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Study on the suitability and feasibility of establishing a storage and distribution center in Tak Province to support the Tak special economic development zone

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Abstract---The study aims to check the suitability and feasibility of establishing a storage and distribution center in Tak Province to support the Tak Special Economic Development Zone. Indeed, business organizations in different countries are provided with opportunities to practice business activities in the special economic zone. However, some business organizations are not developing their storage and distribution centers in the special economic zones. The stratified sampling method was adopted in this study to collect the data from the target population. The sample size was 500 and the Likert scale questionnaire was prepared to collect the data from the target population. The study demonstrates that there is a critical role of storage centers and distribution centers in the success of businesses if these centers are following the rules and regulations of the special economic zones. The significance of this study is that no earlier study has discussed the critical role of storage and distribution centers in the Kat Special Economic Development Zone in Kat Province.

Keywords---special economic zone, storage center, distribution center, business management, supply chain.

Introduction

Modern businesses are facing problems in the terms of logistic management and supply chain of the products within or outside of the country. In this regard, it is noted that these problems are not eternal, but the management of businesses is failed to perform the best operational activities to make decisions for the business organizations (Martínez, Martín, Fernández, & Mogorrón-Guerrero, 2019). Similarly, the problems of storage and distribution centers are one of the core problems for the business organizations in the Tak Province. Some businesses believe that it would be suitable and appropriate to develop storage and distribution centers in the special economic zone. Whilst, others believe that it is not feasible to build business entities in special economic zones.

Business management of any business is based on the key responsible persons who are taking critical decisions for the organization (Porcu, del Barrio-García, Kitchen, & Tourky, 2020). It is a fact that business organizations are getting prosperity in the target market with the decision of business management because the managerial staff and the stakeholders are directly responsible to take immediate action over time to adopt new policies and strategies for better development of business. Storage center refers to the center or warehouse that is developed by a different business organization to keep the inventory for a longer-term (López-Cabarcos, Vázquez-Rodríguez, & Quiñoá-Piñeiro, 2022). In this regard, it is a fact that these story centers are critical because, in the centers, the inventory of the business is managed according to the requirement of the business organization. In the same way, distribution centers are the warehouse developed by the business organization to distribute the products and keep them in the product or inventory for a short term (Kato & Charoenrat, 2018). The key responsibility of the distribution centers is to distribute the products or services at the right time to the right people according to the order. Special economic zone refers to the area that is specifically designed and allocated for business activities for different business organizations, to facilitate them in the activities of import and export to ensure that the rules and regulations are according to the requirement of the business organization (Mashika et al., 2021). Based on these facilities, the business organizations are getting an advantage for developing a competitive advantage in the target market.

The objective of this study is to understand what is the feasibility and usability of storage and distribution centers in the Kat Province. In this regard, the study is designed to understand how the management is contributing and making decisions related to the storage centers and the distribution centers in the special economic zone. Particularly, this study is to understand what is the influence of storage centers and distribution centers on special economic zone and what advantage the business organizations would get if it builds their storage centers and distribution centers in that special economic zone, allocated by the government sector (Na, Kang, & Jeong, 2019). However, this study aims to demonstrate the relationship between business management storage centers, distribution centers, and special economic zone by developing a theoretical framework that was not identified by any of the previous studies.

This study is significant because this is not designed to address the theoretical gap only. Importantly, the study is also designed to address the gap in practice to encourage the organization to develop storage centers and distribution centers in the special economic zone to conduct business activities. Similarly, the study provides a detailed insight into the theoretical framework and the relationship between the business management stories and distribution centers, and special economic zone. In this way, with the recommendation of the study, it would be appropriate for business organizations to get a competitive advantage by understanding the utilization and feasibility of storage centers and distribution centers in the special economic zone.

