMEs), Strategic Alliances

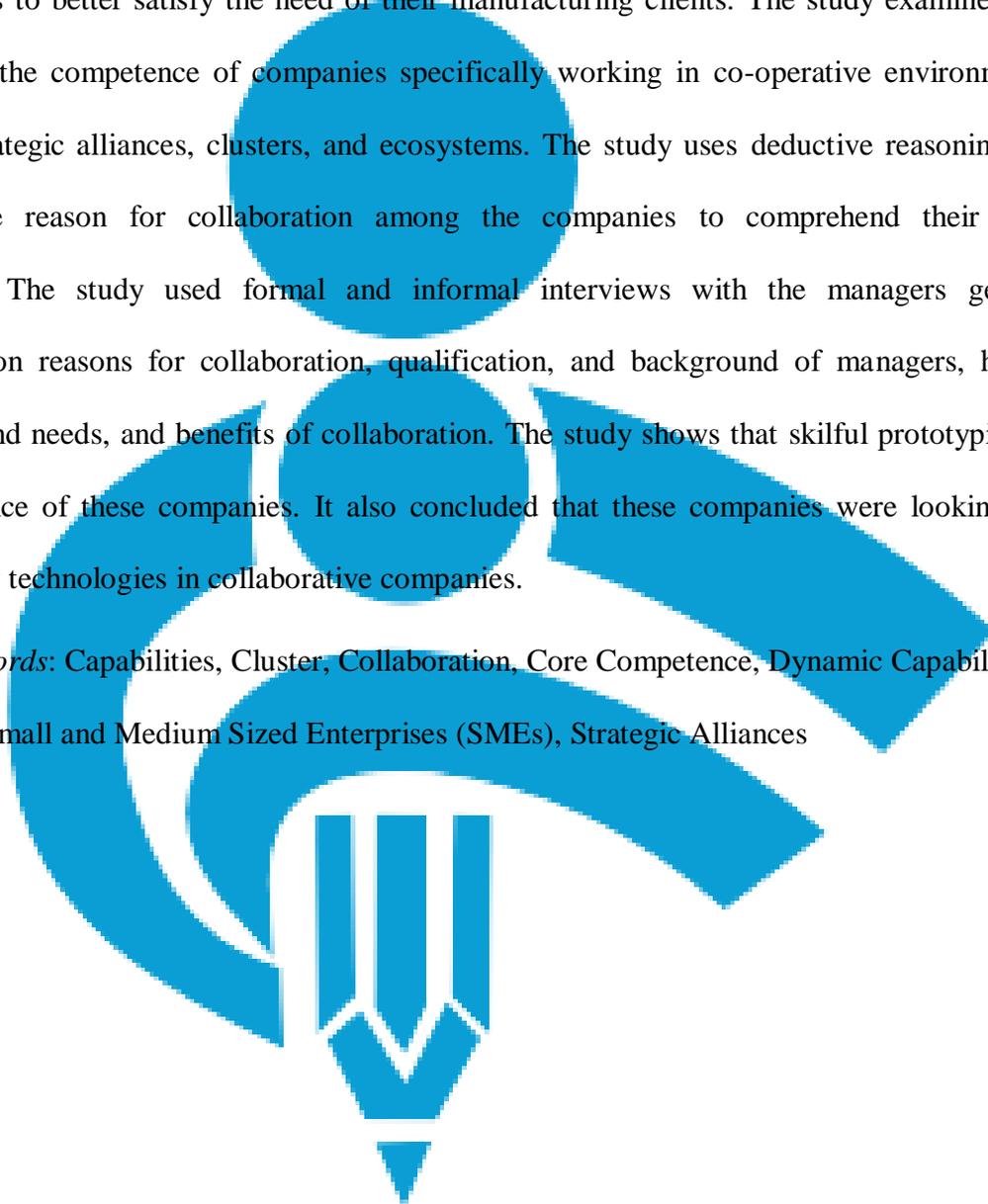
