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Integrating Economic and Social Sustainability with Technological Competence: The Mediating Effect of Organizational Values on Economic Performance

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Abstract

This research paper examines how economic sustainability, social sustainability and technological competence affect organizational values which then influence the economic performance in Saudi Arabian manufacturing businesses. The study used a quantitative research approach to gather data from 367 employees through convenience sampling in March 2025. Data analysis was performed through structural equation modeling with SmartPLS software. The study demonstrates that economic sustainability, social sustainability and technological competence directly impact organizational values which subsequently drive positive economic results. The research demonstrates that organizational values act as a connecting link between sustainability, technology elements and economic performance which proves their essential role in organizational success. The research demonstrates how Saudi Arabian manufacturers should unite sustainable practices with technological capabilities to achieve better outcomes, which is in line with Vision 2030 economic transformation objectives. The research provides valuable guidance to industry managers and policymakers who want to create sustainable business expansion and market competitiveness.

Keywords: sustainability; technology competence; organizational values; economic performance

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1. Introduction

Sustainable development has become the priority for organizations as they have identified the need for economic expansion in line with environmental protection and social accountability [1]. In this regard, the manufacturing sector faces tough times in deploying sustainable practices because of less efficient operational standards and a lack of capability to deal with market competitiveness [2]. Saudi Arabia faces sustainability challenges as the implementation of Vision 2030 aims for economic reforms through industrial development and sustainability goals. Considering the case of the Saudi manufacturing sector, it is necessary to gain better insight into how economic sustainability, social sustainability and technological competence influence organizational values and economic performance in order to achieve results within transformation goals.

Most of the time, organizations attain economic sustainability via profitable operations when they make note of the resources needed for business success [3]. When organizations set plans for waste reduction and resource optimization, this leads towards the reduction

in the cost of products and enhances the product lifecycle [4]. Most importantly, the manufacturing sector needs to set its operational practices in order to enhance profit through environmental and social responsibility [5]. Social sustainability urges the need to ensure better practices for employee welfare, compliance with health and safety measures, and positive initiatives for the local communities [6]. When manufacturing organizations set ethical standards via such dimensions, they achieve results in terms of workforce stability, employee motivation and stronger relationships with stakeholders, which ensure organizational economic success. The relationship between technology and sustainability has emerged via the increasing importance of Industry 4.0 and Industry 5.0 conceptualization [7]. This highlights the need to introduce smart systems to achieve better results for operational efficiency and environmental responsibility. Moreover, artificial intelligence plays a vital role in standardized systems in a smart way [8]. Thus, technology has now appeared as core indicate for sustainable transformation.

In the present era, there is an utmost need for manufacturing organizations to ensure their technological competence as this is a vital component to achieve better results in Industry 4.0, because smart technology helps transform their operations [9]. Organizations that acquire modern technology systems lead towards innovative solutions and increase production efficiency and timely response to market needs [10]. Technological competence enables companies to achieve sustainability targets via optimization of operational processes and reduction in resource consumption in order to create a better environment for sustainable development [11]. Organizational values come under the priority domain to make better decisions and establish sustainable practices for employees. The way organizations set the priority for technology and sustainable initiatives relies on the values which determine organizational culture that supports sustainable economic outcomes [12]. The Saudi Arabian manufacturing sector plays a vital role in the economy and supports Vision 2030 to develop the economy outside the oil industry. Vision 2030, as a strategic initiative for national development, pushes economic transformation and encourages companies to work on sustainable growth [13]. In this context, the manufacturing sector acts as a major pillar of Vision 2030, working on expansion, technological advancement, and environmentally responsible initiatives. Initiatives promoting smart solutions and sustainable materials create possibilities for manufacturing companies to achieve economic performance while focusing on sustainable goals. This sector covers various businesses such as metal, food production and advanced materials. During this transition, manufacturing companies face challenges in business that include energy consumption and less adoption of smart technologies, which indicate limited commitment to sustainable agendas. Hence, the application of sustainable technology in the manufacturing sector remains unclear. This clearly depicts the need to examine the factors in line with the sustainability agenda in order to achieve economic performance of manufacturing organizations. Thus, the relationship between constructs remains understudied within the Saudi manufacturing sector.

