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Abstract

This current study investigates the moderating role of market turbulence in the relationship between digital transformation, intellectual capital, and economic performance. As businesses gradually implement digital technologies, sympathetic how these factors interact is critical for sustaining competitive advantage. Digital transformation (DT) and intellectual capital (IC) are known as key drivers of upgraded economic performance (EP), yet the effects of these relationships may be influenced by external market dynamics. Market turbulence, considered by hasty shifts in customer preferences, technological innovations, and competitive pressures, is hypothesized to moderate these relationships. Using a quantitative approach, data from a cross-sectional sample of organizations across various industries is analyzed. The results show that while both digital transformation and intellectual capital positively impact economic performance, market turbulence amplifies the effects of digital transformation and moderates the influence of intellectual capital.

Keywords: Market Turbulence, Digital Transformation, Intellectual Capital

INTRODUCTION

Digital technologies provide opportunities for strategic decision-making to implement industry 4.0, improve collaboration with stakeholders, and optimize financial activities, ultimately boosting the agility and responsiveness of production processes. Market turbulence can affect how digital transformation and intellectual capital affect firms' economic success, notwithstanding their significance. To achieve successful digital transformation, leadership must change, perceptions need to shift, risk tolerance should be adjusted, work techniques must be updated, and new technology should be adopted to get economic benefits. Organizational preparation involves a clear digital strategy, strong leadership for effective cooperation,

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gathering input fromstakeholders, identifying required skills, retaining talented individuals, and using a dynamic approach to making sound decisions. Economic performance improves through the efficient use of organizational resources like digitization and intellectual capital, which includes focusing on profit margin, market share, product innovation, and management system enhancements. In small and medium-sized firms (SMEs) Digital transformation and intellectual capital are essential for ensuring fair competition and promoting sustainable development and economic growth. The COVID-19 epidemic has greatly affected SDG-8, which aims to enhance decent work and economic growth on a worldwide scale. This influence has been documented globally, regardless of income status the necessity of enhancing recovery strategies in addressing this circumstance. The Sustainable Development Goals (SDGs) by the United Nations aim to tackle economic, social, andenvironmental issues to advance sustainability. The evaluations suggest that the economic objectives of the 8th and 9th Sustainable Development Goals (SDGs) are close to being achieved. COVID-19's development led to a significant disruption of worldwide social, economic, and financial systems. The top ten economies in the world, including the United States, China, Japan, Germany, the United Kingdom, France, India, Italy, Brazil, and Canada, have enforced border closures and are facing the possibility of imminent collapse, which could have a substantial impact on global economic advancement. Additionally, Menyelim, Babajide, Omankhanlen, and Ehikioya (2021) emphasized how restricted financial access negatively affects the connection between income inequality and economic growth in Sub-Saharan African nations. It highlights the beneficial impact of equitable financial access in reducing the impact of income inequality on economic growth. Policymakers need to create strategies that focus on decreasing income inequality and encouraging sustainable economic growth in these nations. The COVID-19 outbreak poses a significant obstacle to achieving Sustainable Development Goals in Egypt. Egypt's advancement towards Sustainable Development Goal 8, centered on promoting decent work and economic growth, was evaluated from 2015 to 2050, spanning 35 years. The growth rate of indicators was utilized to analyze Egypt's performance about SDG 8. Egypt's GDP growth rate showed a consistent annual increase during the specified time (Marzouk et al., 2022). Furthermore, enterprises participating in international markets have successfully adapted their operations to meet changing requirements. Subcontracting methods are crucial for overcoming economic problems and uncertainties, ultimately enhancing stability and promoting economic resilience (Ali & Rehman, 2018; Lemke et al., 2023). The changing economic environment requires a reassessment of management methods and the help provided to Brazilian firms in creating more efficient frameworks. Implementing management principles positively affects market performance and improves future growth prospects, resulting in more strategic long- term decision-making (Gupta et al., 2021; Das, 2024).

