

Perceptions on The Impact of Logistic Villages on Local Entrepreneurship Potential: The Case of Hopa*

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Abstract: Logistics villages play a crucial role in development due to their macro and microeconomic contributions to the regions where they are established. To establish logistic villages, a large area of land and infrastructure in terms of transportation modes such as maritime line, airline, highway and railway must be sufficient. Logistics villages also provide important opportunities in terms of entrepreneurial activities and include facilities that can increase entrepreneurship potential. The aim of this study is to examine the impact of the opportunities provided by logistic villages on entrepreneurship potential and to make recommendations depending on the results obtained. Within the scope of the study, data was collected through a survey from managers, employees in institutions and organizations operating in the fields of logistics, customs and foreign trade in Hopa district, and expert academicians. A total of 110 people participated in the study, which was determined as the main population of 200 people, and the return rate of the surveys was 55 %. In the correlation analysis conducted, no significant relationship was found between the deficiencies dimension for the logistic village and the strategic factors dimension of entrepreneurship potential, on the other hand, it was seen that all other factors had significant relationships between them. The regression analysis results also determined that the advantages dimension for the logistics village had a significant and positive impact on the entrepreneurship potential (general) and its sub-dimensions 'strategic factors', 'marketing and distribution' and 'cooperation and synergy'. However, it was understood that the disadvantages dimension for the logistics village did not have a significant impact on the entrepreneurship potential (general) and its sub-dimensions.

Keywords: Logistics Villages, Entrepreneurship Potential, Transportation

Jel Codes: R40, L90, O18

Lojistik Köylerin Yerel Girişimcilik Potansiyeli Üzerindeki Etkisine İlişkin Algılar: Hopa Örneği

Öz: Lojistik köyler, bulundukları yerde makro ve mikro düzeyde ekonomik katkıları nedeniyle kalkınmada büyük önem taşımaktadır. Lojistik köylerin kurulması için geniş arazi ve deniz, hava, kara demiryolu gibi taşıma modları bakımından altyapının yeterli olması gerekir. Lojistik köyler, girişimcilik faaliyetleri açısından da önemli fırsatlar sağlamakta ve girişimcilik potansiyelini artırabilecek kolaylıklar barındırmaktadır. Bu çalışmanın amacı, lojistik köylerin sağladığı imkanlar bağlamında girişimcilik potansiyeline etkisini araştırmak ve elde edilen sonuçlar doğrultusunda önerilerde bulunmaktır. Çalışma kapsamında Hopa ilçesinde lojistik, gümrük ve dış ticaret alanında faaliyet gösteren kurum ve kuruluşlarda yöneticiler, çalışanlar ve bu alanda uzman akademisyenlerden anket yoluyla veri toplanmıştır. Ana kütlesi olarak 200 kişi belirlenmiş olan çalışmaya toplam 110 kişi katılmış ve anketlerin geri dönüş oranı %55 olarak gerçekleşmiştir. Yapılan korelasyon analizinde lojistik köy için dezavantajlar boyutu ve girişimcilik potansiyelinin stratejik faktörler boyutu arasında anlamlı bir ilişki bulunmamış, buna karşın diğer faktörlerin hepsinin aralarında anlamlı ilişkiler olduğu görülmüştür. Regresyon analizi sonuçları da lojistik köy için avantajlar boyutunun girişimcilik potansiyeli (genel) ve alt boyutları 'stratejik faktörler', 'pazarlama ve dağıtım' ve 'iş birliği ve sinerji' üzerinde anlamlı ve olumlu etkisi olduğu belirlenmiştir. Ancak, lojistik köy için dezavantajlar boyutunun girişimcilik potansiyeli (genel) ve alt boyutları üzerinde anlamlı bir etkisi olmadığı anlaşılmıştır.

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Anahtar Kelimeler: Lojistik Köyler, Girişimcilik Potansiyeli, Taşımacılık

Jel Kodları: R40, L90, O18

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1. Introduction

The logistics sector is one of the key sectors that affect inputs in all sectors and determine the profitability and competitiveness of businesses (Tekin-Ömürbek, 2004, p. 10-13; Çekerol & Kurnaz, 2011, p. 50; Erkan, 2014, p. 62-63). Entrepreneurs must always consider logistics services such as transportation, packaging, handling and storage when planning their supply chain activities (Rüdiger, Schön, & Dobers, 2016; Kostrzewski, Filina-Dawidowicz & Walusiak, 2021; Zhou, Xu, Zhao et al., 2021). If the organizations operating in the logistics sector are carried out in a more systematic and institutional structure, they will be more accepted and grow as a business area (Çekerol & Kurnaz, 2011, p. 52). The logistics sector provides added value to the countries and regions where it is active in a multifaceted way, especially in sociological, psychological, strategic and political fields as well as economics (Erkan, 2014, p. 44). The most important type of structuring in the logistics sector is logistics villages (Terzi & Bolukbas, 2016, p. 190; Dumlu & Wolff, 2021; Kaya & Dışkaya, 2024). A logistics village is considered to be a place where each of the modes of transportation service (air, rail, sea and inland water) is available at different distances and intermodally (Terzi & Bolukbas, 2016, p. 193). The most important difference of logistics villages from other traditional/conventional logistics sites is the ability to transfer between transportation modes from one to another (Tambi, Mohid, Shukor et al., 2013; Peker, Baki, Tanyas et al., 2016; Demirkıran & Öztürkoğlu, 2020). Capacity, total physical area, foreign trade volume and proximity to railways, airports and highways have been accepted as factors in evaluating the potential effectiveness of logistics villages (Dumlu & Wolff, 2021, p. 1000). Considering the inadequacy of West Asian ports, which are used for the distribution of global production concentrated in Asia and from there to western countries (USA, EU, etc.) in the most economical way, the fact that Turkey's closest port to Asia is in Hopa can provide a strategic competitive advantage in logistics for Hopa, while the lack of a railway is seen as a disadvantage (Tatar & Özer, 2017, p. 549).

It can be said that the role of the concept of entrepreneurship in the logistics sector has increased after the logistics sector has gained different qualities (Kahveci & Dinçel, 2014, p. 103). Transportation entrepreneurship is located at the intersection of innovation and necessity, a dynamic area that is becoming increasingly important in the modern economy. Entrepreneurs in the logistics sector not only move goods but also move the world forward, navigating the complex environment of new rules, technological developments and environmental factors. Supply chain management, one of the core activities in logistics, is an integral activity in entrepreneurship (Protogeros, Mylonakis & Gagalis, 2007; Ketchen & Craighead, 2020; Zhuang, 2024). From the bustling ports where shipping containers begin their journey to the latest delivery initiatives that are revolutionizing the way packages reach their recipients, transportation entrepreneurs are redefining the ways of trade. The transportation and logistics system has always been an attractive sector for investments and entrepreneurship (Popkova et al., 2021). Entrepreneurial orientation includes characteristics such as competitiveness, willingness to take risks by perceiving uncertainty, environmentalism to effectively minimize the use of raw materials that generate hazardous waste, while market innovation includes promoting services through digital marketing and designing attractive logistics services (Ibrahim et al., 2024).

In this study, the potential for a positive impact on entrepreneurship in and around Hopa if a logistics village is established was investigated. There are not enough studies in this field in the Black Sea region, except for a study investigating the suitability of Trabzon for a logistics village (Peker et al., 2016). This study aims to fill this gap in the literature.

