

## Article

# Demystifying the Sustainable Competitive Advantage of Sualkuchi Silk Products: Perspectives of Buyers and Sellers

Sunil Tiwari <sup>1,\*</sup>, Joanna Rosak-Szyrocka <sup>2,\*</sup>, Dimpal Bharali <sup>3</sup>, Sunildro L. S. Akoijam <sup>3</sup> and Binoy T.A. <sup>1</sup>

<sup>1</sup> Department of Tourism Studies, School of Business Studies, Central University of Kerala, Periyar 671316, Kerala, India

<sup>2</sup> Faculty of Management, Czestochowa University of Technology, 42-200 Czestochowa, Poland

<sup>3</sup> Department of Management, North Eastern Hill University (NEHU), Tura Campus, Tura 781116, Meghalaya, India

\* Correspondence: tiwari.sunil10@outlook.com (S.T.); joanna.rosak-szyrocka@wz.pcz.pl (J.R.-S.)

**Abstract:** India's Assam silk products are well known and popular across the globe but have been facing stiff competition from numerous competitors. In this regard, there is a need to analyse the sustainable competitive advantages of Assam silk products to devise defensive strategies to sustain the age-old industry. Therefore, the purpose of this study was to identify the sustainable competitive advantages of the Assam silk products from buyers' and sellers' perspectives. Data were collected from 200 sellers and buyers through a standardised structured questionnaire; namely, the Buyers' and Sellers' Agreement Scale (BSAS). We employed the one-sample and independent-sample *t*-tests for the data estimation. The findings indicated that the Assam silk products had different levels of sustainable competitive advantages that mainly included quality, geographical indications, designs, durability, customer loyalty, customer base, timely delivery, product differentiation, product uniqueness, and innovation. The findings were new because this was the first study that identified the sustainable competitive advantages of India's Assam silk industry, which occupies a significant position in the world. The study will benefit India's Assam silk industry in devising strategies to face the challenges in sustaining and growing its business for a long time.

**Keywords:** competitive advantage; Assam silk; buyers; sellers; sustainability



**Citation:** Tiwari, S.; Rosak-Szyrocka, J.; Bharali, D.; Akoijam, S.L.S.; T.A., B. Demystifying the Sustainable Competitive Advantage of Sualkuchi Silk Products: Perspectives of Buyers and Sellers. *Sustainability* **2023**, *15*, 1110. <https://doi.org/10.3390/su15021110>

Academic Editors:  
Kittisak Jermittiparsert,  
Thanaporn Sriyakul and  
Krisada Chienwattanasook

Received: 1 December 2022  
Revised: 21 December 2022  
Accepted: 27 December 2022  
Published: 6 January 2023



**Copyright:** © 2023 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

## 1. Introduction

Competition is the forerunner of the term “sustainable competitive advantage” [1]. Hoffman [1] narrated in nutshell that Alderson [2] pioneered the concept of the sustainable competitive advantage, which examines the concept of striving for a product's unique features and differentiating the product in the consumer's eye from its competitors. Later, the works of Hamel et al. [3] and Dickson [4] revealed the creation of new advantages for firms to stay ahead, whereas the works of Porter [5] and Henderson [6] popularised the need for firms to possess unique advantages for survival and differentiate themselves from their competitors. A sustainable competitive advantage is a continual, endless process that is balanced, reliable, and lasting based on a company's own resources and capacity to achieve a competitive advantage in the marketplace of competition [7].

A sustainable competitive advantage helps an organisation and its product(s) to establish their own recognition in the marketplace by outperforming its competitors. It will help to generate a high margin of profits, acquire more customers, generate more brand loyalty, provide clarity on its core competencies, build its own brand differently, and sustain the industry and its product(s) for a long time. A sustainable competitive advantage is one of the powerful strategies for business growth and sustenance that competitors cannot offer and replicate quickly. There is a close relationship between a competitive advantage and a sustainable competitive advantage, whereas all competitive advantages of business may

not lead to sustainable competitive advantages. With Porter's [8] competitive strategies, the sustainable competitive advantage term gained popularity [1].

A sustainable competitive advantage can be provided by valuable products that are rare, not easily imitable, and very organised. In the tempestuous environment of the 1990s, if marketers had to present, survive, and flourish, then identifying a competitive advantage was a must for longer sustenance according to Czepiel [9]. A sustainable competitive advantage enables a business firm to provide a superior performance apart from its competitors [10] and the competence of an organisation to create a tenable position atop its competitors [11]. Fierce competition and the changing tastes, preferences, and choices of today's consumers has compelled marketers to offer products in more innovative ways with more colour options and customised designs that are available on digital platforms in order to make silk and handloom products successful and sustainable for a longer time in a profitable way. So, a study of the sustainable competitive advantage is a must for a company to identify its core competencies and devise potential strategies for a successful business in the silk and the handloom sector.

Goswami, Rabha, and Veer [12] signified the importance of the traditional handloom industry of India in its large employment generation after the agriculture sector. A sustainable competitive advantage study can explore India's Assam silk products, which are handloom-based and have been prevalent for centuries, to focus on their core competencies and differentiate products and costs to sustain the industry in the competitive world. India enjoys a specific space in the world as the largest grower of jute and cotton and the second-largest producer of silk, fiber, and polyester. Assam is very famous for its silk industry, which is situated in Sualkuchi, the silk village of Assam. Assam silk mainly indicates three indigenous types of wild silk grown in Assam: Golden Muga silk (*Antheraea assamensis*), white/off-white mulberry silk (*Bombyx Mori*) and warm off-white Eri silk (*Samiacynthia*). India is the only country that grows all five varieties of recognised commercialised natural silk; namely, Eri, Muga, Mulberry silk, Tropical, and Oak Tasar. Assam enjoys a global monopoly in Muga production. The silk industry of Assam, which is situated in Sualkuchi, is a popular silk weaving cluster worldwide. It is witnessing heavy competition due to technological upgrades and the availability of imported low-silk substitutes in the silk market of Assam. Assam alone contributes 99% and 63% of Muga and Eri silk, respectively, to country's total silk production [13]. Studies on Assam silk conducted by the researchers such as [14–20] pinpointed problems such as immense competition from the exact power loom replica, not using digital marketing in sales and distribution, and limited use of modern machines. Moreover, Akhtar [20] reported distress and clandestine sales of imported silk that used the Assam silk name and price. Furthermore, the silk products made on the handlooms of Sualkuchi (the silk-weaving village), Assam, are routinely imitated and available in same colours and designs in the market place; thereby ruining the age-old name and fame of Assam silk and its history. The previous studies on Assam silk focused mainly on the challenges faced by the industry, particularly the problems regarding weavers, raw materials, and sales. So, to cope with the rapidly changing technology and customers' tastes and preferences, the competitive advantages of Assam silk need to be identified, and an emphasis should be placed on how to leverage those advantages in creating products that are unique and differentiated from its competitors. Hence, focusing on the sustainable competitive advantage of Assam silk products can give a new product life to such products and the Assam silk industry by upgrading and advancing its position in the global industry through acting on its competitive advantages. Therefore, this study captured the sustainable competitive advantages of Assam silk from the perspectives of two most important stakeholders; i.e., sellers and buyers.

## 2. Problem Statement

Assam enjoys a global monopoly in Muga production and Eri production in Assam, Manipur, and Meghalaya. The Assam silk products manufactured in Sualkuchi are encountering swinging competition in terms of sales and marketing, promotional strategies,

inadequate finance, use of the latest technology, and competition from the large-scale power loom industries' finished products. The silk weavers and small traders of Sualkuchi do not have direct access to the market and face difficulties in producing genuine silk products because they are not paid well by middlemen. They are experiencing sustainability issues and shutting down their handlooms. Mulberry silk is extensively produced in Karnataka (it alone contributes 65% of the country's production), West Bengal, Andhra Pradesh, and Jammu and Kashmir. The Tasar silk worm is traditionally reared by tribal peoples in Bihar, Madhya Pradesh, and Orissa who contribute 96% of the country's production. The Assam silk products are seeing rigid competition from other states' power loom silk products, which are readily available in the Assam silk market at cheaper prices, thereby causing a steady decline in the sales of Assam silk handloom products, which had incurred a huge profit over the past decades.

### 3. Review of Literature

With the help of the most recent literature, this section's literature review will be discussed according to three aspects: (1) sustainable competitive advantages; (2) competitive advantages for buyers; and (3) competitive advantages for sellers.

#### 3.1. Sustainable Competitive Advantages

The sustainable competitive advantage is an integral topic to be discussed in strategic management literature. Sometimes the competitive advantage of a business is not a sustainable competitive advantage. To have a sustainable competitive advantage, a business must have certain footprints in the marketplace. It should have certain attributes of its product(s) or service(s) that its competitor(s) cannot offer obtain but the customer must feel that are necessary for repeated purchases [21]. Coyne [22] found that core competence is partially understood and is needed to improve the competitiveness of the Wajo district silk-weaving region. The study recognised and ascertained core competence as a major source of a sustainable competitive advantage in the small silk-weaving industries and pointed it out as an integral strategy for development. It used value chain analysis, SWOT, gap analysis, and Porter's generic strategy. Arslan [23] found that customer loyalty is an asset to an organisation because gaining new customers is a costly affair. So, one-to-one relationships in business privilege the customer, thereby leading to repeated purchases of the product as well as repurchasing, renewing, or ordering the product/service from the same organization. Thus, creating and maintaining customer loyalty was found to be beneficial in achieving a sustainable competitive advantage. Memon et al. [24] brought to light how Sri Lanka's artisans have preserved the craft knowledge by inheriting and passing on the weaving techniques by teaching the upcoming generation and linking culture with an active action plan to create a sustainable competitive advantage. In addition to inheriting weaving techniques, learning, human resources, and product innovation can offer a sustainable competitive advantage. Moreover, it can maximise sales through annual exhibitions, trade fairs, and buyer/seller forums, as discussed in the study. Mulyanto et al. [25] stressed in their research that information technology, promotion, products, human resources, cooperation, business strategy, and CSR are the basic factors for a business to achieve a sustainable competitive advantage.

Hatch and Dyer [26] identified human capital and learning to be the major sources that lend a sustainable competitive advantage because humans are complex social beings and are not imitable. Humans can be trained and can be improved via learning to perform significantly. Wanniarachchi, Dissanayake, and Downs [27] carried out their research in the handloom industry of Sri Lanka by taking 10 case studies analysed via a triple-layered model canvas. The study found that a lack of market access and information acted as a barrier to the industry. However, the innovation in designs and a closed-loop strategy in the manufacturing process can be incorporated for community-based entrepreneurship for sustainability. Trehan and Sinha [28] studied the small family-owned enterprise "Sangisathi" of India that was established in 2015. They found that the selection of the supplier was an im-

portant criterion for the sustainability of any business firm. Goswami and Jain [29] created a sustainable strategy for the handloom sector in India to outperform its competitors via overall cost leadership, differentiation, and focus. The differentiation strategy stressed the quality assurance of products, distribution channels, and promotion to attain sustainability. For the sustainability of India's handloom sector, Mishra and Mohapatra [30] suggested that building a customer base and good marketing skills by sellers, the use of a marketing information system, a professional industry setup, a regulated price, a repository of traditional knowledge, the good distribution of products, modernising the existing resources, and creating international promotion were key to developing new international markets. Singh and Srivastava [31] opined that handloom products were unmatched with machine-made fabrics and that India's handloom sector played a significant role in country's economy. It displays a rich cultural heritage, and its uniqueness appears in the inherited designs and motifs of the fabrics. Bonetto, Hofmann, and Prause [32] studied France's Lyon silk industry and found that the effectiveness and efficiency of sustainable entrepreneurship was a major source of a sustainable competitive advantage. Aaker [33] revealed that the key to a sustainable competitive advantage was managing the assets (brand name, goodwill, and location) and skills held by the business (certain advantages or efficient manufacturing). A sustainable competitive advantage can be offered by improved market viability and employee engagement, adopting advanced technology, and recognising new markets and future products by exploring more opportunities based on capabilities and building new resources [34]. Clemons [35] suggested that information systems are an important source that offer a sustainable competitive advantage in business success. McGinni and Vallorpa [11] revealed that a sustainable competitive advantage could be offered by new start-up enterprises that rely on continuous innovation and resource reorganisation.