The Global Reporting Initiative (GRI) evaluates the sustainability practices and key performance indicators (KPIs) of companies in Sri Lanka to analyze their dedication to sustainability and reporting endeavors (Sandali et al., 2020; Umoh & Effiong, 2024). The United Nations Sustainable Development Goals (UN SDGs) and the rate of GDP growth are used as

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measures of economic well-being in Saudi Arabia. Training, gender equity, and decent employment are strongly and positively correlated with GDP growth, which in turn helps achieve economic and socio-economic goals (Shah & Krishnan, 2023). UN SDG 8 aims to improve the quality of employment opportunities and provide favorable working environments that support workers' psychological contracts, engagement, and trust. This is accomplished by strengthening the relationship agreements between organizations and their personnel (Ridwan et al., 2020; Iqbal & Nader, 2024). The information and communication technology sector in the Netherlands is essential for generating economic growth and promoting innovation through inventions created by employees. Developing a committed and highly creative staff efficiently improves employees' productivity. Work engagement has a vital role in encouraging innovative work behavior, which subsequently affects task performance and innovative work behaviors, ultimately leading to enhanced performance (Akbari et al., 2021; Audi & Roussel, 2024). The study examines how environmental knowledge and ecological innovation mediate the relationship between international exposure and economic outcomes. International experience does not directly influence worldwide economic performance, but it does positively affect eco-innovation in internationalized firms. This allows them to pursue more daring forms of innovation with increased assurance (Marco-Lajara et al., 2023; Dahmani & Makram, 2024; Mbodi & Laye, 2025). Natural resource commodity prices are more prone to swings than China's economic performance. Innovative technological progress and preventive measures successfully tackle upcoming natural disasters and reduce the fluctuation of natural resource commodity prices (Ali & Zulfiqar, 2018; Qiao et al., 2023; Bozic & Bozic, 2025). Advancements in green technology drive high- quality development and boost the economic performance of companies in China. As to (Wang et al., 2021; Fateh & Poulin, 2025), green process innovation has a direct positive impact on economic performance, but green product innovation has an indirect effect.

The correlation between digital organizational culture and digital skills is essential for promoting digital innovation and organizational readiness in the ICT sector (SMEs) in Pakistan (Shah et al., 2024; Audi & Yu, 2024). Absorptive capacity plays a vital role in connecting partnership learning and responsible innovation. Sense-making competency, the skill of interpreting and grasping the importance of information, is recognized as a key element affecting results in developing Asian countries such as Pakistan (Shah et al., 2024; Musa, 2024). Women-owned enterprises' success is greatly impacted by aspects like ambition, risk- taking propensity, self-assurance, economic conditions, and socio-cultural influences. In Pakistan, SMEDA, policymakers, and practitioners are actively promoting the sustainability of women entrepreneurs' firms through various incentives and support. Small and medium-sized firms' (SMEs) performance is significantly affected by their focus on learning, which is further amplified by environmental turbulence. Environmental turbulence enables small and medium-sized firms (SMEs) to focus on enhancing their learning capacity to achieve a stronger competitive advantage. SME owners or managers in Pakistan must prioritize continuous learning to improve their competitiveness in the face of environmental changes (Zeb & Ihsan, 2020; Fatima & Zaman, 2020).

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Market turbulence plays significant moderating role in relationship between intellectual capital, digital transformation and business performance of Textile SMEs of Pakistan. Market turbulence affects the investment decision, consumption decision, traditional decision and production decisions which increase risk, increases uncertainty, create time pressure, urgency and are crucial for making strategies. Economic performance requires adaptive, portfolio optimization, market forecasting, innovation to gain competitive advantages, flexible decision making approaches to overcome extra information (Gaba & Meyer, 2015; Clark, 2022). Effective decision making strategies include scenario planning, contingency planning, real time information processing, feedback (Bougon et al., 2000; Zaim & Yucel, 2022), collaborative and participative processing (Bunderson & Sutcliffe, 2003). Market turbulence in the context of textile SMEs can be understood through its volatility, uncertainty, risk, liquidity, regularity and complexity. In detail frequency and amplitude of market changes like sudden changes in market prices, volumes, or returns are called volatility (Sine et al., 2005; Abbas & Uddin, 2025). Unpredictability of market outcomes and decision-making challenging is called uncertainty. Increased likelihood of losses or reduced potential gains is called risk. Changes in market depth, breadth or trading activity is called liquidity and detailed changes in laws, policies, or regulations affecting market dynamics (Mahmood & Rufin, 2005) and inter-connectedness and multiplicity of market factors is called complexity.