2. Conceptual Framework

2.1 Logistics Concept

The concept of logistics comes from the French word “logistique”, which means the deployment of military units, derived from the word “loger”. It entered English in the 19th century (Sutherland, 2009, p. 1). According to Saridogan (2017, p. 182), the concept of logistics is of Latin origin and derives from the combination of the words “logic” and “statistics”. According to this approach, the concept of logistics can also be perceived as “statistical logic”. According to another source (Online Etymology Dictionary, 2024), logistics is a concept used in medieval Latin as “logisticus” and in Greek as “logistikos” meaning “skilled in calculations, a mind cube”. In the historical process, logistics has to develop in four phases: the ‘primitive logistics’ phase in which irregular and unplanned transportation and supply operations were carried out, the ‘military logistics’ phase in which practices close to today’s practices were carried out, the ‘commercial logistics’ phase in which military logistics was civilian and more systematized, and the ‘modern logistics’ phase in which logistics activities were modernized and organized into managerial and operational departments.

Logistics refers to the provision of a good at the desired place, time and quantity, with the best possible quality, safely and at the lowest possible costs (Kaynak, 2003; Elgün, 2011, p. 204). In practice, logistics is a function that should be carried out at different levels in all managerial activities such as planning, organizing, coordination, implementation and control related to the processes carried out by organizations from production to distribution (Şahin & Toramanlı, 2016, p. 388). Waters (2003, p. 5) defined logistics as “the function responsible for the flow of materials from suppliers to an organization, through operations within the organization and then to customers”. Martin (2005, p. 4) gives logistics a more comprehensive dimension and defines it as “the process of strategically managing the procurement, transportation and storage of materials, parts and finished inventory (and related information flows) through organizational and marketing channels- where current and future profitability is maximized through cost-effective fulfillment of orders”. In the field of logistics, many different forms of applications have been realized in the historical process. Increasing competition in the markets with the development of globalization, outsourcing within the scope of strategic management (Aktas & Ulengin, 2005; Hrušecká, 2015; Taşlıyan, Çiçeklioğlu & Yılmaz, 2016; Budler, Jakšič, & Vilfan, 2021; Adesunkanmi, Emmanuel, & Nurain, 2022), Just in Time (Just inTime), Efficient Customer Response (ECR), Electronic Data Interchange (EDI), etc. strategic practices have developed and been used extensively (Maia & Cerra, 2009; Anca, 2019). With the advancement in technology and the increase in digitalization, advanced technologies that enable optimization have started to be used in the logistics sector as in all sectors. Among these digital technologies are Industry 4.0 elements such as blockchain, big data, Internet of Things (IoT), virtual reality (VR), and artificial intelligence (AI) (Popkova, 2021; ReportLinker, 2024). With a strategic location connecting Europe and Asia, Turkey’s logistics market is projected to grow steadily in the coming years. For the period 2023-2027, it is projected to grow by 2.1%, with demand growth in various sectors, particularly e-commerce, manufacturing and retail (ReportLinker, 2024).

2.2. Logistics Village

Logistics villages are locations where all transportation, logistics and distribution activities are carried out commercially (Baghestani et al., 2023). The locations where logistics villages are established are of great importance in terms of reducing logistics costs and increasing supply chain efficiency. The problem of logistics village location as a strategic facility within logistics networks is an important decision in terms of management of freight transportation networks and cost/benefit analysis (Baghestani et al., 2023). A logistics village is a hub of activities related to transportation, warehousing and distribution that connects different modes of transportation and performs broad logistics functions (Peker et al., 2016). Logistics villages greatly reduce transportation

costs, the number of routes, energy consumption and added value, and therefore costly processes (Warffemius, Van Der Hoorn & Klaassen, 2010; Dablan & Ross, 2012). The importance of logistics villages in supply chains and the global transportation system has increased considerably since the cost advantages they provide by reducing expenses also create competitive advantages (Wu & Haasis, 2013). Logistics villages are classified according to their location, functionality and the value-added services they offer, including warehouses and port terminals (Sun, Gao & Wu, 2008). Higgins & Ferguson (2011, p. 7-8) define a logistics village as “an area of land devoted to a large number of transportation and logistics facilities, activities and services that are not only co-located but also coordinated to maximize synergy and efficiency”. Uygun & Niyayesh (2022) define logistics villages as “industrial and commercial zones that are well connected to transportation networks such as road, rail, water (maritime) and air transport, offering basic logistics services such as warehousing and transshipment as well as complementary services, especially for transport-intensive companies”. The Interporto Bologna SpA 2005 report defines logistics villages as a geographical grouping of logistics companies and related companies, including technical and administrative services. From this emphasis, it is inferred that logistics villages can also be seen as a clustering of the sector. The size of logistics villages is the factor that determines their capacity and functionality. Logistics villages are divided into four groups according to their size (Tanyaş & Ar, 2011, p. 17).

1. *International Logistics Villages*: These are very large-scale logistics villages located on or very close to international roads and providing logistics services between countries.

2. *National Logistics Villages*: These are large-scale logistics villages located on or very close to international routes with very active connections and providing logistics services nationally.

3. *Regional Logistics Villages*: Located on or near national transportation routes medium-sized logistics villages that provide logistics services to multiple cities within a regional scope.

4. *Urban Logistics Villages*: These are small-scale logistics villages that provide logistics services within the scope of the city in which they are located (Tanyaş & Ar, 2011, p. 17).

On the other hand, the basic services provided by logistics villages are summarized as follows (Boile, Theofanis, Strauss-Wieder, 2008):

1. *Basic functions*: Warehousing, cargo segmentation, international cargo transfer, distribution

services, industry integration,

2. *Interchanges between modes of transport*: Transshipment between ships and land vehicles, transshipment between airports and ports, rail connections to ports and/or airports,

3. *Traditional logistics services*: Container handling, storage, warehouse rental,

4. *Contemporary logistics services*: Consolidation and deconsolidation for transshipment, local distribution or long-distance transportation, horizontal integration between participating companies,

5. *Value-added logistics services*: Free trade zone, barcoding, palletizing, performance analysis, packaging/repackaging, labeling, quality assurance operations, supply chain management consultancy, commissioning, call center management, temperature-controlled environments, hazardous material services,

6. *Additional features*: Repair services, R&D activities, hospitals, schools, post offices, weighbridges, hotels, office spaces, hygiene facilities, restaurants, conference rooms.

2.3. Logistics Village Establishment

In today's global world, the demands of consumers and businesses can be easily met from any country without being stuck in country borders and they can access the products and services they want to buy from wherever they want. This situation, with the developments in the field of logistics, meeting the demands more effectively and quickly has been accepted as a quality standard. As this quality in logistics continues to improve,

investments have increased and logistics villages have started to be established to organize different modes of transportation in an integrated manner (Bilginer, Kayabaşı & Sezici, 2015; Koçak, 2020, p. 256; Irmak, 2023, p. 123).

In order for the logistics sector to work effectively and to provide the advantages and benefits gained by logistics villages, it must meet certain criteria in terms of infrastructure and technology. These criteria can be listed as follows (Tanyaş & Ar, 2011, p. 18; Şahin & Toramanlı, 2016; Önden, Acar & Eldemir, 2018; Dumlu & Wolff, 2021, p. 1000; Önden & Eldemir, 2022; Kaya & Dışkaya, 2024):

- Proximity to international and national roads,
- Landform, electricity, gas, water, communication, heating and cooling facilities, land and construction costs,
- Connectivity to or proximity to as many modes of transport (rail, maritime, road, inland waterway) as possible, capacity and characteristics,
- Mixed (intermodal, multimodal, combined) transportation infrastructure, technical infrastructure and machinery park required for inter-modal transshipment,
- Being the center of freight transportation in the countries or provinces of the region,
- Proximity to production and consumption centers,
- Potential for trained and qualified labor force,
- Ease of implementation of legal regulations and business processes related to logistics villages is to be carried out in a standardized order.