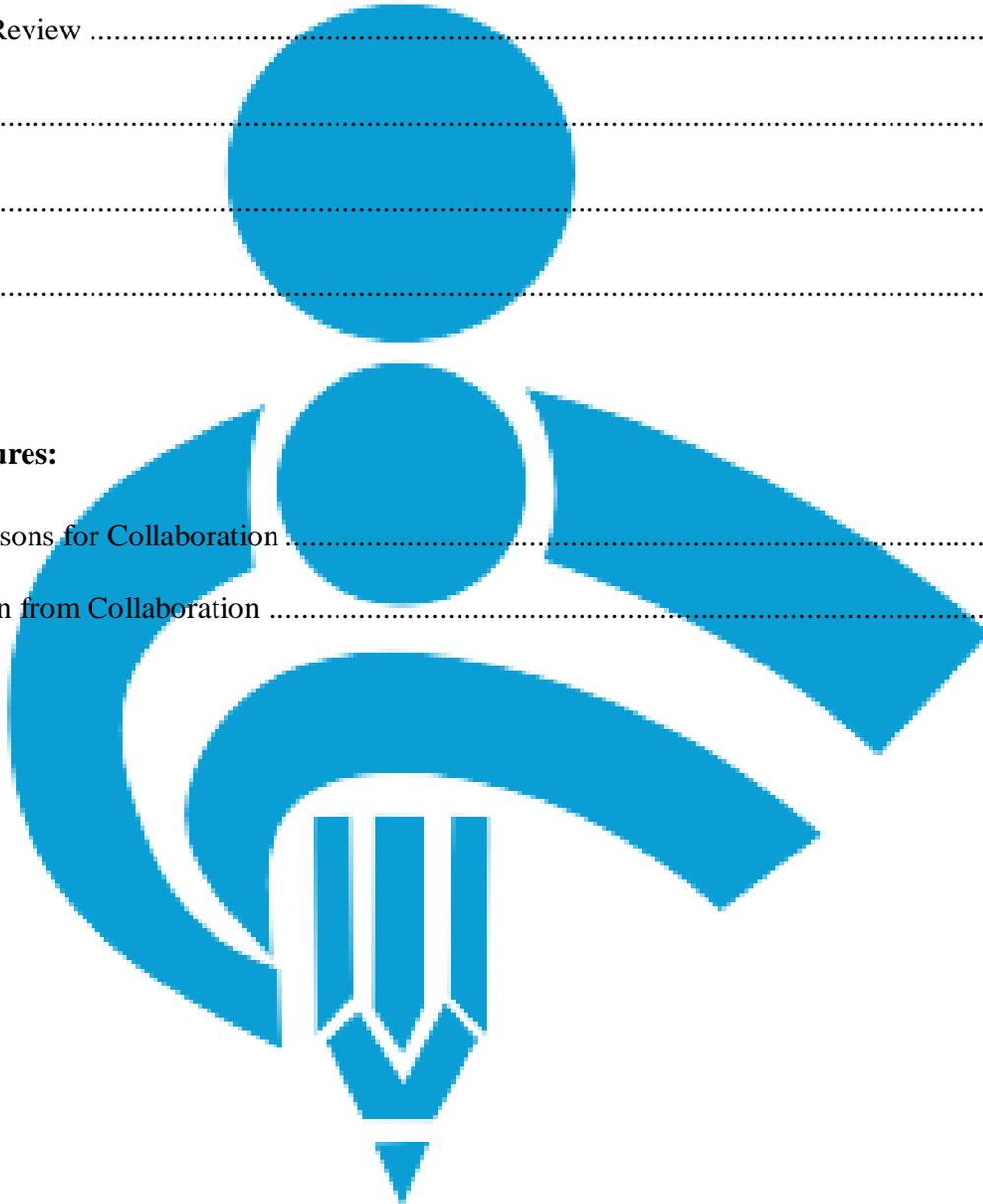


