Research Article

Factors Affecting Competitive Advantages of Agricultural Export Business

ปัจจัยที่ส่งผลต่อความได้เปรียบทางการแข่งขันของธุรกิจส่งออกสินค้าเกษตร

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Abstract

Agricultural exports are one of the businesses that is important to national economy. However, high competition has decreased the number of exports. The purpose of this qualitative and quantitative study was to measure competitive advantage of agricultural export business and (2) to examine the factors affecting competitive advantage of agricultural export business. The data were collected from 400 entrepreneurs in the agricultural exporting business. This SEM was analyzed to examine the influences of organization leadership, business network and digital transformation on competitive advantage.

The structural equation model was in accordance with the evaluation criteria and was consistent with the empirical data. The chi-squared probability was 0.313 (p-value = 0.313), the relative chi-square was 1.050 (CMIN/DF = 1.050), the conformity index was 0.959 (GFI = 0.959), and the root mean square value of the error estimation was 0.011 (RMSEA = 0.011), with a statistical significance of 0.001. The results of factors affecting competitive advantage of the agricultural exporting business showed that organizational leadership had the most direct influence on business network with an influence weight of 0.80, digital transformation had a direct influence on competitive advantage with an influence weight of 0.56, business network had a direct influence on digital transformation with an influence weight of 0.54, organizational leadership had a direct influence

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on digital transformation with an influence weight of 0.48, respectively. The results of this model can be used as a guideline to increase sustainable competitive advantages and develop the business, which would benefit Thai farmers and help them to overcome difficulties in the midst of the economic crises.

Keywords: *Competitive Advantage, Agricultural Exports, Structural Equation Model*

บทคัดย่อ

การส่งออกสินค้าเกษตรกรรมเป็นหนึ่งในธุรกิจที่มีความสำคัญต่อระบบเศรษฐกิจของประเทศ ซึ่งปัจจุบันต้องประสบปัญหาด้านการแข่งขันซึ่งมีแน้วโน้มการส่งออกที่ลดลง การวิจัยนี้มีวัตถุประสงค์เพื่อศึกษาตัวแบบการสร้างความได้เปรียบทางการแข่งขันของภาคธุรกิจส่งออกสินค้าเกษตร ดำเนินการวิจัยทั้งเชิงคุณภาพและเชิงปริมาณ สำรวจข้อมูลเชิงปริมาณจากผู้ประกอบการในภาคธุรกิจส่งออกสินค้าเกษตร จำนวน 400 ราย โดยนำสมการโครงสร้างทำการวิเคราะห์เพื่อตรวจสอบอิทธิพลของความเป็นผู้นำองค์กร เครือข่ายธุรกิจ และการเปลี่ยนแปลงทางดิจิทัลที่มีต่อความได้เปรียบในการแข่งขัน

ผลการวิเคราะห์สมการโครงสร้างพบว่า ผ่านตามเกณฑ์การประเมินมีความสอดคล้องกลมกลืนกับข้อมูลเชิงประจักษ์ โดยมีค่าระดับความน่าจะเป็นของไคสแควร์เท่ากับ 0.313 (p-value = 0.313) ค่าไคสแควร์สัมพัทธ์เท่ากับ 1.050 (CMIN/DF = 1.050) ค่าดัชนีวัดระดับความสอดคล้องเท่ากับ 0.959 (GFI = 0.959) และค่าดัชนีรากของค่าเฉลี่ยกำลังสองของการประมาณค่าความคลาดเคลื่อนเท่ากับ 0.011 (RMSEA = 0.011) มีนัยสำคัญทางสถิติที่ 0.001 ผลการวิจัย ปัจจัยที่ส่งผลต่อความได้เปรียบในการแข่งขันของธุรกิจส่งออกสินค้าเกษตรพบว่า องค์ประกอบด้านผู้นำองค์กรส่งอิทธิพลทางตรงต่อองค์ประกอบด้านเครือข่ายทางธุรกิจมากที่สุดมีค่าน้ำหนักเส้นอิทธิพลที่ 0.80 รองลงมา คือ องค์ประกอบด้านการเปลี่ยนผ่านดิจิทัลส่งอิทธิพลทางตรงต่อองค์ประกอบด้านการสร้างความได้เปรียบทางการแข่งขันมีค่าน้ำหนักเส้นอิทธิพลที่ 0.56 องค์ประกอบด้านเครือข่ายทางธุรกิจส่งอิทธิพลทางตรงต่อองค์ประกอบด้านการเปลี่ยนผ่านดิจิทัลมีค่าน้ำหนักเส้นอิทธิพลที่ 0.54 องค์ประกอบด้านผู้นำองค์กรส่งอิทธิพลทางตรงต่อองค์ประกอบด้านการเปลี่ยนผ่านดิจิทัลมีค่าน้ำหนักเส้นอิทธิพลที่ 0.48 ตามลำดับ ผลการศึกษาเพื่อสร้างความได้เปรียบในการแข่งขันในภาคการส่งออกสินค้าเกษตรกรรมจะถูกใช้เป็นแนวทางในการพัฒนาภาคธุรกิจส่งออก ผลการวิจัยจะเป็นประโยชน์กับการเกษตรของไทย คือ สามารถปรับตัวและดำรงอยู่ท่ามกลางวิกฤตเศรษฐกิจเพื่อสร้างความได้เปรียบในการแข่งขันอย่างยั่งยืน

