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Research Article

Strategic Orientation, Digital Transformation Capabilities, and Their Impact on Organizational Performance: A Comprehensive Analysis

[1]Ranvijay Singh Chauhan [2]Chandrasekar Thangavelu [3]Radha Thangarajan

[1] *Research Scholar, Department of Business Administration, Kalasalingam Academy of Research and Education, Krishnankoil. E-Mail: ranvijaysinghchauhan@yahoo.co.in*

[2] *Associate Professor, Department of Business Administration, Kalasalingam Academy of Research and Education, Krishnankoil, E-Mail: chandrasekar@klu.ac.in*

[3] *Assistant Professor, Department of Commerce, St. Claret College Autonomous, Bangalore, Karnataka. E-Mail: radha@claretcollege.edu.in*
Orcid Id :0000-0002-5719-3830

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ABSTRACT

The concept of digital transformation, emphasizing its essential role in reshaping the modern business environment. Digital transformation involves the integration of digital technologies into all aspects of business operations, fundamentally changing the way organizations deliver value to customers and adapt to evolving market demands. The research looks at how organizations need to align their digital strategies with broader business objectives to succeed in a rapidly changing technology environment. Specifically, the study examines the relationship between strategic orientation, digital transformation capabilities, and organizational performance. It examines how customer-centricity and technology-centricity, when effectively integrated into business strategies, can provide competitive advantage in the digital age. The paper also explores key digital transformation capabilities, such as the ability to sense technological shifts, adapt organizational structures and restructure resources, which are key to improving operational efficiency and customer satisfaction. In addition, it highlights the importance of continuously improving the customer experience as a direct result of successful digital transformation initiatives. Through rigorous analysis and sophisticated measurement models, the study offers useful insights for managers looking to leverage digital capabilities to drive sustainable performance improvement. In conclusion, the findings contribute to the literature by clarifying the complex dynamics of digital transformation and suggesting future research directions, particularly regarding sector-specific digital adaptation strategies.

Keywords: Strategic Orientation, Digital Transformation

1. Introduction

The advent of the digital age has ushered in an era of unprecedented transformation across industries that has fundamentally changed the way organizations operate, deliver services and interact with customers. Digital transformation refers to the significant changes that occur when businesses integrate digital technologies into all aspects of their operations. This integration changes the value proposition, processes and overall performance of companies. From automating routine tasks to leveraging artificial intelligence for predictive analytics, digital transformation has become an essential strategy for businesses to remain competitive in a rapidly evolving global marketplace (Vial, 2019).

On a global scale, the importance of digital transformation cannot be overstated. In today's business environment, where technological innovation occurs at a breakneck pace, companies must embrace this change in order to survive. Digital transformation encompasses a wide range of technologies, including cloud computing, artificial intelligence (AI), big data, machine learning, the Internet of Things (IoT), and blockchain (Zhou et al., 2018). These technologies are not only transforming internal business processes, but also revolutionizing customer interaction. As industries become increasingly interconnected, organizations that fail to adapt to this digital revolution risk being left behind (Teece, 2007).

2. Review of Literature

The IT services sector in particular is at the forefront of this digital transformation. IT service providers play a dual role, facilitating digital transitions for their clients while undergoing their own internal digital development to increase operational efficiency and customer satisfaction. These companies are helping other industries navigate the digital age by offering infrastructure, software solutions, and consulting services that enable the seamless integration of new technologies (Svahn, Mathiassen, & Lindgren, 2017). In Hyderabad, India's fast-growing IT hub, digital transformation has become an essential goal for both incumbents and start-ups alike. The city's prominence as an IT services hub is driven by its strong technology talent, infrastructure and government support, making it a leading force in India's digital innovation landscape. This study aims to examine the impact of digital transformation on two key areas of the IT services industry in Hyderabad: operational efficiency and customer satisfaction.

Operational efficiency is the foundation of any successful business. It refers to an organization's ability to deliver products or services in a cost-effective manner without compromising quality (Teece, Pisano, & Shuen, 1997). Operational efficiency traditionally involves optimizing resources, reducing waste, and improving workforce productivity. However, the digital age has brought new dynamics. Operational efficiency today depends on how effectively companies use digital technologies to streamline processes, eliminate inefficiencies, and scale operations to meet changing market demands (Paschou, Rapaccini, Adrodegari, & Saccani, 2020).

Digital transformation significantly increases operational efficiency by automating repetitive tasks, optimizing workflows and providing real-time data analysis for more informed decision-making. In the highly competitive IT services industry, where customer expectations continue to rise, maintaining a high level of operational efficiency is critical to long-term success (Warnera & Wägerb, 2019). Technologies such as robotic process automation (RPA), cloud computing and machine learning are revolutionizing the way IT service providers manage their operations, enabling them to do more with fewer resources while remaining agile.