Table of Contents:

1-Introduction4
2-Method7
3-Literature Review8
4-Result11
5-Conclusion.....15
References17

Table of Figures:

Figure 1: Reasons for Collaboration13
Figure 2: Gain from Collaboration14



1-Introduction

With the rise of globalisation, Small and Medium Sized Enterprises are facing threatened in their existence. Customers are now free to easily import any goods which they require from any part of the world. It is no more a preference to manufacture goods locally. Furthermore, with increased opportunities available to the companies, organisations prefer to have their manufacturing plants relocated to the regions in which production costs are lower. This cause inhibited growth in the local regions negatively affecting its businesses. One way to cope with such a situation is to introduce national initiatives as seen in various countries. Such initiatives include and are not limited to Industries 4.0, MAID, Make in India, and Production 2030 the Swedish initiative. These all initiatives are similar in assisting the local manufacturers, ensuring that the local industry remains strong.

Another strategy for combating this challenge is to band together and pool resources. There can be different ways through which these resources can be pooled. There are various theories which have shown how this collaboration can work. Open innovation, Ecosystems, and Strategic Alliances (Chesbrough, 2004; Niederkofler, 1991; Moore, 1999).

Open Innovation is one of the newly established paradigms which assume that for companies to work in the constantly changing environment, they should have access to channelise external as well as internal ideas and use internal and external paths for reaching out to the market (Chesbrough, 2004). Similarly, a strategic alliance is another way to tackle this globalisation threat to local industries. International business literature has identified several outcomes which benefits the companies engaging actively in strategic alliances. These companies are witnessed of reaping higher returns on their equity, higher success rates, and better rate on investments as compared to the mergers and acquisitions. However, it has also

found through studies that managers usually lack knowing the formation process, evolution and dynamics of the corporate relationship involved in strategic alliances (Toveda & Knoke, 2005). A strategic alliance has a long tradition in management studies. It has been investigated using multiple theoretical lenses from transaction costs, RBV to agency costs (Ferreira, Storopoli, & Serra, 2014).

The ecosystem is another strategy which is used by companies to get strengthened for the competition that arises by globalisation. James Moore has set up this new metaphor drawn from the biological studies and their social systems. He shows that organisations are not to be considered as one member of the industry, but as the member of an ecosystem which is composed of many interlinked industries. He put forward the base for the co-evolving of the companies around innovation by working competitively as well as cooperatively to support the growth in products consequently satisfying the needs of the customers (Moore, 1999).

It has been seen that through the use of national initiatives, aid in the creation and maintenance of such groups can be achieved. It is represented through initiatives like Production 2030 which aided in the formation of a group of companies which aimed at providing solutions for manufacturing purposes. The term used for such groups or networks is known as a cluster (Porter, 1990), which is now the the Ecosystemed with the term of Ecosystem (Moore, 1999).

However, it is not natural that these ecosystems form by themselves (Vanhaverbeke, 2001). These clusters of Small and Medium Size Enterprises are formed on purpose. This paper is focused on examining a cluster of 20 such firms which are working together to provide automated solutions to their manufacturing clients. The cluster of these companies formed in 2011 via the initiative of one of these companies and with the help of the local municipal. This cluster has successfully received funding annually from the Production 2030 initiative as well.

Immediately after the formation of this cluster, several of the collaborator and competitor companies were invited to aid in the creation of a cluster that could consequently support a larger ecosystem.

It is to be noticed that an ecosystem in itself can only be productive if all the contributors of the ecosystem; in this case, the companies, have the core competence which adds up to the core competence of all other participants of the ecosystem as well. It requires companies to have definite recognition of their core competence. Furthermore, companies are also required to know their core competence to gain a competitive advantage. Companies need to know their source of innovative capabilities which also represents their core competence. Dynamic Capabilities (Teece, Pisano, & Shuen, 1997) is the concept which makes use of both the core competence and the external drivers of competence for having the capacity to adapt to the changing business environment. It is a call for the need to define the core competence of a company to strengthen it better.

It has been found that competitive advantage is dependent majorly on the core competence (Mappigau & Hastan, 2012; Prahalad & Hamel, 1990). The concept of core competence is based on the fact that the core skill or knowledge of the company is unique to the company and has a positive influence on its financial strength. It is crucial to know what core skills a company possesses to better manage and develop it for expansion of the business in a changing business environment (Ahuja, 2011). Knowing competence is necessary to assist in choosing the right partners for the ecosystem to bring additional value to clients.

The objective of this paper is to examine and explore the core competence of the SMEs operator as the provider of Automation Solutions. It would help in the development of their

existing offerings and also in the understanding of the role and contribution in the ecosystem, making them more beneficial to the partners and the ecosystem as a whole.

2-Method

The method employed in this paper is the case study. By using the case study method for research, a better relationship with the subject companies is created. This paper is an actual one part of a larger study. This larger study used several workshops, morning meetings, a small get-together with the companies in the ecosystem. Interviews and an annual conference were also held to get better acquainted with the stakeholders of the companies. This continual process of communication helped in the development of a stronger relationship with the companies within the ecosystem. It helped in gaining the trust of these companies, and consequently retrieving of substantial information. This in-depth knowledge was crucial for the case study format of research (Jensen & Sandstrom, 2016).

