The Role of Strategic Planning and Productivity in Predicting Competitive Advantage

Rekabet Avantajını Tahmin Etmede Stratejik Planlama ve Verimliliğin Rolü

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ABSTRACT

Studies have been conducted to determine the nature of the relationship between strategic planning and competitive advantage, with some studies presenting that strategic planning has an impact on the organisation's competitive advantage, while other studies present that strategic planning has no impact on competitive advantage. Therefore, this research was conducted to settle this existing inconclusive debate by including a contingency variable as a mediator of this relationship using data collected from management employees of TAZARA. The research study contributes to the literature by determining the mediating effect of productivity on the relationship between strategic planning (SP) and competitive advantage. Reliability, model fit and validity were tested using factor analysis, principal component analysis and regression analysis using Jamovi software. The results of the study show that there is a positive significant relationship between strategic planning (SP) and competitive advantage, and also between productivity and competitive advantage. Productivity was found to partially mediate the relationship between strategic planning and competitive advantage. The results of this study would help decision makers to focus more on productivity when implementing strategic planning in order to survive this tense, fierce competition of the 21st century. Replication of this study in other industries is recommended. Future studies should also include other moderating and/or mediating variables.

JEL Codes: M0, M1, O47

Keywords: Strategic Planning, Productivity, Competitive Advantage, Mediation

ÖZ

Stratejik planlama ve rekabet avantajı arasındaki ilişkinin niteliğini belirlemeye yönelik çalışmalar yapılmış ve bazı çalışmalar stratejik planlamanın bir kuruluşun rekabet avantajı üzerinde etkisi olduğunu bulurken, diğer çalışmalar stratejik planlamanın rekabet avantajı üzerinde bir etkisi olmadığını bulmuştur. Bu nedenle, bu araştırma, TAZARA'nın yönetici çalışanlarından toplanan veriler kullanılarak bu ilişkinin aracı değişkeni olarak bir durumsallık değişkenini dahil ederek mevcut sonuçsuz tartışmayı çözmek için yapılmıştır. Araştırma, stratejik planlama (SP) ve rekabet avantajı arasındaki ilişkide verimliliğin aracılık etkisini tespit ederek literatüre katkıda bulunmaktadır. Güvenilirlik, model uyumu ve geçerlilik faktör analizi kullanılarak test edilmiştir. Temel bileşenler analizi ve regresyon analizi Jamovi yazılımı kullanılarak gerçekleştirilmiştir. Çalışmanın sonuçları stratejik planlama (SP) ile rekabet avantajı arasında ve ayrıca verimlilik ile rekabet avantajı arasında anlamlı pozitif bir ilişki olduğunu göstermektedir. Verimliliğin stratejik planlama ve rekabet avantajı arasındaki ilişkiye kısmen aracılık ettiği bulunmuştur. Bu çalışmanın sonuçları, karar vericilerin 21. yüzyılın bu gergin ve şiddetli rekabetinde ayakta kalabilmek için stratejik planlamayı uygularken verimliliğe daha fazla odaklanmalarına yardımcı olacaktır. Bu çalışmanın diğer sektörlerde de tekrarlanması tavsiye edilmektedir. Gelecekteki çalışmalar, diğer ılımlaştırıcı ve/veya aracı değişkenleri de içermelidir.

JEL Kodları: M0, M1, O47

Anahtar Kelimeler: Stratejik Planlama, Verimlilik, Rekabet Avantajı, Arabuluculuk

Introduction

Managers are now constantly looking for ways to adapt to and mitigate this turbulent business environment, which has made competition very fierce and tense indeed. For several decades now, strategic planning has been one of the approaches adopted by various organisations to guide them towards achieving their goals. Strategic planning enhances the effectiveness of an organisation (George et al., 2019). Ngige (2017) asserts that strategic planning is important in an unstable environment where there are constant changes in business cycles, as well as stiff competition.

Despite the fact that strategic planning has been widely adopted and used in organisations, research studies over the past three decades have failed to provide conclusive evidence (proof) as to whether or not strategic planning has an impact on competitive advantage. Some of the studies have presented that strategic planning has a positive significant impact on competitive advantage (Gichovi, 2019; Kiiyo, 2019; Mulyaningsih et al., 2021; Tryson, 2022; Yangailo, 2023a), while other studies have found no significant relationship between strategic planning and competitive advantage (Miller et al., 2004; Powell, 1992). Based on the researcher's knowledge, there are very few previous studies that have examined the influence of other variables on the relationship between strategic planning and competitive advantage (CA), and there is no research study that has included productivity as a mediator.