Literature Review

Business Management, Storage Center, and Special Economic Zone

In the current time, the government is establishing rules and regulations for business activities to perform their operations in the best and most effective way for the greater benefit of sustainability (Akhmadeev et al., 2019). However, it is not only the responsibility of the government to manage these business activities but at the same time, there is a responsibility of the business management to ensure that all the operations of the supply chain including logistics are rightly conducted within the organization to ensure the efficiency and effectiveness. In this regard, according to Xue, Shahbaz, Ahmed, Ahmad, and Sinha (2022), it is noted that business management helps to develop a competitive advantage over other organizations. Moreover, it is also noted that the business organizations that develop different strategies to improve their business performance and logistic, these organizations are more concerned to develop storage centers in different locations for the keeping of inventory for delivery. In this way, Na et al. (2019) highlights that the organizations are highly involved to develop the strategies for effective logistics, because it is believed that with the help of effective logistics and the right location of the storage center, the companies are not only developing the competitive advantage but they are keeping a big share of the market nationally and internationally. However, the organization must focus on the development of storage because most of the time it is noted that the organization has to keep their inventory for a longer term in the storage and make sure that the inventory is rightly protected. At the same time, there is a critical role of storage centers in the areas of the special economic zone because it is believed that with the help of the storage center, the regulations on the special economic zone are less (Sapbamrer et al., 2022). Indeed, in the developing countries, the story centers are developed in the special economic zone to contribute its visibility and utilization because of the regulations and tax net is left on the special economic zone, then the development of storage center in the special economic zone would be fruitful for the organization not only for the longer but for the shorter term as well. However, it is the responsibility of the business management to ensure that the storage center is rightly located, and their development is in the special economic zone because based on the center all the costs of inventory depend. In China, the industrial sector has developed their storage center in the special economic zone, because there is less subjective law in the special economic zone to attract foreign investment and other direct investment into the business activities to post it to the advanced level (Sapbamrer

et al., 2022; Kerdpitak, 2021). Significantly, the countries that are failed to ensure the reliability and validity of the special economic zones, these countries are not better developing with the prosperity but the logistic cost and the inventory management cost of the organizations of these countries are increased and the organizations are failed internationally in the terms of cost. Interestingly, in modern times some stakeholders are recommending the business organizations to develop the storage center in the special economic zone to contribute in the term of logistics and get benefit from the development of the special economic zone (Mahajan & Singh, 2022). Therefore, the development hypotheses are;

H1. There is a relationship between business management and the storage center.
H2. There is a relationship between the storage center and the special economic zone.

Business Management and Special Economic Zone

The special economic zones are developed by different countries and the government to ensure that the business sector is getting the advantage to increase the exports and reduce imports for the prosperity of the country. In this regard, the high responsibility on the management of the business to ensure that it is contributing to the worth and dignity of the special economic zone. Different factors are influencing different businesses to participate and operate their other activities in the special economic zone (Akhmadeev et al., 2019; Kerdpitak, 2020). To begin with, special economic zones are designed to provide better opportunities to the business organization to establish their operations there including their storage centers and other offices to ensure their productivity according to their set objectives. At the same time, according to Na et al. (2019), it is also noted that the business management is directly responsible to contribute in the special economic zone, because if the business management of any organization is not highly involved and directly interested to participate in the special economic zones, then it would be difficult for the government to organize and attract the other business organizations in the special economic zone. It is also critical to understand that the business sector should note the contribution of the government and other stakeholders and their tendency to the special economic zones because the special economic zones are not designed to provide opportunities to the business only but at the same time, these economic zones are developed to work with the prosperity and integrity into the right direction to get a better and competitive advantage with sustainability (Klimenko et al., 2018). Similarly, the modern countries are encouraging the business entities to shift their business sector and all other operational departments into the special economic zone because with help of the special economic zone less production and distribution cost is involved. At the same time, the governments of different countries are establishing different rules and regulations for the special economic zones that are contributing to the worth of the sector, because with the help of these economic zones the organization is getting greater benefit for the long term (Liu et al., 2022). In this regard, on the one hand, there is an organization that is developing the strategies to be part of the special economic zone, because these organizations believe that the advantage and opportunities of the special economic zone would help them to become sustainable and profitable organizations. However, on the other hand, there is an organization that believes

that their contribution to the special economic zone is not important because these organizations think that the rules and regulations of the special economic zone are hard and it is completely difficult to establish business activities in the special economic zones (Liu et al., 2022). Similarly, the organization of the backward countries is shifting to the special economic zones by adopting both methods of business operation to ensure if the special economic zone criteria are not appropriate then the organization would shift to another factor for getting the better advantage. In the same way, the responsibility of the business organizations has increased because the business management is responsible to take critical decisions according to the establishment of organization functional activities into the special economic zone. Therefore, the developed hypothesis is; H3. There is a relationship between business management and a special economic zone.

