

Enhancing Competitive Advantage in Rural SMEs Through Systems Thinking: The Role of Employee Training Strategies

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Abstract: The purpose of the study is to explore the critical role of systems thinking in enhancing the competitive advantage of Small and Medium-sized enterprises (SMEs) in rural areas. System thinking is the ability to understand and manage the interrelationships between different components of a challenge or problems. This kind of thinking is likely to be the key ability to navigate complex and dynamic rural market environment. Employees with strong systems thinking abilities can impact on the strategic-making and operation of rural SMEs by problem-solving skills and flexible management capacity. This paper states that by leveraging system thinking, SMEs in rural areas can not only overcome the unique challenges they face, such as limited resources and geographical limitation, but also capitalize on opportunities and enhance the position in the market. The findings suggest that developing systems thinking skills among employees is an important strategy for SMEs in rural area to maintain and enhance their competitive advantage in the dynamic change environment.

Keywords: System thinking, competitive advantage, small and medium-sized enterprises, rural areas.

1. Introduction

The current business environment seems in a dynamic situation, and changes often occur. Therefore, when a business could remain dynamic for a long period of time, this may prove that this business is likely to have system thinking ability. Put it in detailed, System thinking is skills work together as a system to improve business capability of identifying and understanding systems, such as predicting businesses behaviors, and predicting businesses behaviors, and design changes to them that will have the desired outcomes [1]. In other word, system thinking refers not only focusing on the individual elements of a system, but also seeing all elements as whole and the interactions of the parts of each system. It may lead a consideration that training employees in system thinking may give them the ability to take on more challenging tasks, manage more complex projects, collaborate more effectively, and predict future developments. For example, when employees could anticipate the future to a certain extent, they could take measures to cope with the changes in the business environment. Furthermore, the ability to anticipate the future could be also lead a competitive advantage for business. Comparing with the major industry, the small or medium size enterprise (SMEs) seems operate in a more dynamic and competitive environment. First, the number of MSMEs continue to be backbone of the economy in the majority of countries, accounting for 90% of all enterprises, more than 70% of jobs, and 50% of global GDP [2]. Second, most of the SMEs is likely

to operate in the places that far from the major cities due to high operation cost in large cities, such as the high rent of office. Similarly, Merrell et al. shows that SMEs are typical businesses in rural area economy, which is geographically isolated, self-employed, and home-based business [3]. It may lead the innovation and business support strategies and institutions have bias on those SMEs. More specific, some innovation and businesses support strategies and institutions may ignore the SMEs demand due to geographical limitation, different knowledge level of employees, or low Internet connection [4]. Similarly, SMEs may assume that business support organization are mainly toward larger, faster- growing urban businesses, and with high consulting fees. Thus, they may not seek help actively. When they face the dynamic business environment, they may face high volume of tasks and business decisions which are focus on long-term bias and focus on responding to the changes in the business environment. It may lead a consideration that if some of SMEs owners without stronger system thinking ability, they could not anticipate what may happen in the future. Therefore, some of decisions that they make may cause the demise of SMEs. Also, this is likely to be the reason for the demise of many SMEs in the past. If the issues could not address, this trend is likely to continue. Therefore, there is a need for this study to examine whether having system thinking by SME employees can help SMEs to continue gain competitive advantage.

This paper focuses on the competitive advantages development of the SMEs in rural area. Therefore, the paper aims to examine whether training employees of SMEs in rural area with strong system thinking ability can help SMEs in rural area maintain competitive advantage. This paper will focus on gaining competitive advantage through training employees.

2. Literature Review

Firstly, the work of Peter Checkland could reflect a long-term evolutionary process characterized by continuous reflection and practice, leading to breakthroughs in each decade [5]. In detailed, the first is shifting the general system thinking theory to applied system, which moving beyond theoretical framework to practical methodologies. According to Checkland, the early achievements of system thinking shifts were still face limitation [6]. Next, the author also distinct hard systems thinking (HST) and soft system thinking (SST). More specific, HST focus on quantitative and deterministic approaches, and SST embraces qualitative and interpretive methods to address problems in human activity systems. As the SST mainly focus on improving the problematic situation of the human activity system, SST is likely to have a strange correlation on sociologic. After that, the transition from a functionalist perspective to an interpretive tradition that values phenomenology reflects a deeper understanding of human interactions and the complexities of social realities [7]. Furthermore, Jackson summarizes some different principles of interpretive approach, such as the problematic scenario may not be defined by the term ‘system’, but it can be creatively developed [8]. Since then, different researchers have applied system thinking to different areas. For example, Ballé shows that how the systems thinking apply in the workplace [9]. The author notes that many solved problems happen again due to common management response to the issue is short-term solution rather than a long-term systemic examination. Furthermore, Patel and Mehta show that system thinking is essential to enable innovator to think ‘outside the box’ and understand how the entire system works, thereby identifying sub-optimal situations and designing specific interventions to bring about systemic change [10]. Newhofer agree that due to the components of complex systems, particularly those involving quickly evolving social structures, it is necessary to apply the systems thinking approach [11]. Therefore, it can help to develop the competitive advantage that gives managers the abilities to handle those difficulties [12].