At the same time, in logistics villages; open and closed warehouses, cold storage, licensed warehouses, warehouses, distribution centers, cargo transfer centers, roads for different modes of transport, transshipment, loading and unloading terminals, value-added services such as packaging, handling, light assembly, disassembly, container transfer, loading-unloading and storage areas, hazardous material and special material warehouses, logistics, transportation, organizing, agency, freight forwarder, customs brokerage, cargo companies, foreign trade company offices, vehicle maintenance-repair workshops, in coastal logistics villages, container, dry cargo, liquid cargo, RO-RO, train-ferry port terminals, free zone, fruit-vegetable and other markets, advanced information and communication technology infrastructure, insurance services, banking and financial institutions, customs administrations and other relevant public institutions, social facilities (accommodation, food and beverage, recreation and entertainment areas), trade and conference center (bank, post, shopping, etc.), management center, logistics sector suppliers sales and service places (vehicle, spare parts, tire, etc.), TIR-Truck park, passenger car park, fuel station, garbage disposal center, entrance and exit gates, health, security, worship and fire department units, public transportation stops (Tanyaş & Ar, 2011, p. 19; Önden, Acar & Eldemir, 2018; Önden & Eldemir, 2022). Karadeniz & Akpınar (2011) proposed the establishment of a logistics village in Trabzon in their study. In the evaluations included in the research report in which the priority ranking of cities in terms of suitability criteria for the establishment of a logistics village in Turkey was made, it was suggested that Trabzon ranked 36th, Rize 57th, Artvin 58th, Sinop 59th, Ordu 60th in the TR90 Region (Eastern Black Sea Region) (Tanyaş & Ar, 2011, p. 38). As the closest center to Hopa, a logistics village is under construction in Rize's İyidere District (Genç & Coşmuş, 2021, p. 76; TCDD, 2024). The completed and ongoing logistics villages in Türkiye are shown in Figure 1.

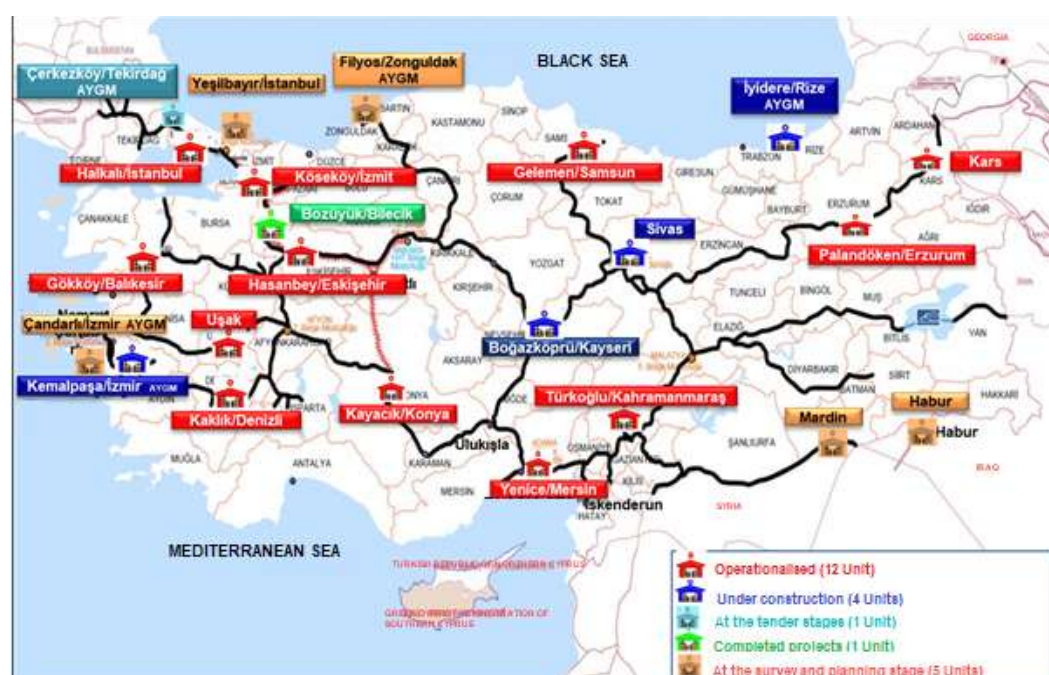


Figure 1. Completed and Ongoing Logistics Villages in Türkiye (TCDD, 2024)

The establishment of logistics villages requires at least one hundred hectares (Genç & Coşmuş, 2021, p. 70; Irmak, 2023, p. 122). Among the logistics villages established in Turkey to date, the smallest one, Denizli (Kalkık), was established on an area of 125,000 square meters, while the largest one, Izmir (Kemalpaşa) was established on an area of 3,000,000 square meters (Terzi & Bolukbas, 2016). In terms of transportation costs, the most economical transportation modes in single transportation modes are maritime, railway, highway and airway, respectively. However, if the transportation distance is shorter than 350 km, road is more economical than rail. According to the results of the analysis made in terms of costs in combined freight transportation, single highway is the most economical transportation mode for transportation distances shorter than 280 km. In the combination of highway with maritime transport, maritime transport is the most economical transport mode for transport distances longer than 280 km, and in the combination of maritime transport with railway transport, single railway is the most economical transport mode for transport distances longer than 360 km (Republic of Türkiye Ministry of Transport, 2011, p. 30-31). Tatar & Meriç (2017, p. 550) argue that maritime transportation is 3.5 times cheaper than railway, 7 times cheaper than highway and 22 times cheaper than airline.

2.4. Evaluation of Hopa in terms of Logistics Village

In Hopa district, it is seen as a disadvantage in terms of the lack of a railroad and large lands for the establishment of a logistics village. Since the ports of Batumi and Poti in Georgia have railway lines, the cargoes transported from Asia to Europe can be shipped from these ports to the ports of Varna in Bulgaria and Constanta in Romania by rail, which are competitors for the Port of Hopa and disadvantage the Port of Hopa with their railway advantages (Tatar & Özer, 2017; İpekçi & Tanyaş, 2021). On the other hand, Hopa has the advantage of being an important transit point in terms of domestic and international connection opportunities due to its geographical location, as well as having a large capacity port and coastal road and most of the necessary infrastructure for the establishment of a logistics village. As for the lack of a railway, which is seen as a disadvantage, the Turkish Transportation and Communication Strategy, Target 2023 report prepared by the Ministry of Transportation states that the Erzincan-Trabzon-Hopa (Batumi railway project is planned to be opened to transportation by 2035 within the scope

of the line called the Northern Railway Corridor (T.R. Ministry of Transportation, 2011, p. 71). If the railway is realized, it will also provide an alternative to the Kars-Baku-Kazakhstan-China corridor and direct Caspian Sea transits to Hopa. The high-speed and conventional railway lines to be built until 2035 are shown in Figure 2 in the Ministry of Transportation of Türkiye Transportation and Communication Strategy, Target 2023 report.