The benefits of the strategic planning process cannot be realised until organisations invest properly in the strategic planning process and have a good understanding of what leads to successful implementation of strategic planning (Yangailo, 2023b). This inability of previous studies to provide conclusive results on whether or not strategic planning has an impact on the competitiveness of an organisation, necessitated the need to conduct this study.

Research Objectives

This study developed the following objectives to address the gaps identified:

1. To relate strategic planning with competitive advantage.
2. To determine whether productivity mediates the relationship between strategic planning and competitive advantage.

Literature Review

Strategic planning

Strategic planning is a tool used to find the best future for an organisation and the best way to get there (Barry, 1997). According to O'Regan and Ghobadian (2005), strategic planning is a management tool that is widely used to guide organisations. Strategic planning helps organisations to decide what to do, why to do it and how to do it. Strategic planning helps organisations to set priorities, focus energy and resources, ensure that stakeholders work towards common goals, strengthen operations, establish agreement on intended outcomes, and evaluate and adjust organisations (Bazina, 2021).

Although some empirical studies have shown a positive significant relationship between strategic planning (SP) and competitive advantage (CA) (Yangailo, 2023a; Mulyaningsih et al., 2021; Gichovi, 2019; Kiiyo, 2019; Tryson, 2022), other studies have failed to find the relationship between strategic planning and competitive advantage (Powell, 1992; Miller et al., 2004;). Thus, there is a need for further research on this relationship.

Competitive Advantage

Competitive advantage is defined as the ability of an organisation to perform its activities in a unique way that is different from its competitors (Kotler, 2000). There are factors of competitive advantage that allow an organisation to be consistently better than its competitors and this organisation has a very good market share and generates good profits. Tracey et al (1999) assert that cost/price and quality are the competitive advantage capabilities that uniquely differentiate a firm from its rival competitors.

Productivity

Productivity is a measure of how well resources are combined and used to achieve certain desired outcomes (Olusanya et al., 2012). Yangailo (2023b) contends that productivity is the ability to convert inputs used in the production process into finished products and is also measured by the efficiency of production. "Productivity is a summary measure of the quantity and quality of work performance, taking into account resource utilisation" (Innocent & Levi, 2017). Productivity is a measure of efficiency in the production of goods or services (Yangailo et al., 2023) and is related to the amount of output provided and the amount of input required to produce it (Yangailo, 2022). "Productivity is a multidimensional term whose meaning can vary depending on the context in which it is used" (Prasad et al., 2015, p.274).

Empirical Review

Strategic Planning and Competitive Advantage

According to Gichovi (2019), organisations should strive to practice strategic planning continuously if they want to improve efficiency, effectiveness and achieve competitiveness.

Kiiyo (2019), in Kenya, conducted a study to examine the role of organisational structure and employee behaviour on the relationship between strategic planning and competitive advantage in organisations. The results showed that strategic planning has a significant impact on competitive advantage.

Mulyaningsih et al. (2021) investigated the impact of strategic planning on the competitive advantage of Indonesian SMEs. The results showed that strategic planning has a significant effect on competitive advantage.

Powell (1992) examined the relationship between planning and performance from a resource perspective. The study found that strategic planning doesn't meet the criteria for sustainable competitive advantage.

In the United Kingdom, Miller et al (2004) conducted a study of 55 firms to identify strategies for successful implementation of decisions. The results showed that careful managerial planning does not guarantee successful outcomes in a firm.

Competitive advantage is the ultimate goal that an organisation seeks to achieve through strategic planning, while strategic planning is the process of determining an organisation's path. Competitive advantage should be created and maintained, and a successful strategy should be adaptable enough to evolve as the market does. Strategic planning is therefore the foundation upon which competitive advantage is built and maintained though literature presents inconclusive results on the influence of strategic planning on competitive advantage. Therefore, the following hypothesis was adopted in this study:

Hypothesis 1: Strategic Planning has a positive significant impact on competitive advantage.

Strategic Planning and Productivity

A clear mission and goals established through strategic planning lead to improved organisational productivity (Boyne & Gould-Williams, 2003).

Sara et al. (2021) in Indonesia investigated the impact of strategic planning, asset management and human resource management on increasing productivity of rural economy. The results showed that strategic planning, asset management and human resource management have a significant positive impact on increasing productivity of rural economy.