Robotic process automation, for example, allows IT service providers to automate routine rule-based tasks such as data entry and customer service responses. This reduces time spent on manual processes, minimizes human error, and speeds up service delivery (Yeow, Soh, & Hansen, 2018). The rise of cloud computing also allows IT service providers access to scalable resources on demand, enabling them to optimize infrastructure costs and reduce the need for expensive on-premise hardware (Lu, Wang, & Xu, 2019). In addition, data analytics and machine learning increase operational efficiency by analyzing vast amounts of data to provide actionable insights into customer behavior, market trends, and internal performance metrics (Freitas, Macada, Brinkhues, & Montesdioca, 2016).

The COVID-19 pandemic has further highlighted the importance of digital transformation to maintain operational efficiency. Companies that have already adopted digital tools have more easily adapted to remote work, supply chain disruptions, and continuous service to clients without significant interruptions. This crisis demonstrated the resilience that digital transformation offers in ensuring business continuity, even in the face of unforeseen challenges (Teece, 2007).

As digital technologies continue to reshape industries, so do customer expectations. Armed with a wealth of information and numerous options, today's customers demand seamless, personalized and real-world experiences from service providers (Hu et al., 2021). In the IT services industry, where long-term client relationships are important, maintaining a high level of customer satisfaction is critical to success. Digital transformation plays a key role in increasing customer satisfaction by enabling companies to provide more personalized, efficient and responsive services.

One of the key ways digital transformation is increasing customer satisfaction is through AI-powered customer support tools. Chatbots, virtual assistants and automated response systems enable IT service providers to offer 24/7 support and resolve common customer queries without human intervention. This reduces response time and allows human agents to focus on more complex problems, improving the overall customer experience (Galbraith, 1974). In addition, data analytics and customer relationship management (CRM) platforms provide IT service providers with deep insights into client preferences, pain points, and usage patterns. By leveraging big data, companies can offer more customized solutions and proactive support, which is especially valuable in an industry where clients often demand customized services (Moser, Kuklinski, & Srivastava, 2017).

Often referred to as "Cyberabad" due to its booming IT sector, Hyderabad has emerged as one of India's leading technology hubs. The city is home to global IT giants and a growing startup ecosystem, making it a major player in both the Indian and global IT services landscape. Factors such as a large talent pool, favorable business conditions, and government support for digital innovation have led to the rise of Hyderabad as a technology hub (Tan, Liu, Liu, & Cheng, 2017).

Companies in the IT services sector in Hyderabad are increasingly focusing on digital transformation to increase their competitiveness, adopting technologies such as AI, cloud computing and blockchain to improve service delivery and operational efficiency. Despite its success, Hyderabad's IT services industry faces challenges. The rapid pace of technological change and increasing global competition requires constant innovation. In addition, increasing demand for personalized real-time services from clients is pushing IT service providers to improve operational efficiency while maintaining high customer satisfaction. By examining the intersection of digital transformation, operational efficiency and customer satisfaction, this study seeks to understand how IT service providers in Hyderabad are managing these challenges and capitalizing on the opportunities presented by the digital age.

3. Research Methodology

3.1 Research Model and Hypotheses

This study proposes a conceptual framework to examine how strategic orientations, namely customer orientation and technology orientation, influence digital transformation capability in the IT services industry in Hyderabad. Digital transformation capability, characterized by its sensing, organizing and restructuring dimensions, is positioned as a critical factor that directly affects operational performance and customer satisfaction. The framework further examines the mediating role of digital transformation capability in linking strategic orientations to operational performance and the moderating effects of economic factors and customer demographics on these relationships.

The research model assumes that customer and technology orientation positively influence digital transformation capability (H1, H2), which in turn improves operational performance and customer satisfaction (H3, H4). It also hypothesizes that digital transformation capability mediates the relationships between strategic orientations and operational performance (H5, H6). Additionally, the model suggests that economic factors and customer demographics significantly moderate the effect of digital transformation capability on operational performance and customer satisfaction (H7, H8). This framework aims to provide practical information on how IT service firms can strategically use digital transformation to improve performance in a competitive marketplace.

3.2 Research Hypothesis

Based on a review of existing literature and theoretical foundations such as the resource-based view and dynamic capability theory, this study investigates how strategic orientations, digital transformation capability, and contextual factors influence operational performance and customer satisfaction in the IT services industry in Hyderabad. The proposed hypotheses are as follows:

H1: Customer orientation positively influences digital transformation capability in the IT services industry in Hyderabad.
H1a: Customer orientation positively influences the sensing dimension of digital transformation capability.
H1b: Customer orientation positively influences the organizing dimension of digital transformation capability.
H1c: Customer orientation positively influences the restructuring dimension of digital transformation capability.

H2: Technology orientation positively influences digital transformation capability in the IT services industry in Hyderabad.
H2a: Technology orientation positively influences the sensing dimension of digital transformation capability.
H2b: Technology orientation positively influences the organizing dimension of digital transformation capability.
H2c: Technology orientation positively influences the restructuring dimension of digital transformation capability.

H3: Digital transformation capability positively impacts operational performance in the IT services industry in Hyderabad.
H3a: Sensing in digital transformation capability positively impacts operational performance.
H3b: Organizing in digital transformation capability positively impacts operational performance.
H3c: Restructuring in digital transformation capability positively impacts operational performance.