Enhanced skills in working capital management, financial reporting, accounting information systems utilization, investment decision-making, and finance strategy implementation are closely associated with enhanced financial performance and corporate growth. Implementing financial management approaches in small firms in Pakistan can greatly improve their financial performance, with major ramifications for the stakeholders of these organizations (Javed et al., 2020; Oussama & Oluyede, 2022). The progress of small and medium-sized enterprises (SMEs) benefits rural development and the growth of SMEs. Further, Khan et al. (2021) studyemphasizes the substantial influence of supporting small and medium companies (SMEs) in Pakistan to access financial resources. Non-banking financial institutions are essential in providing funding to underrepresented areas such as micro, SMEs, and the agricultural sector. This aids in the growth of Pakistan's GDP and general economic progress (ESCAP, 2021). Organizational success can be impacted by various crucial factors in modern times. Intellectual capital and digital transformation are crucial elements for improving an organization's performance and production, as indicated by relevant literature. Organizations in today's competitive business environment heavily depend on intellectual capital and digital transformation led by their leaders to handle necessary changes and innovations to sustain a competitive edge. This study aims to add to the existing literature by exploring the relationship between intellectual capital and digitaltransformation in the context of Pakistan. Understanding market turbulence's moderating effect is crucial for textile SMEs' sustainability in Pakistan's dynamic business environment. Textile SMEs of Pakistan as industry specific examples to explain the relationship are the impact of digital transformation, intellectual capital on economic performance in market turbulence scenario.

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Mostly Textile SMEs specific challenges are legacy system, lack of intellectual capital, integrating new digital technologies with existing infrastructure (Kumar et al., 2020), supply chain complexity ensuring transparency, traceability (Bharadwaj et al., 2019), material variability dealing with inherent variability (Senthil et al., 2020) and cyber security protecting sensitive data and intellectual property (Singh et al., 2020), furthermore lack of skilled workforce to handle digital technologies (Liu et al., 2020). Smart factories such as Textile SMEs are adopting internet of things, digital automation, data analytics to optimize production processes like a manufacturer uses sensors to monitor machinery, concrete illustrations of digital transformation's impact, improved research findings and increased relevance for practitioners and policymakers. Textile SMEs opportunities in adopting digital transformation have increased efficiency, sustainability, new business models and innovation increased efficiency, automating processes, reducing waste, reduced costs (Kumar et al., 2020).Thus while using data analytics to offer customized products (Bharadwaj et al., 2019), implementing environmental friendly production methods, monitoring environmental impact (Senthil et al., 2020), exploring digital platforms, innovation leveraging technologies like 3D printing and artificial intelligence for product development (Liu et al., 2020) have improved fabric yield optimization (Sarkar & Choudhury, 2017) and colour matching accuracy (Kumar & Choudhury, 2018).

Some examples from textile industry's digital transformation's applications are smart textiles, predictive maintenance, customized designs (Kumar et al., 2020), integrating sensors, conductive fibers, wearable technology (Senthil et al., 2020), augmented reality for online shopping experiences (Bharadwaj et al., 2019), blockchain ensuring authenticity, transparency, tracking (Singh et al., 2020), artificial intelligence powered maintenance for textile machinery (Liu et al., 2020), enhanced design, production, increased efficiency, better customer engagement, real-time monitoring (Bharadwaj et al., 2013), making faster design to production cycles (Tiwari et al., 2017), robotics improved manufacturing efficiency, reduced labor costs (Kumar et al., 2018), lead E-commerce platforms and social media enable direct customer interaction (Kim et al., 2019) increase production efficiency (Gunasekaran et al., 2017), improve supply chain agility (Christopher &Towill, 2001), inventory turnover (Cagliano et al., 2011), digital transformation index (Westerman et al., 2014), digital maturity assessment (Solvell& Lindstrom, 2016) and digital readiness index (Gartner, 2019).