3. Discussion

As previous mentioned, SMEs show a large contribution on national economy. However, SMEs in different places may show different characteristics. In other word, the SMEs in Urban area may show different than SMEs in rural area. More specific, SMEs in urban area is likely to face high market opportunities in rural areas. Furthermore, SMEs in rural areas are characterized by a lack of success to formal and informal networks and information, and by the problems they face as a result of their far away from customers and suppliers, which also create difficulties in recruitment of workforces [13]. In addition, rural areas have lower population densities than the urban areas, which mean that the average rural firm faces a smaller pool of possible customers within a given geographic radius. The authors also shows that this could limit the potential size of businesses. Although the SMEs in rural area face smaller size, rural area businesses face less competitive from those large national and international companies. This is because that the large national or international companies could not be attracted by the smaller market size in the rural areas. This may also provide an opportunity to those SMEs to growth in the rural areas. However, the SMEs in rural areas still face highly competitive from other SMEs. Therefore, it is essential for those SMEs in rural area to build competitive advantage.

3.1. Competitive Advantage and System Thinking

Based on the previous review, comparing with original thinking, system thinking views a problem or challenges as a whole and how individual elements in the system interact with each other. This may lead a consideration that employees with strong system thinking could consider more comprehensive, thus they may deal with problems more specifically. More specific, by treating each problem as a part of a broader system rather than a single problem as a part of a broader system rather than as an isolated issue with unrelated consequences, systems thinking addresses complicated challenges by identifying the relationships and influences between various system components [14]. It is a collection of methods, routines and instruments that support the mapping of dynamic complexity [10]. Obviously, leaders and employees who have strong system thinking ability could make strategic decisions by considering the entire system and potential long-term consequences. Moreover, this could reduce the negative outcomes from decision making, and enhance the quality of decisions. As previous mentioned, Patel and Mehta show that system thinking could also help innovator to think ‘outside the box’. Therefore, the employees with system thinking could not only understand how the challenge happen and how each individual problem in the challenge relate to each other, but also they could easily identifying the emergency problems and make optimal solutions in the current dynamic environment. Newhofer show an agreement that due to the components of complex systems, especially those involving quickly dynamic change in the society, it is necessary to apply the systems thinking approach [11]. This may because that when employees and leaders consider various scenarios and the impacts, they could develop robust strategies that account for uncertainties and complexities. It could keep or enhance their competitive position and will not be affected by challenges. Similarly, when creating a company strategy, systems thinking is seen as a disciplined method for encouraging companies to behave competitively in the marketplace [15]. However, Senge and Sterman propose that a significant shift in organizational culture is necessary for a corporate organization to adopt a system thinking approach [16]. Clearly, system thinking requires dealing with complexity, which could be challenging to manage and communicate within an organization. Especially, if an organization focus on short-term results or leadership monopoly thinking, they may face cultural resistance when adopting system thinking. Therefore, shifting to the system thinking requires leadership support and organizational culture change. Employee training is essential for the companies which willing to build system thinking.

3.2. Training Employees with System thinking Framework

In the current dynamic environment, organizations could develop a workforce that is adept at system thinking, leading to more informed decision-making, better problem-solving, and sustained competitive advantage by implementing the training program. In other word, the training programs may not only to help in developing specific skills and knowledge that are essential for the operation of organization, but also businesses to invest employees training to enhance their ability to help them response different situation in the future work. Similarly, Tai states that to be competitive in the market, businesses must provide training programs that educate their staff with the skills necessary to handle uncertainty and make effective decisions [17]. In detailed, there are many advantages to apply employee training. For example, Arnoff shows that training can help employees improve initiative ability and creativity [18]. Scott, Clothier, and Spiegel support that training is the core of businesses management, because it makes employees more effective [19]. Mamoria add that well-training employees could minimize the level of business resources waste [20]. Obviously, all those contributions could help businesses enhance the businesses competitive advantage.