Therefore, this study examines the direct influence of economic sustainability, social sustainability, and technological competence on organizational values and then indirect influence on economic performance of the manufacturing organizations. Furthermore, it determines how organizational values play a vital role as mediator between sustainable practices and technological competence, thereby generating results for economic outcomes. The major contribution of this study lies in examining the association between economic sustainability, social sustainability, and technological competence, organization values, and economic performance in the manufacturing sector, as this area has been under-researched. Moreover, it investigates the mediator effect of organizational values in turning sustainability initiatives and technology transformation into economic results, giving practical insights for managers in line with Vision 2030 plans. The study findings provide new knowledge to

set standards for the manufacturing sector in order to achieve the economic and sustainable goals in the industry. It supports developing strategies that combine sustainability, technology and values which could boost organizational performance. Furthermore, it supports the national agenda in line with global demand for sustainable manufacturing knowledge which could support economies with faster industrial change.

The structure of the study consists of several sections: the second section presents a literature review and hypothesis development. The third section explains research methods. The fourth section presents the results, followed by the discussion in the fifth part and the conclusion in the last section.

2. Literature Review and Hypotheses Development

2.1. Economic Sustainability and Organizational Values

A smart business strategy needs economic sustainability, as it has become a vital component for manufacturing businesses to obtain the best out of using current resources, control costs, and gain more financial benefits [14]. Economic sustainability encompasses operational activities via the utilization of technology to accomplish tasks on time without harming the environment [15]. It enables manufacturing businesses to make wise decisions and optimize the operations while investing more in smart systems for improved results [16]. Economic sustainability needs more than cost cutting, as it includes organizational values via adopting the innovation and sustainable supply chain system. Organizations that apply economic sustainability tend to perform better in order to reduce waste, recycle resources and invest in smart systems to enhance product durability [17]. Such strategies create a congruous system that records financial performance together with an effective utilization of resources. The application of economic sustainability in manufacturing organizations supports changes in organizational values [18]. The assimilation of economic sustainability into routine operation in the organizations supports to develop organizational culture that leads to having better financial accountability and strategic planning for long-term results [19]. A strong culture deepens sustainable development and ethical business conduct. Thus, the application of economic sustainability leads to enhanced organizational values via the development of responsible management practices.

H1. *Economic sustainability is positively associated with organizational values*.

2.2. Social Sustainability and Organizational Values

Social sustainability concerns the human and social perspective through which businesses ensure sustainable practices. It deals with fair labor practices by providing benefits to employees in terms of welfare, and health and safety, under the domain of community development [20]. Manufacturing organizations that opt for social practices develop strategies that protect workers' rights, provide market competitive compensation, ensure safety protocols, and offer career development opportunities [21]. Companies can create an environment where employees develop trust, stay loyal to their work and motivated while working. Organizations committed to social sustainability focus more on the skills and capacity development of employees. Companies also offer social protection plans and health programs for employees during crises [22]. The application of social sustainability within the organization leads to creating a better organizational climate and social capital to achieve the financial success of the company [23]. Organizations that are socially responsible base their values on ethical conduct, social welfare and moral principles. Organizational values rely on such principles, which are applicable to the whole organization, to guide employees at every level [24]. The application of these values by management-level employees creates a workplace culture that adds value to social responsibility [25]. Hence,

social sustainability creates long-lasting impact on organizational values, as it supports social ethics and employee safety principles within the corporate culture.