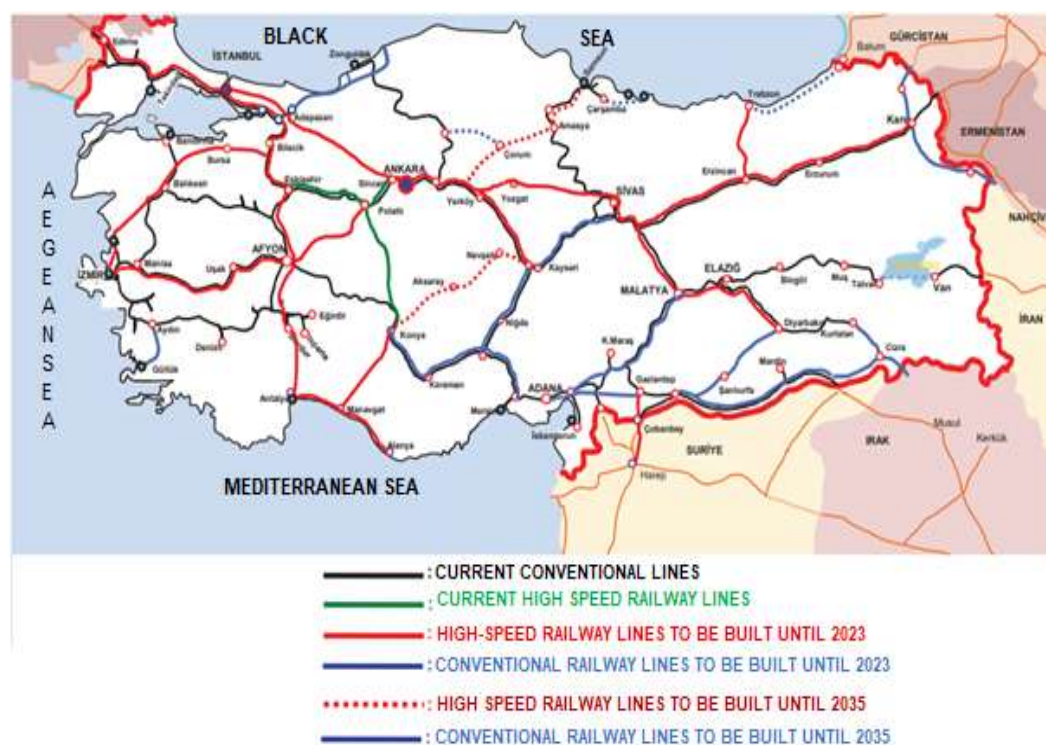


Figure 2. High-speed and Conventional Railway Lines to be Built Until 2035 (Republic of Turkey Ministry of Transportation, 2011, p. 79).

Hopa Port, operated by Park Denizcilik, has loading, unloading, terminal, storage, pilotage, salvage and liquid filling facilities. Hopa Port, the first port in the Black Sea Region to receive the Green Port certificate, is the gateway of the Eastern Black Sea to the world with its geographical location and has a high storage capacity with its 18,220 m² closed warehouse area, 102,462 m² open warehouse area and 38,000 cubic meters of fuel oil terminal. The total area is approximately 100,000 m². In the machinery park, it provides versatile service with high capacity forklifts, cranes, scales, service vehicles and machines. Hopa Port offers opportunities to transport Central Asian cotton, which is shipped to many production enterprises around the world, to the domestic market and to the countries where the buyer companies want to send it via Hopa Port (Hopaport, 2024). In the study of Dumlu & Wolff (2021), the proximity of the most effective logistics villages to the port drew attention. Truck parks located throughout Hopa and in the nearest district of Arhavi (11 km) are important infrastructures for the logistics village if they are more organized and together. For the vehicles coming to the region to exit the Sarp Border Gate, a system has been established where they can see the density in the parks in advance, and the vehicles entering the TIR parks are assigned sequence numbers and directed to the border (İpekçi & Tanyaş, 2021, p.113). It is emphasized in the 2024-2027 strategic plan of the Hopa Chamber of Commerce and Industry (HTSO) that the truck parks should be organized in a way that does not negatively affect the traffic in the city and on the coastal road (HTSO, 2024, p. 4). In terms of the airline, Rize-Artvin Airport is 54 kilometers away from Hopa and can be reached in less than half an hour by car. The airport, which serves Ankara and Istanbul in Turkey, has a high passenger circulation.

2.5. Entrepreneurship Potential

Entrepreneurship is the act of creating, launching and growing new ventures that meet a market need, solve a problem or create value for society. It is a mindset and skill set that can be learned, developed through education and practiced in different fields. Entrepreneurship is also a driver of economic growth, social development and technological progress and a key factor in economies (Klofsten et al., 2019; Aparicio, Urbano & Stenholm, 2021). In recent years, small and medium-sized enterprises have become an increasingly important part of the economy, as they are a determinant in the labor market and contribute to the economic growth of a region or even a country. Increased competition due to globalization has made managing one's own business more difficult and imperative than ever before. Therefore, potential entrepreneurs should be more highly qualified in terms of entrepreneurial capabilities to ensure the creation of a resilient and "self-renewing" economic environment (Zieba, 2009, p. 18). At the same time, the fit between resources, opportunity and team is also crucial in entrepreneurship (Timmons, 1999). An entrepreneur is a person with different personality traits, characteristics or a particular orientation. According to Timmons (1999), the most general characteristics of an entrepreneur are opportunity-seeking, self-confidence, willingness to take responsibility, internal locus of control, commitment, motivation to excel, risk tolerance and creativity. Entrepreneurship potential is defined as the extent to which an individual or group has an entrepreneurial orientation in terms of innovation, autonomy, proactiveness, competitive aggressiveness and risk-taking (Mintzberg, 1973; Lumpkin & Dess, 1996). In addition, coming from a poor family, having to work at an early age and being a member of a family that is already entrepreneurial increases entrepreneurial tendency (Damoah, 2020, p. 389). Entrepreneurship is important in terms of its contribution to social welfare. While projects and investments resulting from entrepreneurial activities raise the standard of living of individuals at the micro level, they also contribute to the welfare levels of societies at the macro level (Naktiyok & Kök, 2006, p. 80; Kahveci & Dinçel, 2014).

2.6. Impact of Logistics Villages on Entrepreneurship, Business and Economic Development

The transport and logistics sector has become an increasingly attractive sector for investors and entrepreneurs as technology and digitalization develops (Popkova, 2021). Although logistics villages are perceived as an application area of multimodal transportation, it is more accurate to consider the logistics village from an economic development perspective as a multimodal platform where companies can generate business. Moreover, establishing a logistics village that is organized as a community and can provide a range of services in an integrated manner not only improves logistics but also ensures economic development. In logistics villages, especially logistics-oriented businesses will also create job positions as they increase productivity and synergies as they work without discrimination (Higgins & Ferguson, 2011, p. 7; Yang, Taudes & Dong, 2017). At the same time, logistics villages make significant contributions to the commercial potential and economic development of the region where they are established and provide employment. They increase the competitiveness of the operators (firms) around them, organize and improve business processes (Çelik, 2009; Irmak & Pelit, 2020, p. 1410). At the same time, it can contribute to increasing the level of welfare by encouraging public-private sector cooperation and contribute to poverty alleviation (Kaya & Dışkaya, 2024).

Small and Medium Enterprises (SMEs) can benefit from logistics villages due to the potential for synergies and opportunities in a number of business areas. These benefits include joint infrastructure investments, shared knowledge and the possibility to capture opportunities to create economies of scale. Examples of such opportunities include shipping shipments in larger blocks with other firms (consolidation) or buying cheaper blocks for multimodal shipments by taking advantage of the multimodal transportation capacity of large shippers. In addition, since a logistics village is a kind of strategic

structuring like a cluster, it provides significant advantages with synergies and economies of scale that create multiplier effects for the firms within and around it (Higgins & Ferguson, 2011, p. 8; Baydar, Sural & Celik, 2017, p. 1). This situation is schematized in Figure 1. In Figure 3, the arrows (blue) between the companies within the logistics village and from the companies around the logistics village towards the logistics village symbolize synergy.