This study is based specifically on the 2nd round of interviews which were held in the year 2015. The focus of these interviews was to gain information on the reasons of collaboration between the companies from these companies. It aimed at yielding information on why a company is collaborating with others as well as why this company was selected for collaboration by others. The interview also raised the question to the companies about their repeating customers. It gained information on the reason clients come back to a company. These three areas of research were used to triangulate on the core competence of the company. The answers were used to look and find on what might be the core competence of each of these companies. By identifying what they are seeking for and what they gain from other companies can be used to deduce what they are contributing to the ecosystem. Additionally, the answer to why clients keep

coming back to them also help in providing a more nuanced answer to what customers seek while searching for automotive solutions from these companies.

In addition to the triangulation, the information on the educational background and qualification of the management is also gathered. The managers were asked to know what competence managers need for getting hired by the company. This question was required to find out what knowledge, the background is required for the managers and what would be the expected knowledge-input from these future managers. Knowledge is only one part of the competence of a company, but is of crucial importance. An employee needs to have the required knowledge base to understand and then contribute to the development of the competence which the company requires from them.

3-Literature Review

The literature review yielded information on the importance of core competence. Core competence and its importance have been long known by the business analysts (Vanhaverbeke, 2001; Prahalad & Hamel, 1990). It was known that core competence is linked with core capabilities. Companies are made up of various business units. Profitability depends upon how these business units raise and use the resources and competencies raised from it. Thus, it can be said that the profitability and performance of the companies are determined by the competence and resources of the organisation. Several modes of growth, including partnerships, strategic alliances, acquisitions, mergers, and ecosystems are used to instigate growth and competitiveness (Daidj, 2011). The scientific literature has been focused on the examination of issues of trust, knowledge transfer, partner selection, synergies, complementaries, and integration between the partners through the cooperative ventures including strategic alliances, and mergers. The questions have long been searched on why companies set up alliances and what is the context of

international cross-border alliances. It has also been researched that how success is achieved in strategic alliances. The studies conducted have focused on the performance of the companies within the cooperation realm, the need for cooperation and its reasons and the basis for cooperative efforts (Toveda & Knoke, 2005).

Marketing literature has also shown how companies are now needed to be marketable driving rather than market driven. It implies that organisations now need to have the ability to create customer value. The study focuses on three types of competencies which can boost the capability of companies to create value for its customers. It includes marketing practices for knowledge absorption techniques from external sources, supply chain and networking competencies, and organisational competencies. The study also used cluster analysis for linking the competencies with having the ability to create customer value (Berghman, Matthyssens, & Vandenbempt, 2006). Another research studied the collectable learning and development of knowledge in the regional clusters of SMEs high technology of Europe. The study paid specific attention to how firms develop competencies and develop a knowledge base for successful innovation (Keeble & Wilkinson, 1999).

Altogether the importance of strategic alliances, cooperation, and units and clusters for access to knowledge cannot be denied. It not only provides room for innovation, but also aids in the growth and development of existing strengths with the help of new opportunities. This paper focuses on core competence as utilised by existing companies in the cluster to grow and expand their knowledge base. The paper would focus what core competencies the companies have and what are they looking for (Hee & Daisy, 2018).

This paper shows how core competence is utilised by companies to focus on constant growth and development in creating their core products as essential to the growth of the

company. Competence reflects upon the skill or knowledge that has been acquired by the company. Core competence has been defined in past literature as the ability of any entity to combine separate individual techniques into one, not including the fiscal characteristics (Hamel, 1994).

As dependent on the research-stream, the competence can be in various forms. For instance, competence in the form of entrepreneurship (Song & Kee, 2018) is to look at the market trends and adopt the right strategy to exploit these trends. It is an important competence for the SMEs to have. However, there are many others as well, which are considered important for SMEs which include Product Development (Holahan, Sullivan, & Markham, 2014). This paper is not intended on finding a specific competence of a company; instead, it intends to describe whatever core competence a company possesses as the automotive solution provider.