Training different skills or abilities may have different program. For instance, Dysvik, Carlsen, and Škerlavaj have defined a framework for training systems thinking for employees and managers, including three different realms which are business, beneficiary, and societal [21]. In detailed, business realm focuses on operational and developmental systems within organizations, aiming to enhance performance and competitive advantage. Beneficiary realm addresses the micro-relational impacts on immediate internal and external stakeholders, ensuring that training also considers the needs and outcomes for theses stakeholders. Societal realm encompasses the macro- relational impacts on broader communities highlighting the importance of considering societal effects and indirect stakeholders. In brief, the training framework for systems thinking promotes a comprehensive approach that considers the relationships between business, beneficiaries, and societal impacts. Obviously, this training aim to enhance the effectiveness and reach of training initiatives within organizations. Based on this training, the employees and leaders could enhance their ability to identify opportunities for innovation and respond to change in the environment. Furthermore, this could lead to more informed decision-making and a more elasticity organization. However, it may lead a consideration that training system thinking ability need spend longer time than other skills or abilities base on those factors, even it may be a continuous learning and development. It may be difficult for those SMEs because they may need spend more time and cost on training.

3.3. Employee Training in Rural SMEs

While employee training for SMEs is important to stay competitive, drive growth and adapt to changing market conditions, it could be difficult for SMEs to do. Cosh, Duncan, and Hughes believed that training is a key factor in the growth and profitability of the company as well as the development of individual skills [22]. However, SMEs often face challenges in implementing effective training programs due to limited resources, time constraints, and smaller size of workforce as before mentioned. Macrae shows that the qualifications, experiences and education of managers are key differentiators between different SMEs with high and low growth rates [23]. As pervious mentioned, the SME fail usually relate to poor management skills [24, 25]. By contrast, Harris et al. shows that the successful SMEs pay more attention on employee training than average [26]. The employee training usually includes formal and informal training. Formal training is viewed by owner-managers as an expensive cost that includes not only course fees but also face the expense of missed productivity during employee absences [27, 28]. Additionally, Kotey and Folker show that since SMEs tend to have less internal promotion prospects, trained personnel are more likely to leaver for other businesses with higher level [29]. Similarly, Macmahon and Murphy shows that owner-

managers contend that employee training produces highly specialized workers rather than the multiskilled workforce needed to handle the very changeable nature of tasks in SMEs [30]. Therefore, comparing with formal training, SME are more willing to use informal training, because it is cheaper, can be easily integrated into daily operation, and focus on employee needs [31]. It may lead a consideration that informal training is likely to help employees face the challenge based the inside of the SMEs environment. Similarly, Smith et al. shows that employees gain abilities in solving a variety of issues within the company, which produces a workforce that is more flexible and multiskilled that better adapted to the demands of SMEs [32]. Obviously, informal employee training could not help employees build their long-term development. Also, some researchers support that SMEs' ability to establish long-term competitive advantages is limited by no formal employees training [33, 34]. Therefore, formal employee training is a crucial investment for those SMEs seeking to build and maintain a competitive advantage. Correspond to SMEs in rural area, SMEs in rural areas may always face unique challenges, such as limited resources and dynamic change of environment. Therefore, system thinking enables employees to consider how the different factors interact with each other and help leaders in rural areas to anticipate potential issues and reduce risks, even enhance the competitive advantage. Although SMEs face challenges on training employees, they could apply different strategies to overcome these obstacles and implement effective training programs.

4. Results and Findings

In brief, a major factor of competitive advantage for rural SMEs could be the integration of system thinking into employees. Clearly, strong system thinking skills could improve employee's ability, such as solve problems and be elasticity on challenges. In addition, these advantages support the long-term survival and development of SME. Based on the conditions of SMEs in rural areas, system thinking could help them pass through the complexity of the rural market environment and retain a strong position in the market. However, the most important is the leader of SMEs in rural area to have the awareness about building system thinking and create a learning environment.

5. Conclusion

This study highlights the significant impact that employees with strong system thinking abilities, particularly, on the competitive advantage of SMEs in rural areas. By understanding and managing the interconnections between various elements of the current dynamic business environments, the employees could contribute more on making effective decisions and doing innovation to enhance competitive advantage. Their ability to predict and address challenges enables help the SMEs in rural area to keep thrive in the dynamic environment. In addition, the ability could help them to take the chances for growth. Therefore, fostering systems thinking skills among employees should be considered a strategic for rural SMEs aiming to maintain and enhance their competitiveness. For the future research, the researchers should explore the specific approaches by which systems thinking promotes competitive advantage in different types of rural SMEs, including different industry and geographical location. Based on the current framework, it may not be suitable for the SMEs in rural area due to time consuming and costs. In addition, it would be valuable to investigate or update the most effective methods for training and developing system thinking skills among employees. This is because that the change of one elements or factors in the current dynamic environment may make the previous method ineffective. For instance, the researcher could explore the role of technology in enhancing system thinking and examine whether it is suitable for SME in rural areas.

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