H2. *Social sustainability is positively associated with organizational values.*

2.3. Technological Competence and Organizational Values

Technological competence plays a vital role for manufacturing sector organizations in becoming market leader and maintaining sustainable growth [26]. An organization's ability to adopt and apply advanced technologies such as artificial intelligence, Internet of Things, and smart systems brings innovation in the existing systems [27]. Smart technology enables companies to accomplish sustainable goals via the effective utilization of resources and by reducing environmental impact. Technological competence also enhances the product quality and increases the product lifespan [28]. Modern-era technology, mainly artificial intelligence, enables businesses to optimize supply chains, reduce power consumption, and forecast equipment requirements. Furthermore, technology supports companies in creating an innovative work environment and promoting a learning culture [29]. It also promotes advancement in the existing operations and encourages employees to learn from new systems, embrace new tools and contribute to technological progress. An innovative culture within organizations supports business transformation and sustainability. Therefore, it is hypothesized that technological competence has a positive and direct influence on organizational values in order to promote innovation within organizations.

H3. *Technological competence is positively associated with organizational values.*

2.4. Organizational Values and Economic Performance

Organizational values encompass the core principles that guide employee behavior, strategic planning and decision-making [30]. Values that consist of ethical conduct, innovation, creation, social responsibility and sustainability serve as fundamental pillars for corporate culture and ensure long-term success [31]. In the case of manufacturing organizations, strategic organizational values align with work operations, management and stakeholders around strategic goals. Shared values promote collaboration and accountability, which lead towards operational efficiency and innovative systems [32]. An organizational culture grounded in strong values increases trust, reputation, and the loyalty of employees and customers, all of which together contribute to the economic performance of the organization. Organizations with a clear set of values experience improved financial performance. This also leads to growth in profitability and better cash flow stability [33]. By incorporating sustainability and innovation into their organizational values, companies can better track the challenges and identify new opportunities [34]. Thus, it is hypothesized that organizational values influence economic performance by changing behaviors and practices that promote sustainable growth and competitiveness.

H4. *Organizational values are positively associated with economic performance.*

Hence, economic sustainability, technological competence, and social sustainability are key drivers of organizational performance, but their influence may not be direct. Thereby, organizational values act as a mediator, converting such independent factors into better economic outcomes by fostering a shared culture that supports innovation. The execution of sustainable initiatives and adoption of technology require organizations to add value while executing sustainable strategies [35]. The social framework of organizational values encourages employees and top management teams to stay motivated and adopt modern practices for continuous innovation [34]. Economic sustainability can only increase profit and growth

of a company when companies pay more attention to values grounded in long-term planning and responsible resource management. Moreover, social sustainability increases productivity and employee retention when organizational values are rooted in fairness and social responsibility. Additionally, technological competence gives advantages when organizations pay more attention to learning culture. Therefore, organizational values play a mediating role through which sustainability and technological competence contribute to economic performance. This conceptualization supports the mediation hypotheses as follows:

H5. *Organizational values mediate the relationship between economic sustainability and economic performance*.

H6. *Organizational values mediate the relationship between social sustainability and economic performance*.

H7. *Organizational values mediate the relationship between technological competence and economic performance*.

Figure 1 depicts the research model, where straight lines show direct paths for H1 to H4 and the dotted lines show indirect paths for H5 to H7.