OBJECTIVE OF STUDY

- To determine the relationship between digital transformation and economic performance.
- To determine the relationship between intellectual capital and economicperformance.
- To determine the moderation role of market turbulence between digitaltransformation and economic performance.
- To determine the moderation role of market turbulence between intellectual capitaland economic performance.

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LITERATURE REVIEW

DIGITAL TRANSFORMATION AND ECONOMIC PERFORMANCE

The financial success and sustainability of Bangladesh MSMEs throughout the pandemic were significantly linked to e-commerce and digital marketing strategies (Gao et al., 2023). Green supply chain management and strategic green marketing orientation positively impact green consumption intention in northern tourism hotspots in Pakistan (M. I. Khan et al., 2021). In Pakistan, social media marketing, content strategy, interaction, advertisement, reliability, and brand equity are strongly correlated positively (Iqbal, Khan, & Economics, 2021). Food retailers in South Africa faced challenges in engaging with social media due to factors like cost effectiveness, accessibility, reach, and relationship building. However, perceived risk and resources such as time, knowledge, and human resources were constraints on theirparticipation (Mhlanga, 2021).

Digital transformation enables SMEs to produce and process data for generation of valuable insights and reconfiguration competencies in respond to market turbulence. It increases digital services in both consumer and SMEs markets to improved customer experience across platforms and marketplaces. It altered SMEs models and transaction processing procedures to facilitate existing SMEs processes to collect information in terms of communication and connectivity, production, operations, service, sales, marketing support as well as customer relations for boost efficiency, productivity and profitability. SMEs performance become more proficient and productive due to modernization analyze data, make predictions and perform tasks that help SMEs to create new products or services and personalize customer interactions which enhance sales efficiency.

H1. There is a significant relationship between digital transformation and economic performance.

INTELLECTUAL CAPITAL AND ECONOMIC PERFORMANCE

The presence of diverse cultural and gender representation on company boards has a positive impact on the performance related to workforce, community, and product responsibility in various countries including Argentina, Brazil, Chile, China, Colombia, Hungary, India, Indonesia, Malaysia, Mexico, Pakistan, Peru, Philippines, Poland, Russia, South Africa, Thailand, and Turkey. Education is crucial in empowering women for improved employment prospects, such as participation in quality labor market activities, leading to enhanced and respectable job opportunities in Pakistan (R. Ahmed, Hyndman-Rizk, & Education, 2020). Green Human Resource Practices are positively correlated with employee green attitudes, employee skills, decent labor, sustainable consumption, and production behavior in Pakistan (Amjad etal., 2021). An investigation was conducted to explore the relationship between intellectual capital and business performance. The study examined how dynamic capabilities, network competence, technological capabilities, absorptive capabilities, and innovation performance mediate this relationship. A structural equation model was used to a sample of 533 Portuguese enterprises, confirming that intellectual capital has an impact on business success (Ferreira, Cardim, & Coelho, 2021).The study by accountants suggests that integrating technology and intellectual