Business Management and Distribution Center

Distribution centers are the centers that are not only utilized for the storage of the product for the longer-term but these centers are used for mixing and diversifying the product for a short term to support the business activities. According to Akhmadeev et al. (2019), the distribution centers of Amazon are working in different countries with the help of operation management to ensure that the right product is delivered to the right customer at the right time at the right location. However, it is important to understand that the cost of inventory management is important for any business organization, and in this regard, the business organization is developing their distribution centers in different locality based on their priority and the target market (Na et al., 2019). Furthermore, with the help of distribution centers, it is possible for organization management and the critical role of business management is to establish these distribution centers in the special economic zones because the laws and regulations of the special economic zone are implemented on the distribution centers. In this regard, the stakeholders of the business and the management of the business should consider the importance of the distribution centers concerning the special economic zone, because it is believed that with the organization that distribution centers in the well-developed special economic zone, the development of these organization in the target market share is increased over the time (Klimenko et al., 2018). In this regard, according to Akhmadeev et al. (2019), it is the high responsibility of government and at the same time the responsibility of the management to ensure that all the competitors in the business field are not getting advantage of the special economic zone, but the organization with unique and well managed to ensure and implement all of the strategies of the special economic zone to get benefit from special economic law and regulation by the government. On the one hand, some organizations are developing with the help of business management to build the distribution centers in the special economic zones, because these organizations believe that with the help of special economic and target market would be achieved (Hajar, 2022). However, there is an organization that is not building their distribution centers in the special economic zones, because organizations have their distribution centers or not appropriately working in the special economic zones, and the state laws and regulations of the special economic zone are in the way of the prosperity of the organization. Indeed, in China and America, the organizations are working accordingly to improve the

performance of the business with the help of strategic development to ensure prosperity with the help of the special economic zone and its distribution centers in the special economic zones (Na et al., 2019). Moreover, in the developing world countries, the business management is practicing the strategies of the developed countries to build the distribution under in the special economic zone to get an advantage in the term of inventory management, inventory cost, and logistic supply chain. The importance of distribution centers in the special economic zone is not neglected because these distribution centers are a greater contribution to the business entities and their overall performance in the national and international market. Therefore, the developed hypotheses are;

H4. There is a relationship between business management and distribution center.

H5. There is a relationship between the distribution center and the special economic zone.

H6. There is mediating role of the storage center between the relationship of business management and special economic zone.

H7. There is mediating role of the distribution center between the relationship of business management and special economic zone.

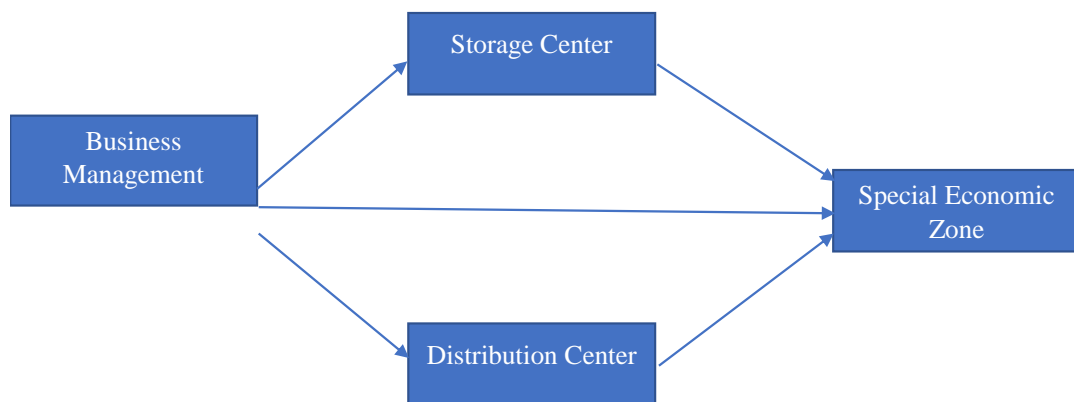


Figure 1. Study Framework

Methodology

The methodology for this study was stratified sampling method because it was considered as appropriate for data collection as it was utilized by the earlier studies related to the business organization. In this regard, a questionnaire was prepared divided into two different sections. In the first section of the questionnaire, the demographic information of the target respondents was required. However, in the second section of the questionnaire the scale items to measure the variables of business management, storage centers, distribution centers, and special economic zone were taken from the earlier studies. It was ensured that these variables are appropriate for data collection and according to the context of the study. For the collection of data with a stratified sampling

method, 500 questionnaires were distributed to the target population. In this regard, the respondents were required to answer the whole questionnaire presented in the second section of the questionnaire. Also, the respondents were ensured that their information on the questionnaire is confidential, and it would not be shared with any third party for any purpose. After the response of the respondents, the question was collected back to analyze the data.