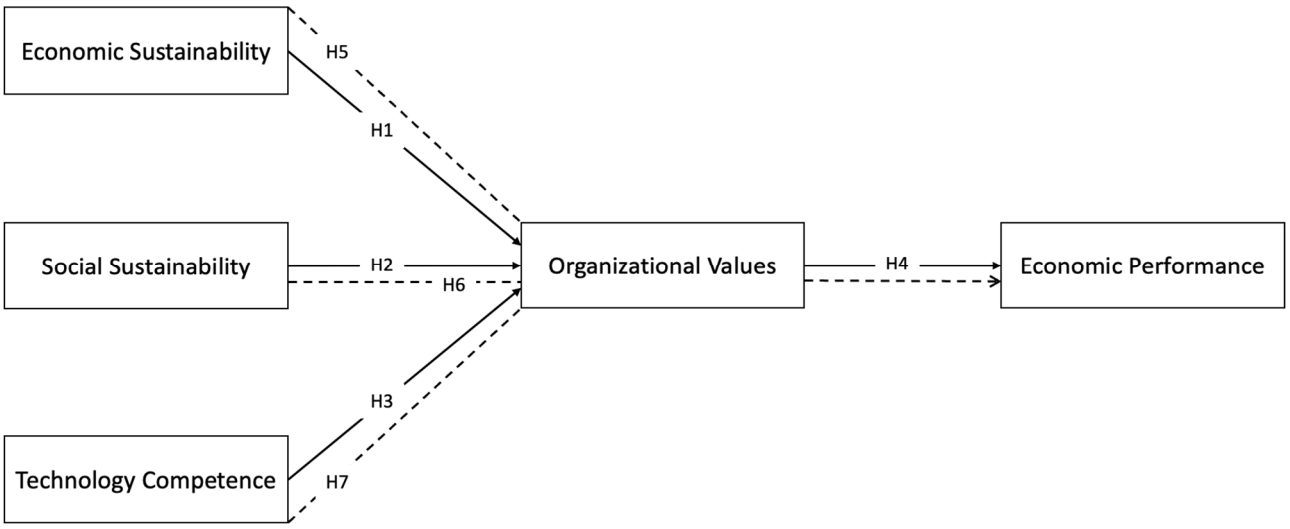


Figure 1. Research model.

3. Methodology

A cross-sectional study design was employed to measure the relationship between the study constructs. The relationships between the constructs are examined and interpreted as associations instead of causal effects. This study adopted quantitative methods to check the influence of independent and mediating variables on the dependent variables. Data were collected in March 2025 using a convenience sampling technique from 367 employees working in 18 manufacturing companies across Saudi Arabia. The selection of the manufacturing sector solely depended on a major contribution towards the economy as aligned with Vision 2030. The selection of employees working in the manufacturing sector relied on their knowledge and practices related to the study domain. The Saudi Arabia manufacturing sector plays a vital role in adding value in Vision 2030 by focusing more on economic diversification and reducing oil dependency. Saudi manufacturing organizations are focusing more on technological advancement to have better productivity and achieve results for environmental performance.

A structured questionnaire was used which consisted of items related to constructs, and responses were recorded on five-point Likert scale ranges between 1 for strongly disagree and 5 for strongly agree. The questionnaire was translated into Arabic and then back-translated into English to ensure accuracy and linguistic equivalence. The measurement items were adapted from previous studies due to their validity and reliability. Six items for economic sustainability and nine items for social sustainability were adapted from Rai et al. [15]. Three items for technological competence were adapted from Wang et al. [36] and Pan et al. [37]. Eight items for organizational values were adapted from Chege and Wang [38]. Three items for economic performance were adapted from Henri and Journeault [39] who checked performance over a period of 12 months against competitors using a scale below average to well above average. As the measurement items were adapted from published research studies, they were modified to suit the Saudi Arabian manufacturing context; studies were conducted by Rai et al. [15], Pan et al. [37], Wang et al. [36], and Chege and Wang [38] in different regions and sectors, thus the variables are conceptually suitable for this study. Minor changes in the items for constructs were made to ensure that measurement items relate to the Saudi manufacturing context—while retaining the original meaning of the items.

A structural equation modeling approach was used to analyze the data with SmartPLS software version 4.0 which supports checking the reliability, validity and test hypothetical relationship between study constructs.

4. Results

Table 1 presents the demographic profile of study participants. There is a higher representation of males (63%) compared to females (37%). Most of the participants are from the age group of 35–44 years old (52%). Regarding education, 58% of the participants earned a bachelor's degree, followed by a master's degree (32%). In terms of job positions, around 46% are working at a mid-level position, followed by 26% at a senior manager position. Regarding experience, most participants have 2–5 years of experience (41%), followed by 6–10 years (32%).

Table 1. Participant profile (n = 367).