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capital can impact corporate performance, technology utilization, and employee satisfaction. A structural equation model was used to analyze data from 500 paper questionnaires obtained from accountants employed in Local Health Firms in Naples and Salerno. Relational capital, human capital, and organizational capital were found to have a favorable impact on the perceived performance of healthcare firms and employees' happiness, hence supporting firm decision-making and enhancing firm performance (Mahmood, Mubarik, & change, 2020).A study was conducted in China to investigate the inheritance of marketization level and regional human capital accumulation. An analysis of survey data from over 40,000 individuals, combined with provincial marketization index, shows a positive correlation between marketization level and individuals' years of schooling. This indicates that a more favorable market environment promotes the accumulation of human capital, leading to economic growth in the region (Ali, 2015; Lin et al., 2021). In 2018, a study was conducted to analyze the impact of entrepreneurship training on a sample of 1330 micro-sized enterprises using a quasi-experimental approach. The study utilized regression discontinuity design, assigning 342 observations to the control group and 382 observations to the treatment group. Al-Awlaqi, Aamer, and Habtoor (2021) identified strong and meaningful causal connections between entrepreneurship training and entrepreneurial oriented variables.

H2. There is significant relationship between intellectual capital and economic performance.

MARKET TURBULENCE AND ECONOMIC PERFORMANCE

Decision-makers at small and medium-sized enterprises in Pakistan tend to rely on improvisation strategies due to environmental turbulence, focusing on managing their emotions of anxiety rather than strictly adhering to plans (Khan, 2021). The study examined the impact of CEO passion on firm exploratory and exploitative innovation,as well as the moderating roles of market and technological turbulence. A study conducted on 146 companies in China discovered that the enthusiasm of Chief Executive Officers encourages both exploratory and exploitative innovation. The study also revealed that market turbulence enhances this effect, whereas technological turbulence diminishes it (Martin, Javalgi, & Ciravegna, 2020).At the end, investigated study on organizational mindfulness towards digital transformation as a prerequisite of information processing capabilities to achieve market agility. Firms are increasingly reinventing themselves and lessen possibilities of rigidity arising from digital technologies. Impact of organizational mindfulness towards digital transformation on establishing digital technology enabled information processing capacity based on information processing view. Examine relationships among organizational mindfulness, information processing capacity and market agility findings from survey of 102 managers of US companies indicates that digital transformation mindful organizations are more likely to effectively establish digital technology infrastructure which enabled external and internal relationships and business strategic alignment to enhance ability to respond to environmental turbulence in the markets promptly (H. Li, Wu, Cao, & Wang, 2021).

H3 (a) . Market turbulence moderates' relationship between digital transformation and economic performance.

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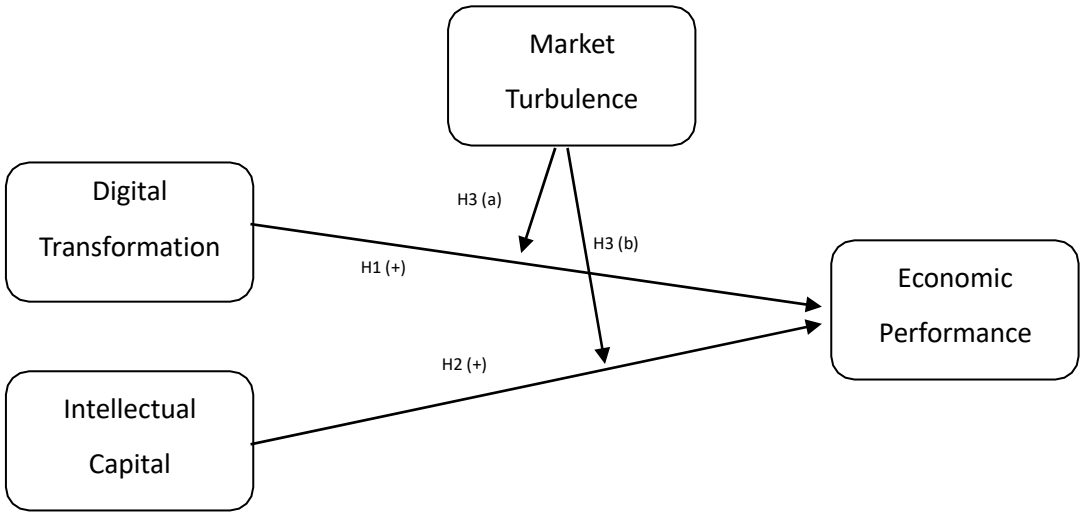
H3 (b). Market turbulence moderates' relationship between intellectual capital and economic performance**.**