In itself, the concept of core competence holds controversy as well. Too much on core competence only and one might be considered as too rigid (O'Driscoll, Carson, & Gilmore, 2001) to not look at its environment or market trends. Thus, it is crucial to have focused on core competencies without becoming too rigid as well (O'Driscoll, Carson, & Gilmore, 2001). It is important to know what might be perceived from the term of core competence. In this paper, we are using core competence to reflect upon the knowledge and skills of the management of the company which is being investigated.

Increased interest in the cluster approach has been evident in the last decades to achieve regional competitiveness. A study examined the processes and practices of the regional clusters of Sweden to understand better the characteristics which are common for successful cluster initiatives. The analysis showed four types of cluster initiatives. Firstly, the initiative to build a cluster for the aim of competitiveness and competence while remaining within the existing base

as initiated by the industry was seen. Secondly, public policy exercises were seen to increase brand building in the region. Thirdly, projects were seen which were initiated to produce industry cluster from the very lower existing base. Lastly, geographically dispersed, small-scale temporal clusters based on natural resources were seen which were linked with global ecosystems. These initiatives were also driven by competitive advantage and innovation (Lundequist & Power, 2002).

It is important not to ignore the fact that the ecosystem also needs management and strategy (Vanhaverbeke, 2001). However, it is not the focus of this paper; still, it is important to notice that Project Management can also be considered an important core competence of automotive solution providers as these companies are well-capable to manage the designing, production, and delivery of the final product to customers in time. Thus, their core competence might be relying on project management skills.

Dynamic Capabilities (Teece, Pisano, & Shuen, 1997) is another concept which is linked with core competence. This concept can be explained as the strategic ability of an entity to adapt to the changing circumstances. It is interesting to consider it in our study while using it as a perspective to evaluate the SMEs with on-the-job training having not higher academic backgrounds. It is assumed here that employees with higher academic background are more fluent in easily adapting to the fast-changing environment because of the opportunities provided to them due to their wide knowledge base as compared to the individuals who have not seen much expansion in their knowledge base.

4-Result

The results show that many of the companies of the ecosystem have been owned by the family for a generation, passed down to their kids. The owners of some companies have recently

hired their kids. It implies that there would be some managers who are interviewed which possess in-depth knowledge of the company operations. It can be assumed that these managers have a healthy academic qualification, but it is not true. All the interviewed managers held High School diploma degrees in engineering, which shows they had basic technical knowledge. Some managers have had night classes on the economy while others considered them staying up-to-date with the recent technological advancements as enough. It shows that the management and employees of the company do not have any related qualification to have the best understanding of the offerings of the company yet had some basic knowledge of the technology.

The managers were then asked about what kind of competence they try to find in the new hiring. The answer remained similar for all companies as all companies were trying to find the same competence that they already possessed. The only higher qualification that was preferred was by one of the companies for Mechatronics who then hired two sons of the managers who had the same qualification. The same manager was found to have an emotional connection with the Mechatronics education, feeling that it should not have been disregarded while considering for the higher education program. The manager felt it as an important competence for the automotive companies. The interviews did not find any companies who considered digitisation as the future expansion trend for the automotive companies except one who was working together with a supplier on production software to move forward towards digitisation.

The information did not direct towards any core competence of the companies or other. Therefore, the companies were asked for the reasons why they chose to collaborate in an ecosystem. The information on what value other companies bring to the ecosystem might show what is needed from other companies of the ecosystem to bring to the collaboration, or how they consider their requirement.

The two questions were asked;

1. What are the reasons that led the company to collaborate with the partner?
2. What the company has gained from this collaboration

The answers to the 1st question are shown in Figure 1. The Grey colour shows the companies who have answered with this option as one of the many options.