### 3.2. *Competitive Advantages for Buyers*

Huang et al. [36] studied Taiwan's information and communication technology industry and found that a firm's temporary competitive advantage due to its market position and improved technological resources and capabilities could enhance its sustainable competitive advantage. A sustainable competitive advantage can be attained via product innovations and market driving. Kuncoro and Suriani [37] found in their empirical research that product innovation and market driving had positive significance and affected the sustainable competitive advantage. To compete in international markets, a firm must understand how to create a sustainable competitive advantage. Competition, which is the key and fundamental determinant of the success or failure of firms and their innovations, contributes to their performances, good implementations, and cohesive cultures [8]. Bharadwaj, Varadarajan, and Fahy [38] discussed durability as the chief concept of competitive advantage and said that maintenance also acts as the strongest element in competitive advantage. Product quality improvement, which is the most important aspect in achieving a sustainable competitive advantage [39], can improve the quality of a product by lowering the unit cost, decreasing the price sensitivity, and increasing the market share. A firm's size does not remarkably affect the connection between a competitive advantage and performance, whereas a firm's age does matter [40]. A firm has to develop with time and employ this in products to influence customer quality perception by offering a low cost advantage. The five indicators for competitive advantage stated by Vanathi and Swamynathan [41] are price, delivery, quality, dependability, product innovation, and lead time. Distribution is a successful marketing strategy in globalised and deregulated markets that offers a competitive advantage in fierce competitive markets [42]. Geographical indications can lend a competitive advantage to any product [43]. The timing, order, and durability of the first mover provides a competitive advantage [44]. Timing and order moves are very important for new product introduction. A specialised supplier network [45] provides a competitive advantage in the automaker industry. Product quality [46] can introduce a competitive advantage and is of paramount importance for a firm's sustainability. In addition, a firm is said to have sustainable competitive advantages to meet the requirement

of customers and compete with available competitors in the market [47]. Previous works majorly focused on competitive advantages in the context of economic benefits, increasing sales volumes, manpower, future growth, and countering competitors [48]. To ensure a superior performance and a competitive advantage, companies need to establish inter-functional coordination, healthy competition, timely customer orientation, and futuristic growth [49,50]. Furthermore, the competitive strengths and weaknesses of the textile enterprises could create superior performances and advantages in upcoming projects through implementation strategies and the use of product knowledge. As explained by Yadav, Tripathi, and Goel [51], competitor orientation, market orientation, and customer orientation are also much needed to seek out sustainable competitive advantages. A company that wants to remain competitive in the market needs to have a superior sustainable strategy and effective coordination among all functional verticals to improve customer satisfaction and resistance to competitors [52,53].

### 3.3. Competitive Advantages for Sellers

In the review of the literature, it came to light that sustainable competitive advantage studies are widely used in India and other countries and stress a resource-based view, core competence, dynamic capability, and industrial organisation theories. It is researched mostly in the handloom sector of India and other countries. Competitive advantages and sustainable competitive advantages are important pointers to counter competition; there are many factors such as product uniqueness, customisation, brand loyalty, product quality, product location, product placement, sellers' friendliness, product distribution, product differentiation, product durability, technology protection, timely delivery, online presence, and home delivery that provide a sustainable competitive advantage. These factors are correlated and significant, and there is much research that has been conducted on competitive advantages and sustainable competitive advantages through empirical studies, reviews, case reports, and case studies in many industries such as information technology, tourism, hotels, construction, software, handlooms, etc., in different dimensions that put forward many conceptual frameworks by different researchers across the globe. It is evident that studies on sustainable competitive advantages have been conducted in different industries and sectors, but there was no previous study available on India's Assam silk industry. Moreover, in the literature, it came to light that the variables that are studied by different researchers are co-related to achieving a sustainable competitive advantage in different industries and sectors. These are price, quality, trustworthiness, innovation, technology, people, time, marketing mix, knowledge transfer, product differentiation, government policy, distribution, specialised supplier network, customised product, country of origin, geographical indication, technology, durability, usability, product, place, time and order, delivery, promotion, product placement, location, positioning, etc. To study the sustainable competitive advantage of the Assam silk industry in order to reshape and pave the way toward an efficient supply of silk products in the global market, the following 19 variables were considered: uniqueness, customised product, high competition, high price, customer base, brand loyalty, product quality, product price, product location, product placement, friendliness of sellers, product durability, product differentiation, product distribution channel, geographical indication, timely delivery, technology protection, online purchase and home delivery, and product enjoyment. Hence, the purpose of this study was to analyse the sustainable competitive advantages of India's Assam silk industry while considering the 19 variables identified in the literature from the perspectives of sellers and buyers. The study also aimed to check the perspectives of sellers and buyers regarding the sustainable competitive advantages of Assam silk, and the following hypotheses and conceptual framework were formulated accordingly. The present study segregated all of the designed variables into two categories; i.e., the independent variables were product uniqueness, customised products, competition, product quality, product placement, friendliness of sellers, distribution channels, technological advancement, and online purchase and home delivery; whereas the dependent variables were the competitor's price, customer base,

brand loyalty, product price, product location, product durability, product differentiation, geographical indication, and on-time delivery. Furthermore, the research model advocated for all the variables, which will be tested later in the section on data estimation. After the review of literature, it was noticed that previous research majorly focused on competitive advantages instead of sustainable competitive advantages. Moreover, in the context of Sualkuchi silk products in Assam, none of the studies were conducted to investigate the sustainable competitive advantage of Assam from the viewpoints of buyers and sellers. Therefore, there is a significant research gap between the previous works and present study, which makes this research significant and unique. Furthermore, on the basis of an extensive review of the literature and the research gap, the following research questions, objectives and hypotheses were formulated:

1. Demystify the sustainable competitive advantages from the viewpoints of buyers and sellers of Sualkuchi silk products;
2. Determine whether buyers or sellers have more sustainable competitive advantages;
1. Study the sustainable competitive advantages of Sualkuchi silk products of Assam, India;
2. Investigate the agreement level of buyers and sellers regarding the competitive advantages of Sualkuchi silk products

**H1.** *Sellers have a high level of agreement regarding the sustainable competitive advantages of silk products manufactured in Sualkuchi, Assam.*

**H2.** *Buyers have high level of agreement regarding the sustainable competitive advantages of silk products of Sualkuchi, Assam.*

#### 4. Methodology

The study was empirical and exploratory in nature and was conducted with the help of a quantitative and qualitative research approach. Both primary and secondary data were used for the study. The secondary data was taken from Assam silk brochures and reports. The primary data was collected from both buyers and sellers by using two self-constructed standardised questionnaires that were designed to collect the data; namely, the Buyer's Agreement Measurement Scale (BAMS) and the Seller's Agreement Measurement Scale (SAMS), because there is no such tool that has been constructed to measure the complete and comprehensive agreement of buyers and sellers regarding the competitive advantages of the silk industry. The scales were designed with 19 items that considered the 19 variables that were identified in the review of the literature. The primary data were collected from 200 buyers and sellers of Assam silk in the Sualkuchi area of Assam, India (100 buyers and 100 sellers) through the BAMS and SAMS surveys from 10 January to 21 May 2022. According to the Sualkuchi Handloom Survey Report 2016, there were 190 Assam silk shops situated in Assam whose manufacturing units were in Sualkuchi, Assam, India. So, using convenience sampling, 100 Assam silk shopkeepers were used and 1 customer (buyer) from each shop was used in the study. The study sample consisted of 100 buyers and 100 silk shopkeepers or sellers of Sualkuchi silk products in Assam, India. Primary and secondary try-outs of the Buyer's Agreement Measurement Scale (BAMS) and Seller's Agreement Measurement Scale (SAMS) were performed on a sample of 30 and 50, respectively, in order to check the reliability, validity, and item analysis of the tools and data. Under the primary try-out, the researcher measured the BAMS's and SAMS's face and content validity and also used experts' opinions; whereas, in the secondary-try-out item analysis, the concurrent validity and reliability of the tools were measured with the help of correlation coefficient, independent *t*-test, *p*-ratio, Kaiser–Meyer–Olkin (KMO), Bartlett [47], and Cronbach's alpha tests. The values of the results of these tests were found to be 0.901, 41.522, 0.001 \*\*, 0.862, 0.893, and 0.862, respectively.

The results of both the primary and secondary try-outs showed that all of the selected items of a competitive advantage (19) were perfectly positively correlated and inter-correlated based on the tools (BAMS and SAMS) and among each other and also

were distinct and specific from each other. With the help of the secondary try-out (p-ratio, Kaiser–Meyer–Olkin (KMO), Bartlett [47], and Cronbach’s alpha tests), we concluded that both of the constructed tools were highly reliable, valid, and significant at a 0.01 \*\* level of significance for conducting the particular study; and all of the 19 selected items were adequate and most suitable for determining the competitive advantages of Sualkuchi silk products from the viewpoints of buyers and sellers.

Further, before conducting the final data analysis, the normality of data (N = 200) was also checked in relation to selecting which tests were appropriate for the present study (parametric or non-parametric). The values for skewness and kurtosis were  $-0.341$  and  $0.145$ , respectively, which fell under an acceptable range of  $\pm 2$  of the normal probability curve (NPC). Therefore, on the basis of the normality of data, the nature of the study, and the relationships among the studied variables, a one-sample *t*-test and a gap analysis were performed to measure the competitive advantages of Sualkuchi silk products collectively and individually from the viewpoints of buyers and sellers.

## 5. Results and Discussions

The collected data of 200 respondents, which included 100 buyers and 100 sellers and was normally distributed, was examined with the help of the Statistical Package for Social Sciences (SPSS) 25.0 applications. Before the analysis, the data were edited, decoded, and recorded using a five-point Likert scale manually according to the factors, sub-factors, variables, and items.

### 5.1. Sellers’ Perspectives Regarding Sustainable Competitive Advantages of Assam Silk Products

In order to analyse the perspectives of sellers regarding the competitive advantages of Assam silk products, the sellers were asked to rate their level of agreement with the items in the five-point scale (1 = very low to 5 = very high) on the SAMS scale. Then, the one sample *t*-test and gap analysis were performed to measure the sellers’ agreement with the overall and individual items of competitive advantages of Sualkuchi silk products; the results are presented in Table 1.

Table 1 shows that the sample mean of sellers’ (N = 100) agreement with the competitive advantages of Sualkuchi silk products of Assam was 86.80, the population mean or value of the hypothesis was 95 (test value), and the mean difference was 08.20 between them. The values of the S.D., *t*-ratio, and *p*-value were 4.513, 18.171, and 0.000, respectively. Here, the *p*-value was 0.000 ( $p = 0.000 < 0.01$ ), which was less than 0.01 and 0.05; therefore, it indicated that there was a significant mean difference between the sample and population mean or the hypothesis of the seller’s agreement regarding the competitive advantages of Sualkuchi silk products. Moreover, the agreement level of the sellers also was measured over each item of the competitive advantages of Sualkuchi silk products regarding the following competitive advantage item numbers: CAI-1 (uniqueness), CAI-2 (customised product), CAI-3 (high competition), CAI-5 (customer base), CAI-6 (brand loyalty), CAI-7 (product quality), CAI-8 (product price), CAI-9 (product location), CAI-10 (product placement), CAI-11 (friendliness of sellers), CAI-12 (product durability), CAI-13 (product differentiation), CAI-15 (geographical indication), CAI-16 (timely order delivery), and CAI-19 (product enjoyment); the sample mean of sellers’ agreement lay between 4 and 5 in relation to the test value of 5, whereas regarding CAI-4 (competitor’s price), CAI-14 (distribution channel), CAI-17 (technology protection), and CAI-18, (online purchase and home delivery) the sample mean lay between 2 and 4 with reference to the same test value 5.

Moreover, in Table 2 and area graph 1, the calculated sample means of the sellers’ agreement with the overall and individual items of competitive advantages from CAI-1 to CAI-19 of the Sualkuchi silk products lying under each level of the agreement are presented. The categories of agreement, which were computed by using the Z-score of the raw data, varied for the overall and individual test items from low to very high.

**Table 1.** Results of the one-sample *t*-test regarding the agreement of sellers with the overall and individual items of competitive advantages of Sualkuchi silk products.