Category	Subcategory	Frequency	Percentage
Gender	Male	231	63%
	Female	136	37%
Age	25–34 years	127	35%
	35–44 years	191	52%
	45–54 years	49	13%
Education Level	Associate degree	37	10%
	Bachelor's degree	213	58%
	Master's degree	117	32%
Current Job Position	Entry Level Employee	72	20%
	Mid-level manager	167	46%
	Senior manager	94	26%
	Executive/Director	34	9%
Years of Experience	Less than 2 years	42	11%
	2–5 years	151	41%
	6–10 years	119	32%
	10+ years	55	15%

Table 2 shows the assessment of measurement models for the constructs. It indicates the factor loadings, Cronbach's alpha, composite reliability, and average variance extracted

(AVE), which are necessary to evaluate the validity and reliability of the measurement model. The Cronbach's alpha values for all constructs are above the required threshold of 0.70. The internal consistency for social sustainability (0.846), economic sustainability (0.843), technological competence (0.739), organizational values (0.809), and economic performance (0.863) demonstrates stronger reliability. The composite reliability above 0.70 as required for all the constructs ranges from 0.735 to 0.832. The AVE for all the constructs above the 0.50 threshold shows sufficient convergent validity ranges from 0.627 to 0.713. Moreover, factor loadings for all the items related to each construct are above 0.70, which shows the construct validity of items.

Table 2. Measurement model.

Items with Constructs	Loadings	Cronbach's Alpha	Composite Reliability	Average Variance Extracted
Economic Sustainability		0.843	0.821	0.66
ES1: "We invest in CSR without hurting our profits"	0.778			
ES2: "We minimize waste to reduce our material cost"	0.878			
ES3: "We sustainably procure and preserve the materials to increase their lifecycle"	0.756			
ES4: "We reduce resource consumption for sustainability"	0.737			
ES5: "We reuse resources to reduce our costs"	0.794			
ES6: "We invest in quality for the increased life cycle of products"	0.888			
Social Sustainability		0.846	0.755	0.703
SS1: "We have not laid-off workers during the lockdown"	0.778			
SS2: "We pay fair wages to our manpower"	0.889			
SS4: "We invest in our workers' health and safety even during crises"	0.713			
SS3: "We have not reduced the salaries of our employees during crises"	0.845			
SS5: "We provide insurance to our employees for health issues"	0.725			
SS6: "We focus on protecting our workers' rights"	0.878			
SS7: "We comply with hygiene and social distancing norms"	0.738			
SS8: "We educate and train our employees for new safety requirements"	0.798			
SS9: "We focus on job creation for local and economically affected society"	0.845			
Technological Competence		0.739	0.735	0.713
TC1: "The technology infrastructure of our company is available for supporting artificial intelligence tools"	0.815			

Table 2. *Cont.*

Items with Constructs	Loadings	Cronbach's Alpha	Composite Reliability	Average Variance Extracted
TC2: "Our company is dedicated to ensuring that employees are familiar with artificial intelligence tools"	0.745			
TC3: "Our company contains a high level of artificial intelligence tool knowledge"	0.849			
Organizational Values		0.809	0.832	0.627
OV1: "The adoption of sustainable development practices by your company gives you great pride"	0.882			
OV2: "You care about the environmental and societal values associated with sustainable development"	0.754			
OV3: "The benefits associated with adopting sustainable development practices are generally greater than the investments they require"	0.855			
OV4: "The time and effort invested in sustainable development has been beneficial to your business"	0.894			
OV5: "You believe that it is your duty to favor the adoption of sustainable development practices by your company"	0.702			
OV6: "Your business environment requires you to adopt sustainable development practices"	0.748			
OV7: "The image of your company depends on its sustainable development practices"	0.789			
OV8: "It is important for you to see your company as having adopted sustainable development practices"	0.808			
Economic Performance		0.863	0.816	0.685
"Performance of the organization over the past 12 months compared to leading competitors:"				
EP1: "Return on investment"	0.851			
EP2: "Operating profits"	0.816			
EP3: "Cash flow from operations"	0.789			

Table 3 depicts the discriminant validity using the Fornell–Larcker criterion. The diagonal values show the square root of AVE and the off-diagonal values show inter-construct correlations. Hence, all diagonal values are higher in corresponding values in the respective column, confirming each construct is distinct from the other.