คำสำคัญ: *ความได้เปรียบทางการแข่งขัน การส่งออกสินค้าเกษตรกรรม ตัวแบบจำลองสมการโครงสร้าง*

Introduction

Thailand is a manufacturer and exporter of agricultural products from the past to the present. It has long been considered an important factor in creating economic value as a driving mechanism for the country's development. This is because Thailand is a country where most of the population is engaged in agriculture. It has the advantages of biodiversity, labor, and abundant raw materials. This readiness promotes Thailand to be one of the largest exporters of agricultural products in the world. The agro-exporting business is also linked to many other industries. With the economy as a whole, that is, when a production branch is produced, the related production sectors will also receive an increase in demand. If there is an increase in demand for agricultural products, raw materials to be sold or used to produce products have also increased. Businesses involved in the procurement of raw materials can be sold in larger quantities, more jobs, and more income for the upstream to downstream economy, which the supplier of raw materials, manufacturers and distributors of products involved in this system benefit broadly as a distribution of income in the overall economy. According to the 20-year national strategy 2018-2037, the government has formulated a strategy to increase national competitiveness for growth and stability with a

continuous economic expansion and development in all sectors. The government attaches great importance to the agricultural business to increase production productivity, technology adoption and innovation for differentiating products to both domestic and international markets. Production of goods and agricultural products with higher added value is a new type of agricultural product to support the needs of the new market. In order to create distinctive differences in Thai agricultural products in the world market and meet the needs of different consumers in different countries (Institute for International Trade Negotiations, 2021). Digital transformation and technology are developing rapidly. Communications or business operations are unrestricted. The rapid movement of capital, goods, and services and the dissemination of information have caused some Thai export business operators to adapt to changes. Therefore, it allows companies exporting foreign agricultural products to invest extensively. These companies are equipped with technologies, personnel readiness, and a strong business network (Thongyad, Sutthisai, & Chatreewisit, 2022).

From the problem of the global economic recession and increasing neighboring countries agricultural exports tendency, which affect to Thai agricultural export business, and they are unable to increase market share resulting in lack of opportunity, loss of income, loss of competitiveness in the world market, lead to lower export value.

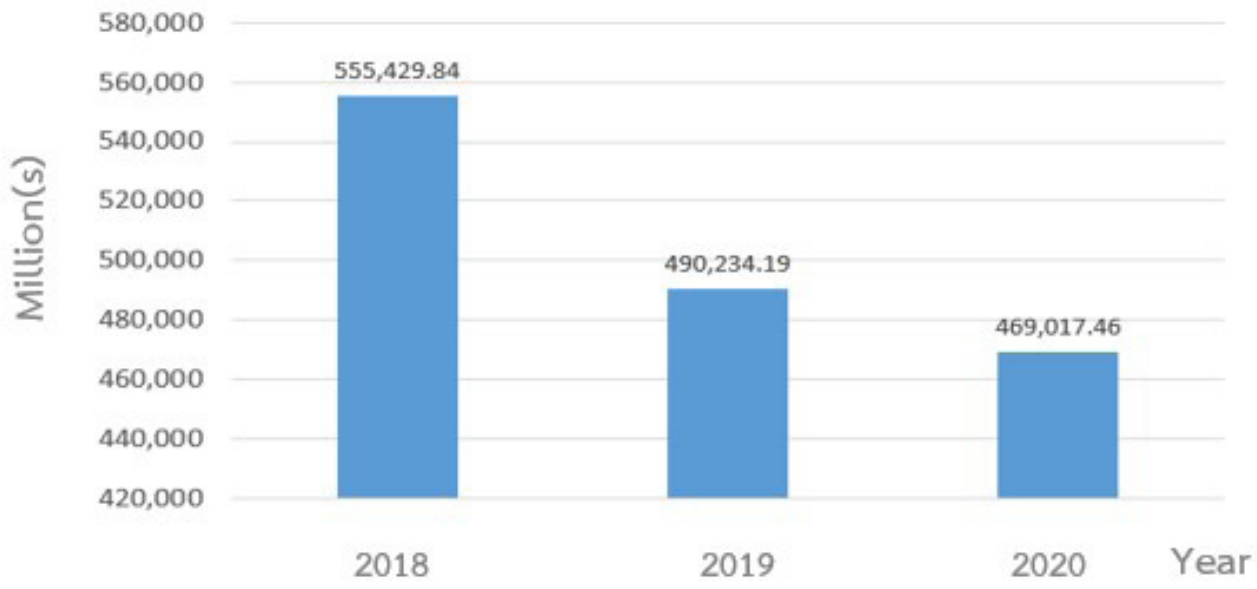

Figure 1 Agricultural product export value (million baht)
Sources: Information and Communication Technology Center (2021)