Competitive Advantages	N	Hypothesised Mean	Mean	S.D.	Mean Difference	t-Ratio	p-Value
Overall	100	95	86.80	4.513	8.200	18.171	0.000 **
CAI-1	100	5	4.46	0.501	0.540	11.010	0.000 **
CAI-2	100	5	4.39	0.500	0.610	10.232	0.000 **
CAI-3	100	5	4.36	0.498	0.640	11.212	0.000 **
CAI-4	100	5	2.92	0.387	2.080	31.322	0.000 **
CAI-5	100	5	4.11	0.503	0.890	12.323	0.000 **
CAI-6	100	5	4.23	0.500	0.770	10.023	0.000 **
CAI-7	100	5	4.90	0.498	0.100	11.000	0.000 **
CAI-8	100	5	4.01	0.533	0.990	10.021	0.000 **
CAI-9	100	5	4.33	0.522	0.670	11.098	0.000 **
CAI-10	100	5	4.55	0.512	0.450	11.023	0.000 **
CAI-11	100	5	4.63	0.543	0.370	12.290	0.000 **
CAI-12	100	5	4.76	0.503	0.240	10.231	0.000 **
CAI-13	100	5	4.77	0.500	0.230	12.120	0.000 **
CAI-14	100	5	3.01	0.301	1.990	32.029	0.000 **
CAI-15	100	5	4.02	0.501	0.980	10.500	0.000 **
CAI-16	100	5	4.21	0.500	0.790	11.290	0.000 **
CAI-17	100	5	3.99	0.312	1.010	31.908	0.000 **
CAI-18	100	5	3.89	0.300	1.110	32.001	0.000 **
CAI-19	100	5	4.54	0.588	0.46	11.012	0.000 **

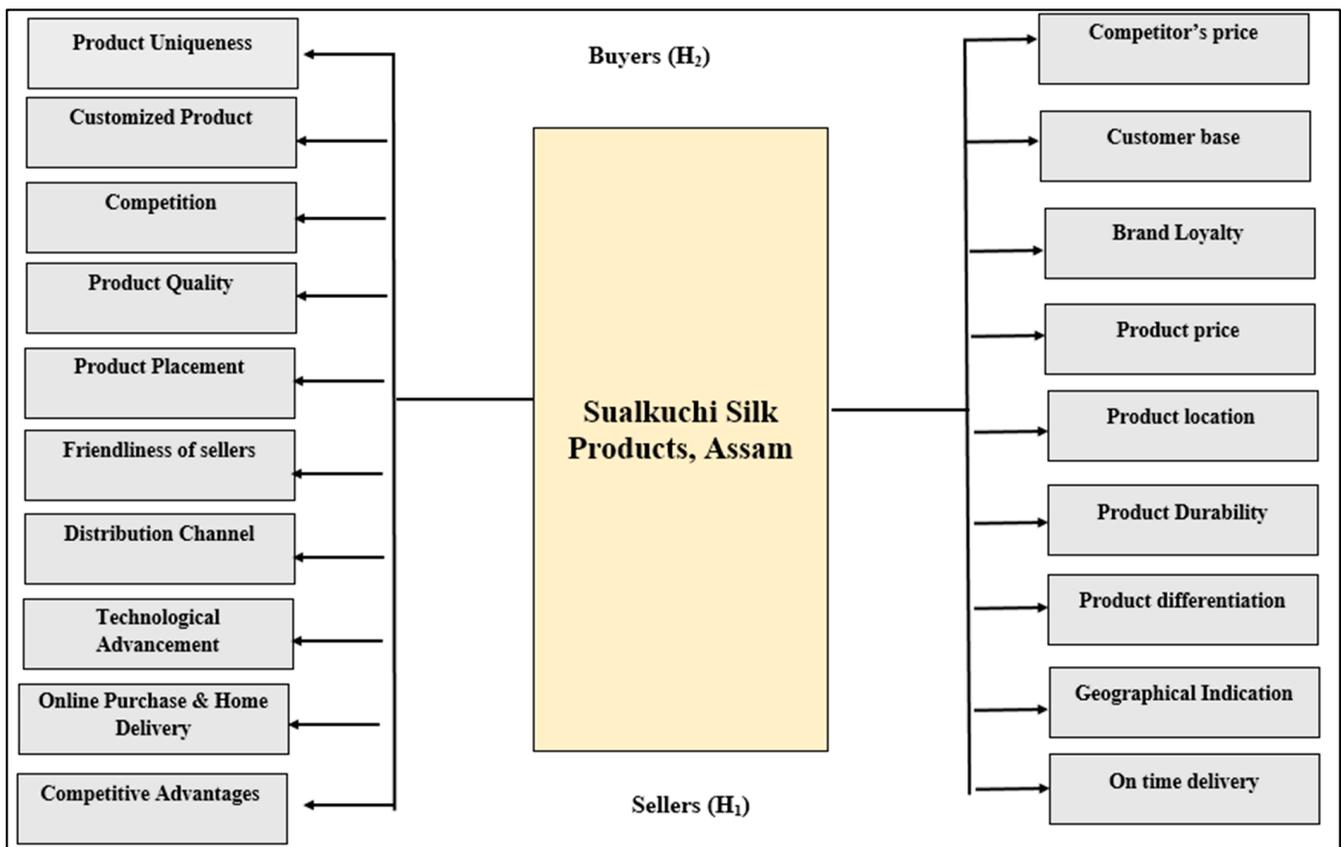
\*\* 0.01 level of significance of primary data. Source: researchers' calculations.

**Table 2.** Categories of agreement levels of sellers regarding competitive advantages of Sualkuchi silk products of Assam, India.

Overall Mean Scores	Agreement Level	Individual Mean Scores	Agreement Level
19–38	Low	1–2	Low
39–57	Average	2–3	Average
58–76	High	3–4	High
77–95	Very High	4–5	Very High

Source: researchers' calculations.

Based on Table 2 and Figure 1, we concluded that sellers had a very high positive agreement with the following overall and item numbers CAI-1 (uniqueness), CAI-2 (customised product), CAI-3 (high competition), CAI-5 (customer base), CAI-6 (brand loyalty), CAI-7c (product quality), CAI-8 (product price), CAI-9 (product location), CAI-10 (product placement), CAI-11 (friendliness of sellers), CAI-12 (product durability), CAI-13 (product differentiation), CAI-15 (geographical indication), CAI-16 (timely order delivery), and CAI-19 (product enjoyment); whereas CAI-4 (competitor's price), CAI-14 (distribution channel), CAI-17 (technology protection), and CAI-18 (online purchase and home delivery) had an average level of agreement regarding the competitive advantages of Assam silk.



**Figure 1.** Conceptual framework for sustainable competitive advantages from the viewpoints of buyers and sellers.

Thus, the proposed null hypothesis ‘H1: Sellers have a high level of agreement regarding the competitive advantages of silk products manufactured in Sualkuchi, Assam’ was accepted. This result indicated that as per the buyers’ perspectives, the Assam silk has high sustainable competitive advantages based on uniqueness, customised product, high competition, customer base, brand loyalty, product quality, product price, product location, product placement, friendliness of sellers, product durability, product differentiation, geographical indication, timely order delivery, and product enjoyment. The Assam silk industry should leverage these factors and attempt to attract more customers from the across the globe.

### 5.2. Buyers’ Perspectives Regarding Sustainable Competitive Advantages of Sualkuchi Silk Products

In order to analyse the perspectives of buyers regarding the competitive advantages of Assam silk products, the buyers were asked to rate their level of agreement with the items on a five-point scale (1 = very low to 5 = very high) using the BAMS scale. Then, the one-sample *t*-test and gap analysis were performed to measure the buyers’ agreement with the overall and individual items of competitive advantages of Sualkuchi silk products; the results are presented in Table 3.

Table 3 shows that the sample mean of buyers’ (N = 100) agreement with the competitive advantages of Sualkuchi silk products of Assam was 68.20; the value of the hypothesised or population mean was 95 (test value); the mean difference was 26.80 between them; and the values for the S.D., *t*-ratio, and *p*-value were 5.848, 32.601, and 0.000, respectively. Here, the *p*-value was 0.000 ( $p = 0.000 < 0.01$ ), which was less than 0.01 and 0.05; therefore, there was a significant mean difference between the sample and hypothesised or population mean of buyers’ agreement about competitive advantages of Sualkuchi silk products. Moreover, the agreement level of buyers’ also was measured over each item of

the competitive advantages of Sualkuchi silk products as presented in Table 3 regarding the following sustainable competitive advantage item numbers: CAI-1 (unique and specific), CAI-2 (customised product), CAI-3 (high competition), CAI-5 (customer base), CAI-6 (brand loyalty), CAI-7 (product quality), CAI-8 (product price), CAI-9 (product location), CAI-10 (product placement), CAI-11 (friendliness of sellers), CAI-12 (product durability), CAI-13 (product differentiation), CAI-15 (geographical indication), CAI-16 (timely order delivery), and CAI-19 (product enjoyment); the sample mean of buyers' agreement lay between 3 and 4 in relation to the test value of 5; whereas regarding CAI-4 (competitor's price), CAI-14 (distribution channel), CAI-17 (technology protection), and CAI-18 (online purchase and home delivery), the sample mean lay between 1 and 2 with reference to the same test value of 5.

**Table 3.** Results of one-sample *t*-test of the agreement of buyers regarding the overall and individual items of competitive advantages of Sualkuchi silk products.

Competitive Advantages	N	Hypothesised Mean	Mean	S.D.	Mean Difference	t-Ratio	p-Value
Overall	100	95	68.20	5.848	26.800	32.601	0.000 **
CAI-1	100	5	3.45	0.551	1.550	30.032	0.000 **
CAI-2	100	5	3.20	0.500	1.800	32.490	0.000 **
CAI-3	100	5	3.21	0.651	1.790	30.242	0.000 **
CAI-4	100	5	1.81	0.615	3.190	51.071	0.000 **
CAI-5	100	5	4.01	0.624	0.990	29.331	0.000 **
CAI-6	100	5	3.89	0.532	1.110	30.021	0.000 **
CAI-7	100	5	3.00	0.544	2.000	31.022	0.000 **
CAI-8	100	5	4.06	0.501	0.940	29.025	0.000 **
CAI-9	100	5	3.51	0.499	1.490	31.095	0.000 **
CAI-10	100	5	3.32	0.590	1.680	32.001	0.000 **
CAI-11	100	5	3.01	0.501	2.990	30.243	0.000 **
CAI-12	100	5	3.77	0.522	1.230	32.432	0.000 **
CAI-13	100	5	3.90	0.590	1.100	31.121	0.000 **
CAI-14	100	5	1.24	0.671	2.760	51.021	0.000 **
CAI-15	100	5	3.44	0.511	1.560	32.511	0.000 **
CAI-16	100	5	3.45	0.534	1.550	31.543	0.000 **
CAI-17	100	5	1.98	0.601	3.020	51.432	0.000 **
CAI-18	100	5	1.22	0.698	3.780	52.321	0.000 **
CAI-19	100	5	3.49	0.501	1.510	31.025	0.000 **

\*\* 0.01 level of significance of primary data. Source: researchers' calculations.

Moreover, in Table 4 and area graph 2, the calculated sample means of buyers' agreement with the overall and individual items of competitive advantages from CAI-1 to CAI-19 of Sualkuchi silk products lying under each level of agreement are presented. The categories of satisfaction, which were calculated using the Z-score of the raw data, varied for the overall and individual test items from low to very high.

Based on Table 4, Figures 2 and 3, we concluded that buyers had a high agreement with the following overall and item numbers: CAI-1 (uniqueness), CAI-2 (customised product), CAI-3 (high competition), CAI-5 (customer base), CAI-6 (brand loyalty), CAI-7 (product quality), CAI-8 (product price), CAI-9 (product location), CAI-10 (product placement), CAI-11 (friendliness of sellers), CAI-12 (product durability), CAI-13 (product differentiation), CAI-15 (geographical indication), CAI-16 (timely order delivery), and CAI-19

(product enjoyment); whereas CAI-4 (competitor's price), CAI-14 (distribution channel), CAI-17 (technology protection), and CAI-18 (online purchase and home delivery) had a low level of agreement. Thus, the proposed null hypothesis 'H2: Buyers have a high level of agreement regarding the competitive advantages of silk products of Sualkuchi, Assam' was accepted.

**Table 4.** Categories of agreement levels of buyers' towards the competitive advantages of Sualkuchi silk products of Assam, India.

Overall Mean Scores	Agreement Level	Individual Mean Scores	Agreement Level
19–38	Low	1–2	Low
39–57	Average	2–3	Average
58–76	High	3–4	High
77–95	Very High	4–5	Very High

Source: researchers' calculations.

### 5.3. Comparison between Sellers and Buyers' Perspective Regarding the Sustainable Competitive Advantages of Assam Silk Products

Both buyers and sellers had very high positive agreement with the following items: CAI-1, (uniqueness), CAI-2 (customised product), CAI-3 (high competition), CAI-5 (customer base), CAI-6 (brand loyalty), CAI-7 (product quality), CAI-8 (product price), CAI-9 (product location), CAI-10 (product placement), CAI-11 (friendliness of sellers), CAI-12 (product durability), CAI-13 (product differentiation), CAI-15 (geographical indication), CAI-16 (timely order delivery), and CAI-18 (online purchase and home delivery). This showed that Sualkuchi silk products are unique and specific; designed according to buyers' needs; and enjoy positive factors that include brand loyalty, quality, price, location, placement, customer coverage, durability, differentiation, location, geographical indication, timely delivery, and friendliness of the sellers; whereas for item numbers CAI-4 (higher prices as compared to competitive artificial silk products, which distinguishes them from its competitors), CAI-14 (product distribution channel), CAI-17 (product technology protection) and CAI-18 (online purchase and home delivery), both buyers and sellers had a low level of agreement due to the higher prices of products as compared to other similar products, the limited distribution system even in the northeast, the lack of technological advances in products and services, and limited online stocks and delivery options, which made both buyers and sellers unhappy and unsatisfied [54].

Moreover, the agreement levels of buyers and sellers were differentiated overall and on each item; the results are shown in Table 5.