Table 3. Discriminant validity (Fornell–Larcker criterion).

	Economic Performance	Economic Sustainability	Organizational Values	Social Sustainability	Technological Competence
Economic Performance	0.886				
Economic Sustainability	0.664	0.812			
Organizational Values	0.728	0.733	0.792		
Social Sustainability	0.681	0.629	0.519	0.838	
Technological Competence	0.754	0.652	0.627	0.673	0.836

Table 4 represents the assessment of the structural model, indicating a statistically significant relationship between study constructs. All the hypothesized relationships are positive and statistically significant, confirming H1 to H7 are accepted. The direct influence of economic sustainability (β = 0.411), social sustainability (β = 0.549), and technological competence (β = 0.512) each have a statistically significant influence on organizational values, confirming that H1 to H3 are accepted. Social sustainability shows stronger impact on organizational values, which suggests that socially responsible practices play a vital role in achieving sustainable goals. Moreover, organizational values have a strong and positive influence on economic performance (β = 0.628), which highlights that when companies embed sustainable values to culture, it results in positive outcomes, especially financial gain, confirming H4. The mediation role of organizational value shows significant indirect effects between economic sustainability (β = 0.481), social sustainability (β = 0.397), and technological competence (β = 0.372) and economic performance, confirming H5 to H7. It indicates that organizational values play a vital role in converting sustainability and technological advancement into economic gains.

Table 4. Path coefficients.

Paths	Beta	Standard Deviation	T Statistics	*p* Values	Results
Economic Sustainability -> Organizational Values	0.411	0.086	8.284	0.00	"H1 supported"
Social Sustainability -> Organizational Values	0.549	0.084	5.348	0.00	"H2 supported"
Technological Competence -> Organizational Values	0.512	0.108	4.096	0.00	"H3 supported"
Organizational Values -> Economic Performance	0.628	0.115	6.306	0.00	"H4 supported"
Economic Sustainability -> Organizational Values -> Economic Performance	0.481	0.067	6.202	0.00	"H5 supported"
Social Sustainability -> Organizational Values -> Economic Performance	0.397	0.088	7.726	0.00	"H6 supported"
Technology Competence -> Organizational Values -> Economic Performance	0.372	0.086	9.755	0.00	"H7 supported"

The R^2 values in Figure 2 present the proportion of variance explained by predictors in the structural model. Organizational values reaching 0.619 for R^2 value indicate that economic sustainability, social sustainability and technological competence all together explain 61.9% of the organizational value variation. The R^2 value for economic performance

is 0.531, which indicates that organizational values along with indirect effects from other constructs explain 53.1% of economic performance variation.