From figure 1, it can be seen that the export value of agricultural products from 2018-2020 has been continually decreasing, which in the year 2018 was valued at 555,429.84 million baht, in 2019, the value decreased by 490,234.19 million baht, and in the year 2020, the value decreased by 469,017.46 million baht (Information and Communication Technology Center, 2021). The value of agricultural exports decreased due to various factors mentioned above. It was inconsistent with the 20 years national strategy. The nation's strategic plan has set goals to drive the economy to grow with stability and sustainability. Therefore, the researchers are interested in factors affecting competitive advantages of agricultural export business. Furthermore, it provides guidelines for developing Thailand's agricultural export business to adapt and exist in the middle of the economic crisis. There are still no previous studies regarding competitive advantage of agricultural export business in the literature review section.

Research objectives

The objective of the study

(1) to measure competitive advantage of agricultural export business and

(2) to examine the factors affecting competitive advantage of agricultural export business.

Literature review

Competitive advantage

Competitive advantage is a complex category with multiple properties that should be considered from a systemic, comprehensive perspective. Therefore, the assessment system for competitive advantages should have the aggregate potential of economic structures (Markina et al., 2022; Muhandhis et al., 2021). Moreover, Kotler, and Pfoertsch (2007) stated that the component of competitive advantage has five kinds: product differentiation, service differentiation, personal differentiation, channel differentiation, and image differentiation. Markina et al. (2022) suggested that the impact of competitiveness components on the competitive advantages of agricultural and food companies in Ukraine provides an opportunity to confirm management decisions to increase their competitiveness.

Organizational leadership

For the business to exist, organizational leaders must understand, adapt, and properly take advantage of the opportunities created by changes in the business environment. The competitive environment of this new century has forced corporate leaders to rethink their strategies. Therefore, corporate leaders must have the ability to the SWOT analysis. It affects the ability to make decisions about implementing the planned actions that may arise from the environment or risks (Adair, 2010).

Digital transformation

Digital transformation strategies take different perspectives and achieve different goals from a business-centric perspective. These strategies focus on changing products, processes, and organizational aspects due to new technologies (Matt, Hess, & Benlian, 2015). The term 'digital transformation' first occurred in the past few years. This word refers to speed, development, and distribution of various digital technologies. In accordance with industry 4.0 platform, YouTube and Zoom have been mainly used to build resilience to global pandemics such as COVID-19, which call for social distancing and reducing the cost of conversational communications in agriculture (Benjamin & Foye, 2022). Moreover, digital transformation means a more comprehensive digital transformation experience than ever, transforming business processes and business models. However, customer relations and operations lead to devastating changes in every business structure (Klein, 2020). To streamline processes to increase customer quality, reduce costs, and increase

efficiency, resulting in a new kind of innovation, a new type of customer response, and a new service. Moreover, Leão, and da Silva (2021) found that the digital transformation positive affects the competitiveness of companies.

Business network

The incentives for creating and participating in strategic business networks in modern economical literature are considered from state and social standpoints and participating companies (Stadnyk et al., 2021). The concept of network space also has a practical impact. It represents the general view of business networks in the global economy as a structure that creates interdependence and the rapidity of continual changes (Törnroos, Halinen, & Medlin, 2017). Therefore, Hedvall (2020) identified that the business networks, suppliers and buyers interact, like other performers, to set the stage for discussion on the meaning of company interconnectivity and interaction. Information and communications technology (ICT), such as remote control of farm conditions, and remote monitoring of farm equipment via smartphone applications, can be further utilized within the blockchain infrastructure to enable new farm systems and agriculture projects.

This study was motivated to examine the factors influencing competitive advantages of agricultural export business, elements of organizational leadership, competitive advantages, digital transformation, and business network. Thus, the research hypotheses are as follows:

Research hypothesis

H1: Organizational leadership elements directly influence the competitive advantage elements.

H2: Organizational leadership elements directly influence on the business network elements.

H3: Organizational leadership elements directly influence on digital transformation elements.

H4: Digital transformation elements directly influence competitive advantage elements.

H5: Business network elements directly influence the digital transformation elements.