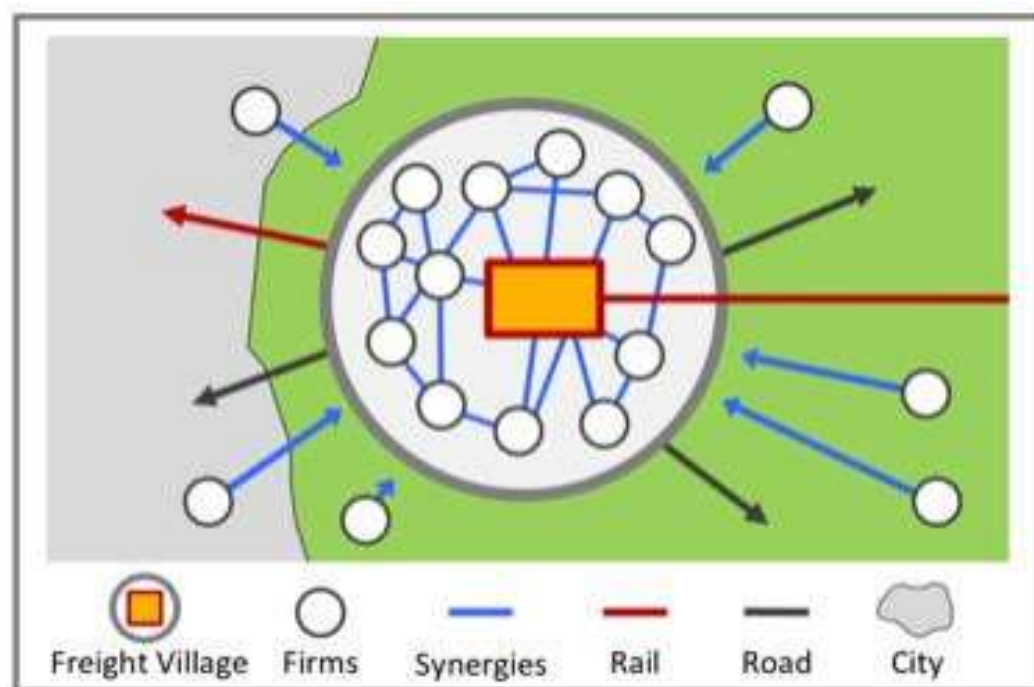


Figure 3. Synergistic Benefits of Logistics Villages (Higgins & Ferguson, 2011, p. 38)

In the face of increasing social sensitivity towards environmental problems, a new entrepreneurial trend has started in the form of green transportation solutions (Genç & Coşmuş, 2021, p. 69; Irmak, 2023, p. 128). Tesla, TOGG and other electric vehicles (EV), hybrid vehicles are being invested in, electric bicycles, scooters are being produced, and even the number of initiatives on drone delivery has increased. In this context, green entrepreneurship is supported by the government, private sector, non-profit organizations and academia (Weis & Nikolić, 2024).

3. Hypotheses

As in all ventures, the factors that increase entrepreneurial tendencies in the logistics sector are similar. These are factors such as need for success, locus of control, innovativeness and risk taking. In a study conducted by Kahveci & Dinçel (2014, p. 103) on 100 employees of a logistics company, it was observed that the need for achievement, which is one of the factors that make up the entrepreneurial tendencies of the employees in the maritime department, increases the motivation of the employees and is at the same time with the locus of control, while the perception of innovation of the employees in the highway department has a positive relationship with entrepreneurial tendency and risk taking. In the logistics field, entrepreneurial activities such as port handling, shipping agencies, transportation companies, piloting, towing, ferry transportation companies, ship supply, marine insurance, maintenance/repair, travel agencies are carried out (Prause, 2010). Demographic factors such as gender, age, job status have a significant relationship with entrepreneurship (Matić, Leković, & Bobera, 2023), and high income expectation and financial motivations encourage entrepreneurship in the logistics sector as in other sectors (Damoah, 2020, p. 389) (Matić, Leković, & Bobera, 2023). Negrutiu,

Vasiliu, & Enache (2020) analyzed data collected from 405 employees of a transport company in Romania and found that the digitalization of logistics firms increases their competitiveness and strengthens the sustainability of their businesses. Dumlu and Wolff (2021) ranked the potential efficiencies of 11 logistics villages constructed by the State Railways of the Republic of Turkey based on the criteria of capacity, total physical area, foreign trade volume, closest free zone, closest highway, closest airport, closest railway and closest port with the MOORA multi-criteria decision-making method.

According to the results of the analysis, Köseköy/Izmit, Halkalı/Istanbul and Yenice/Mersin logistics villages are the top three logistics villages in terms of the highest potential efficiency, while the lowest potential efficiency is determined for Palandöken/Erzurum logistics village. The following hypotheses were developed to determine whether the establishment of a logistics village in Hopa affects the entrepreneurial tendencies in the local area, taking into account the criteria determined to be necessary for the establishment of a logistics village and the results of previous studies in this field.

H₁: Situations seen as disadvantages in the establishment of a logistics village have a negative impact on entrepreneurship potential (overall) in the local area.

H_{1a}: Situations that are seen as disadvantages in the establishment of a logistics village have a negative impact on the strategic dimension of entrepreneurship potential in the locality.

H_{1b}: Situations that are seen as disadvantages in the establishment of a logistics village have a negative impact on the marketing and distribution dimension of local entrepreneurship potential.

H_{1c}: Situations that are seen as disadvantages in the establishment of a logistics village have a negative impact on the cooperation and synergy dimension of local entrepreneurship potential.

H₂: Situations that are seen as advantages in the establishment of a logistics village have a positive effect on entrepreneurship potential (overall) in the locality.

H_{2a}: Situations that are seen as advantages in the establishment of a logistics village have a positive effect on the strategic dimension of entrepreneurship potential in the locality.

H_{2b}: Situations that are seen as advantages in establishing a logistics village have a positive effect on the marketing and distribution dimension of entrepreneurship potential in the local area.

H_{2c}: Situations that are seen as advantages in establishing a logistics village have a positive effect on the cooperation and synergy dimension of local entrepreneurship potential

4. Methodology

Quantitative methods were used in the research. Validity and reliability, correlation and regression analyses of the data obtained through the questionnaire were conducted and the results were given in tables.

4.1. Population and Sample of the Study

The population of the research is the managers, employees and academicians who are experts in this field in the institutions and organizations operating in the field of logistics, customs and foreign trade in Hopa district. It was aimed to reach the entire population and data were collected through questionnaires. A total of 110 people participated in the study, which was determined as 200 people as the population, and the return rate of the questionnaires was realized as 55 percent.

4.2. Measurement Tools

The 13-item scale of suitability for the establishment of a logistics village developed by Yücel & Koltan Yılmaz (2019) was used for the participants to evaluate Hopa in the context of the criteria required for the establishment of a logistics village in a place. The

21-item entrepreneurship potential scale developed and used by Gürbüz, Ayaz, & Kebeci (2016) was used to assess the perceptions of the participants regarding the impact of the logistics village on entrepreneurship potential. Both scales are in 5-point Likert format (1=strongly disagree-5=strongly agree).