Findings

Convergent Validity

In this section of the study, the Smart PLS 3 software was used to check the validity of the scale items taken for each variable see Figure 2. In this regard, the values of factor loadings, alpha, composite reliability, and average variance extracted were taken with the help of the PLS Algorithm calculator. In this regard, all the values of factor loadings were greater than 0.60. Similarly, the values of CR for each variable were greater than 0.70. Furthermore, at the same time, the AVE value for each variable was greater than 0.50 which is also recommended by Wong (2013) for modern studies. In this regard, according to these results, there were a clear convergent validity and scale items between the variables taken in the theoretical framework check Table 1.

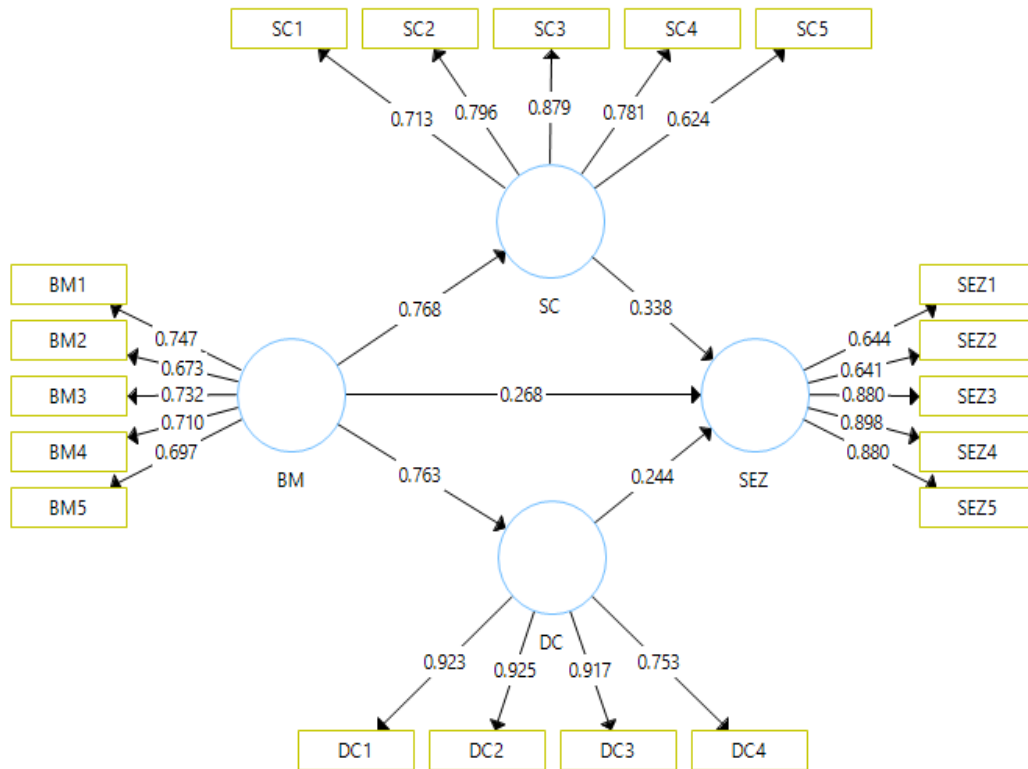


Figure 2. Measurement Model

Table 1. Factor Loading, Alpha, CR and AVE

Variables	Items	Loadings	Alpha	CR	AVE
Business Management	BM1	0.747	0.758	0.837	0.507
	BM2	0.673			
	BM3	0.732			
	BM4	0.710			
	BM5	0.697			
Distribution Center	DC1	0.923	0.903	0.934	0.780
	DC2	0.925			
	DC3	0.917			
	DC4	0.753			
Storage Center	SC1	0.713	0.818	0.873	0.583
	SC2	0.796			
	SC3	0.879			
	SC4	0.781			
	SC5	0.624			
Special Economic Zone	SEZ1	0.644	0.850	0.895	0.636
	SEZ2	0.641			
	SEZ3	0.880			
	SEZ4	0.898			
	SEZ5	0.880			

Discriminant Validity

This section of the study is related to discriminant validity results are available in Table 2. In this regard, the value of the HTMT method recommend by Wong (2013), for discriminant validity was checked with the help of Smart PLS 3 software. However, according to the identified values, all the values for each variable were less than 0.90. Furthermore, according to these values, it was noted that there is clear discrimination between the scale items taken for each variable.