Conceptual framework

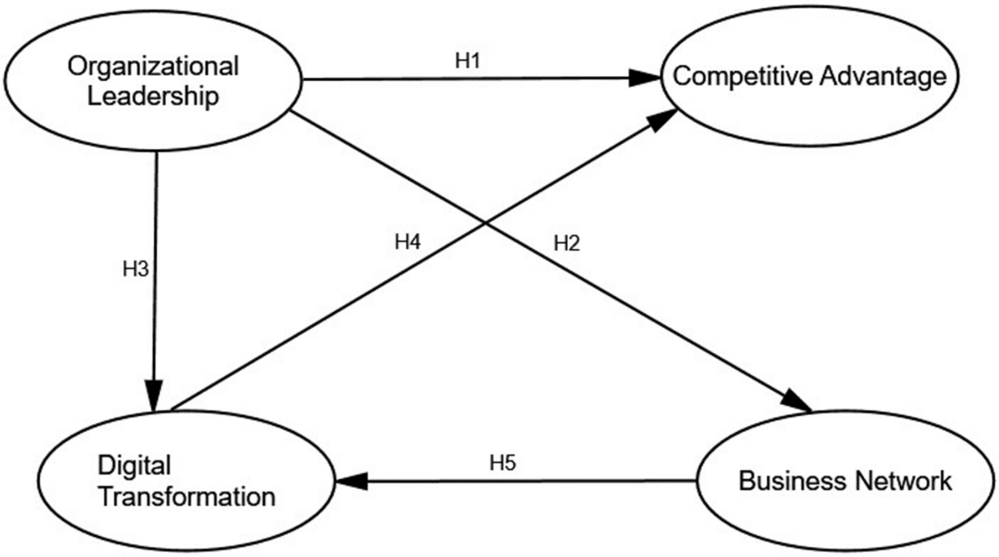

Figure 2 Conceptual framework

Research methodology

This inductive research was conducted based on mixed methodology research, which consists of qualitative research in the form of in-depth interviews, and quantitative research in the form of survey data collection.

Population and samples

1. For qualitative research, it was done through the in-depth interview. The interview information would be brought to confirm with the results of quantitative research.

2. The population in this quantitative research was 49,266 juristic persons in the agricultural business (Office of Small and Medium Enterprises Promotion, 2020). The sample size consisted of 400 entrepreneurs in the agricultural exporting business. The number of sample size was suitable for structural equation modeling (SEM) according to the criteria of Bentler and Chou (1987), who suggested that the appropriate sample size should be 10-20 times of the observed variables and the sample size should not be less than 200. Due to the COVID-19 pandemic, simple random sampling was conducted in this study.

Research instruments

Measurements

The questionnaire was divided into 3 parts. Part 1 consisted of 5 questions regarding general information of the agricultural exports. Part 2 consisted of 4 aspects with 25 questions regarding the importance of creating competitive advantages in agricultural exporting business. and Part 3 was open for additional opinions and suggestions on creating competitive advantage in the agricultural exporting business.

The questonnaire part 2 is focused on the measure the organizational leadership elements, competitive advantage elements, digital transformation elements, and business network elements. The following five-point Likert scales ranging from 1 to 5, are used to rate each question, where 1 = Strongly Disagree, 2 = Disagree, 3 = Neither Agree nor Disagree, 4 = Agree, 5 = Strongly Agree.

Validity and reliabilty

The questionnaire was evaluated by 3 experts in order to check its quality by calculating Index of Item Objective Congruence (IOC). The IOC value was between 0.60-1.00, greater than 0.05, and in accordance with the standard criteria (Rovinelli & Hambleton, 1977).

Reliability testing is to measure on the reliability in the qualification of measurement scale and things that prepare for the information related to the relationship between individual items in the scale of Cronbach's alpha coefficients to set the reliability scale. In order to calculate the reliability Cronbach alpha. The value was 0.92, greater than 0.70, thethe researcher had to cut that variable off from the questionnaire as distributed to 30 samples, and in accordance with the standard criteria (Nunnally, 1975). Thus, the questionnaire was reliable and could be used as a research instrument (Cronbach, 1951).

According to the reliability value analysis of the composite reliability, it was found that the value was between 0.73 to 0.85, greater than 0.70. The value reflects convergent validity. The average variance extracted was between 0.61 and 0.85, greater than 0.50. Thus, it was accepted (Hair, Ringle, & Sarstedt, 2011). The details are shown in table 1.

Table 1 Results of reliability analysis and convergent validity

Variables	Number of observed variables	Composite reliability	AVE
Organizational leadership	5	0.79	0.65
Competitive advantage	5	0.73	0.85
Digital transformation	5	0.85	0.73
Business network	5	0.74	0.61

Data analysis

Descriptive statistics, including minimum, maximum, mean, and standard deviation were applied for 4 latent variables, divided into 1 exogenous latent variable; organizational leadership and 3 endogenous latent variables: competitive advantage, digital transformation, and business network.