H4: Digital transformation capability positively impacts customer satisfaction in the IT services industry in Hyderabad.

H5: Digital transformation capability mediates the relationship between customer orientation and operational performance in the IT services industry in Hyderabad.

H6: Digital transformation capability mediates the relationship between technology orientation and operational performance in the IT services industry in Hyderabad.

H7: Economic factors and customer demographics significantly moderate the relationship between digital transformation capability and operational performance in the IT services industry in Hyderabad.

H8: Economic factors and customer demographics significantly moderate the relationship between digital transformation capability and customer satisfaction in the IT services industry in Hyderabad.

3.3 Measurement

This study examines the relationship between strategic orientation, digital transformation capability and their impact on operational performance and customer satisfaction. The key constructs in this research are operationalized as follows: customer orientation (CUO), which measures the extent to which businesses prioritize customer needs and satisfaction in their digital transformation efforts; technology orientation (TO), which assesses the propensity to adopt and innovate new digital technologies; and digital transformation capability, which includes three dimensions: sensing (monitoring and identifying market changes), orchestration (aligning digital resources with business strategies), and restructuring (reconfiguring resources for sustained transformation). Results, operational performance (OPP) and customer satisfaction (CS) are evaluated based on improvements in efficiency, cost reduction, product quality and customer experience resulting from digital transformation efforts.

3.4 Data Collection

Data for this study was collected through a structured questionnaire that was distributed to executives, managers and department heads involved in digital transformation at the organizational level. Due to logistical constraints during the pandemic, responses were collected online. A total of 162 valid responses were received, representing a diverse group of respondents across different roles, industries and company sizes. The sample consisted primarily of managers with the largest representation in the electrical engineering industry, followed by the automotive and healthcare industries. Most of the companies surveyed had 300-2000 employees and annual sales between RMB 500 million and RMB 1 billion.

Table:1 Demographic statistics

Item	Category (N=385)	Frequency	%
Position	Department Manager	119	30.9%
	Senior Manager	134	34.8%
	Executive (CEO, CMO, CFO, CIO)	132	34.3%
Year since established	Less than 5 years	79	20.5%
	5–10 years	67	17.4%
	10–15 years	82	21.3%
	More than 15 years	76	19.7%
	5	81	21.0%
Main industry type	Automobile	54	14.0%
	Machine & Equipment	54	14.0%
	Electronics	70	18.2%
	Textile & Clothing	64	16.6%
	Food & Beverage	57	14.8%
	Medical & Medicine	56	14.5%
	Other	30	7.8%
Number of employees	Less than 100	74	19.2%
	100–300	90	23.4%
	300–2000	77	20.0%

	2000–10,000	69	17.9%
	More than 10,000	75	19.5%
Annual sale	Less than RMB 30 million (US$4.3 million)	78	20.3%
	RMB 30–100 million (US$4.3–14.3 million	71	18.4%
	RMB 100–500 million (US$14.3–71.5 million)	90	23.4%
	RMB 500 million-1 billion (US$71.5–143 million)	76	19.7%
	More than RMB 1 billion (US$143 million)	70	18.2%
Digital transformation	To meet customer needs and customer satisfaction	51	13.2%
	To speed up decision making and delivery	57	14.8%
	To sustain competitive advantage	51	13.2%
	To diminish production and process costs	51	13.2%
	To enhance operational efficiency	52	13.5%
	To facilitate new product development	67	17.4%
	Other	56	14.5%

4. Data Analysis

Tests of the Measurement Model

Data analysis was conducted using SPSS software to evaluate the reliability and validity of the measurement model. As shown in Table 3, the Cronbach's alpha, factor loadings, composite reliability (CR), and Average Variance Extracted (AVE) for the majority of variables met or exceeded the recommended thresholds of 0.7 for reliability and 0.5 for AVE. Specifically, Customer Orientation and Digital Transformation Capability (H1) achieved high reliability with a Cronbach's alpha of 0.938, CR of 0.996, and AVE of 0.799. Similarly, Technology Orientation and Digital Transformation Capability (H2) demonstrated adequate reliability with a Cronbach's alpha of 0.856, CR of 0.992, and AVE of 0.637. However, some constructs, such as Digital Transformation Capability and Operational Performance (H3) and Moderating Effects on the Relationship between Digital Transformation Capability and Customer Satisfaction (H8), presented lower AVE values of 0.43 and 0.427, respectively, indicating weaker convergent validity for these factors. Further analysis revealed specific items with cross-factor loadings below 0.7, which were excluded to enhance the measurement model's validity. For instance, H3Q2 (loading: 0.601) and H3Q3 (loading: 0.58) were removed from the operational performance dimension, as these items did not adequately represent the construct. Similarly, H8Q3 (loading: 0.571) and H8Q4 (loading: 0.548) were excluded from the moderation analysis of customer satisfaction due to their insufficient contribution. These adjustments ensured a more robust alignment between the remaining items and their respective constructs, emphasizing the focus on high-loading indicators to validate the research model effectively.