Table 5 and Figure 4 compares the agreement levels of buyers and sellers with the overall and each item of competitive advantages of Sualkuchi silk products of Assam. The results suggested that sellers had a high level of agreement as compared to buyers regarding the overall competitive advantage and on the following item numbers: CAI-4 (competitor's price), CAI-5 (customer base), CAI-6 (brand loyalty), CAI-8 (product price), CAI-9 (product location), CAI-12 (product durability), CAI-13 (product differentiation), CAI-15 (geographical indication), and CAI-16 (order timely delivery) (mentioned in Appendix A) as items that were related to sellers, who more awareness of these attributes because they favoured them in order to enjoy the competitive advantages of Sualkuchi silk products; whereas on the items CAI-1 (product unique and specific), CAI-2 (customised product), CAI-3 (competition), CAI-7 (product quality), CAI-10 (product placement), CAI-11 (friendliness of sellers), CAI-14 (distribution channel), CAI-17 (technology protection), CAI-18 (online purchase and home delivery), and CAI-19 (all products enjoying competitive advantage), both buyers and sellers had a similar level of agreement because both of them were fully aware and enjoyed competitive advantages due to these items.

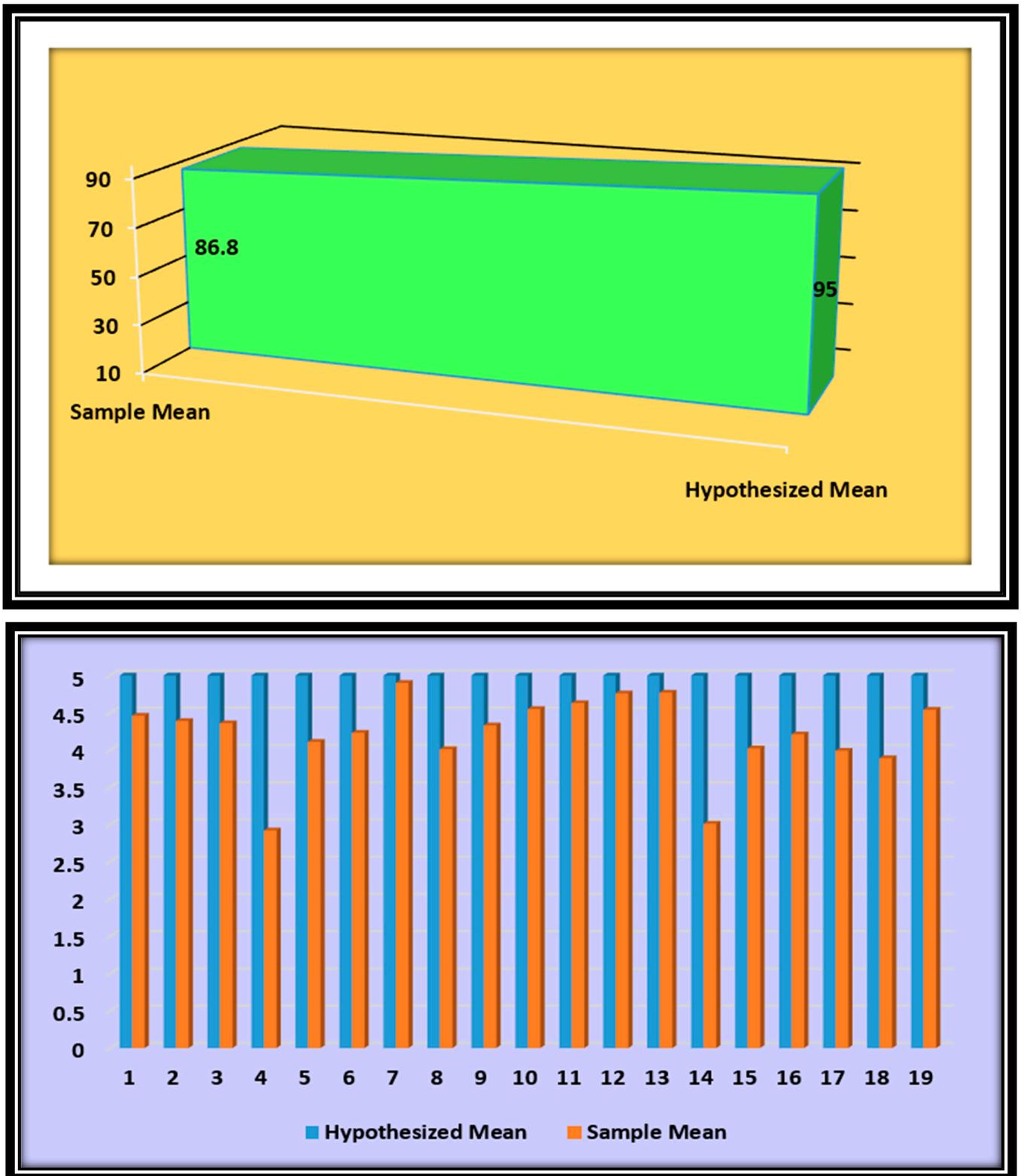


Figure 2. Area graph of sellers' agreement with the competitive advantages of Sualkuchi silk products. Source: researchers' calculations.

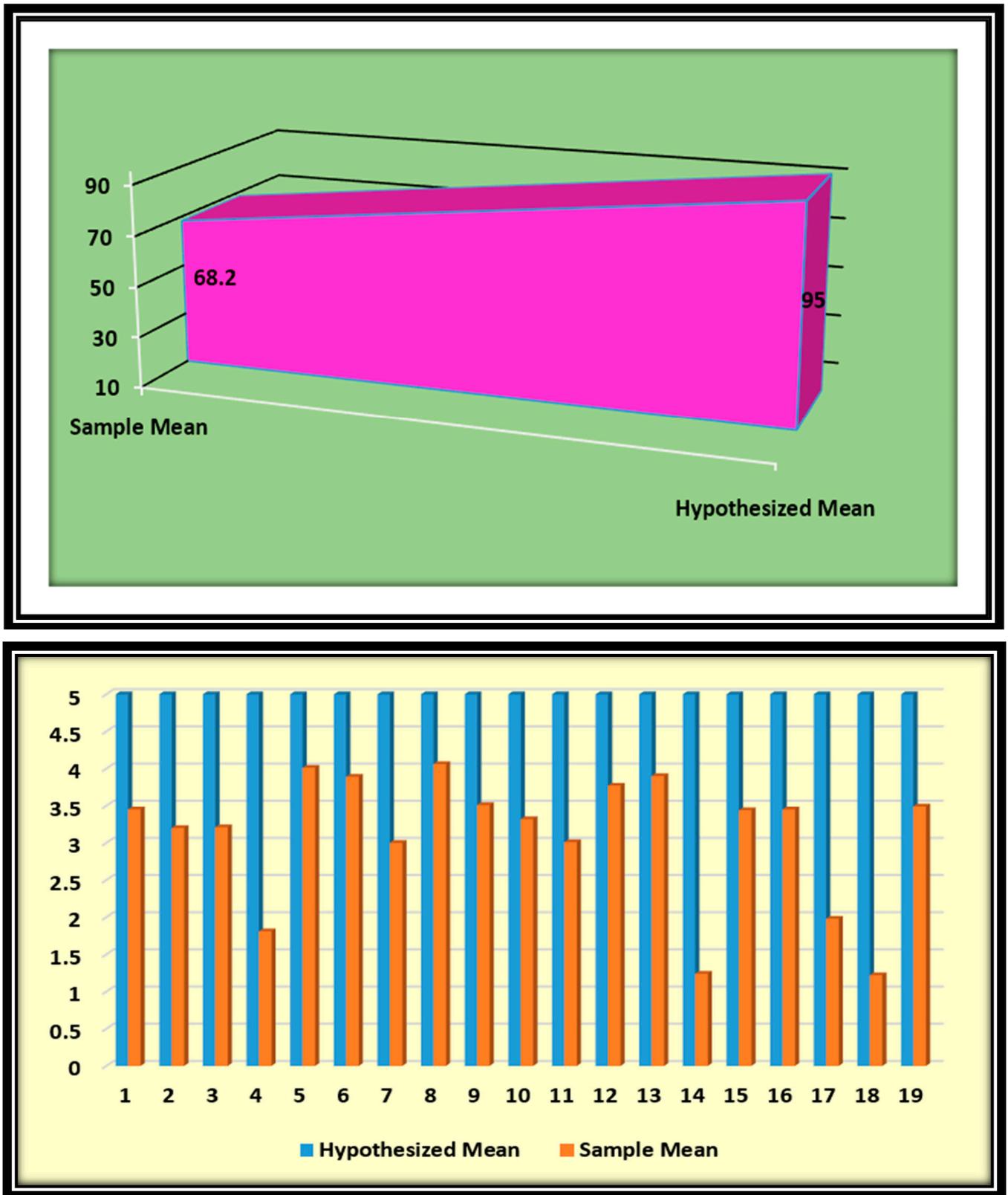


Figure 3. Area graph of buyers' agreement with the overall and individual items of competitive advantages of Sualkuchi silk products. Source: researchers' calculations.

**Table 5.** Results of independent-sample *t*-test of the agreement of buyers and sellers regarding the competitive advantage.