Table 2 Descriptive Statistics

Variables	Min	Max	Mean	S.D.
Organizational leadership	2	5	4.14	0.504
Competitive advantage	2	5	4.06	0.490
Digital transformation	2	5	4.04	0.595
Business network	2	5	4.01	0.526

In table 2, the results showed that the mean of organizational leadership was 4.14, and the standard deviation of organizational leadership was 0.504. The mean of competitive advantage was 4.06, and the standard deviation of competitive advantage was 0.490. The mean of digital transformation was 4.04, and the standard deviation of digital transformation was 0.595. The mean of business network was 4.01, and the standard deviation of business network was 0.526.

Structural equation model

Structural equation model analysis with criteria for improvement. Model based on modification indices (MI) as recommended by (Arbuckle, 2011) to check whether the model is consistent with the empirical data. Chi-square probability level (CMIN-P), Relative chi-square (CMIN/DF) and goodness of fit index (GFI) and the root index of the squared mean of the estimate, Root mean square error of approximation (RMSEA) (Silcharu, 2020) were analyzed as shown in table 3.

Table 3 Criteria used to assess the conformity of the model

Evaluating the data-model fit	Criteria
1. CMIN-p (Chi-square Probability)	> 0.05
2. CMIN/DF (Relative Chi-square)	< 2.00
3. GFI (Goodness of fit Index)	> 0.90
4. RMSEA (Root Mean Square Error of Approximation)	< 0.08

Sources: Arbuckle (2011) and Hair et al. (2011)

Research findings

The analysis results of general data show that the respondents were agricultural entrepreneurs. vegetable and fruit entrepreneurs (40.00%), rice and rice products entrepreneurs (32.00%), cassava entrepreneurs (12.14%), rubber entrepreneurs (10.00%) and sugar cane and sugar entrepreneurs (5.86%), respectively.

Objective analysis to measure competitive advantage of agricultural export business and to examine the factors affecting competitive advantage of the agricultural export business consists of 4 elements: organizational leadership, competitive advantage, digital transformation, and business network. Components in all four areas were obtained from the review of relevant literature that the empirical data were consistent, with p-value = 0.313, CMIN/DF = 1.050, GFI = 0.959, and RMSEA = 0.011. The statistical significance of 0.001 was consistent with the literature and empirical data pass the specified criteria. The result showed that the factors affecting competitive advantage of agricultural export business by direct influence analysis indirect influence and total influence of the variables within the structural equation modeling (SEM) model as shown in figure 2.

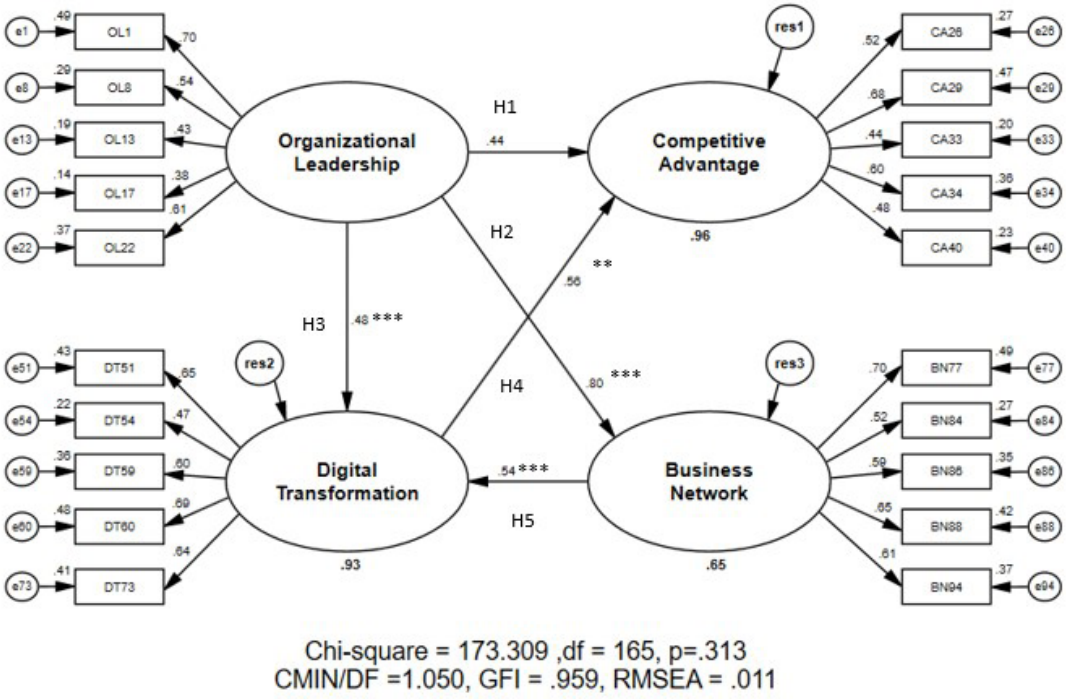

Figure 3 The structural model with standardized parameter estimates and statistical significance