Table 2. Discriminant Validity

	BM	DC	SC	SEZ
BM				
DC	0.813			
SC	0.842	0.710		
SEZ	0.880	0.756	0.815	

The PLS-SEMs Results

In this section of the study, the direct hypotheses were tested check Figure 3. To begin with, H1 was tested to check its significance and according to the results BM has a significant effect on SC ($\beta= 0.768$, $t= 33.693$, $p= 0.000$) and H1 is supported. H2 was tested to check its significance and according to the results SC has a significant effect on SEZ ($\beta= 0.338$, $t= 5.287$, $p= 0.000$) and H2 is supported. H3 was tested to check its significance and according to the results, BM has a significant effect on SEZ ($\beta= 0.268$, $t= 3.771$, $p= 0.000$), and H3 is supported. H4 was tested to check its significance and according to the results, BM has a significant effect on DC ($\beta= 0.763$, $t= 32.744$, $p= 0.000$), and H4 is supported. H5 was tested to check its significance and according to the results, DC has a significant effect on SEZ ($\beta= 0.244$, $t= 4.340$, $p= 0.000$), and H5 is supported (see Table 3).

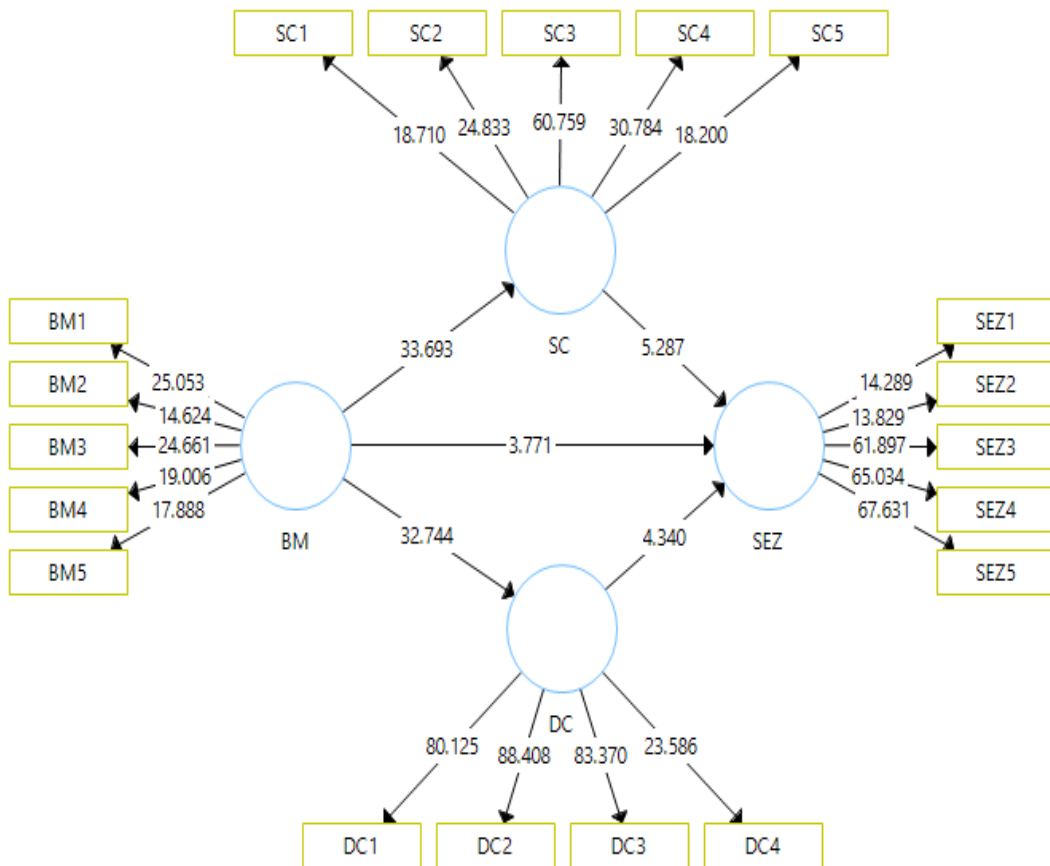


Figure 3. Structural Model

Table 3. Direct Effects Analysis

Hypotheses	B	(STDEV)	T Values	P Values	Decision
H1. BM -> SC	0.768	0.023	33.693	0.000	Supported
H2. SC -> SEZ	0.338	0.064	5.287	0.000	Supported
H3. BM -> SEZ	0.268	0.071	3.771	0.000	Supported
H4. BM -> DC	0.763	0.023	32.744	0.000	Supported
H5. DC -> SEZ	0.244	0.056	4.340	0.000	Supported

Mediation Effects

This section of the study has an analysis related to the mediating variables check Table 4. Firstly, H6 was tested, and the results show that there is a significant mediating role of SC between the relationship of BM and SEZ ($\beta = 0.260$, $t = 5.343$, $p = 0.000$). Secondly, H7 was tested, and according to the results, there is also a significant mediating role of DC between the relationship of BM and SEZ ($\beta = 0.186$, $t = 4.258$, $p = 0.000$).

Table 4. Mediation Analysis

Mediation	B	(STDEV)	T Values	P Values	Decision
H6. BM -> SC -> SEZ	0.260	0.049	5.343	0.000	Supported
H7. BM -> DC -> SEZ	0.186	0.044	4.258	0.000	Supported

Discussion and Conclusions

According to the results of H1 and H2, there is a significant relationship between business management, storage center, and special economic zone. It is noteworthy that the business organizations that are developing their storage and centers in the special economic zone, these organization are getting a competitive advantage over the other organizations because of saving the logistic and inventory management cost. In advanced countries, the special economic zone is developed by the government sector to ensure the organization is getting a competitive advantage with prosperity (Oshodin & Omoregbe, 2021). According to the results of H3, there is a significant relationship between business management and special economic zones. It is considered that the management of any business is directly responsible to manage the activities of the special economic zone, and developing the strategy to integrated the business organization with the special economic zone. According to the results of H4 and H5, there is a significant relationship between business management, distribution center, and special economic zone. The business organizations that