5. Findings

5.1. Demographic Findings

According to the demographic findings obtained in the analysis of the data obtained in the study, it was determined that the majority of the participants were male (66.4%), half of them were between the ages of 17-30 (50%) and the average age was 32.6, the majority of them were customs brokers or employees (36.4%), and the majority of them had a seniority of 1-5 years (53.6%). Demographic findings of the participants are shown in Table 1.

Table 1. Demographic data of participants

Gender	Number	Percentage	Profession	Number	Percentage
Female	37	33.6	Custom broker/employee	40	36.4
Male	73	66.4	Entrepreneur	15	13.6
Total	110	100.0	Logistics company owner/employee	18	16.4
Age	Number	Percentage	Academician	7	6.4
17-25 ages	25	22.7	Port management staff	23	20.9
26-30 ages	30	27.3	Others	7	6.4
31-35 ages	17	15.5	Total	110	100.0
36-40 ages	17	15.5	Professional Tenure	Number	Percentage
41-45 ages	7	6.4	1-5 years	59	53.6
46-50 ages	5	4.5	6-10 years	19	17.3
51-55 ages	6	5.5	11-15 years	10	9.1
56+	3	2.7	16-20 years	4	3.6
Age Mean	32.6		21-25 years	11	10.0
Total	110	100.0	26-35 years	7	6.4
			Tenure Mean: 32.6		
			Total	110	100.0

5.2. Validity and Reliability Analyses

The validity of the scales used in the research, and the collected data were tested by exploratory factor analysis method. The scale of suitability for the establishment of a logistics village was originally used as a single dimension, but in this study it was realized as two dimensions. Since it was determined that the factors were separated into advantage and disadvantage items when the items were analyzed, the factors were named as advantage and disadvantage. It was observed that the disadvantage dimension of the scale of suitability for the establishment of logistics village consisted of 9 items, the KMO value was 0.877, which was significant ($p < .001$) and the factor loads of the items were in the range of 0.403-0.840, the advantage dimension consisted of 4 items, the KMO value was 0.688, which was significant ($p < .001$) and the factor loads of the items were in the range of 0.675-0.823.

The scale of entrepreneurship potential was also realized as three dimensions in this study, although it was one dimension in the original. The resulting factors were named as strategic dimension, marketing and distribution, and collaboration and synergy. The entrepreneurship potential scale in general (in its entirety) consisted of 21 items, the KMO value was 0.902 ($p < .001$), the factor loadings were in the range of 0.659-0.842, the strategic dimension consisted of 8 items, the KMO value was 0.902 ($p < .001$) and the factor loadings of the items were in the range of 0.794-0.885, the marketing and distribution dimension consisted of 7 items, the KMO value was 0.896 ($p < 0.001$) and the factor loadings of the

items were in the range of 0.780-0.875, the cooperation and synergy dimension consisted of 6 items, the KMO value was 0.889 ($p < 0.001$) and the factor loadings of the items were in the range of 0.592-0.768 and the validity of the scales was ensured (Hair, Black, Babin, & Anderson, 2014).

In reliability analysis, if the Cronbach's Alpha (α) value is 0.70 and above, it is accepted that reliability is ensured (Hair, Black, Babin, & Anderson, 2014). In this study, Cronbach's Alpha (α) values of 0.893 for the disadvantage dimension, 0.752 for the advantage dimension, 0.963 for the entrepreneurship potential scale (general), 0.937 for the strategic dimension, 0.901 for the cooperation and synergy dimension, and 0.922 for the marketing and distribution dimension of the scale of suitability for the establishment of a logistics village were determined to be highly reliable. The validity and reliability results of the scales and data used in the study are presented in Table 2.

Table 2. Results of Factor and Reliability Analyses

Scales	Scale items	Cronbach's Alpha (α)	Factor loadings	KMO	Approx. χ^2	df	Variance (%)	Sig. (p)
Eligibility for establishing a logistics village								
<i>Disadvantages dimension</i>	1,2,3,4,5,6,7,8, 11	.893	.403- .840	.877	578.897	35	55.746	.000
<i>Advantages dimension</i>	9,10,12,13	.752	.592- .768	.688	117.072	6	57.849	.000
Entrepreneurship Potential	All items of the scale (21 items)	.963	.659- .842	.902	2166.670	210	58.168	.000
<i>Strategic dimension</i>	1,2,3,4,5,7,8,15	.937	.794- .885	.906	720.785	28	69.877	.000
<i>Marketing and distribution dimension</i>	6,9,10,11, 13,14,17	.901	.780- .875	.896	518.203	21	68.655	.000
<i>Collaboration and synergy dimension</i>	12,16,18,19,20,21	.922	.592- .768	.889	379.459	15	67.340	.000

5.3. Descriptive (Frequency) Analysis

The statements in the scales used in the research were evaluated in the form of frequency distributions of the participants' perceptions regarding the situation of Hopa in terms of the criteria for the establishment of a logistics village. In terms of the criteria required for the establishment of a logistics village, the participants evaluated Hopa's land conditions, sufficient space, expansion opportunities, proximity to production centers according to an evaluation criterion between 1 and 5 (1=Strongly disagree-5=Strongly agree) as slightly above average (Mean: 3.10), but below average in terms of proximity to the railway (Mean: 2.25). These items were labeled as disadvantages as a result of the validity analysis. On the other hand, in terms of suitability for the establishment of a logistics village, the participants stated that Hopa is above average in terms of proximity to consumption centers, airport, highway and port (Mean: 4.01). The items expressing the criteria that the participants accepted above the average were determined as advantages during factorization in validity analyses. Mean values are shown in Table 3.

Table 3. Perceptions on Hopa's situation in terms of eligibility criteria for the establishment of a logistics village

	Items	N/%	1	2	3	4	5	Total	Mean (M) / Std. Dev.
1	Sufficient size of land (at least 1000 acres)	N	20	17	29	24	20	110	Mean 3.0636
		%	18.2	15.5	26.4	21.8	18.2	100.0	Std. Dev. 1.35645
2	Expansion possibilities	N	13	17	31	25	24	110	Mean 3.2727
		%	11.8	15.5	28.2	22.7	21.8	100.0	Std. Dev. 1.29153
3	Infrastructure (Energy, water, roads, etc.)	N	14	22	30	22	22	110	Mean 3.1455
		%	12.7	20.0	27.3	20.0	20.0	100.0	Std. Dev. 1.30515
4	Physical conditions (flat or sloping)	N	11	23	30	25	21	110	Mean 3.2
		%	10.0	20.9	27.3	22.7	19.1	100.0	Std. Dev. 1.25472
5	Land cost (Regional real estate market conditions)	N	12	22	37	17	22	110	Mean 3.1364
		%	10.9	20.0	33.6	15.5	20.0	100.0	Std. Dev. 1.25966
6	Facility cost (a cost covering the construction and start-up costs of the logistics village)	N	13	14	40	21	22	110	Mean 3.2273
		%	11.8	12.7	36.4	19.1	20.0	100.0	Std. Dev. 1.24635
7	Costs that will be reflected on the users (operating costs to be faced by the enterprises that will take place in the logistics village)	N	8	19	33	30	20	110	Mean 3.3182
		%	7.3	17.3	30.0	27.3	18.2	100.0	Std. Dev. 1.17256
8	Proximity to production centers (for ease of material supply for just-in-time production, zero-stock production)	N	10	11	42	27	20	110	Mean 3.3273
		%	9.1	10.0	38.2	24.5	18.2	100.0	Std. Dev. 1.15821
9	Proximity to consumption centers (to ensure that shipments of goods to meet demand can be made at minimum cost)	N	4	9	36	34	27	110	Mean 3.6455
		%	3.6	8.2	32.7	30.9	24.5	100.0	Std. Dev. 1.05436
10	Proximity to the airport (both in terms of easier access for customers and emergency cargo transportation)	N	1	16	21	42	30	110	Mean 3.7636
		%	0.9	14.5	19.1	38.2	27.3	100.0	Std. Dev. 1.03982
11	Proximity to the railway (both minimizing the transportation costs of employees and leading to a relative reduction in the city's traffic)	N	45	27	12	17	9	110	Mean 2.2545
		%	40.9	24.5	10.9	15.5	8.2	100.0	Std. Dev. 1.35075
12	Proximity to highways (in Türkiye, proximity to highways is as important as proximity to railways and ports (sea)).	N	4	3	14	43	46	110	Mean 4.1273
		%	3.6	2.7	12.7	39.1	41.8	100.0	Std. Dev. 0.98716
13	Proximity to the port (sea) (the majority of export and import transportation in Turkey takes place by sea).	N	0	0	12	27	71	110	Mean 4.5364
		%	0.0	0.0	10.9	24.5	64.5	100.0	Std. Dev. 0.6864