Variable	Group	N	Mean	S.D.	Mean Difference	t-Ratio	p-Value																																																																																																																																																																																																																																
Overall	Buyers	100	68.20	5.848	18.60	29.098	0.000 **																																																																																																																																																																																																																																
	Sellers	100	86.80	4.513				CAI-1	Buyers	100	3.45	0.551	01.01	30.011	0.001 **	Sellers	100	4.46	0.501	CAI-2	Buyers	100	3.20	0.500	01.19	50.023	0.001 **	Sellers	100	4.39	0.500	CAI-3	Buyers	100	3.21	0.651	01.15	52.551	0.001 **	Sellers	100	4.36	0.489	CAI-4	Buyers	100	1.81	0.615	0.48	28.456	0.623	Sellers	100	2.92	0.387	CAI-5	Buyers	100	4.01	0.624	0.11	32.091	0.721	Sellers	100	4.11	0.503	CAI-6	Buyers	100	3.89	0.532	0.34	28.034	0.212	Sellers	100	4.23	0.500	CAI-7	Buyers	100	3.00	0.544	01.90	31.812	0.003 *	Sellers	100	4.90	0.498	CAI-8	Buyers	100	4.06	0.501	0.05	54.251	0.745	Sellers	100	4.01	0.533	CAI-9	Buyers	100	3.51	0.499	0.82	41.943	0.522	Sellers	100	4.33	0.522	CAI-10	Buyers	100	3.32	0.590	01.23	32.712	0.002 *	Sellers	100	4.55	0.512	CAI-11	Buyers	100	3.01	0.501	01.62	32.119	0.049 *	Sellers	100	4.63	0.543	CAI-12	Buyers	100	3.77	0.522	0.99	50.834	0.821	Sellers	100	4.76	0.503	CAI-13	Buyers	100	3.90	0.590	0.87	49.712	0.621	Sellers	100	4.77	0.500	CAI-14	Buyers	100	1.24	0.671	01.77	48.332	0.410 *	Sellers	100	3.01	0.301	CAI-15	Buyers	100	3.44	0.511	0.58	51.881	0.698	Sellers	100	4.02	0.501	CAI-16	Buyers	100	3.45	0.534	0.76	53.231	0.620	Sellers	100	4.21	0.500	CAI-17	Buyers	100	1.98	0.601	02.01	32.761	0.000 **	Sellers	100	3.99	0.312	CAI-18	Buyers	100	1.22	0.689	02.67	33.001	0.000 **	Sellers	100	3.89	0.300	CAI-19	Buyers	100	3.49	0.501	01.05	50.331	0.040 *
CAI-1	Buyers	100	3.45	0.551	01.01	30.011	0.001 **																																																																																																																																																																																																																																
	Sellers	100	4.46	0.501				CAI-2	Buyers	100	3.20	0.500	01.19	50.023	0.001 **	Sellers	100	4.39	0.500	CAI-3	Buyers	100	3.21	0.651	01.15	52.551	0.001 **	Sellers	100	4.36	0.489	CAI-4	Buyers	100	1.81	0.615	0.48	28.456	0.623	Sellers	100	2.92	0.387	CAI-5	Buyers	100	4.01	0.624	0.11	32.091	0.721	Sellers	100	4.11	0.503	CAI-6	Buyers	100	3.89	0.532	0.34	28.034	0.212	Sellers	100	4.23	0.500	CAI-7	Buyers	100	3.00	0.544	01.90	31.812	0.003 *	Sellers	100	4.90	0.498	CAI-8	Buyers	100	4.06	0.501	0.05	54.251	0.745	Sellers	100	4.01	0.533	CAI-9	Buyers	100	3.51	0.499	0.82	41.943	0.522	Sellers	100	4.33	0.522	CAI-10	Buyers	100	3.32	0.590	01.23	32.712	0.002 *	Sellers	100	4.55	0.512	CAI-11	Buyers	100	3.01	0.501	01.62	32.119	0.049 *	Sellers	100	4.63	0.543	CAI-12	Buyers	100	3.77	0.522	0.99	50.834	0.821	Sellers	100	4.76	0.503	CAI-13	Buyers	100	3.90	0.590	0.87	49.712	0.621	Sellers	100	4.77	0.500	CAI-14	Buyers	100	1.24	0.671	01.77	48.332	0.410 *	Sellers	100	3.01	0.301	CAI-15	Buyers	100	3.44	0.511	0.58	51.881	0.698	Sellers	100	4.02	0.501	CAI-16	Buyers	100	3.45	0.534	0.76	53.231	0.620	Sellers	100	4.21	0.500	CAI-17	Buyers	100	1.98	0.601	02.01	32.761	0.000 **	Sellers	100	3.99	0.312	CAI-18	Buyers	100	1.22	0.689	02.67	33.001	0.000 **	Sellers	100	3.89	0.300	CAI-19	Buyers	100	3.49	0.501	01.05	50.331	0.040 *	Sellers	100	4.54	0.588								
CAI-2	Buyers	100	3.20	0.500	01.19	50.023	0.001 **																																																																																																																																																																																																																																
	Sellers	100	4.39	0.500				CAI-3	Buyers	100	3.21	0.651	01.15	52.551	0.001 **	Sellers	100	4.36	0.489	CAI-4	Buyers	100	1.81	0.615	0.48	28.456	0.623	Sellers	100	2.92	0.387	CAI-5	Buyers	100	4.01	0.624	0.11	32.091	0.721	Sellers	100	4.11	0.503	CAI-6	Buyers	100	3.89	0.532	0.34	28.034	0.212	Sellers	100	4.23	0.500	CAI-7	Buyers	100	3.00	0.544	01.90	31.812	0.003 *	Sellers	100	4.90	0.498	CAI-8	Buyers	100	4.06	0.501	0.05	54.251	0.745	Sellers	100	4.01	0.533	CAI-9	Buyers	100	3.51	0.499	0.82	41.943	0.522	Sellers	100	4.33	0.522	CAI-10	Buyers	100	3.32	0.590	01.23	32.712	0.002 *	Sellers	100	4.55	0.512	CAI-11	Buyers	100	3.01	0.501	01.62	32.119	0.049 *	Sellers	100	4.63	0.543	CAI-12	Buyers	100	3.77	0.522	0.99	50.834	0.821	Sellers	100	4.76	0.503	CAI-13	Buyers	100	3.90	0.590	0.87	49.712	0.621	Sellers	100	4.77	0.500	CAI-14	Buyers	100	1.24	0.671	01.77	48.332	0.410 *	Sellers	100	3.01	0.301	CAI-15	Buyers	100	3.44	0.511	0.58	51.881	0.698	Sellers	100	4.02	0.501	CAI-16	Buyers	100	3.45	0.534	0.76	53.231	0.620	Sellers	100	4.21	0.500	CAI-17	Buyers	100	1.98	0.601	02.01	32.761	0.000 **	Sellers	100	3.99	0.312	CAI-18	Buyers	100	1.22	0.689	02.67	33.001	0.000 **	Sellers	100	3.89	0.300	CAI-19	Buyers	100	3.49	0.501	01.05	50.331	0.040 *	Sellers	100	4.54	0.588																				
CAI-3	Buyers	100	3.21	0.651	01.15	52.551	0.001 **																																																																																																																																																																																																																																
	Sellers	100	4.36	0.489				CAI-4	Buyers	100	1.81	0.615	0.48	28.456	0.623	Sellers	100	2.92	0.387	CAI-5	Buyers	100	4.01	0.624	0.11	32.091	0.721	Sellers	100	4.11	0.503	CAI-6	Buyers	100	3.89	0.532	0.34	28.034	0.212	Sellers	100	4.23	0.500	CAI-7	Buyers	100	3.00	0.544	01.90	31.812	0.003 *	Sellers	100	4.90	0.498	CAI-8	Buyers	100	4.06	0.501	0.05	54.251	0.745	Sellers	100	4.01	0.533	CAI-9	Buyers	100	3.51	0.499	0.82	41.943	0.522	Sellers	100	4.33	0.522	CAI-10	Buyers	100	3.32	0.590	01.23	32.712	0.002 *	Sellers	100	4.55	0.512	CAI-11	Buyers	100	3.01	0.501	01.62	32.119	0.049 *	Sellers	100	4.63	0.543	CAI-12	Buyers	100	3.77	0.522	0.99	50.834	0.821	Sellers	100	4.76	0.503	CAI-13	Buyers	100	3.90	0.590	0.87	49.712	0.621	Sellers	100	4.77	0.500	CAI-14	Buyers	100	1.24	0.671	01.77	48.332	0.410 *	Sellers	100	3.01	0.301	CAI-15	Buyers	100	3.44	0.511	0.58	51.881	0.698	Sellers	100	4.02	0.501	CAI-16	Buyers	100	3.45	0.534	0.76	53.231	0.620	Sellers	100	4.21	0.500	CAI-17	Buyers	100	1.98	0.601	02.01	32.761	0.000 **	Sellers	100	3.99	0.312	CAI-18	Buyers	100	1.22	0.689	02.67	33.001	0.000 **	Sellers	100	3.89	0.300	CAI-19	Buyers	100	3.49	0.501	01.05	50.331	0.040 *	Sellers	100	4.54	0.588																																
CAI-4	Buyers	100	1.81	0.615	0.48	28.456	0.623																																																																																																																																																																																																																																
	Sellers	100	2.92	0.387				CAI-5	Buyers	100	4.01	0.624	0.11	32.091	0.721	Sellers	100	4.11	0.503	CAI-6	Buyers	100	3.89	0.532	0.34	28.034	0.212	Sellers	100	4.23	0.500	CAI-7	Buyers	100	3.00	0.544	01.90	31.812	0.003 *	Sellers	100	4.90	0.498	CAI-8	Buyers	100	4.06	0.501	0.05	54.251	0.745	Sellers	100	4.01	0.533	CAI-9	Buyers	100	3.51	0.499	0.82	41.943	0.522	Sellers	100	4.33	0.522	CAI-10	Buyers	100	3.32	0.590	01.23	32.712	0.002 *	Sellers	100	4.55	0.512	CAI-11	Buyers	100	3.01	0.501	01.62	32.119	0.049 *	Sellers	100	4.63	0.543	CAI-12	Buyers	100	3.77	0.522	0.99	50.834	0.821	Sellers	100	4.76	0.503	CAI-13	Buyers	100	3.90	0.590	0.87	49.712	0.621	Sellers	100	4.77	0.500	CAI-14	Buyers	100	1.24	0.671	01.77	48.332	0.410 *	Sellers	100	3.01	0.301	CAI-15	Buyers	100	3.44	0.511	0.58	51.881	0.698	Sellers	100	4.02	0.501	CAI-16	Buyers	100	3.45	0.534	0.76	53.231	0.620	Sellers	100	4.21	0.500	CAI-17	Buyers	100	1.98	0.601	02.01	32.761	0.000 **	Sellers	100	3.99	0.312	CAI-18	Buyers	100	1.22	0.689	02.67	33.001	0.000 **	Sellers	100	3.89	0.300	CAI-19	Buyers	100	3.49	0.501	01.05	50.331	0.040 *	Sellers	100	4.54	0.588																																												
CAI-5	Buyers	100	4.01	0.624	0.11	32.091	0.721																																																																																																																																																																																																																																
	Sellers	100	4.11	0.503				CAI-6	Buyers	100	3.89	0.532	0.34	28.034	0.212	Sellers	100	4.23	0.500	CAI-7	Buyers	100	3.00	0.544	01.90	31.812	0.003 *	Sellers	100	4.90	0.498	CAI-8	Buyers	100	4.06	0.501	0.05	54.251	0.745	Sellers	100	4.01	0.533	CAI-9	Buyers	100	3.51	0.499	0.82	41.943	0.522	Sellers	100	4.33	0.522	CAI-10	Buyers	100	3.32	0.590	01.23	32.712	0.002 *	Sellers	100	4.55	0.512	CAI-11	Buyers	100	3.01	0.501	01.62	32.119	0.049 *	Sellers	100	4.63	0.543	CAI-12	Buyers	100	3.77	0.522	0.99	50.834	0.821	Sellers	100	4.76	0.503	CAI-13	Buyers	100	3.90	0.590	0.87	49.712	0.621	Sellers	100	4.77	0.500	CAI-14	Buyers	100	1.24	0.671	01.77	48.332	0.410 *	Sellers	100	3.01	0.301	CAI-15	Buyers	100	3.44	0.511	0.58	51.881	0.698	Sellers	100	4.02	0.501	CAI-16	Buyers	100	3.45	0.534	0.76	53.231	0.620	Sellers	100	4.21	0.500	CAI-17	Buyers	100	1.98	0.601	02.01	32.761	0.000 **	Sellers	100	3.99	0.312	CAI-18	Buyers	100	1.22	0.689	02.67	33.001	0.000 **	Sellers	100	3.89	0.300	CAI-19	Buyers	100	3.49	0.501	01.05	50.331	0.040 *	Sellers	100	4.54	0.588																																																								
CAI-6	Buyers	100	3.89	0.532	0.34	28.034	0.212																																																																																																																																																																																																																																
	Sellers	100	4.23	0.500				CAI-7	Buyers	100	3.00	0.544	01.90	31.812	0.003 *	Sellers	100	4.90	0.498	CAI-8	Buyers	100	4.06	0.501	0.05	54.251	0.745	Sellers	100	4.01	0.533	CAI-9	Buyers	100	3.51	0.499	0.82	41.943	0.522	Sellers	100	4.33	0.522	CAI-10	Buyers	100	3.32	0.590	01.23	32.712	0.002 *	Sellers	100	4.55	0.512	CAI-11	Buyers	100	3.01	0.501	01.62	32.119	0.049 *	Sellers	100	4.63	0.543	CAI-12	Buyers	100	3.77	0.522	0.99	50.834	0.821	Sellers	100	4.76	0.503	CAI-13	Buyers	100	3.90	0.590	0.87	49.712	0.621	Sellers	100	4.77	0.500	CAI-14	Buyers	100	1.24	0.671	01.77	48.332	0.410 *	Sellers	100	3.01	0.301	CAI-15	Buyers	100	3.44	0.511	0.58	51.881	0.698	Sellers	100	4.02	0.501	CAI-16	Buyers	100	3.45	0.534	0.76	53.231	0.620	Sellers	100	4.21	0.500	CAI-17	Buyers	100	1.98	0.601	02.01	32.761	0.000 **	Sellers	100	3.99	0.312	CAI-18	Buyers	100	1.22	0.689	02.67	33.001	0.000 **	Sellers	100	3.89	0.300	CAI-19	Buyers	100	3.49	0.501	01.05	50.331	0.040 *	Sellers	100	4.54	0.588																																																																				
CAI-7	Buyers	100	3.00	0.544	01.90	31.812	0.003 *																																																																																																																																																																																																																																
	Sellers	100	4.90	0.498				CAI-8	Buyers	100	4.06	0.501	0.05	54.251	0.745	Sellers	100	4.01	0.533	CAI-9	Buyers	100	3.51	0.499	0.82	41.943	0.522	Sellers	100	4.33	0.522	CAI-10	Buyers	100	3.32	0.590	01.23	32.712	0.002 *	Sellers	100	4.55	0.512	CAI-11	Buyers	100	3.01	0.501	01.62	32.119	0.049 *	Sellers	100	4.63	0.543	CAI-12	Buyers	100	3.77	0.522	0.99	50.834	0.821	Sellers	100	4.76	0.503	CAI-13	Buyers	100	3.90	0.590	0.87	49.712	0.621	Sellers	100	4.77	0.500	CAI-14	Buyers	100	1.24	0.671	01.77	48.332	0.410 *	Sellers	100	3.01	0.301	CAI-15	Buyers	100	3.44	0.511	0.58	51.881	0.698	Sellers	100	4.02	0.501	CAI-16	Buyers	100	3.45	0.534	0.76	53.231	0.620	Sellers	100	4.21	0.500	CAI-17	Buyers	100	1.98	0.601	02.01	32.761	0.000 **	Sellers	100	3.99	0.312	CAI-18	Buyers	100	1.22	0.689	02.67	33.001	0.000 **	Sellers	100	3.89	0.300	CAI-19	Buyers	100	3.49	0.501	01.05	50.331	0.040 *	Sellers	100	4.54	0.588																																																																																
CAI-8	Buyers	100	4.06	0.501	0.05	54.251	0.745																																																																																																																																																																																																																																
	Sellers	100	4.01	0.533				CAI-9	Buyers	100	3.51	0.499	0.82	41.943	0.522	Sellers	100	4.33	0.522	CAI-10	Buyers	100	3.32	0.590	01.23	32.712	0.002 *	Sellers	100	4.55	0.512	CAI-11	Buyers	100	3.01	0.501	01.62	32.119	0.049 *	Sellers	100	4.63	0.543	CAI-12	Buyers	100	3.77	0.522	0.99	50.834	0.821	Sellers	100	4.76	0.503	CAI-13	Buyers	100	3.90	0.590	0.87	49.712	0.621	Sellers	100	4.77	0.500	CAI-14	Buyers	100	1.24	0.671	01.77	48.332	0.410 *	Sellers	100	3.01	0.301	CAI-15	Buyers	100	3.44	0.511	0.58	51.881	0.698	Sellers	100	4.02	0.501	CAI-16	Buyers	100	3.45	0.534	0.76	53.231	0.620	Sellers	100	4.21	0.500	CAI-17	Buyers	100	1.98	0.601	02.01	32.761	0.000 **	Sellers	100	3.99	0.312	CAI-18	Buyers	100	1.22	0.689	02.67	33.001	0.000 **	Sellers	100	3.89	0.300	CAI-19	Buyers	100	3.49	0.501	01.05	50.331	0.040 *	Sellers	100	4.54	0.588																																																																																												
CAI-9	Buyers	100	3.51	0.499	0.82	41.943	0.522																																																																																																																																																																																																																																
	Sellers	100	4.33	0.522				CAI-10	Buyers	100	3.32	0.590	01.23	32.712	0.002 *	Sellers	100	4.55	0.512	CAI-11	Buyers	100	3.01	0.501	01.62	32.119	0.049 *	Sellers	100	4.63	0.543	CAI-12	Buyers	100	3.77	0.522	0.99	50.834	0.821	Sellers	100	4.76	0.503	CAI-13	Buyers	100	3.90	0.590	0.87	49.712	0.621	Sellers	100	4.77	0.500	CAI-14	Buyers	100	1.24	0.671	01.77	48.332	0.410 *	Sellers	100	3.01	0.301	CAI-15	Buyers	100	3.44	0.511	0.58	51.881	0.698	Sellers	100	4.02	0.501	CAI-16	Buyers	100	3.45	0.534	0.76	53.231	0.620	Sellers	100	4.21	0.500	CAI-17	Buyers	100	1.98	0.601	02.01	32.761	0.000 **	Sellers	100	3.99	0.312	CAI-18	Buyers	100	1.22	0.689	02.67	33.001	0.000 **	Sellers	100	3.89	0.300	CAI-19	Buyers	100	3.49	0.501	01.05	50.331	0.040 *	Sellers	100	4.54	0.588																																																																																																								
CAI-10	Buyers	100	3.32	0.590	01.23	32.712	0.002 *																																																																																																																																																																																																																																
	Sellers	100	4.55	0.512				CAI-11	Buyers	100	3.01	0.501	01.62	32.119	0.049 *	Sellers	100	4.63	0.543	CAI-12	Buyers	100	3.77	0.522	0.99	50.834	0.821	Sellers	100	4.76	0.503	CAI-13	Buyers	100	3.90	0.590	0.87	49.712	0.621	Sellers	100	4.77	0.500	CAI-14	Buyers	100	1.24	0.671	01.77	48.332	0.410 *	Sellers	100	3.01	0.301	CAI-15	Buyers	100	3.44	0.511	0.58	51.881	0.698	Sellers	100	4.02	0.501	CAI-16	Buyers	100	3.45	0.534	0.76	53.231	0.620	Sellers	100	4.21	0.500	CAI-17	Buyers	100	1.98	0.601	02.01	32.761	0.000 **	Sellers	100	3.99	0.312	CAI-18	Buyers	100	1.22	0.689	02.67	33.001	0.000 **	Sellers	100	3.89	0.300	CAI-19	Buyers	100	3.49	0.501	01.05	50.331	0.040 *	Sellers	100	4.54	0.588																																																																																																																				
CAI-11	Buyers	100	3.01	0.501	01.62	32.119	0.049 *																																																																																																																																																																																																																																
	Sellers	100	4.63	0.543				CAI-12	Buyers	100	3.77	0.522	0.99	50.834	0.821	Sellers	100	4.76	0.503	CAI-13	Buyers	100	3.90	0.590	0.87	49.712	0.621	Sellers	100	4.77	0.500	CAI-14	Buyers	100	1.24	0.671	01.77	48.332	0.410 *	Sellers	100	3.01	0.301	CAI-15	Buyers	100	3.44	0.511	0.58	51.881	0.698	Sellers	100	4.02	0.501	CAI-16	Buyers	100	3.45	0.534	0.76	53.231	0.620	Sellers	100	4.21	0.500	CAI-17	Buyers	100	1.98	0.601	02.01	32.761	0.000 **	Sellers	100	3.99	0.312	CAI-18	Buyers	100	1.22	0.689	02.67	33.001	0.000 **	Sellers	100	3.89	0.300	CAI-19	Buyers	100	3.49	0.501	01.05	50.331	0.040 *	Sellers	100	4.54	0.588																																																																																																																																
CAI-12	Buyers	100	3.77	0.522	0.99	50.834	0.821																																																																																																																																																																																																																																
	Sellers	100	4.76	0.503				CAI-13	Buyers	100	3.90	0.590	0.87	49.712	0.621	Sellers	100	4.77	0.500	CAI-14	Buyers	100	1.24	0.671	01.77	48.332	0.410 *	Sellers	100	3.01	0.301	CAI-15	Buyers	100	3.44	0.511	0.58	51.881	0.698	Sellers	100	4.02	0.501	CAI-16	Buyers	100	3.45	0.534	0.76	53.231	0.620	Sellers	100	4.21	0.500	CAI-17	Buyers	100	1.98	0.601	02.01	32.761	0.000 **	Sellers	100	3.99	0.312	CAI-18	Buyers	100	1.22	0.689	02.67	33.001	0.000 **	Sellers	100	3.89	0.300	CAI-19	Buyers	100	3.49	0.501	01.05	50.331	0.040 *	Sellers	100	4.54	0.588																																																																																																																																												
CAI-13	Buyers	100	3.90	0.590	0.87	49.712	0.621																																																																																																																																																																																																																																
	Sellers	100	4.77	0.500				CAI-14	Buyers	100	1.24	0.671	01.77	48.332	0.410 *	Sellers	100	3.01	0.301	CAI-15	Buyers	100	3.44	0.511	0.58	51.881	0.698	Sellers	100	4.02	0.501	CAI-16	Buyers	100	3.45	0.534	0.76	53.231	0.620	Sellers	100	4.21	0.500	CAI-17	Buyers	100	1.98	0.601	02.01	32.761	0.000 **	Sellers	100	3.99	0.312	CAI-18	Buyers	100	1.22	0.689	02.67	33.001	0.000 **	Sellers	100	3.89	0.300	CAI-19	Buyers	100	3.49	0.501	01.05	50.331	0.040 *	Sellers	100	4.54	0.588																																																																																																																																																								
CAI-14	Buyers	100	1.24	0.671	01.77	48.332	0.410 *																																																																																																																																																																																																																																
	Sellers	100	3.01	0.301				CAI-15	Buyers	100	3.44	0.511	0.58	51.881	0.698	Sellers	100	4.02	0.501	CAI-16	Buyers	100	3.45	0.534	0.76	53.231	0.620	Sellers	100	4.21	0.500	CAI-17	Buyers	100	1.98	0.601	02.01	32.761	0.000 **	Sellers	100	3.99	0.312	CAI-18	Buyers	100	1.22	0.689	02.67	33.001	0.000 **	Sellers	100	3.89	0.300	CAI-19	Buyers	100	3.49	0.501	01.05	50.331	0.040 *	Sellers	100	4.54	0.588																																																																																																																																																																				
CAI-15	Buyers	100	3.44	0.511	0.58	51.881	0.698																																																																																																																																																																																																																																
	Sellers	100	4.02	0.501				CAI-16	Buyers	100	3.45	0.534	0.76	53.231	0.620	Sellers	100	4.21	0.500	CAI-17	Buyers	100	1.98	0.601	02.01	32.761	0.000 **	Sellers	100	3.99	0.312	CAI-18	Buyers	100	1.22	0.689	02.67	33.001	0.000 **	Sellers	100	3.89	0.300	CAI-19	Buyers	100	3.49	0.501	01.05	50.331	0.040 *	Sellers	100	4.54	0.588																																																																																																																																																																																
CAI-16	Buyers	100	3.45	0.534	0.76	53.231	0.620																																																																																																																																																																																																																																
	Sellers	100	4.21	0.500				CAI-17	Buyers	100	1.98	0.601	02.01	32.761	0.000 **	Sellers	100	3.99	0.312	CAI-18	Buyers	100	1.22	0.689	02.67	33.001	0.000 **	Sellers	100	3.89	0.300	CAI-19	Buyers	100	3.49	0.501	01.05	50.331	0.040 *	Sellers	100	4.54	0.588																																																																																																																																																																																												
CAI-17	Buyers	100	1.98	0.601	02.01	32.761	0.000 **																																																																																																																																																																																																																																
	Sellers	100	3.99	0.312				CAI-18	Buyers	100	1.22	0.689	02.67	33.001	0.000 **	Sellers	100	3.89	0.300	CAI-19	Buyers	100	3.49	0.501	01.05	50.331	0.040 *	Sellers	100	4.54	0.588																																																																																																																																																																																																								
CAI-18	Buyers	100	1.22	0.689	02.67	33.001	0.000 **																																																																																																																																																																																																																																
	Sellers	100	3.89	0.300				CAI-19	Buyers	100	3.49	0.501	01.05	50.331	0.040 *	Sellers	100	4.54	0.588																																																																																																																																																																																																																				
CAI-19	Buyers	100	3.49	0.501	01.05	50.331	0.040 *																																																																																																																																																																																																																																
	Sellers	100	4.54	0.588																																																																																																																																																																																																																																			