RESEARCH FRAMEWORK



RESEARCH METHODOLOGY

RESEARCH DESIGN

This study employs a descriptive research design to analyze hypotheses and examine the empirical relationships between the independent variables, namely digital transformation and intellectual capital, the dependent variable of economic performance, and the moderating variable of market turbulence. Utilizing a quantitative approach, the research aims to explore the interconnections between these factors to assess their impact on economic performance. Specifically, the study investigates the correlations among digital transformation, intellectual capital, economic performance, and market turbulence. The study utilized statistical analysis, PLS-SEM using Smart PLS 4.0, to examine and elucidate the connections among variables.

UNIT OF ANALYSIS AND POPULATION OF THE STUDY

The study focuses on Textile Small and Medium Enterprises (SMEs) in Punjab, Pakistan as its target population and sampling frame. The participants in this study, including stakeholders such as owners and employees, are asked to give their input through a survey. The survey aims to examine market turbulence, digital transformation, intellectual capital, and economic performance in detail.

SAMPLE SIZE AND SAMPLING TECHNIQUES

The study encompasses proprietors and employees affiliated with Textile small and medium-sized enterprises (SMEs) in the province of Punjab, Pakistan. Textile SMEs in Pakistan are a significant sector for research due to economic importance as textile industry contributes 8.5% to Pakistan's GDP; employing nearly 2.5 million (40%) people of industrial workforce; 3.2 million SMEs and more than 60% of country textile units operating in Punjab, Pakistan. Textile industry consists of approximately 1200 ginning units, 400 spinning units, 100 large spinning units and

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400 small units. In quantitative research, sampling procedures are undertaken to secure a representative sample that aptlymirrors the pertinent attributes of the broader population. The study employs asimple random sampling technique. This approach entails the selection of participants from the population through random methodologies, ensuring that every unit within the population has an equitable likelihood of being chosen. By adopting simplerandom sampling, the study mitigates potential biases in selection processes, thereby averting any prejudicial inclinations towards specific individuals. Additionally, adherence to sampling guidelines aids in accurately capturing population characteristics, factoring in considerations of confidence and precision. (Nanjundeswaraswamy & Divakar, 2021). Uma Sekaran's methodological framework suggests a requisite sample size of 384 that is for the present investigation**.**

DATA COLLECTION METHOD

Data collection is carried out using self-administered questionnaires. Researchersemployed this method by disseminating surveys to participants via Google Forms. This technique is selected because of the extensive geographical coverage of the study sample in Punjab, Pakistan. Adoption of the questionnaire method was supported by Aithal, Aithal, and Sciences (2020).

DATA ANALYSIS

PLS-SEM is chosen for explaining variance in dependent variables since it allows researchers to estimate and develop models without imposing additional constraints. PLS-SEM approaches are suitable for small sample sizes. The current study investigated four links in the structural model using PLS-SEM techniques without encountering any identification issues. The collected data was analyzed using Smart (PLS 4.0) software for Partial Least Squares Structural Equation Modeling.

MEASUREMENT MODEL ANALYSIS

The measurement Model includes an assessment of the quality of the constructs including Reliability and Validity. Measurement model analysis starts with an assessment of the Factor Loading. Apart from Factor Loading, measurement model includes the Reliability (Cronbach's Alpha and Composite Reliability) and Validity (Convergent and Discriminant Validity) and model fit like SRMR or R-Square.