Innocent and Levi (2017) conducted a study on the association between effective strategic planning and organisational productivity in a bottling company in Enugu, Nigeria. The findings of the study revealed that there is a relationship between effective strategic planning and organizational productivity.

Ngige (2017) conducted a study in Nigeria to determine the impact of strategic planning on the productivity of SMEs. The study showed that strategic planning has a positive effect on the productivity of SMEs.

Robinson and Pearce (1983) conducted a study in the United States of America, to determine the effect of formalised strategic planning on the financial performance of small organisations. The results of the
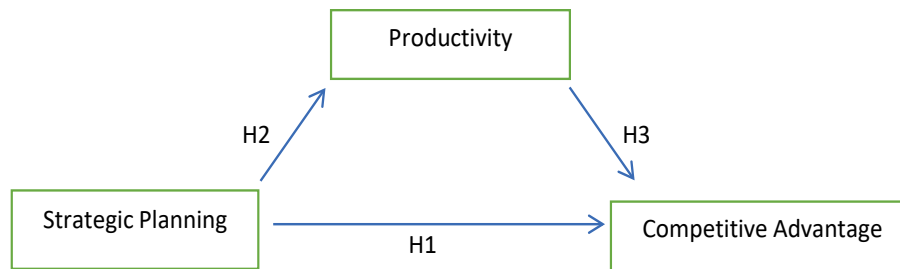
study failed to link the strategic planning process to the benefits of performance improvement.

Falshaw et al (2006) examined the relationship between formal strategic planning and financial performance of 113 companies in the United Kingdom. The study found no relationship between formal planning process and performance.

In Australia, French et al. (2004) examined the role of strategic planning on the performance of small professional services firms. The results of the study showed that there was a very weak relationship between planning and performance.

Productivity assesses how well an organisation executes its plans, while strategic planning sets the organisation's goals and direction. The approach an organisation takes to achieving its strategic goals is a key determinant of its overall productivity. Organisations are more likely to succeed in their respective industries and achieve their long-term goals when these factors are in harmony. An organisation can optimise its operations, achieve its long-term goals and remain competitive in its industry if its strategic planning is aligned with its productivity goals and includes systems for continuous assessment and improvement. Based on the findings of previous studies as presented above, it is evident that studies have produced mixed results regarding the nature of the relationship between strategic planning and productivity. The following hypothesis was adopted in this study:

Hypothesis 2: Strategic Planning has a positive significant impact on productivity.

Productivity and Competitive Advantage

Dresch et al. (2018) attempted to understand the concept of firm competitiveness and its relationship with productivity through a systematic review of the literature. The study confirmed the relevance of productivity in determining firm competitiveness.

Carayannis and Grigoroudis (2014) investigated the relationship between innovation, productivity and competitiveness. The study found that there is an association among innovation, productivity and competitiveness.

In business, productivity and competitive advantage are closely linked. Increased output can result in cost savings, higher quality products, inventiveness, responsiveness and other benefits. Companies that continually invest in improving productivity are better positioned to outperform their competitors and succeed in the marketplace. Based on existing literature, it is evident that there is a relationship between productivity and competitive advantage, so this study adopts the following hypothesis:

Hypothesis 3: Productivity has a positive significant impact on competitive advantage.

Conceptual Framework

Based on the relationship between the variables used in this study and the literature review, a hypothesised model was developed as shown in Figure 1.

Figure 1. *Hypothesised Model*

In order to comprehensively answer the objective of this study based on the literature and the hypothesised model, the following hypothesis was also adopted:

Hypothesis 4: Productivity has a mediating effect on the relationship between strategic planning and competitive advantage.

Methodology

An organisation called the Tanzania Zambia Railway Authority (TAZARA) is the organisation on which this study was conducted. TAZARA is a two-states owned (Zambia and Tanzania) on 50/50 basis and has been operation since the 1970s. The questionnaire was distributed to 200 respondents who are management staff. This was against a target population of 240. 177 respondents completed and returned the questionnaire, giving a response rate of 88.5%. Quantitative method was used to analyse the collected data using Jamovi software. The sample size of 177 against the population target of 240 met the threshold recommended by Krejcie and Morgan (1970) for conducting scientific research (Table 1).

Measures

The five-point Likert scales were adopted and used to measure the constructs, with strongly agree (5) and strongly disagree (1). The competitive advantage measures were adopted from Berhanu (2019) and Hilmy (2016). The strategic planning measures were adopted from Terziovski (2006), Ang et al. (2000) and Prajogo and Sohal (2006). Productivity measures were taken from Grayson et al. (2016).