Table 2: Factors loading, AVE, Cronbach alpha value

S.NO	Sections	Factors	Loading	AVE	CR	Cronbach alpha value
1	Customer Orientation and Digital Transformation Capability (H1)	H1Q1	0.963	0.996	0.799	0.938
		H1Q2	0.877			

		H1Q3	0.864			
		H1Q4	0.879			
		H1Q5	0.883			
2	Technology Orientation and Digital Transformation Capability (H2	H2Q1	0.933	0.992	0.637	0.856
		H2Q2	0.771			
		H2Q3	0.728			
		H2Q4	0.773			
		H2Q5	0.769			
3	Digital Transformation Capability and Operational Performance (H3)	H3Q1	0.868	0.977	0.43	0.654
		H3Q2	0.601			
		H3Q3	0.58			
		H3Q4	0.64			
		H3Q5	0.538			
4	Digital Transformation Capability and Customer Satisfaction (H4)	H4Q1	0.938	0.992	0.622	0.854

		H4Q2	0.754		
		H4Q3	0.748		
		H4Q4	0.754		
		H4Q5	0.732		
5	Mediating Role of Digital Transformation Capability (H5)	H5Q1	0.966	0.997	0.796	0.937
		H5Q2	0.885		
		H5Q3	0.874		
		H5Q4	0.864		
		H5Q5	0.869		
6	Digital Transformation Capability as a Mediator between Technology Orientation and Operational Performance(H6)	H6Q1	0.96	0.996	0.799	0.939
		H6Q2	0.87		
		H6Q3	0.88		
		H6Q4	0.88		
		H6Q5	0.87		

7	Moderating Role of Economic Factors and Customer Demographics (H7)	H7Q1	0.964	0.996	0.781	0.931
		H7Q2	0.873			
		H7Q3	0.854			
		H7Q4	0.871			
		H7Q5	0.851			
8	Moderating Effects on the Relationship between Digital Transformation Capability and Customer Satisfaction(H8)	H8Q1	0.846	0.973	0.427	0.651
		H8Q2	0.601			
		H8Q3	0.571			
		H8Q4	0.548			
		H8Q5	0.657			

The data presents an analysis of perceptions regarding digital transformation and its impact on customer satisfaction, operational efficiency, and economic factors among different managerial roles: Department Managers, Senior Managers, and Executives (CEO, CMO, CFO, CIO). Across most statements, mean scores indicate moderate agreement, with slight variations between roles. For example, regarding prioritizing customer needs in digital transformation, Department Managers reported a mean of 3.14, compared to 3.07 and 3.10 for Senior Managers and Executives, respectively. Similarly, customer satisfaction as a driver for digital transformation yielded closely aligned means (Department Managers: 3.08, Senior Managers: 2.98, Executives: 3.12), reflecting a shared moderate emphasis across roles. Additionally, the feedback integration into digital strategy showed minor disparities, with Executives scoring slightly lower (2.90) than Department Managers (3.15). These findings suggest a general alignment in perceiving customer-centric approaches as central to digital transformation, with nuanced differences across roles.

Operational improvements and the influence of economic factors on digital transformation efforts reveal mixed responses. Technological advancements as drivers for operational efficiency were moderately rated, with Department Managers at 2.97 and Executives slightly higher at 2.91. Variations are also observed in aligning digital strategies with customer expectations, where Department Managers scored the highest (3.11) compared to Executives (2.87).

Economic conditions and demographic factors showed a consistent influence, with slight agreement across all roles. For instance, the perception that economic conditions impact the success of digital transformation in customer satisfaction was moderately rated, with Department Managers scoring 3.05, Senior Managers 3.18, and Executives 2.96. This consistency underscores the shared understanding of external factors shaping digital transformation outcomes, despite managerial-level differences.

Table:3 Comparative Analysis of Perceptions on Digital Transformation Initiatives by Organizational Role