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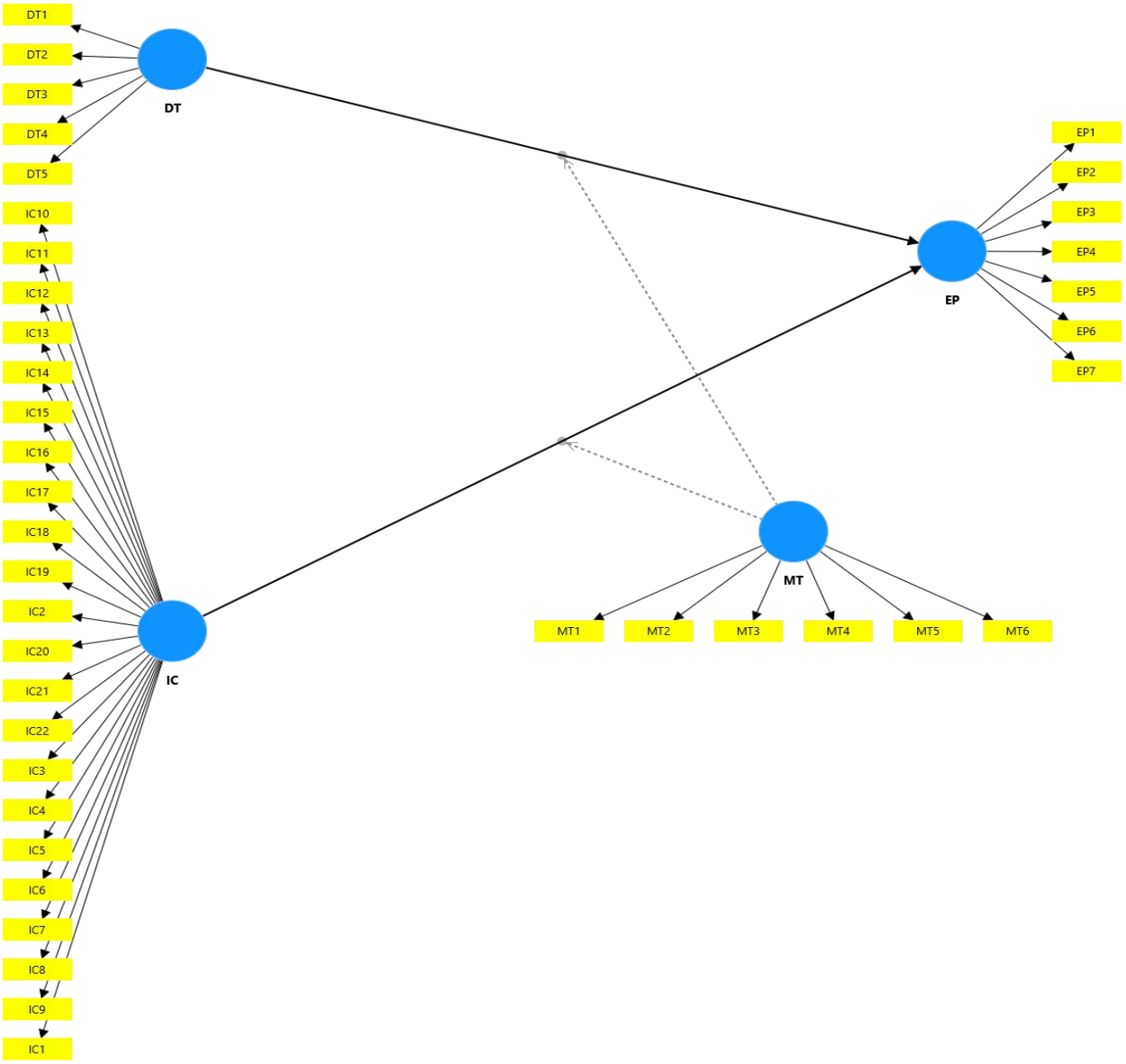

FIGURE 1: MEASUREMENT MODEL

FACTOR LOADINGS

According to (Kamis et al., 2020), outer loadings reflect the dependability of each latent structure. They propose that an ideal indicator dependability value be equal toor better than 0.707, indicating that the variable accounts for more than half of the variance in a single item. Table 4.2 shows the factor loading of the current study, which are higher than the proposed loading.