Data Presentation and Analysis

The analysis was based on a quantitative research method using Jamovi software. The results of this study are presented and well discussed in terms of descriptive statistics, tables, figures and hypothesis tests.

Response Rate

Two hundred (200) questionnaires were distributed to the participants of the target population of 240 managers. Of the total 200 respondents, one hundred and seventy-seven (177) completed and returned the questionnaire, representing a response rate of 88.5%.

Demographic Characteristics

The demographic profile of the 177 respondents who took part in this study, according to their gender and level of experience, is shown in Table 2.

Table 1. *Determining the Sample Size of a Given Population*

N	S	N	S	N	S
10	10	220	140	1200	291
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
N	S	N	S	N	S
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	1000000	384

Note.—*N* is population size.
S is sample size.
Krejcie and Morgan (1970)

Table 2. *Demographic Profile*

Description	Frequency	Percentage (%)
Gender		
Female	31	17.5
Male	146	82.5
Total	**177**	**100**
Experience in Years		
< 10	49	27.7
10-20	68	38.4
> 20	60	33.9
Total	**177**	**100**

Source:Author(2023)

Of the 177 respondents, 82.5% were male and 17.5% were female. In terms of experience with the organisation, of the 177 respondents, 27.7% had less than 10 years of work experience, 38.4% had 10 to 20 years of work experience and 33.9% had more than twenty (20) years of work experience with the organisation.

Descriptive Statistics

Standard deviation, mean, skewness and kurtosis for all constructs used in the study are presented in Table 3.

Table 3. *Mean, Standard Deviation, Skewness, & Kurtosis of Constructs (N = 177)*

	SP	CA	P
N	177	177	177
Mean	3.24	2.92	2.93
Median	3.18	3.00	2.89
Standard deviation	0.727	0.749	0.722
Skewness	-0.287	-0.0700	0.00313
Std. error skewness	0.183	0.183	0.183
Kurtosis	0.562	-0.0549	0.230
Std. error kurtosis	0.363	0.363	0.363

Source: Jamovi computation

The mean values of the constructs show that the respondents responded positively. The skewness and kurtosis were within the threshold range of -2 to +2, indicating that there was no serious deviation from normality for each construct.

Reliability and Validity

Testing Assumptions of Study Variables

The data collected from the study was subjected to both validity and reliability testing to ensure that the data collected could then be analysed using factor analysis. Laundau and Everitt (2004) state that in order to use principal component analysis, the data must fulfil the four assumptions in order to produce valid results. These assumptions include a linear relationship between variables, no significant outliers, multiple variables scored at either ordinal or continuous levels, and sampling adequacy. The data from the sample met the four assumptions after verification. According to Fan et al. (2008), in order to perform principal component analysis (PCA), data must have a minimum of 150 cases. Therefore, the 177 cases met the minimum data requirement to conduct a principal component analysis.

A reliability test was carried out in order to obtain the reliable measures that determine good consistency and internal fit of the measures used. The Cronbach alpha for all the construct scales was calculated by performing a reliability analysis with a minimum recommended threshold of 0.7 (Nunnally, 1978; Hair et al., 2006).

The Results of Reliability and Validity Tests

The factorability of the 25 items in the instrument was assessed. It was found that the 25 items correlated with at least point three (0.3) with another item, which indicates a reasonable factorability. The Kaiser Meyer Olkin measure of sampling adequacy was 0.909 above the value of 0.6. The proportion of variance in the variables that could be explained by the underlying factors is represented by the KMO measure of sampling adequacy. Bartlett's sphericity test was statistically significant (χ^2 (300) = 1934, $p < .001$). Principal components analysis was then deemed appropriate for the 25 items shown in Table 4, based on the results above.

Table 4. *Kaiser-Meyer-Olkin and Barlett's Test result*

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.909
Bartlett's Test of Sphericity	Approx. Chi-Square	1934
	Degrees of freedom	300
	Significance	.000

Source: Jamovi computation

The analysis shows that the Cronbach's alpha of the instrument was above the required minimum threshold of .7 (Nunnally, 1978; Hair et al., 2006). The alpha coefficient of the instrument ranged between .770 and .891. The alpha coefficient for the strategic planning scales was .891, the alpha coefficient for the productivity scales was .846 and the alpha coefficient for the competitive advantage scales was .770. The Cronbach alpha coefficients for the three constructs met the minimum acceptable threshold of 0.7 as shown in Table 5.