\*\* , \* 0.01 and 0.05 level of significance of primary data. Source: researchers' calculations.

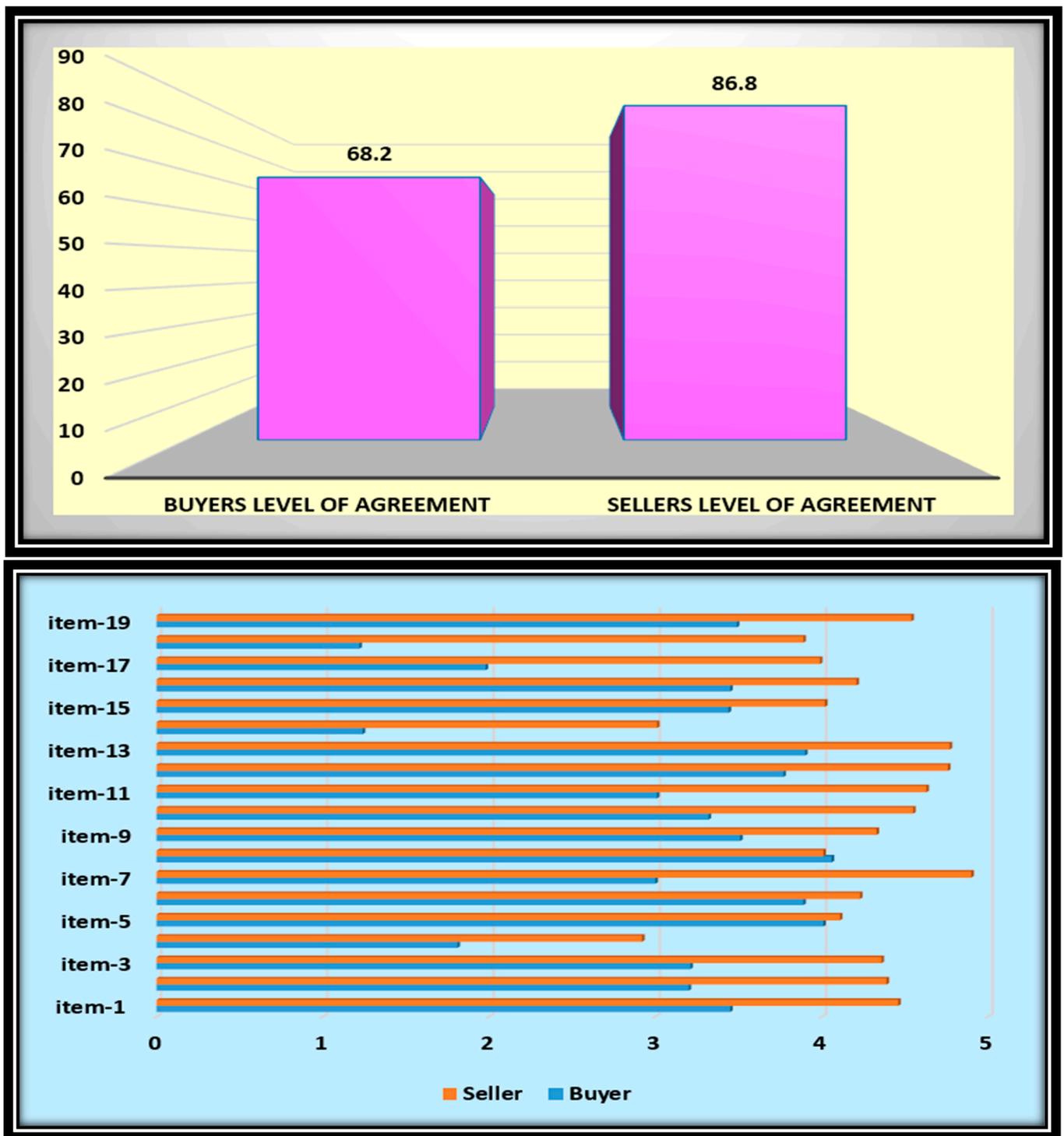


Figure 4. Buyers’ and sellers’ levels of agreement with the competitive advantages of Sualkuchi silk products. Source: researchers’ calculations.