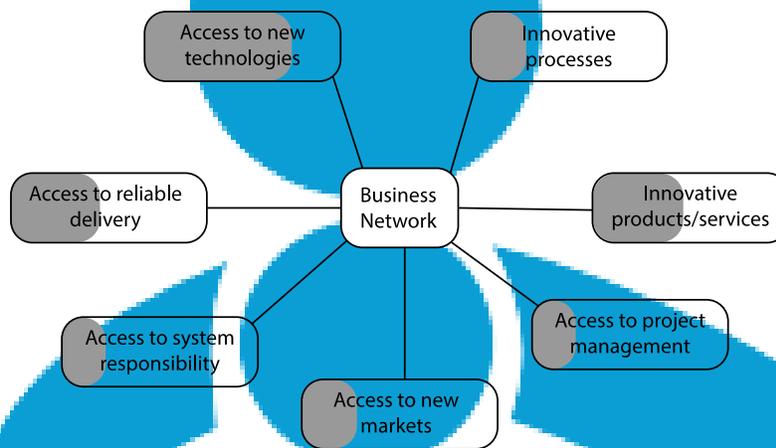


Figure 1: Reasons for Collaboration

There were many answers given. However, the focus is given to the option which was preferred by most companies. The most selected reason for all of these by the companies was access to the new technologies. The companies collaborated on the expectation that another company would provide them access to new technologies. Other reasons were chosen as well. This information shows that having the technology or the development of technology is not the core competence of the companies as they seek it from collaboration as well.

The answers for question 2 are shown in Figure 2 which showed the gains for companies from the collaboration. The answers to this question confirm that the companies chose collaboration to gain access to new technology and this is what these companies gain from the collaboration as well.

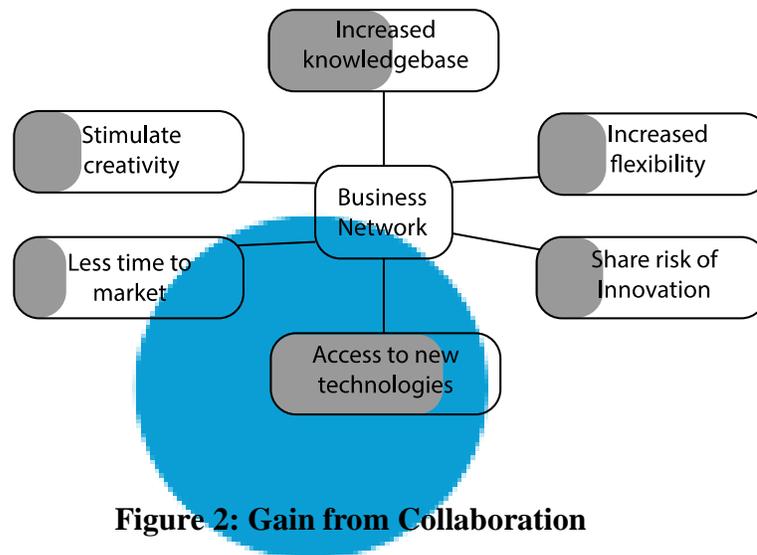


Figure 2: Gain from Collaboration

Another important gain from this collaboration was reported to be increased knowledge base. It looked like that these companies used the opportunities presented by the access to new technology to expand their knowledge base. These companies are using the collaboration to better learn about their capabilities and potential to improve the workings of the manufacturing systems. The companies are not seeking the diverse knowledge base. However, the gain is leading towards opportunities which they are using to its fullest potential.

The answers from the interviews to the three questions show that companies worked on their competence to develop their knowledge base by accessing the new technology base. However, the main question of their core competence remains unanswered. In answering this question, it was needed to have a walk around the floor of the workshop while conducting an informal interview.

After conducting interviews in the interview, a walk around the floor of the workshop was held. The questions raised during this walk were;