Table 5. *Cronbach Alpha Test Results*

Items	Cronbach's Alpha	McDonald's Mega	Number of Items	Comment
Overall	0.927	0.927	25	Accepted
Strategic Planning	0.891	0.892	11	Accepted
Productivity	0.846	0.847	9	Accepted
Competitive Advantage	0.770	0.771	5	Accepted

Source: Jamovi computation

Linearity

The relationship between the independent variables and the dependent variable is linear. This assumption was tested by calculating Spearman and Pearson correlation coefficients, as shown in Table 6.

Table 6. *Construct Correlation Matrix*

		SP		CA		P
SP	Pearson's r	—				
	p-value	—				
	Spearman's rho	—				
	p-value	—				
	N	—				
CA	Pearson's r	0.589	***	—		
	p-value	< .001		—		
	Spearman's rho	0.537	***	—		
	p-value	< .001		—		
	N	177		—		
P	Pearson's r	0.676	***	0.573	***	—
	p-value	< .001		< .001		—
	Spearman's rho	0.627	***	0.518	***	—
	p-value	< .001		< .001		—
	N	177		177		—

Note. * p < .05, ** p < .01, *** p < .001
SP=Strategic Planning
CA-Competitive Advantage
P= Productivity
Source: Jamovi computation

The results show significant positive correlations between strategic planning, productivity and competitive advantage. Strategic planning and productivity have a positive significant correlation coefficient of .676. Strategic planning and competitive advantage show a significant positive correlation coefficient of .589. Productivity and competitive advantage show a positive significant correlation of .573. All the correlations show that there are no collinearity problems because they are all below the cut-off point of eight five (0.85). Therefore, the problem of multicollinearity doesn't arise (Hair et al., 2010).

Model Fit

Regression model testing was separately run before estimating the proposed model.

Overall Regression Model Testing

The regression model significance was tested with the following hypotheses.

H0 : β1=β2=…. Bi = 0

Ha : At least one regression coefficients is ≠ 0

Table 7. *Regression Model Fit Measure Summary*

Model		R	R^2	Adjusted R^2	Overall Model Test	
					F	P
1	SP predicting CA	0.589	0.347	0.343	93.0	< .001
2	P predicting CA	0.573	0.328	0.324	85.5	< .001
3	SP predicting P	0.676	0.457	0.454	147	< .001

P = Productivity

SP=Strategic Planning

CA= Competitive Advantage

Source: Jamovi computation

The regression analysis carried out showed that there was a significant strong relationship between the constructs. The first model

in Table 7, representing the impact of strategic planning on competitive advantage, showed a good fit and significant values of R(0.589), R²(0.347) and F-value of 93. The model suggested that strategic planning accounted for 35% of the variation in competitive advantage. The second model, which represented the relationship between productivity and competitive advantage, showed a good fit and a significant value of R(0.573), R²(0.328) and a significant F-value of 85.5. The model suggests that productivity accounts for 33% of the variation in competitive advantage. The final model showing the relationship between strategic planning and productivity showed reasonably good fit values of R(0.676), R²(0.457) and a significant F-value of 147. The model suggests that strategic planning explains 46% of the variation in productivity.

Hypothesis Testing

This study, four hypotheses were tested in terms of direct association and indirect effect. Tables 8 and 9 show the results of the hypotheses tested:

Table 8. *Model Path and Mediation Estimates*

Effect	Label	Estimate	SE	Z	p	% Mediation
Indirect	a × b	0.224	0.0579	3.87	< .001	36.9
Direct	c	0.383	0.0812	4.72	< .001	63.1
Total	c + a × b	0.607	0.0626	9.70	< .001	100.0

Path Estimates

			Label	Estimate	SE	Z	p
SP	→	P	a	0.671	0.0550	12.20	< .001
P	→	CA	b	0.334	0.0818	4.08	< .001
SP	→	CA	c	0.383	0.0812	4.72	< .001

SP=Strategic Planning
CA-Competitive Advantage
P= Productivity
Source: *Jamovi computation*

Table 9. *Hypothesis Summary*

No	Hypothesis	Results
1.	Hypothesis 1: Strategic Planning has a positive significant impact on competitive advantage.	Supported
2.	Hypothesis 2: Strategic Planning has a positive significant impact on productivity.	Supported
3.	Hypothesis 3: Productivity has a positive significant impact on Competitive Advantage.	Supported
4.	Hypothesis 4: Productivity has a mediating effect on the relationship between strategic planning and competitive advantage.	Supported

Source: Author (2023)

The model path coefficients and their significance results are presented in Table 8. The four hypothesised relationships in this study were all supported.