### 6. Conclusions and Discussion

After investigating the sustainable competitive advantages of Sualkuchi silk products from buyers’ and sellers’ points of view, we comprehensively concluded that Sualkuchi silk products are unique, varied, and durable; and specifically have a high quality and brand value and are customer-oriented. These findings of the present research were in line with those of Tiwari et al. [55] and Gupta, Tiwari, and Voda [56]. Their studies highlighted the different components of sustainable competitive advantages such as site protection,

stress management, use of competitive intensity, social impact of the indigenous products, complete and comprehensive developmental control, community participation and waste management, planning and promotional processes, critical ecosystems, customer and local satisfaction, economic contributions, and unique and varied products according to the needs, wants, and desires of the buyers. Furthermore, in order to handle the increasing costs of production and of switching to more modern products and production methods, silk enterprises need to focus on local products and policies. For the large-scale production and expansion of silk factories, weaving and reeling machines are available in the market. These machines and methods are able to improve the durability, accessibility, and quality of indigenous products. On the other hand, labor shortages are still a standard issue across all the Sualkuchi silk industries; therefore, the indigenous silk of Assam is being replaced by imported silk. In this context, Assam silk companies are encountering market competition through cheaper silk yarns and fabrics and more competitive advantages.

Moreover, the present study suggested that Sualkuchi silk products enjoy very high sustainable competitive advantages among other similar products in India and the world. In accordance with the independent variables of product uniqueness, customised product, competition, product quality, product placement, friendliness of sellers, distribution channels, technological advancement, online purchase and home delivery; and the dependent variables of competitor's price, customer base, brand loyalty, product price, product location, product durability, product differentiation, geographical indication, and on-time delivery, Sualkuchi silk products are gaining significant and sustainable competitive advantages as compared to other similar products in India and the world. The same was advocated by Kumar [56] in his work related to pro-poor and community development with the help of indigenous resources and products. His findings documented the following strategies for sustainable competitive advantages and pro-poor development: promoting people participation; expanding employment opportunities for the poor and local communities; addressing the social, economic, and environmental impacts of Sualkuchi silk products; expanding business and community participation opportunities; enhancing collective benefits via the integration of buyers and sellers; and designing of more supportive policies and planning frameworks for sellers and buyers. Additionally, due to the favourable and sustainable competitive advantages of Assam silk, a significant increase in the share of sales has been witnessed by modern distribution networks and the differentiation advantage of quality as compared to other silk products in India. Previously, tourists bought different silk products from India and wove and spun the silk using their own hands due to the unique quality and durability of Indian (especially Assam) silk [57,58]. However, in modern times, tourists want to purchase readymade and well-furnished silk products that have competitive costs [59]. Therefore, regarding most of the items and variables related to the sustainable competitive advantages of Sualkuchi silk products, both buyers and sellers had similar agreements (except those that favoured buyers and sellers individually such as price, promotion, location, brand loyalty, customer coverage, distribution system, etc.). The Assam silk industry should leverage the important factors that are considered to be competitive advantages by both sellers and buyers. The industry should devise strategies with a focus on these factors in order to weather the competition from several competitors and grow its business further.

## 7. Implications and Recommendations

This study examined the sustainable competitive advantages that are enjoyed by Assam silk products from the perspectives of two important stakeholders; i.e., sellers and buyers. This study was the first to analyse the sustainable competitive advantages of Assam silk, which plays a significant role in the economy of India. This study is a valuable addition to the existing literature and will provide immense benefits to the Assam silk industry as well as various stakeholders in order to sustain the age-old industry. Assam silk products are enjoying sustainable competitive advantages on various fronts such as product quality, authenticity, using silk mark and trademark certification, product innovativeness,

brand value, economic, heritage, rural tourism, and many more, but still there is need for immediate inventions and implications by sellers, local vendors, stakeholders, and government bodies in branding and promotion (at both domestic and international levels), supply chain management, distribution channels, technological advancement, pricing policies, research and development, feedback systems, and customer satisfaction; with regard to these attributes, Sualkuchi silk products are failing to gain sustainable competitive advantages as compared to other similar silk products of India and the world. Moreover, the present study provided frameworks (theoretical and conceptual) that can be used in future research related to sustainable competitive advantages.

Furthermore, in the context of the local people, the government needs to introduce some short-term courses that provide certificates and diplomas related to the weaving of Sualkuchi silk products in order to develop skills and attract local weavers. Such initiatives by the government for the local residents of Assam, India, can attract the new generation to weaving in order to broaden the weaver base in Sualkuchi. Government support of the product quality and easy exporting of Sualkuchi silk products directly in foreign markets can expand the market base and outreach of the indigenous products, and weavers can profitably sustain the indigenous silk industry. A Partnerships between Sualkuchi silk product manufacturers and weavers would significantly help to maintain sustainable competitive advantages. They can also join with reputed fashion designers around the globe to bring the Assam bridal and silk products to the entire world by highlighting the health benefits, product origination history, and processes. Local and central government support for well-functioning silk farms will maintain the sustainable competition in the market, and using modern scientific methods of production to produce rawer silk can lower the silk price. The government must establish the market selling price (MRP) for silk products based on the product type and material used so that suppliers cannot charge higher prices for original and blended silk products. Assam is in the northeastern area of India, where the geopolitical risks and financial stability also need to be maintained for the futuristic development of Sualkuchi silk and the encountering of competitive advantages [60]. The sellers and buyers who participated in this research are the legal and moral stakeholders for the planning, promotion, and establishment of the competitive advantages of the industry and its products. Sualkuchi handlooms are more comfortable, durable, trendy, and fashionable; have a high quality; and produce unique designs. Therefore, strong marketing and promotional strategies are needed to advocate for the modern generation with customised ready-to-wear products, hassle-free online payments, and both online and offline distribution that covers all local, national, and international customers and tourists by briefing them on the production process, health benefits, and durability.

Moreover, green technology innovations, green energy, and green investments play a crucial role in the sustainable development of Sualkuchi silk products across India and the world [61,62]. Additionally, active engagement and coordination between the state government of Assam and stakeholders of Sualkuchi will bring about an awareness of Sualkuchi's trademark, national and international promotion, social media marketing, and other promotional campaigns. This will help buyers and sellers to know and identify silk products, their purity tests, and their quality assurance labels, which will attract more customers toward purchasing Sualkuchi silk products. A video call that showcases products and a try-at-home service can be added to broaden the market base as per the customer convenience of time and place. Product expansion and diversification can attract new customers to the industry. Cost-effective designer wares and varied fashion-friendly outfits can hit the market. All alternative silk-like fabrics should be banned to make the original silk stand out in the market. While focusing on silk's royal value and maintaining its unique qualities and designs in this era of competition, sellers should take the maximum advantage of social media and the internet to promote their products to attain global recognition. Franchises are being granted, and silk marts are opening in different states and countries. The government should help to increase silkworm production by using the latest scientific technology in the entire process. In the past, Sualkuchi silk became an

important tourism product for visitors from India and the rest of the world. Therefore, travel agents, tour operators, and tourism boards must include Sualkuchi silk products in their travel itineraries and market them domestically and internationally [63]. Adding Sualkuchi and its silk products as part of community-based tourism and pro-poor tourism is also a novel idea.

## 8. Limitations and Future Direction of Research

The present study was limited to the sustainable competitive advantages of Assam silk products manufactured in the Sualkuchi area of Assam from the viewpoints of buyers (N = 100) and sellers (N = 100) under 19 selected standardised, reliable, valid, and most significant variables. Further studies could be conducted in other areas of India and the world on the sustainable competitive advantages of silk or any other indigenous products from other stakeholders' points of view by using a greater or fewer number of variables and a larger or smaller sample size. Future research can also use the proposed variables investigated in the present research work (independent: product uniqueness, customised product, competition, product quality, product placement, friendliness of sellers, distribution channels, technological advancement, and online purchase and home delivery; and dependent: competitor's price, customer base, brand loyalty, product price, product location, product durability, product differentiation, geographical indication, and on-time delivery). All of the above variables were tested in the context of the sustainable competitive advantage, which can provide theoretical and conceptual grounding for future studies related to competitive advantages. The study was confined to the silk products manufactured in Sualkuchi, Assam. This was a survey-based study in which both buyers and sellers of Assam silk products) participated as respondents, so the responses that they entered may have been self-biased, or they may have been in hurry to fill out their responses and failed to comprehend the questions. Our study investigated the sustainable competitive advantages of Sualkuchi silk products in Assam, India, from the viewpoints of both buyers and sellers, whereas future studies can include either buyers or sellers separately when conducting similar research.

**Author Contributions:** S.T.: Conceptualization, Methodology, Software, and Investigation; J.R.-S.: Validation, Formal analysis, and Funding acquisition; D.B.: Data curation, Writing—original draft; S.L.S.A.: Writing—review and editing; B.T.A.: Visualization and Supervision. All authors have read and agreed to the published version of the manuscript.

**Funding:** This research received no external funding.

**Conflicts of Interest:** The authors declare no potential conflict of interest.

## Appendix A. Survey questionnaire of Competitive Advantages of Sualkuchi Silk Products

**Table A1.** Buyers' and Sellers' Responses.

Item No.	Silk Products Attributes Variables and Items Related to Competitive Advantages of Sualkuchi Silk Products	Level of Agreement Please Tick (✓)				
		VL	L	M	H	VH
1.	All the silk products manufactured in Sualkuchi, are unique and specific.	1	2	3	4	5
2.	The Silk products are designed as per the buyer's needs, wants and desires in Sualkuchi silk factories.	1	2	3	4	5
3.	Competitive artificial silk products are taking advantage of high competition among Sualkuchi manufactured Silk products in the silk market of Assam.	1	2	3	4	5
4.	The Sualkuchi manufactured Silk products have higher prices as compared to competitive artificial silk products, which distinguishes them from its competitors.	1	2	3	4	5
5.	The silk products manufactured in Sualkuchi have more customers as compare to the competitive artificial silk products which distinguishes them from its competitors	1	2	3	4	5
6.	The silk products manufactured in Sualkuchi have a high level of brand loyalty as compared to competitive artificial silk products which distinguishes them from its competitors.	1	2	3	4	5

Table A1. Cont.

Silk Products Attributes		Level of Agreement Please Tick (✓)				
Item No.	Variables and Items Related to Competitive Advantages of Sualkuchi Silk Products	VL	L	M	H	VH
7.	Product quality works as a competitive advantage in favour of Silk products manufactured in Sualkuchi.	1	2	3	4	5
8.	Product price works as a competitive advantage in favour of Silk products manufactured in Sualkuchi.	1	2	3	4	5
9.	Product location works as a competitive advantage in favour of Silk products manufactured in Sualkuchi.	1	2	3	4	5
10.	Product placement works as a competitive advantage in favour of Silk products manufactured in Sualkuchi.	1	2	3	4	5
11.	Friendliness of sellers works as a competitive advantage in favour of Silk products manufactured in Sualkuchi.	1	2	3	4	5
12.	Product durability works as competitive advantage in favour of Silk products manufactured in Sualkuchi	1	2	3	4	5
13.	Product differentiation works as a competitive advantage in favour of Silk products manufactured in Sualkuchi.	1	2	3	4	5
14.	Product distribution channel works as a competitive advantage in favour of Silk products manufactured in Sualkuchi.	1	2	3	4	5
15.	Product geographical indication works as a competitive advantage in favour of Silk products manufactured in Sualkuchi.	1	2	3	4	5
16.	Product ordered timely delivery works as a competitive advantage in favour of Silk products manufactured in Sualkuchi.	1	2	3	4	5
17.	Product technology protection works as competitive advantage in favour of Silk products manufactured in Sualkuchi	1	2	3	4	5
18.	Online purchase & home delivery of Sualkuchi manufactured silk products works as a competitive advantage for the stakeholders.	1	2	3	4	5
19.	All the Silk products manufactured in Sualkuchi have been enjoying the competitive advantage in Assam & other states.	1	2	3	4	5