From figure 3, it can be seen that the factors affecting competitive advantage of agricultural export business. After the model improvement, it consisted of 4 latent variables, divided into 1 exogenous latent variable; organizational leadership and 3 endogenous latent variables: competitive advantage, digital transformation, and business network. For the analysis of variables within the model, it was found that the component of organizational leadership has the highest direct influence on Business Network components with a weighted influence curve of 0.80 statistically significant level at 0.001, followed by the component of digital transformation directly influenced the component of competitive advantage with a weighted influence curve of 0.56 statistically significant level at 0.01. The component of the business network directly influenced the digital transformation component with a weighted influence curve of 0.54 statistically significant level at 0.001. The organizational leadership component directly influenced the digital transformation component with a weighted influence curve of 0.48 statistically significant level at 0.001. The organizational leadership component directly influenced the competitive advantage component with a weighted influence curve of 0.44 statistically significant level at 0.05, respectively.

Table 4 Observational variables factors affecting competitive advantage of the agricultural export business

Abbreviation	Variable name	Factors affecting competitive advantage of the agricultural export business
Organizational leadership		
OL1	Vision, mission, and strategic plan	Determining the vision, mission and strategic plan as a guideline for organizational development.
OL8	Work participation	Encourage personnel to participate in work and listen to constructive opinions.
OL13	New opportunities exploration	Explore new opportunities to increase competitiveness which will lead the organization to continuous development.
OL17	Resource use campaign	Campaign for personnel at all levels to use resources cost-effectively.
OL22	Personnel selecting process	There is a process for selecting personnel to suit their duties.
Competitive advantage		
CA26	Unique product	Products are distinctive and unique. Competitors are difficult to imitate.
CA29	Promotional activities organizing	Organize promotional activities during important festivals.
CA33	Quick good delivery	Deliver goods to consumers quickly and verifiable.
CA34	Variety products	There are a variety of products for customers to choose from.

Table 4 Observational variables factors affecting competitive advantage of the agricultural export business (Continue)

Abbreviation	Variable name	Factors affecting competitive advantage of the agricultural export business
CA40	Product promotion	Promote products through media both online and offline channels to make customers know the product widely
Digital transformation		
DT51	Digital technology system	There is a digital technology system for finding information easily and quickly, everywhere.
DT54	Digital technology accessible	People have access to digital technology across the organization.
DT59	Digital technology budget	There is a budget for continued investments in digital technology.
DT60	Safe digital technology	Digital technology systems are safe and reliable.
DT73	Digital technology connectivity	Digital technology can connect organizations, suppliers and customers.
Business network		
BN77	Joint venture organization	Joint venture organization to do new business with business network.
BN84	Exchanges innovation	The organization exchanges innovation and technology with business networks.
BN86	Apply to member	Apply to become a member of the relevant organization or agency to receive important information.
BN88	Training for employees	Provide training for employees to exchange knowledge and skills together.
BN94	Collaborate with suppliers	Collaborate with raw material procurement business networks to gain bargaining power with suppliers.

Table 5 Statistical values obtained from structural equation model analysis after model improvement

Variables	Estimate		R^2	Variance	C.R.	P
	Standard	Unstandard				
Dependent competitive advantage			0.96			
Variable organizational leadership	0.44	0.46		0.01	2.16	0.031*
Independent digital transformation	0.56	0.55		0.02	2.85	0.004**
Dependent digital transformation			0.93			

Table 5 Statistical values obtained from structural equation model analysis after model improvement (Continue)

Variables	Estimate		R^2	Variance	C.R.	P
	Standard	Unstandard				
Variable organizational leadership	0.48	0.51		0.01	4.26	***
Dependent business network			0.65			
Independent organizational leadership	0.80	0.79		0.11	9.37	***
Organizational leadership			0.32	0.32		
OL1	0.70	1.00	0.49	0.33		
OL8	0.54	0.72	0.29	0.41	9.65	***
OL13	0.43	0.53	0.19	0.40	7.84	***
OL17	0.38	0.43	0.14	0.36	6.89	***
OL22	0.61	0.80	0.37	0.36	10.78	***
Competitive advantage			0.96	0.01		
CA26	0.52	0.61	0.27	0.36	9.41	***
CA29	0.68	1.00	0.47	0.41		
CA33	0.44	0.54	0.20	0.43	8.15	***
CA34	0.60	0.92	0.36	0.53	10.93	***
CA40	0.48	0.62	0.23	0.46	8.86	***
Digital transformation			0.93	0.02		
DT51	0.65	0.89	0.43	0.39	11.14	***
DT54	0.47	0.48	0.22	0.29	8.45	***
DT59	0.60	0.70	0.36	0.32	10.42	***
DT60	0.69	0.95	0.48	0.36	11.70	***
DT73	0.64	1.00	0.41	0.54		
Business network			0.66	0.11		
BN77	0.70	1.10	0.49	0.39	11.49	***
BN84	0.52	0.70	0.27	0.41	8.98	***
BN86	0.59	0.86	0.35	0.42	10.07	***
BN88	0.65	1.00	0.42	0.43		
BN94	0.61	1.10	0.37	0.65	10.22	***