are developing the distribution centers in the special economic zone, these organizations are working with prosperity and integration to ensure their credibility by getting a competitive advantage and the target market. In this regard, the organization must focus on its key responsibilities and ensure all of the strategies are developed to support the special economic zone and the national economy. According to the results of H6, there is a significant mediating role of the storage center between the relationship of business management and

special economic zone. In this regard, it is critical that the business organizations that are developing the strategy for better performance, these organizations are focusing on their logistic and distribution centers for storage of inventory. On the other hand, the results of H7 show that there is a significant mediating role of distribution center between the relationship of business management and special economic zone. In developing countries, for the development of the special economic zone, the business management is establishing the distribution centers in the special economic zone to get benefit from rules and regulations and develop a competitive advantage. However, the other countries that are failed to integrate the business entities with the special economic zone, these countries are not getting prosperity rapidly.

Implications

This study is designed to check the usability and feasibility of the storage and distribution centers in the special economic zone of Kat Province. On the one hand, the study has theoretical implications that are necessary to address the gap identified in the literature, because no early study discussed the role of business management, storage, and distribution centers in the special economic zone of Kat Province. This study highlights that these variables are important for critical decision-making by the management of businesses for getting a better advance from the special economic zones. However, on the other hand, the study provides the practical and managerial implication for the business organization to the organizations, because the critical role of business organizations is necessary to develop the storage and distribution centers in the special economic zone to get the prosperity for the organization. Similarly, this study highlights that storage centers and distribution centers are important in the special economic zone to get a competitive advantage for the business organization.

Limitations and Future Directions

This study is limited to the role of business management, storage center, distribution center, and special economic zone to check the feasibility and suitability of establishing the storage and distribution centers in special economic development zone Tak Province. Therefore, future studies should focus on the role of ethical issues, supply chain management, stakeholder concern, and legal regulation to understand the suitability and feasibility of storage and distribution centers in the special economic zone. In this way, the work by the future researcher should not be repeated but with the help of the study framework of this research, the relationship of variables would be useful for future researchers.

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