Hypothesis 1, which is a direct effect between strategic planning and competitive advantage, shows that it is statistically significant (γ = 0.383, p<0.001, total effect = 0.631), so H1 is supported. The total effect of the relationship between strategic planning and competitive advantage is statistically significant at (γ = 0.607, p< .001).

Strategic planning has a significant positive effect on productivity (γ = 0.671, p< .001). Therefore, H2 is supported. Productivity has a significant effect on competitive advantage (γ = 0.334, p< .001). Therefore, H3 is supported.

The Analysis of mediating effect

The indirect effect of strategic planning on competitive advantage through productivity shows a positive and statistically significant (p< 0.001, γ = 0.224; ratio effect = 0.369). This indicates a partial mediation effect of productivity, which supports hypothesis 4.

Discussion

Overall, the results provided strong support for the theoretical model of the relationships between strategic planning, productivity and competitive advantage.

The results of the study show that the majority of TAZARA's managers are male. The results have also shown that the majority of employees have 10 to 20 years of work experience, followed by those with more than 20 years of work experience. This indicates that TAZARA has an experienced workforce.

The first objective of this study was to determine whether strategic planning has a significant positive effect on competitive advantage. The study confirmed and supported previous studies that showed that strategic planning has a positive significant effect on competitive advantage (Yangailo, 2023a; Gichovi, 2019; Mulyaningsih et al., 2021; Kiiyo, 2019; Tryson, 2022).

The results of this study have also shown that strategic planning has a significant impact on productivity. This is consistent with some previous research studies that have presented that strategic planning has a positive significant impact on productivity (Boyne & Gould-Williams, 2003; Sara et al., 2021; Innocent & Levi, 2017; Ngige, 2017).

The study results also show that productivity has a positive impact on competitive advantage. This is consistent with previous studies that revealed that productivity has a significant impact on competitive advantage (Gichovi, 2019; Mulyaningsih et al., 2021; Kiiyo, 2019).

The second and final objective of this study was to determine whether productivity mediates the relationship between strategic planning and competitive advantage. The results showed that productivity partially mediates the association between strategic planning and competitive advantage (CA). This is the first study to empirically test the mediating effect of productivity on the association between strategic planning and competitive advantage. Therefore, further research is needed to verify the results of this study.

Theoretical Managerial Implications

The empirical findings of this study provide some important useful insights for decision makers and practicing managers. The partial mediation effect of productivity on the relationship between strategic planning and competitive advantage indicates that organisations need to pay attention to organisational productivity when initiating and implementing the strategic planning process. Optimal competitiveness cannot be achieved without productivity. Strategic planners are also required to ensure that productivity is assessed at each stage of the strategic planning process.

Conclusion

The study is the first to empirically examine the relationship between strategic planning, productivity and competitive advantage. The study shows that productivity (partially) mediates the relationship between strategic planning and competitive advantage.

This research study provides empirical evidence on the nature of the relationship between strategic planning and competitive advantage and contributes to a good understanding of this relationship.

The study has also provided evidence that productivity plays a critical role in the successful implementation of strategic planning and has a positive significant impact on the competitiveness of an organisation. Decision-makers in various sectors are strongly advised to focus on productivity when implementing their strategic planning process.

Future Research and Limitation

This study mainly focused on TAZARA alone. This limits the generalisability of the findings to other sectors. It is strongly recommended that this study be replicated in other sectors. Future studies should also consider the inclusion of moderating and/or mediating variables.

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Appendices

Principal Component Analysis

Component Loadings

	Component			
	1	2	3	Uniqueness
SP1	0.649			0.525
SP2	0.605	0.335		0.452
SP3	0.643			0.472
SP4	0.429	0.431		0.610
SP5	0.563	0.507		0.425
SP6	0.564	0.460		0.432
SP7	0.623			0.504
SP8	0.707			0.418
SP9	0.620		0.393	0.422
SP10	0.679		0.310	0.435
SP11	0.509		0.467	0.465
CA1			0.665	0.479
CA2			0.673	0.441
CA3		0.373	0.578	0.482
CA4			0.613	0.571
CA5			0.649	0.537
P1		0.600		0.569
P2		0.650		0.497
P3	0.326	0.512	0.320	0.529
P4		0.477		0.674
P5		0.594		0.559
P6		0.627		0.517
P7		0.718		0.472
P8		0.518	0.327	0.608
P9		0.541	0.484	0.469