Source: *** Significant level of 0.001 ** significant level of 0.01 * significant level of 0.05

As shown in figure 2 and table 5, the results show that organizational leadership and digital transformation had a direct influence on competitive advantages at the significance level of 0.01 and 0.05 with 96.00% of variance (R^2). The standardized coefficients (Beta) and p-values of organizational leadership were 0.44 and 0.031, while standardized coefficients (Beta) and p-values of digital transformation were 0.56, and 0.004. The values were statistically significant at 0.01. Thus, the H1 and H4 were supported. The organizational leadership has a direct influence on the digital transformation at a significance level of 0.001, with 93.00% of variance (R^2) and Beta of 0.48. The values were statistically significant at 0.001. Thus, the H3 is supported. The organizational leadership had a direct influence on business networks at the significance level of 0.001 with 65.00% of variance (R^2) and Beta of 0.80. The values were statistically significant at 0.001. Thus, the H2 was supported. Finally, the business network had a direct influence on digital transformation at a significance level of 0.001, with 93.00% of variance (R^2) and Beta of 0.54, indicating statistical significance at 0.0001. Thus, the H5 was supported.

The organizational leadership components consist of 5 observed variables, arranged in order of standardized regression weight from highest to lowest as follows: 1) vision, mission, and strategic plan (OL1), the standardized regression weight of 0.70 was statistically significant at the 0.001 level with multiples squared correlation (R^2) of 0.49, 2) personnel selecting process (OL22), standardized regression weight of 0.61 was statistically significant at 0.001 level with multiple squared correlation (R^2) of 0.37, 3) work participation (OL8), standardized regression weight of 0.54 was statistically significant at 0.001 level with multiple squared correlation (R^2) of 0.29, 4) new opportunities exploration (OL13), standardized regression weight of 0.43 was statistically significant at 0.001 level with multiple squared correlation (R^2) of 0.19 and 5) resource use campaign (OL17) standardized regression weight of 0.38 was statistically significant at 0.001 level with multiples squared correlation (R^2) of 0.14.

The competitive advantage components consist of 5 observed variables arranged in order of standardized regression weight from highest to lowest as follows: 1) promotional activities organizing (CA29), standardized regression weight of 0.68 was statistically significant at the 0.001 level with multiples squared correlation (R^2) of 0.47, 2) variety products (CA34), standardized regression weight of 0.60 was statistically significant at the 0.001 level with multiples squared correlation (R^2) of 0.36, 3) unique product (CA26), standardized regression weight of 0.52 was statistically significant at 0.001 level with multiple squared correlation (R^2) of 0.27, 4) product promotion (CA40), standardized regression weight of 0.48 was statistically significant at 0.001 level with multiple squared correlation (R^2) of 0.23, and 5) quick good delivery (CA33), standardized regression weight of 0.44 was statistically significant at 0.001 level with multiple squared correlation (R^2) of 0.20.

The digital transformation components consist of 5 observed variables arranged in order of standardized regression weight from highest to lowest as follows: 1) safe digital technology (DT60), standardized regression weight of 0.69 was statistically significant at the 0.001 level with multiples squared correlation (R^2) of 0.48, 2) digital technology system (DT51), standardized regression weight of 0.65 was statistical significance at the 0.001 level with multiple squared correlation (R^2) of 0.43, 3) digital technology connectivity (DT73), standardized regression weight of 0.64 was statistically significant at the 0.001 level with multiple squared correlation (R^2) of 0.41, 4) digital technology budget (DT59), standardized regression weight of 0.60 was statistically significant at the 0.001 level with multiple squared correlation (R^2) of 0.36, and 5) digital technology accessible

(DT54), standardized regression weight of 0.47 was statistically significant at the 0.001 level with multiple squared correlation (R^2) of 0.22.

The business network components consist of 5 observed variables, arranged in order of standardized regression weight from highest to lowest as follows: 1) joint venture organization (BN77), standardized regression weight of 0.70 was statistically significant at the 0.001 level with multiple squared correlation (R^2) of 0.49, 2) training for employees (BN88), standardized regression weight of 0.65 was statistically significant at the 0.001 level with multiples squared correlation (R^2) of 0.42, 3) collaborate with suppliers (BN94), standardized regression weight of 0.61 was statistically significant at 0.001 level with multiples squared correlation (R^2) of 0.37, 4) apply to member (BN86), standardized regression weight of 0.59 was statistically significant at the 0.001 level with multiples squared correlation (R^2) of 0.35, and 5) exchanges innovation (BN84), standardized regression weight of 0.52 was with statistical significance at the 0.001 level with multiples squared correlation (R^2) of 0.27.