## References

- Hoffman, N.P. An examination of the “sustainable competitive advantage” concept: Past, present, and future. *Acad. Mark. Sci. Rev.* **2000**, *4*, 1–16.
- Alderson, W. *Dynamic Marketing Behavior*; R.D. Irwin: Homewood, IL, USA, 1965; p. 84.
- Hamel, G.; Doz, Y.L.; Prahalad, C.K. Collaborate with your competitors and win. *Harv. Bus. Rev.* **1989**, *67*, 133–139.
- Dickson, P.R. Toward a general theory of competitive rationality. *J. Mark.* **1992**, *56*, 69–83. [\[CrossRef\]](#)
- Porter, M.E. *Competitive Strategy, Techniques for Analyzing Industries and Competitors*; Free Press: New York, NY, USA, 1980.
- Henderson, B.D. The Anatomy of Competition. *J. Mark.* **1983**, *47*, 7–11. [\[CrossRef\]](#)
- Jiang, G.; Kotabe, M.; Zhang, F.; Hao, A.W.; Paul, J.; Wang, C.L. The determinants and performance of early internationalizing firms: A literature review and research agenda. *Int. Bus. Rev.* **1983**, *29*, 101662. [\[CrossRef\]](#)
- Porter, M.E.; Advantage, C. Creating and sustaining superior performance. *Compet. Advant.* **1985**, *167*, 167–206.
- Czepiel, J.A. *Competitive Marketing Strategy*; Prentice Hall: Englewood Cliffs, NJ, USA, 1992; p. 50.
- Bobillo, A.M.; López-Iturriaga, F.; Tejerina-Gaite, F. Firm performance and international diversification: The internal and external competitive advantages. *Int. Bus. Rev.* **2010**, *19*, 607–618. [\[CrossRef\]](#)
- McGinnis, M.A.; Vallorpa, R.M. Purchasing and Supplier Involvement: Issues and Insights Regarding New Product Success. *J. Supply Chain. Manag.* **1999**, *35*, 4–15. [\[CrossRef\]](#)
- Goswami, D.; Rabha, B.; Veer, V. Muga Silk-The Golden Thread of Assam. In *Bioprospecting of Indigenous Bioresources of North-East India*; Springer: Singapore, 2016; pp. 279–294.
- Aggarwal, A.; Sharma, A.; Tripathi, A.; Wadhawan, A.; Chongtham, E.; Gupta, H.; Bhardwaj, R. Static or Dynamic-The Analysis of Handloom Industry of Assam. *DU. J. Undergrad. Res. Innov.* **2016**, *1*, 1–19.
- Mahan, B. Silk industry among the Tai-Ahom of Assam 2015, India as an attraction of tourist. *Int. J. Sci. Res. Publ.* **2012**, *2*, 1–4.
- Horindra, G.; Trishnalee, S. Labour utilization pattern in handloom silk weaving in Assam under co-operative and nonco-operative coverage. *Agric. Update* **2014**, *9*, 145–148.
- Hall, W.K. Survival Strategies in a Hostile Environment. *Harv. Bus. Rev.* **1980**, *58*, 75–85.
- Knego, N.; Petljak, K.; Vouk, R.; Kennedy, T.J. Location and Layout as Sources of Competitive Advantage of Small Retailers. *Econ. Bus.* **1980**, *8*, 267–281.
- Baruah Assam silk market: Problems & Probable solutions. *Int. J. Innov. Res. Sci. Technol.* **2016**, *5*, 138–142.
- Jain, J.; Ratan, A. Developing a conceptual model to sustain handloom silk industry at Sualkuchi, Assam, India. *Eur. J. Sustain. Dev.* **2017**, *6*, 413–422. [\[CrossRef\]](#)

20. Akhtar, N. Livelihood Vulnerability and Coping Mechanism among the Silk Weavers of Sualkuchi, Assam. *Int. J. Soc. Sci. Econ. Res.* **2019**, *4*, 2959–2972.
21. Coyne, K.P. Sustainable competitive advantage—What it is, what it isn't. *Bus. Horiz.* **1986**, *29*, 54–61. [[CrossRef](#)]
22. Mappigau, P. Core competence and sustainable competitive advantage of small silk weaving industries (sis) in wajo district, South Sulawesi. *Procedia Econ. Financ.* **2012**, *4*, 160–167. [[CrossRef](#)]
23. Arslan, I.K. The importance of creating customer loyalty in achieving sustainable competitive advantage. *Eurasian J. Bus. Manag.* **2020**, *8*, 11–20. [[CrossRef](#)]
24. Memon, H.; Ranathunga, G.M.; Karunaratne, V.M.; Wijayapala, S.; Niles, N. Sustainable Textiles in the Past “Wisdom of the Past: Inherited Weaving Techniques Are the Pillars of Sustainability in the Handloom Textile Sector of Sri Lanka”. *Sustainability* **2022**, *14*, 9439. [[CrossRef](#)]
25. Mulyanto, A.; Jatmiko, W.; Mursanto, P.; Prasetyawan, P.; Borman, R.I. A New Indonesian Traffic Obstacle Dataset and Performance Evaluation of YOLOv4 for ADAS. *J. ICT Res. Appl.* **2021**, *14*, 285–298. [[CrossRef](#)]
26. Hatch, N.W.; Dyer, J.H. Human capital and learning as a source of sustainable competitive advantage. *Strateg. Manag. J.* **2004**, *25*, 1155–1178. [[CrossRef](#)]
27. Wanniarachchi, T.; Dissanayake, K.; Downs, C. Improving sustainability and encouraging innovation in traditional craft sectors: The case of the Sri Lankan handloom industry. *Res. J. Text. Appar.* **2020**, *24*, 111–130. [[CrossRef](#)]
28. Trehan, D.; Sinha, P. Sangisathi: Reimagining a sustainable future for handloom in India. *J. Public Aff.* **2020**, *20*, 1–6. [[CrossRef](#)]
29. Goswami, R.; Jain, R. Strategy for sustainable development of handloom industry. *Glob. J. Financ. Manag.* **2014**, *6*, 93–98.
30. Mishra, S.S.; Mohapatra, A.D. Sustainability of Handloom: A Review. *Ilkog. Online Elem. Educ. Online* **2020**, *19*, 1923–1940.
31. Singh, S.; Srivastava, S. External Factors Affecting Indian Hand loom Industry: A Paradigm Shift. *Int. J. Bus. Insights Transform.* **2018**, *12*, 33–41.
32. Bonetto, P.; Hofmann, B.; Prause, G. Rise and fall of the Lyon silk cluster: A case study about entrepreneurial sustainability. *Entrep. Sustain. Issues* **2014**, *2*, 1. [[CrossRef](#)]
33. Aaker, D.A. Managing assets and skills: The key to a sustainable competitive advantage. *Calif. Manag. Rev.* **1989**, *31*, 91–106. [[CrossRef](#)]
34. Srivastava, M.; Franklin, A.; Martinette, L. Building a sustainable competitive advantage. *J. Technol. Manag. Innov.* **2013**, *8*, 47–60. [[CrossRef](#)]
35. Clemons, E.K. Information systems for sustainable competitive advantage. *Inf. Manag.* **1986**, *11*, 131–136. [[CrossRef](#)]
36. Huang, K.F.; Dyerson, R.; Wu, L.Y.; Harindranath, G. From temporary competitive advantage to sustainable competitive advantage. *Br. J. Manag.* **2015**, *26*, 617–636. [[CrossRef](#)]
37. Kuncoro, W.; Suriani, W.O. Achieving sustainable competitive advantage through product innovation and market driving. *Asia Pac. Manag. Rev.* **2018**, *23*, 186–192. [[CrossRef](#)]
38. Bharadwaj, S.G.; Varadarajan, P.R.; Fahy, J. Sustainable competitive advantage in service industries: A conceptual model and research propositions. *J. Mark.* **1993**, *57*, 83–99. [[CrossRef](#)]
39. Morgan, N.A.; Piercy, N.F. Competitive advantage, quality strategy and the role of marketing. *Br. J. Manag.* **1996**, *7*, 231–245. [[CrossRef](#)]
40. Ismail, A.I.; Rose, R.C.; Abdullah, H.; Uli, J. The relationship between organizational competitive advantage and performance moderated by the age and size of firms. *Asian Acad. Manag. J.* **2010**, *15*, 157–173.
41. Vanathi, R.; Swamynathan, R. Competitive advantage through supply chain collaboration—an empirical study of the Indian textile industry. *Fibres Text. East. Eur.* **2014**, *22*, 8–13.
42. Mwanza, P.; Ingari, B. Strategic role of distribution as a source of competitive advantage in fast-moving consumer goods in Kenya. *Int. J. Sci. Res. Publ.* **2015**, *5*, 54–67.
43. Dogan, B.; Gokovali, U. Geographical indications: The aspects of rural development and marketing through the traditional products. *Procedia-Soc. Behav. Sci.* **2012**, *62*, 761–765. [[CrossRef](#)]
44. Lee, H.; Smith, K.G.; Grimm, C.M.; Schomburg, A. Timing, order and durability of new product advantages with imitation. *Strateg. Manag. J.* **2000**, *21*, 23–30. [[CrossRef](#)]
45. Dutta, B.M.; Saikia, B. Economics of Muga Rearing. *Glob. J. Res. Manag.* **2013**, *3*, 32.
46. Castillo, C.; Mendoza, M.; Poblete, B. Information credibility on twitter. In Proceedings of the 20th International Conference on World Wide Web, Hyderabad, India, 28 March–1 April 2011; pp. 675–684.
47. Peteraf, M.A. The cornerstones of competitive advantage: A resource-based view. *Strateg. Manag. J.* **1993**, *14*, 179–191. [[CrossRef](#)]
48. Barney, J. Firm resources and sustained competitive advantage. *J. Manag.* **1991**, *17*, 99–120. [[CrossRef](#)]
49. Kaiser, H.F. An index of factorial simplicity. *Psychometrika* **1974**, *39*, 31–36. [[CrossRef](#)]
50. Hinson, R.E.; Abdul-Hamid, I.K.; Osabutey, E.L.C. Investigating market orientation and positioning in star rated hotels in Ghana. *Int. J. Contemp. Hosp. Manag.* **2017**, *29*, 2629–2646. [[CrossRef](#)]
51. Yadav, S.K.; Tripathi, V.; Goel, G. Mediating effect of innovation with market orientation and performance relationship. *Manag. Res. J. Iberoam. Acad. Manag.* **2019**, *17*, 152–167. [[CrossRef](#)]
52. Narver, J.C.; Slater, S.F. The effect of a market orientation on business profitability. *J. Mark.* **1990**, *54*, 20–35. [[CrossRef](#)]
53. Nuryakin. Competitive Advantage and Product Innovation: Key Success of Batik Smes Marketing Performance in Indonesia. *Acad. Strateg. Manag. J.* **2018**, *17*, 1–17.

54. Kohli, A.K.; Jaworski, B.J. Market-orientation: The construct, research propositions, and managerial implications. *J. Mark.* **1990**, *54*, 1–18. [[CrossRef](#)]
55. Tiwari, S.; Tomczewska-Popowycz, N.; Gupta, S.K.; Swart, M.P. Local Community Satisfaction toward Tourism Development in Pushkar Region of Rajasthan, India. *Sustainability* **2021**, *13*, 13468. [[CrossRef](#)]
56. Gupta, S.K.; Tiwari, S.; Voda, M. Stakeholders' satisfaction Towards Sustainable Tourism Development in Pushkar Region of Rajasthan. *Geogr. Tech.* **2021**, *16*, 87–96. [[CrossRef](#)]
57. Kumar, S. Implementing Sustainable Tourism as a Pro-Poor and Community Development Approach. *J. Tour. Q.* **2019**, *1*, 78–82.
58. Tiwari, S.; Rosak-Szyrocka, J.; Żywiłtek, J. Internet of Things as a Sustainable Energy Management Solution at Tourism Destinations in India. *Energies* **2022**, *15*, 2433. [[CrossRef](#)]
59. Mohanty, P.P.; Mishra, N.R.; Tiwari, S. Local people's attitude and perception towards eco tourism development: Empirical evidence from india. *J. Bus. Hosp. Tour.* **2021**, *7*, 363–376. [[CrossRef](#)]
60. Shahzad, U.; Mohammed, K.S.; Tiwari, S.; Nakonieczny, J.; Nesterowicz, R. Connectedness between geopolitical risk, financial instability indices and precious metals markets: Novel findings from Russia Ukraine conflict perspective. *Resour. Policy* **2023**, *80*, 103190. [[CrossRef](#)]
61. Sharif, A.; Kocak, S.; Khan, H.H.A.; Uzuner, G.; Tiwari, S. Demystifying the links between green technology innovation, economic growth, and environmental tax in ASEAN-6 countries: The dynamic role of green energy and green investment. *Gondwana Res.* **2023**, *115*, 98–106. [[CrossRef](#)]
62. Kumar, S.K.; Sunil, T. A system dynamics approach for tourism destinations waste and environmental management as an integral part of sustainable tourism development. *J. Emerg. Techn. Innov. Res* **2019**, *6*, 194–198.
63. Mohanty, P.P.; Tiwari, S.; Balakrishnan Nair, B. Analysing Food Innovation Drivers: Chefs' Perspectives. *J. Culin. Sci. Technol.* **2022**, 1–18. [[CrossRef](#)]

**Disclaimer/Publisher's Note:** The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of MDPI and/or the editor(s). MDPI and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.