The participants' predictions or perceptions regarding the possible effects on the entrepreneurship potential in case of the establishment of a logistics village in Hopa were evaluated on a scale between 1 and 5 on the statements in the entrepreneurship potential scale, and the average of their answers was 4.31, which is a very high acceptance. Detailed averages according to the items of the entrepreneurship potential scale are given in Table 4.

Table 4. Perceptions on the possible contribution to Hopa’s entrepreneurship potential in case of a logistics village

	Items	N/%	1	2	3	4	5	Toplam	Mean (M)/ Std. Dev.
1	If there is a logistics village, it will increase the number of personnel employed in our district.	N	4	3	11	26	66	110	Mean 4.3364
		%	3.6	2.7	10.0	23.6	60.0	100.0	Std. Dev. 1.01617
2	A logistics village will increase customer satisfaction.	N	4	4	11	30	61	110	Mean 4.2727
		%	3.6	3.6	10.0	27.3	55.5	100.0	Std. Dev. 1.0308
3	If there is a logistics village. it will increase exports.	N	3	6	11	24	66	110	Mean 4.3091
		%	2.7	5.5	10.0	21.8	60.0	100.0	Std. Dev. 1.03822
4	If there is a logistics village, it will reduce transportation costs.	N	1	10	16	31	52	110	Mean 4.1182
		%	0.9	9.1	14.5	28.2	47.3	100.0	Std. Dev. 1.02922
5	If there is a logistics village, it will provide competitive advantage to businesses.	N	3	6	8	34	59	110	Mean 4.2727
		%	2.7	5.5	7.3	30.9	53.6	100.0	Std. Dev. 1.00375
6	If there is a logistics village, it will reduce transportation costs to markets.	N	1	7	19	33	50	110	Mean 4.1273
		%	0.9	6.4	17.3	30.0	45.5	100.0	Std. Dev. 0.97782
7	If there is a logistics village, it will provide customs convenience.	N	2	5	11	28	64	110	Mean 4.3364
		%	1.8	4.5	10.0	25.5	58.2	100.0	Std. Dev. 0.96048
8	If there is a logistics village, it will provide an advantage in the marketing of products.	N	2	5	14	30	59	110	Mean 4.2636
		%	1.8	4.5	12.7	27.3	53.6	100.0	Std. Dev. 0.97376
9	If there is a logistics village, it will increase the profitability of companies.	N	1	2	17	30	60	110	Mean 4.3273
		%	0.9	1.8	15.5	27.3	54.5	100.0	Std. Dev. 0.8685
10	If there is a logistics village, it will help reduce operating costs.	N	1	9	14	32	54	110	Mean 4.1727
		%	0.9	8.2	12.7	29.1	49.1	100.0	Std. Dev. 1.00329
11	A logistics village will create new marketing areas.	N	1	4	13	28	64	110	Mean 4.3636
		%	0.9	3.6	11.8	25.5	58.2	100.0	Std. Dev. 0.89573
12	If there is a logistics village, it will improve relations with customers.	N	0	2	12	37	59	110	Mean 4.3909
		%	0	1.8	10.9	33.6	53.6	100.0	Std. Dev. 0.75535
13	If there is a logistics village, it will ensure safe transportation of the products in our district to target markets.	N	0	6	9	36	59	110	Mean 4.3455
		%	0	5.5	8.2	32.7	53.6	100.0	Std. Dev. 0.85065
14	If there is a logistics village, it will provide fast transportation of the products in our district to target markets.	N	2	2	9	36	61	110	Mean 4.3818
		%	1.8	1.8	8.2	32.7	55.5	100.0	Std. Dev. 0.85651
15	If there is a logistics village, it will increase innovation.	N	1	2	11	29	67	110	Mean 4.4455
		%	0.9	1.8	10.0	26.4	60.9	100.0	Std. Dev. 0.81933
16	If there is a logistics village, it will create synergy for the development of other sectors in our district.	N	0	1	11	32	66	110	Mean 4.4818
		%	0	0.9	10.0	29.1	60.0	100.0	Std. Dev. 0.71333
17	If there is a logistics village, it will help businesses to institutionalize.	N	1	4	16	33	56	110	Mean 4.2636
		%	0.9	3.6	14.5	30.0	50.9	100.0	Std. Dev. 0.90541
18	If there is a logistics village, it will improve cooperation between businesses.	N	2	2	13	35	58	110	Mean 4.3182
		%	1.8	1.8	11.8	31.8	52.7	100.0	Std. Dev. 0.88755
19	If there is a logistics village, it will create new production areas.	N	2	1	14	31	62	110	Mean 4.3636
		%	1.8	0.9	12.7	28.2	56.4	100.0	Std. Dev. 0.87501
20	If there is a logistics village, it will ensure the media promotion of the products in our district.	N	2	4	14	28	62	110	Mean 4.3091
		%	1.8	3.6	12.7	25.5	56.4	100.0	Std. Dev. 0.95539
21	If there is a logistics village, it will create advantages for SMEs.	N	2	3	11	28	66	110	Mean 4.3909
		%	1.8	2.7	10.0	25.5	60.0	100.0	Std. Dev. 0.90964

5.4. Correlation Analysis

Correlation analysis was performed to determine whether there is a relationship between the variables considered within the scope of the research and if there is a relationship, to determine its direction. The results of the correlation analysis showed that there was no significant relationship between the disadvantages dimension for the logistics village and the strategic factors dimension of entrepreneurship potential ($r = .160$; $p < .05$), while all other factors had significant relationships between them. In the analysis, the highest correlation emerged between the general and sub-dimensions of entrepreneurship potential. It is understood that there are positive and significant and moderate relationships between the advantages for the logistics village dimension and entrepreneurship potential in general ($r = .490$; $p < .01$), between the marketing and distribution dimension of entrepreneurship potential ($r = .496$; $p < .01$), between cooperation and synergy ($r = .479$; $p < .01$) and between the strategic dimension ($r = .394$; $p < .01$). At the same time, there is a significant, albeit low level, relationship between the disadvantages dimension for the logistics village and marketing and distribution ($r = .230$; $p < .05$) and cooperation and synergy ($r = .249$; $p < .01$). Correlation analysis results are given in Table 5.

Table 5. Correlation analysis results.