Discussion

According to the results, the mean of organizational leadership was 4.14, The mean of competitive advantage was 4.06, the mean of digital transformation was 4.04, and the mean of business network was 4.01, respectively.

The organizational leadership components directly influenced the competitive advantage component with (β = 0.44, p = 0.031 < 0.05) a statistically significant level of 0.05. The operation of the organization to achieve its objectives and goals are the heart of management, leaders who are visionary, competent, ethical, and acceptable to others will lead the organization to the achievement of its goals, create a competitive advantage that is superior to the business of competitors, consistent with Rukhamate (2010), who said that organizational leaders are like drivers to improve the key factors that drive the success of the organization to have better performance and efficiency, affecting the competitiveness of the business. There was a statistically significant difference between competitive advantage and agricultural exporting business at the 0.05 level due to the fact that, during the COVID-19 outbreak, people were careful with daily spending, health, and nutrition. This is in line with Kaminskyi, Nehrey, and Zomchak (2021), who suggested that farmers need to improve their production to gain a significant competitive advantage. However, healthy food is becoming more critical.

The organizational leadership components directly influenced the components of the business network with (β = 0.80, p < 0.001), at statistically significant at 0.001. The building a business network requires visionary corporate leaders, implementing a strategy to build cooperation in the exchange of resources, the interdependence among organizations leads to business success, consistent with Engchuan (2018) suggested that if the organization has a cooperative network, the government, the private sector, the university sector, research institutes and the community can leverage the network, it will lead to upgrading the ability to compete in the business.

The organizational leadership components directly influenced the digital transformation component with (β = 0.48, p < 0.001), at statistically significant at 0.001. Business competition is a key factor for every organization to adapt, digital transformation is an important factor in improving processes to keep up with competition. In the digital era, visionary leaders will apply modern technology to enable organizations to manage resources effectively, consistent with Schwab (2017), who said organizational leaders had to adjust their organization. To keep up with the changes by using digital technology, one must learn, adapt to understand

the impact of disruption and develop digital capabilities by finding new ways of doing things, creating a corporate culture to continually accept innovation by using a combination of various technologies.

The digital transformation components directly influenced the competitive advantage component with (β = 0.56, p = 0.004 < 0.01), at a statistically significant level of 0.01. There used of digital technology in many areas and adapting the use of digital technology in the organization can lead to improvements in the coordination of processes and automation of redundant tasks. Digital technology can help businesses improve efficiency and increase revenue, consistent with Leão and da Silva (2021) found that the digital transformation positive affects the competitiveness of companies. Rachinger, Rauter, Müller, Vorraber, and Schirgi (2018), suggested that digital technology can lead digital technology. This will enable the organization to be successful in terms of maximizing resource utilization, reducing costs, improving employee productivity. Supply chain optimization increase customer loyalty and satisfaction. Kemp (2014) said that the use of digital technology in many areas, adapting the use of digital technology in the organization. It can lead to improvements in process coordination and automation of redundant tasks. Digital technologies can help businesses improve efficiency, increase revenue and achieve competitive advantages.

The business network directly influenced the digital transformation with (β = 0.54, p < 0.001), at statistically significant at 0.001. The participation of the network will enhance innovation and technology capabilities, enabling the network's members to diversify their business models and drive digital transformation if created and managed. The network properly and continuously as a system of members sharing knowledge between each other will help the organization to be strong, consistent with Oyelami, Sofoluwe, and Ajeigbe (2022), who said that providing ICT infrastructure alone may not automatically improve agricultural productivity. Hence, there is a need for expanding services to disseminate and educate farmers on the importance of the continued adoption of ICT infrastructure for agricultural exporting practices.

Conclusion

The model for factors affecting competitive advantage of agricultural exporting business revealed that four components: organizational leadership, competitive advantage, digital transformation, and business network were harmoniously consistent through the specified criteria, and they also influenced one another. Obviously, the competitiveness of agricultural export business can be successful if the leaders have vision, receive constructive feedback from participants, determine the duties and responsibilities of employees according to the line of work, use the resources wisely, find new opportunities to increase competitiveness, and find business networks to share knowledge. More importantly, organizations must always adapt to the changing of modern technology and develop quality products to reach consumers thoroughly. Thus, entrepreneurs of the agricultural export business should use the aforementioned as a strategy for their business planning.

Recommendation

1. Leaders of the organization must have flexibility in management, such as adapting to keep up with the changes in new business practices to lead the organization to continue competitiveness.

2. Organization leaders must encourage organizations to adopt digital technology and modern production technology to improve and develop products to meet quality standards.

3. There should create awareness of personnel at all levels to use available resources cost-effectively and efficiently to reduce errors from work.

4. Cooperation with business networks should be established for planning investments in new businesses to exchange mutual benefits.

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