Note. 'varimax' rotation was used

Assumption Checks

Bartlett's Test of Sphericity

χ²	df	p
1934	300	< .001

KMO Measure of Sampling Adequacy

	MSA
Overall	0.909
SP1	0.917
SP2	0.949
SP3	0.945
SP4	0.881
SP5	0.917
SP6	0.925
SP7	0.926
SP8	0.947
SP9	0.951
SP10	0.845
SP11	0.946
CA1	0.901
CA2	0.905
CA3	0.923
CA4	0.886
CA5	0.803
P1	0.891
P2	0.886
P3	0.927
P4	0.896
P5	0.880
P6	0.909
P7	0.858
P8	0.920
P9	0.866

Estimate Plot
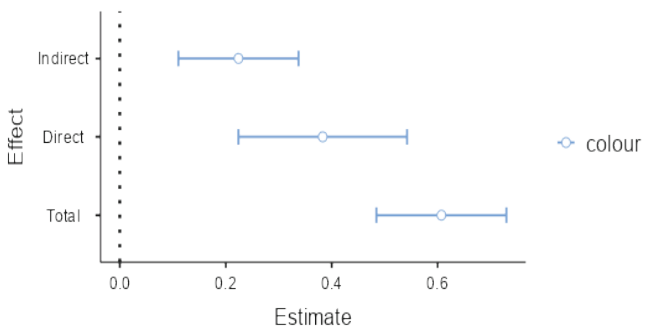
Plot
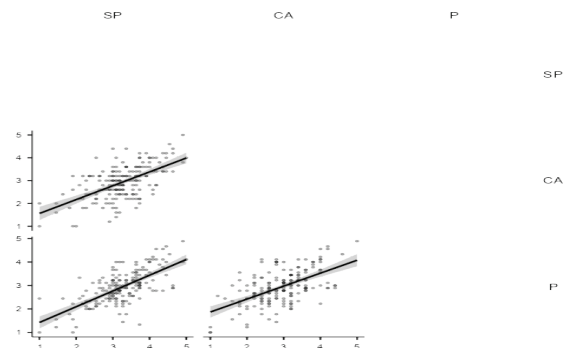
Reliability Analysis

Scale Reliability Statistics

	Mean	SD	Cronbach's α	McDonald's ω
scale	3.07	0.637	0.927	0.927

Correlation Heatmap
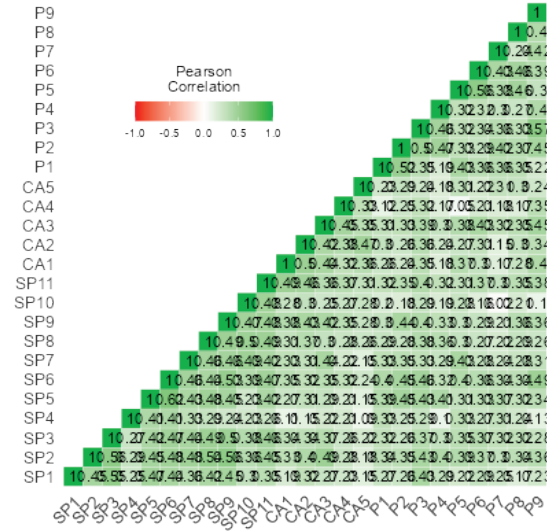
Reliability Analysis

Scale Reliability Statistics

	Mean	SD	Cronbach's α	McDonald's ω
scale	2.93	0.722	0.846	0.847

Correlation Heatmap
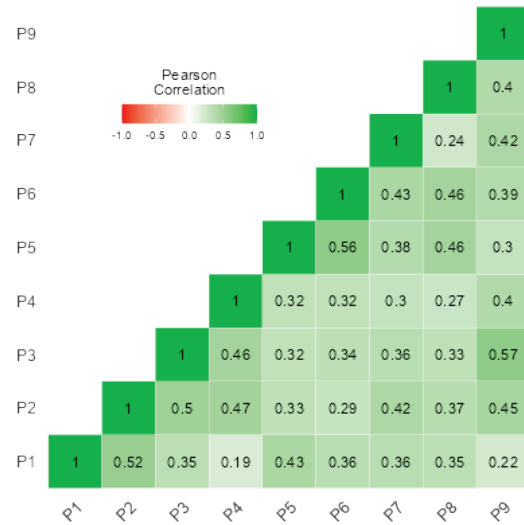
Reliability Analysis