Variables	Mean	Standard Error	1	2	3	4	5	6
1. Disadvantages for logistics village	3.1101	.92871	1					
2. Advantages for logistics village	4.0182	.72212	.405**	1				
3. Entrepreneurship potential (General)	4.3139	.70040	.225*	.490**	1			
4. Strategic factors	4.2943	.82231	0.160	.394**	.929**	1		
5. Marketing and Distribution	4.2831	.75170	.230*	.496**	.916**	.748**	1	
6. Cooperation and Synergy	4.3758	.69783	.249**	.479**	.902**	.752**	.785**	1

** . Correlation is significant at 0.01 level (2-tailed).

* . Correlation is significant at 0.05 level (2-tailed).

5.5. Regression Analysis

Multiple regression analyses were conducted to determine whether the disadvantages and advantages dimensions for the logistics village have an impact on entrepreneurship potential and its sub-dimensions of strategic factors, marketing and distribution, and cooperation and synergy. The F values in the analyses show that the variance of the regression is significantly larger, the collinearity results show that the VIF values for all independent sub-variables are above 1 and less than 10, and the Tolerance value is greater than 0.10. These values show that there is no collinearity between the variables in the study (Hair, Black, Babin & Anderson, 2014).

From the analysis results, it is understood that the dimension of advantages for logistics village has a significant and positive effect on entrepreneurship potential (general) ($\beta = .477$; $p < .01$) and its sub-dimensions strategic factors, marketing and distribution ($\beta = .482$; $p < .01$) and cooperation and synergy ($\beta = .452$; $p < .01$). These results indicate that the hypotheses of the study, which were established as the conditions seen as advantages for the establishment of a logistics village have a positive and significant effect on local entrepreneurship potential (general) (H_2), its sub-dimensions of strategic factors (H_{2a}), marketing and distribution (H_{2b}) and cooperation and synergy (H_{2c}), are accepted. However, it is understood that the disadvantages dimension for the logistics village does not have a significant effect on entrepreneurship potential (general) and its sub-dimensions and hypotheses H_1 , H_{1a} , H_{1b} and H_{1c} are rejected. Beta (β) value taken by the independent variables is the value that shows the change in the dependent variable when the independent variable increases by 1 unit. As a result of the regression analysis, 24.1 percent ($R^2 = .241$, $p < .01$) of the dependent variables of the research, entrepreneurship potential (general), 15.5 percent ($R^2 = .155$, $p < .01$), 23.3 percent of marketing and distribution ($R^2 = .233$, $p < .01$) and 23.3 percent of cooperation and synergy ($R^2 = .233$, $p < .01$)

are explained by the dependent variable ‘advantages for logistics village’. The integrated results of the regression analyses are presented in Table 6.

Table 6. Regression analysis results.

Independent Variables	Dependent Variables	β	F	R^2	t	p	Collinearity Statistics	
							Tolerance	VIF
Disadvantages for logistics village	Entrepreneurship potential (General)	.031	16.944	.241	.339	.735	.836	1.197
Advantages for logistics village		.477			5.175	.000	.836	1.197
Disadvantages for logistics village	Strategic factors	.001	9.806	.155	.010	.992	.836	1.197
Advantages for logistics village		.393			4.044	.000	.836	1.197
Disadvantages for logistics village	Marketing and Distribution	.034	17.517	.233	.374	.709	.836	1.197
Advantages for logistics village		.482			5.248	.000	.836	1.197
Disadvantages for logistics village	Cooperation and Synergy	.065	16.220	.233	.704	.483	.836	1.197
Advantages for logistics village		.452			4.881	.000	.836	1.197

6. Discussion and Conclusion

In the study, the impact of entrepreneurship potential (overall) and its sub-dimensions ‘strategic factors’, ‘marketing and distribution’ and ‘cooperation and synergy dimensions’ on the disadvantages and advantages of Hopa district for the establishment of a logistics village was examined. It was evaluated that the participants of the research considered the conditions such as adequately sized land, expansion opportunities, infrastructure, physical conditions, land cost, facility cost, costs that will be reflected on the users, proximity to production centers and proximity to the railway the disadvantages of Hopa district for the establishment of a logistics village. Participants also considered proximity to consumption centers, proximity to the airport, proximity to the highway and proximity to the port (sea) as advantages of Hopa district for the establishment of a logistics village.

The research results show that the hypotheses that the disadvantages of Hopa district for logistics village establishment have significant and negative effects on entrepreneurship potential (overall) (H_1) and its sub-dimensions ‘strategic factors’ (H_{1a}), ‘marketing and distribution’ (H_{1b}) and ‘cooperation and synergy dimensions’ (H_{1c}) are not supported. Specifically, the results of this study cannot be compared with the literature as there is no study that has investigated the impact of disadvantages for logistics village establishment on entrepreneurship potential. However, the results of the analysis revealed that the hypotheses that the advantages of Hopa district for the establishment of a logistics village have significant and positive effects entrepreneurship potential (overall) (H_2) and its sub-dimensions ‘strategic factors’ (H_{2a}), ‘marketing and distribution’ (H_{2b}) and ‘cooperation and synergy dimensions’ (H_{2c}) were supported. It is accepted that these results are partially compatible with the results of this study, which is similar to previous studies (Prause, 2010; Kahveci & Dinçel, 2014; Damoah, 2020; Matić, Leković, & Bobera, 2023) that determine that the entrepreneurial tendencies of employees in the logistics sector are positively affected in the context of entrepreneurship. Based on the findings of the study, it is interpreted that Hopa’s more hilly terrain conditions, the difficulty in obtaining the required area (at least one hundred hectares) for the logistics village, the high land and user costs, the distance to production centers and the lack of a railway connection are disadvantages for the establishment of a logistics village. However, Hopa has a port with a very wide hinterland in terms of its geographical location, capacity, wide hinterland as well as domestic and international connectivity opportunities, the closest

and only transit route of the Sarp customs gate, which is the gateway to Eastern European countries and the Asian continent through Georgia (Hopaport, 2024), as well as a key location where Eastern Anatolia is connected to the Black Sea coastal road. Therefore, it has been suggested that the establishment of a logistics village in Hopa is important for both the region and the country's economy and that studies and initiatives should be taken to overcome these disadvantages. Considering that the factors identified as advantages for the establishment of a logistics village have a positive effect on entrepreneurship potential, it is predicted that the factors identified as disadvantages in terms of Hopa's local conditions can affect entrepreneurship in the local area more strongly if the logistics village is established. If a logistics village is established, strategic factors in entrepreneurship such as local employment, customer satisfaction, exports, innovation, reduction in logistics costs, ease of customs clearance and thus competitive advantage will be provided. At the same time, it will bring success in the field of marketing and distribution, which is an important dimension of entrepreneurship, by increasing profitability through fast, safe and low-cost access to target markets. Logistics villages will bring advantages to SMEs in the region where they are located by improving the relations between entrepreneurs and their customers, creating new production areas, media promotion of products, providing cooperation and synergy in the development between sectors and businesses. These gains are critical factors that will positively affect the entrepreneurship potential. There are some limitations that should be taken into account when evaluating the results of this study. First, it is not known whether the respondents had sufficient data to assess the eligibility criteria for logistics village establishment in the context of Hopa district. The criteria presented to them for this assessment were limited to land conditions, costs, required infrastructure and four different modes of transportation (rail, maritime, air and road). However, pipelines are also among the modes of transportation and could affect logistics capacity if used between Hopa and Artvin's interior and other provinces. Secondly, the fact that this study collected data only from participants living in Hopa and that data could not be obtained from experts in the field of logistics from other locations made it difficult to generalize the results of this study. In this respect, it is recommended that future studies in this field use a larger sample with a wider participation.

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