1. What are they working on currently
2. Their choices related to it

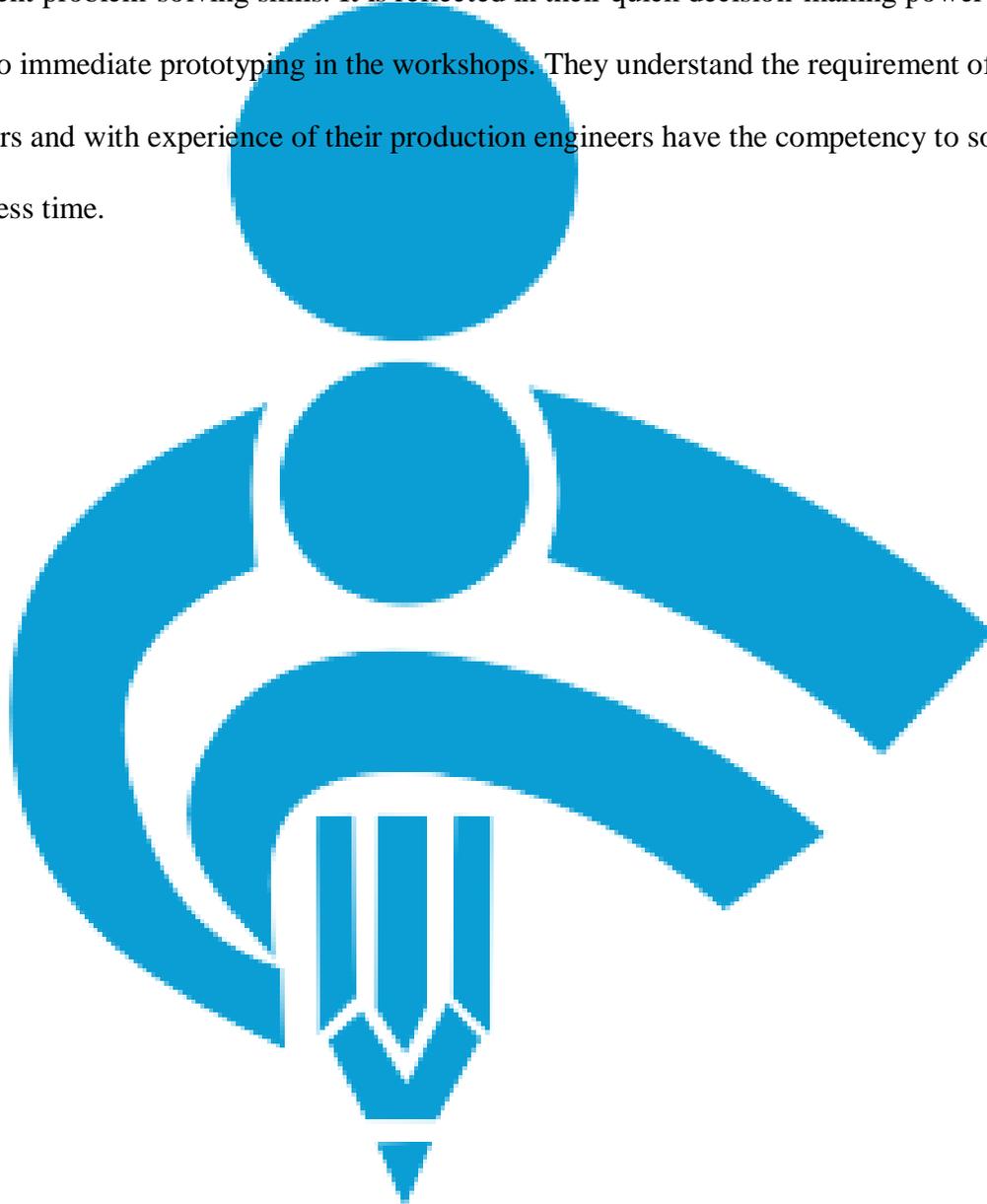
3. Their thoughts on it

These questions were answered by the managers who showed that the workers were facing problems in their work which was immediately solved through a short ideation phase. They started building the prototype for testing the idea and then finished by building an improved finished product. The company knew their unique speciality and moved quickly to test its new versions making new offerings to the customers. It showed that the core competence of the company is its ability to learn things quickly and incorporate new technologies to build prototypes for testing. The core competence of the company was found to be skilful prototyping.

5-Conclusion

Every company exhibits a core competence on which its core business is built. This core competence becomes the basis for profitability, sustainable growth, and prospects. For instance, a machine builder would consider its ability to build machines as its core competence. However, this is not the case at all. With detailed analysis and investigation, this was found to be untrue. Even though finished goods represent as main part of the business model and product offerings of the company, it does not reflect on its core competence. Core competence is that one attribute, unique quality, capability, knowledge or technology, which makes the company, achieves competitive advantage. It cannot be shared. The study looks at the companies to find their core competencies. It employed the use of interviews, both formal and informal, to gather information on reasons of collaboration and to know what the core competence of the company is. It was reported that most companies looked for access to new technology as the reason for collaboration and that's what they gained the most as well. The companies also reported an expansion in their knowledge base which was consequently because of access to new technologies.

The automation solution providers were found to have skilful prototyping as their core competence. The companies with their wide knowledge base and experience in the manufacturing of equipment with a lower formal qualification of managers in the field had visible, efficient problem-solving skills. It is reflected in their quick decision-making power which leads to immediate prototyping in the workshops. They understand the requirement of their customers and with experience of their production engineers have the competency to solve problems in less time.



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