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TABLE 2: FACTOR LOADINGS

	DT	EP	IC	MT	MT x DT	MT x IC
DT1	0.907					
DT2	0.892					
DT3	0.922					
DT4	0.932					
DT5	0.883					
EP1		0.862				
EP2		0.885				
EP3		0.925				
EP4		0.911				
EP5		0.824				
EP6		0.927				
EP7		0.911				
IC1			0.968			
IC10			0.879			
IC11			0.862			
IC12			0.847			
IC13			0.874			
IC14			0.869			
IC15			0.853			
IC16			0.863			
IC17			0.887			
IC18			0.915			
IC19			0.895			
IC2			0.862			
IC20		0.897				
IC21		0.873				
IC22		0.854				
IC3		0.887				
IC4		0.917				
IC5		0.894				
IC6		0.897				
IC7		0.866				
IC8		0.872				
IC9		0.855				
MT1				0.918		
MT2				0.892		
MT3				0.932		

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MT4			0.842		
MT5			0.908		
MT6			0.909		
MT x DT					1.000
MT x IC					1.000

CONSTRUCT RELIABILITY ANDVALIDITY

TABLE 3: CONSTRUCT RELIABILITY ANDVALIDITY

Cronbach'sAlpha		Composite Reliability(rho_a)	Composite Reliability(rho_c)	Average Extracted (AVE)	Variance
DT	0.946	0.948	0.959		0.823
EP	0.957	0.958	0.965		0.797
IC	0.986	0.987	0.987		0.777
MT	0.953	0.955	0.963		0.811

The reliability of the constructs (DT, EP, IC, MT) is generally high, with Cronbach's alpha, composite reliability, and rho_c values exceeding the recommended threshold of 0.7 for all constructs. In terms of convergent validity, DT, EP, MT and IC demonstrate acceptable validity with AVE values above the threshold of 0.5.

DISCRIMINANT VALIDITY

TABLE 4: DISCRIMINANT VALIDITY(FORNELL&LARCKER)

	DT	EP	IC	MT
DT	0.907			
EP	0.919	0.893		
IC	0.975	0.953	0.882	
MT	0.898	0.964	0.947	0.901

HYPOTHESIS TESTING

TABLE 5: HYPOTHESIS TESTING

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values	Results
DT -> EP	0.132	0.135	0.047	2.811	0.005	Supported
IC -> EP	0.134	0.130	0.077	1.735	0.003	Supported
MT -> EP	0.612	0.612	0.045	1.456	0.000	Supported
MT x DT -> EP	0.037	0.036	0.057	0.641	0.001	Supported
MT x IC -> EP	0.005	0.005	0.058	0.081	0.005	Supported

DISCUSSION AND RESULTS

The moderating role of market turbulence in the relationships between digital transformation, intellectual capital and economic performance is positive. The specific indirect effects highlight the intricate relationships between intellectual capital, market turbulence, economic

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performance, and digital transformation. Hypothesis H1 posits that economic performance positively influences digital transformation, indicating that firms with stronger economic performance are more inclined to adopt digital transformations. Hypothesis H2 posits a robust positive association between intellectual capital and economic performance, underscoring the pivotal role of intellectual assets in augmenting economic outcomes. Hypothesis H4 posits that organizations can enhance their effectiveness in managing these relationships by prioritizing the development of intellectual capital, minimizing the adverse effects of market turbulence, capitalizing on the synergy between market dynamics and intellectual capital, fostering a culture of ongoing enhancement, and regularly evaluating and adapting strategies.

LIMITATIONS AND RECOMMENDATIONS FOR FUTURE RESEARCH

The study's findings are limited by constraints such as sample range, sample size, and the lack of longitudinal techniques, which may hinder the ability to discern long-term causal relationships. Investigate the moderating role of market turbulence in only Textile sector of Punjab, Pakistan. Results may not generalize to other industries, SMEs or sectors and findings may not apply to Textile SMEs in different regions or countries. To address these limitations and facilitate a more comprehensive understanding, future research endeavors shouldexplore additional moderators across diverse industries and geographical contexts.

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