		Mean	Std. Deviation	P-VALUE
Our company prioritizes customer needs in our digital transformation efforts	Department Manager	3.14	1.469	0.918
	Senior Manager	3.07	1.457	
	Executive (CEO, CMO, CFO, CIO)	3.10	1.445	
Customer satisfaction is a key driver for our digital transformation initiatives	Department Manager	3.08	1.576	0.720
	Senior Manager	2.98	1.459	
	Executive (CEO, CMO, CFO, CIO)	3.12	1.457	
We actively seek customer feedback to guide digital transformation decisions	Department Manager	3.15	1.465	0.663
	Senior Manager	2.99	1.430	
	Executive (CEO, CMO, CFO, CIO)	3.05	1.479	
The feedback we collect from customers helps shape our digital strategy	Department Manager	3.06	1.514	0.894
	Senior Manager	3.13	1.448	
	Executive (CEO, CMO, CFO, CIO)	3.14	1.514	
Our digital transformation processes are centered around enhancing the customer experience.	Department Manager	3.11	1.534	0.734
	Senior Manager	3.04	1.519	
	Executive (CEO, CMO, CFO, CIO)	3.18	1.440	
Our company keeps up with the latest technological advancements to support digital transformation	Department Manager	3.03	1.501	0.677
	Senior Manager	2.99	1.390	
	Executive (CEO, CMO, CFO, CIO)	3.14	1.436	
.We regularly invest in new technologies to improve our digital capabilities	Department Manager	3.01	1.549	0.343
	Senior Manager	3.06	1.381	
	Executive (CEO, CMO, CFO, CIO)	3.27	1.528	
Technological innovation is a core part of our company's digital transformation strategy	Department Manager	2.89	1.583	0.233
	Senior Manager	3.08	1.456	
	Executive (CEO, CMO, CFO, CIO)	3.21	1.441	
We have the infrastructure in place to support cutting-edge technology adoption for digital transformation	Department Manager	2.87	1.597	0.331
	Senior Manager	2.96	1.491	
	Executive (CEO, CMO, CFO, CIO)	3.15	1.506	
The introduction of new technologies drives our organization's digital transformation efforts	Department Manager	2.79	1.523	0.140
	Senior Manager	3.01	1.527	
	Executive (CEO, CMO, CFO, CIO)	3.17	1.463	
	Department Manager	3.00	1.432	0.350

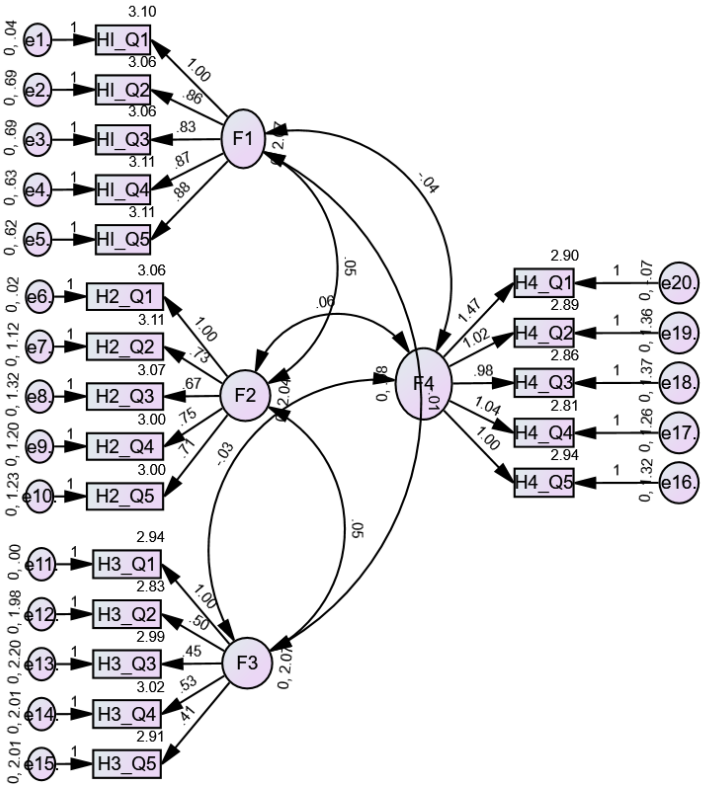
Digital transformation has helped improve the overall efficiency of our operations	Senior Manager	2.80	1.506	
	Executive (CEO, CMO, CFO, CIO)	3.04	1.384	
Our operational performance has improved due to the integration of digital systems.	Department Manager	2.84	1.568	0.991
	Senior Manager	2.81	1.609	
	Executive (CEO, CMO, CFO, CIO)	2.83	1.590	
Digital tools and technologies have enabled us to streamline business processes	Department Manager	3.10	1.612	0.578
	Senior Manager	2.89	1.689	
	Executive (CEO, CMO, CFO, CIO)	3.01	1.556	
The use of digital platforms has reduced operational bottlenecks in our organization	Department Manager	3.00	1.594	0.981
	Senior Manager	3.04	1.624	
	Executive (CEO, CMO, CFO, CIO)	3.03	1.620	
Digital transformation has enhanced our ability to manage operational challenges effectively	Department Manager	2.89	1.550	0.941
	Senior Manager	2.89	1.569	
	Executive (CEO, CMO, CFO, CIO)	2.95	1.510	
Our digital transformation efforts have led to increased customer satisfaction.	Department Manager	2.75	1.397	0.359
	Senior Manager	2.99	1.443	
	Executive (CEO, CMO, CFO, CIO)	2.95	1.443	
Customers have responded positively to the digital improvements we have made.	Department Manager	2.84	1.626	0.735
	Senior Manager	2.98	1.504	
	Executive (CEO, CMO, CFO, CIO)	2.86	1.509	
The digital tools we have implemented have enhanced our customers' experience	Department Manager	2.97	1.529	0.580
	Senior Manager	2.85	1.529	
	Executive (CEO, CMO, CFO, CIO)	2.77	1.523	
We are better able to meet customer expectations due to our digital transformation initiatives.	Department Manager	2.78	1.502	0.961
	Senior Manager	2.84	1.581	
	Executive (CEO, CMO, CFO, CIO)	2.81	1.509	
Customer satisfaction has significantly improved as a direct result of our digital strategies	Department Manager	2.75	1.503	0.163
	Senior Manager	2.95	1.503	
	Executive (CEO, CMO, CFO, CIO)	3.11	1.537	
Customer-oriented digital transformation initiatives have improved our operational efficiency	Department Manager	3.13	1.478	0.389
	Senior Manager	2.97	1.507	
	Executive (CEO, CMO, CFO, CIO)	2.88	1.467	
Digital transformation bridges the gap between customer feedback and operational improvements	Department Manager	3.07	1.528	0.705
	Senior Manager	3.04	1.471	
	Executive (CEO, CMO, CFO, CIO)	2.92	1.434	
The integration of customer feedback into digital transformation efforts has	Department Manager	3.15	1.471	0.377
	Senior Manager	3.09	1.494	
	Executive (CEO, CMO, CFO, CIO)	2.90	1.492	