Scale Reliability Statistics

	Mean	SD	Cronbach's α	McDonald's ω
scale	2.92	0.749	0.770	0.771

Correlation Heatmap
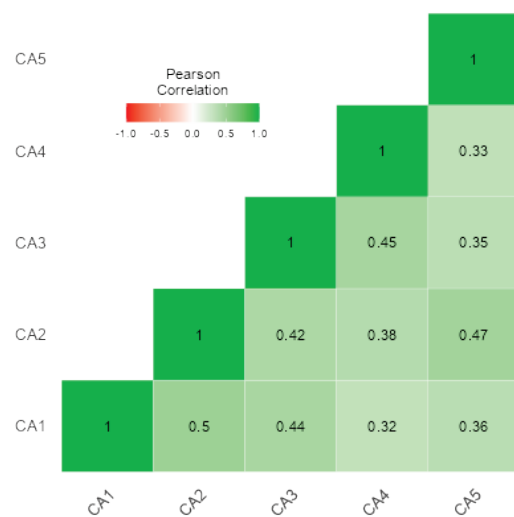
Reliability Analysis

Scale Reliability Statistics

	Mean	SD	Cronbach's α	McDonald's ω
scale	3.24	0.727	0.891	0.892

Correlation Heatmap

Genişletilmiş Özet
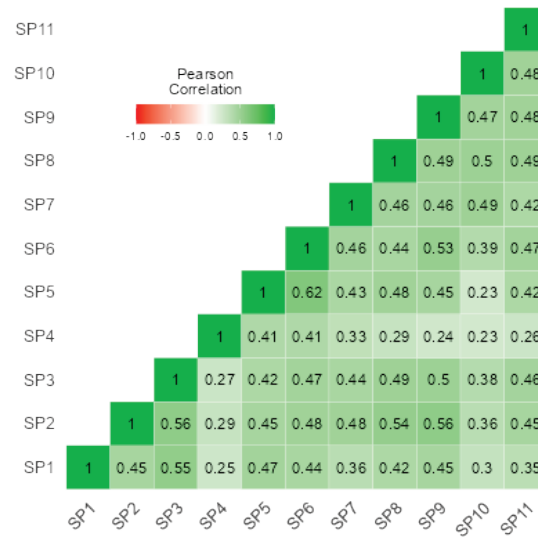
Çalışma, stratejik planlamanın verimlilik yoluyla rekabet avantajı üzerindeki etkisini incelemiştir. Bunun amacı, stratejik planlama ile rekabet avantajı arasındaki ilişkinin niteliğine dair var olan sonuçsuz tartışmayı çözüme kavuşturmaktır; bazı çalışmalar stratejik planlamanın kurumun rekabet avantajı üzerinde etkisi olduğunu ortaya koyarken, diğer çalışmalar stratejik planlamanın rekabet avantajı üzerinde herhangi bir etkisi olmadığını ortaya koymaktadır.

Çalışma, incelenen ilişkinin doğasına bağlı olarak nicel bir araştırma yaklaşımı benimsemiştir. Birincil veriler, 240 kişilik evren hedefine karşılık TAZARA yönetimindeki 177 çalışandan oluşan bir örneklemden anket kullanılarak toplanmış ve veriler Jamovi yazılımı kullanılarak analiz edilmiştir.

Çalışmanın sonuçları, stratejik planlama (SP) ile rekabet avantajı arasında ve ayrıca verimlilik ile rekabet avantajı arasında pozitif yönlü anlamlı bir ilişki olduğunu göstermektedir. Verimliliğin stratejik planlama ve rekabet avantajı arasındaki ilişkiye kısmen aracılık ettiği bulunmuştur.

Bu çalışmanın sonuçları, karar vericilerin 21. yüzyılın bu gergin ve şiddetli rekabetinde ayakta kalabilmek için stratejik planlamayı uygularken verimliliğe daha fazla odaklanmalarına yardımcı olacaktır. Çalışma, stratejik planlama (SP) ve rekabet avantajı arasındaki ilişkide verimliliğin aracılık etkisini tespit ederek literatüre katkıda bulunmaktadır. Bu çalışmanın diğer sektörlerde de tekrarlanması önerilmektedir. Gelecekteki çalışmalarda diğer moderatör ve/veya aracı değişkenler de dahil edilmelidir.