enhanced our operational performance				
Our customer-centric digital strategies contribute to better operational outcomes	Department Manager	3.18	1.538	0.221
	Senior Manager	2.95	1.458	
	Executive (CEO, CMO, CFO, CIO)	2.86	1.397	
Operational performance improves when we align digital transformation with customer expectations.	Department Manager	3.11	1.448	0.383
	Senior Manager	3.07	1.467	
	Executive (CEO, CMO, CFO, CIO)	2.87	1.490	
Technology-driven digital transformation has directly improved our operational performance	Department Manager	2.97	1.365	0.670
	Senior Manager	2.81	1.448	
	Executive (CEO, CMO, CFO, CIO)	2.91	1.531	
Digital transformation effectively translates technological advancements into operational improvements.	Department Manager	2.97	1.399	0.906
	Senior Manager	2.90	1.424	
	Executive (CEO, CMO, CFO, CIO)	2.97	1.543	
The adoption of new technologies through digital transformation enhances our operational efficiency	Department Manager	3.00	1.450	0.633
	Senior Manager	2.83	1.509	
	Executive (CEO, CMO, CFO, CIO)	2.95	1.508	
Our operational capabilities are significantly improved due to technology-focused digital transformation efforts.	Department Manager	3.03	1.473	0.394
	Senior Manager	2.78	1.444	
	Executive (CEO, CMO, CFO, CIO)	2.91	1.575	
Digital transformation serves as a key link between technology orientation and operational performance outcomes	Department Manager	2.92	1.394	0.903
	Senior Manager	2.84	1.555	
	Executive (CEO, CMO, CFO, CIO)	2.84	1.482	
Economic factors influence the extent to which digital transformation improves operational performance	Department Manager	2.97	1.381	0.946
	Senior Manager	2.94	1.439	
	Executive (CEO, CMO, CFO, CIO)	2.92	1.325	
Customer demographics impact how digital transformation affects our operational efficiency	Department Manager	2.94	1.463	0.688
	Senior Manager	2.81	1.498	
	Executive (CEO, CMO, CFO, CIO)	2.95	1.424	
Changes in the economic environment alter the effectiveness of digital transformation on operational outcomes	Department Manager	3.08	1.366	0.820
	Senior Manager	3.07	1.405	
	Executive (CEO, CMO, CFO, CIO)	2.98	1.406	
Digital transformation's impact on operational performance varies based on the economic conditions we face.	Department Manager	3.03	1.481	0.686
	Senior Manager	2.87	1.481	
	Executive (CEO, CMO, CFO, CIO)	2.94	1.413	
	Department Manager	2.90	1.428	0.812

Our operational efficiency depends on how well we adjust digital transformation efforts to changing economic circumstances.	Senior Manager	2.79	1.492	
	Executive (CEO, CMO, CFO, CIO)	2.88	1.371	
Economic conditions impact the effectiveness of digital transformation on customer satisfaction.	Department Manager	3.05	1.478	0.461
	Senior Manager	3.18	1.429	
	Executive (CEO, CMO, CFO, CIO)	2.96	1.384	
Customer satisfaction from digital transformation initiatives depends on demographic factors.	Department Manager	3.19	1.525	0.668
	Senior Manager	3.02	1.534	
	Executive (CEO, CMO, CFO, CIO)	3.09	1.485	
Economic factors play a significant role in shaping customer perceptions of our digital transformation efforts.	Department Manager	3.23	1.586	0.504
	Senior Manager	3.04	1.626	
	Executive (CEO, CMO, CFO, CIO)	3.26	1.571	
The success of digital transformation in enhancing customer satisfaction varies with changing economic conditions.	Department Manager	3.21	1.529	0.314
	Senior Manager	3.07	1.604	
	Executive (CEO, CMO, CFO, CIO)	2.91	1.555	
Customer satisfaction is influenced by the interaction between digital transformation and customer demographic characteristics.	Department Manager	3.03	1.493	0.662
	Senior Manager	3.20	1.588	
	Executive (CEO, CMO, CFO, CIO)	3.14	1.562	

The image illustrates a Structural Equation Model (SEM) path diagram, depicting four latent variables (F1, F2, F3, F4) represented as ellipses, each connected to observed variables (H1_Q1 to H4_Q5) shown as rectangles, which correspond to measurable indicators or survey items. One-headed arrows between latent and observed variables indicate standardized regression weights (e.g., F1 has a loading of 0.86 on H1_Q1), while circles labelled e1 to e20 represent residual errors, capturing unexplained variance. Bidirectional arrows between latent variables signify correlations or covariances, with numerical values provided. Mean values of the observed variables are displayed above the rectangles (e.g., 3.06 for H1_Q1), while standard errors are shown near residuals. This diagram comprehensively models the relationships between latent variables, their indicators, and associated errors, providing insights into the data's underlying structure and supporting theoretical validation.

Image: 1 Structural Equation Model (SEM) Path Diagram Depicting Relationships Among Latent Variables, Observed Variables, and Error Terms



5. Discussion

This study aims to investigate the relationship between strategic orientation, digital transformation capability and their impacts on operational performance and customer satisfaction. Strategic orientation is key because it shapes how a company aligns its digital transformation efforts with its overarching business strategy. Customer orientation (CUO) is one of the key strategic orientations examined in this study, which focuses on the extent to which businesses prioritize customer needs and satisfaction. A customer-centric approach has been shown to lead to greater digital adoption, leading to innovations that better meet evolving customer demands (Yu & Moon, 2021). In parallel, another critical factor is technology orientation (TO). Technology orientation measures an organization's tendency to adopt new digital technologies such as artificial intelligence, big data analytics, and cloud computing. The ability to adopt and implement cutting edge technological innovation is often associated with better operational performance and market competitiveness (Teece et al., 1997). Digital transformation capability is considered a more holistic construct that includes three key dimensions: sensing, organizing, and restructuring. Sensing is the ability of an organization to monitor changes in the business environment and proactively respond to technological and market changes. As industries become increasingly digitized, companies must have strong sensing capabilities to detect new opportunities or potential disruptions in time (Teece, 2007). The organization, on the other hand, assesses how well the organization can align its digital initiatives with its strategic goals. An effective organization ensures that digital projects are not isolated but integrated into the wider goals of the company (Levallet & Chan, 2018).

Finally, restructuring deals with how organizations reconfigure their resources, processes and capabilities to enable agility and ensure that businesses remain flexible and adaptable in the face of rapid technological change (Paschou et al., 2020). Together, these capabilities enable businesses to navigate complex digital transformation journeys and improve their ability to compete in dynamic markets. The results of this study are twofold: operational performance (OPP) and customer satisfaction (CS). Operational performance refers to the improvements in efficiency,

productivity, quality and cost management that result from the digital transformation process. Companies that invest in digital capabilities often report increased productivity, cost savings, and improved product quality, which are necessary to remain competitive in a rapidly evolving marketplace (Dubey et al., 2020). On the other hand, customer satisfaction (CS) is a critical metric for evaluating how digital transformation affects customer perceptions and experiences. As companies digitally transform, they can offer personalized services, faster response times, and more convenient interactions, all of which positively impact customer satisfaction (Samad et al., 2020). These two outcomes are related because improved operational performance often leads to better customer experiences, while high levels of customer satisfaction can increase business success by encouraging repeat business and positive word of mouth (Wamba & Mishra, 2017). Both results are considered critical indicators of a company's overall success in its digital transformation efforts.

To gather data for this study, a structured questionnaire was distributed to senior executives, managers, and department heads who were directly involved in their organizations' digital transformation processes. Given the broad scope of this research, it was essential to obtain insights from a wide range of organizational roles, particularly those directly influencing digital strategy. The survey participants were from various industries, including electronics, automotive, and healthcare, which provided a diverse perspective on digital transformation practices. Due to the restrictions imposed by the COVID-19 pandemic, data collection was primarily carried out online, which allowed for a larger, geographically distributed sample. This method not only ensured that companies of varying sizes and sectors were represented, but also helped mitigate the logistical challenges of in-person surveys. The responses came from organizations with different business models, ranging from small and medium-sized enterprises (SMEs) to larger corporations, ensuring that the findings reflect a broad range of perspectives on digital transformation (Vial, 2019). The sample size of 162 respondents was considered adequate for statistical analysis, ensuring reliable results that could be generalized across multiple business sectors.

Demographic statistics from the survey reveal key insights about the composition of the sample. Respondents were primarily senior managers (34.8%), followed by department heads (30.9%) and executives (34.3%), ensuring a range of leadership perspectives were captured. This distribution enabled a fine-grained understanding of how digital transformation is perceived and implemented at different levels of the organization. In addition, the industries represented in the sample were diverse, with significant participation from the electronics (18.2%), automotive (14.0%) and healthcare (14.5%) industries, each with unique digitization challenges and opportunities. The broad representation of these industries provides valuable insights into how digital transformation is used differently depending on the dynamics of a specific industry (Lin & Kunnathur, 2019). The study also revealed that a significant proportion of organizations (nearly half) have been in operation for more than 10 years, suggesting that many respondents came from established companies with well-defined processes and business models. However, even among these well-established firms, digital transformation was seen as a necessary strategy to stay relevant in an increasingly competitive environment. In addition, the majority of companies (20%) had fewer than 300 employees and nearly 18.2% had an annual turnover exceeding RMB 1 billion, reflecting a number of organizational metrics that address digital transformation (Yu et al., 2021). The digital transformation objectives identified by respondents varied, suggesting that organizations have different priorities based on their strategic needs. The most common goals were those aimed at increasing customer satisfaction (13.2%) and operational efficiency (13.5%). These findings suggest that businesses increasingly view digital transformation as a means to improve both internal operational processes and external customer-facing activities. Companies looking to increase operational efficiency with digital tools are looking to streamline processes, reduce costs, and improve the speed and accuracy of decision-making. In contrast, companies focused on customer satisfaction are likely to use digital transformation to provide a more personalized experience, using data analytics and customer relationship management (CRM) systems to better meet customer expectations (Freitas et al., 2016). Other goals identified in the study included speeding up decision-making (14.8%) and maintaining a competitive advantage (13.2%). The recognition of digital transformation as a tool to maintain competitiveness highlights the growing awareness among businesses that the adoption of digital technologies is no longer optional in the modern business environment, but a strategic imperative (Tumbas & Berente, 2019). The collected data were analyzed using SPSS software to evaluate the reliability and validity of the measurement model. SPSS is widely used for statistical analysis in academic research and provides robust tools for analyzing survey data. In this study, the primary emphasis was on assessing the internal consistency of the constructs and ensuring that the measurement model accurately represented the relationships between key variables. Cronbach's alpha, a common measure of internal consistency, was found to exceed the accepted threshold of 0.7 for

most constructs, indicating that the items within each construct were highly consistent (Hair et al., 2017). In addition, composite reliability (CR) values were greater than 0.7, indicating that the constructs had strong internal consistency, further supporting the robustness of the model (Hair et al., 2016). These positive results indicate that the measurement model used in this study is reliable and valid for investigating the relationships between strategic orientation, digital transformation and business performance.

For instance, the customer orientation and digital transformation capability construct (H1) demonstrated high reliability, with Cronbach's alpha of 0.938, CR of 0.996, and average variance extracted (AVE) of 0.799. This indicates strong convergent validity, meaning that the items in this construct effectively measure the underlying concept of customer orientation and digital transformation capability (Moser et al., 2017). Similarly, the technology orientation and digital transformation capability construct (H2) showed strong reliability with a Cronbach's alpha of 0.856, CR of 0.992, and AVE of 0.637. The AVE value for this construct exceeded the recommended threshold of 0.5, supporting the idea that technology orientation and digital transformation capability are distinct but closely related factors (Zhou & Li, 2010). However, some constructs, such as digital transformation capability and operational performance (H3) and the moderating effects on the relationship between digital transformation capability and customer satisfaction (H8), exhibited lower AVE values of 0.43 and 0.427, respectively. These lower AVE values raised concerns regarding the convergent validity of these constructs, which prompted the removal of specific items with cross-loadings below 0.7, such as H3Q2 and H3Q3 (Hair et al., 2017). This step of refinement was necessary to improve the model's overall fit and ensure that only high-quality items were retained in the final analysis.

These steps of model refinement and adjustment were crucial in enhancing the reliability and validity of the constructs, ensuring that the findings of the study are both robust and meaningful. The study's methodological rigor ensures that the results can contribute valuable insights into the relationships between digital transformation and organizational performance. By focusing on high-loading indicators and removing items with weak loadings, the study minimized potential sources of measurement error, leading to more accurate results. This process of model adjustment reinforced the overall integrity of the measurement framework and allowed for a clearer understanding of how strategic orientation, digital transformation, and business outcomes interrelate in the digital era (Svahn et al., 2017).

6. Conclusion

In conclusion, this study highlights the critical relationship between strategic orientation, digital transformation capability and their impact on organizational performance and customer satisfaction. It highlights the importance of aligning customer and technology orientations with business objectives for successful digital transformation that enhances competitive advantage. Research shows that strong digital transformation capabilities—including the ability to sense technological change, reorganize initiatives, and restructure resources—are essential for organizations striving for operational efficiency and a better customer experience. It also highlights the link between operational performance and customer satisfaction, suggesting that successful digital transformation leads to a cycle of continuous improvement. By refining measurement models and ensuring methodological rigor, the study offers managers useful insights and contributes to a deeper understanding of the complexities of digital transformation. In addition, it paves the way for future research in this area and supports ongoing exploration of how different industries implement and adapt to digital change, ensuring organizations maintain a competitive edge in a rapidly evolving digital environment.

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