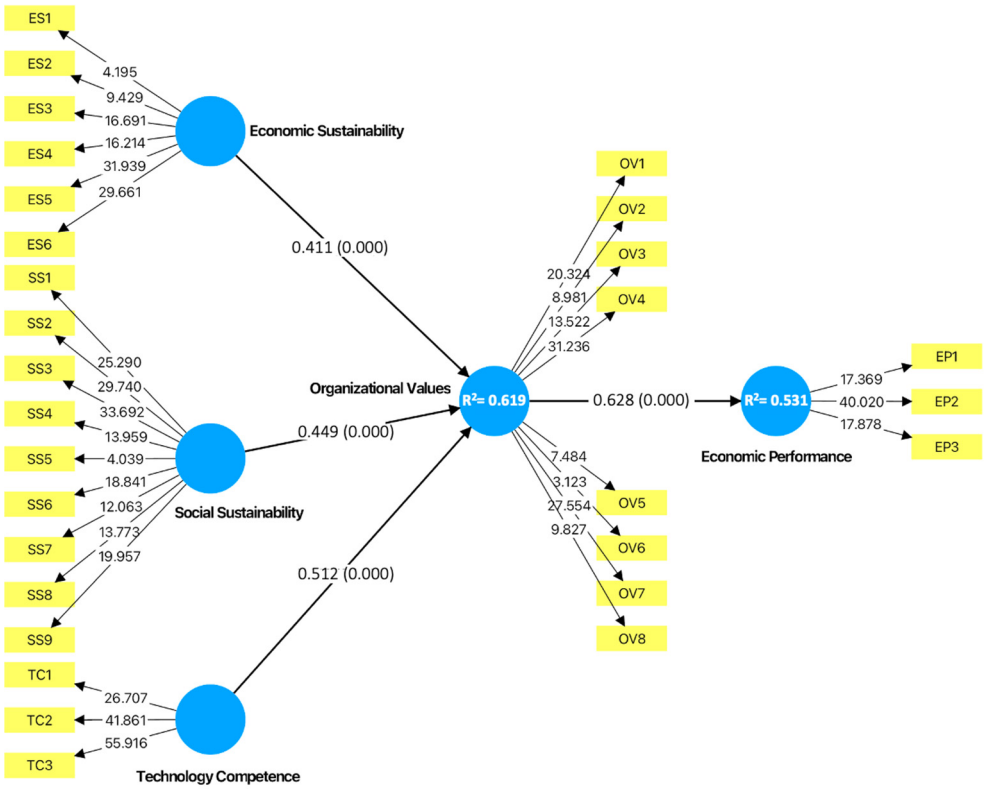


Figure 2. Structural model.

5. Discussion

The study examined the influence of sustainability practices in connection with technology competency on organizational values, which brings better economic results for organizations. The assessment of the structural model confirms that all the hypothetical relationships have strong and statistically significant coefficients and demonstrate high explanatory power. Social sustainability has a positive significant influence on organization values (β = 0.549), followed by technological competence (β = 0.512) and economic performance (β = 0.411). When organizations pay more attention to fair labor practices and employee well-being, this leads to the development of a sustainable culture [6,40]. The major impact of social sustainability indicates that companies need to set plans that work within the internal social domain such as better wages, job security, and a safe and secure environment, to enhance sustainable organization values [41,42].

Organizations with a focus on smart technologies such as artificial intelligence, Internet of Things and big data, tend to exhibit a greater level of commitment for sustainability goals [43]. The study findings indicate that organizations which prioritize technological readiness achieve better outcomes in the form of operational efficiency, cultural advancement and a clear path for sustainable outcomes. Economic sustainability has a lower effect (β = 0.411), but it shows a positive contribution towards organizational values. It is linked to financially responsible plans for the company by keeping in view goals such as reducing waste, recycling material where applicable and cost effectiveness—which help develop values that confirm the potential economic and environmental gains.

Organizational values have a positive and significant influence on economic performance (β = 0.628), confirming that organizations with a stronger commitment to sustainable values tend to outperform in terms of cash flow and operating profit. They help to follow sustainabil-

ity plans that create value for the organization and enhance the trust level of stakeholders [9]. Furthermore, they help organizations to maintain their position in the market. The mediation role of organizational values is a vital one for achieving sustainability and technology competency that is converted into tangible economic outcomes. Hence, the mediation effects from economic sustainability, social sustainability, and technological competence to economic performance via organizational values are all statistically significant. This confirms that sustainability plans and initiatives become a fundamental component of organizational culture via collective beliefs and values to gain lasting business economic benefits [31].

The findings of this study have research implications for the manufacturing sector organizations in Saudi Arabia in the context of what Vision 2030 determined as economic transformation and sustainability goals. They confirm that organizational values work as a catalyst to ensure that sustainability and technological initiatives bring positive outcomes in terms of financial gain for companies. The values in turn act as an important driver for economic gain of the company, ensuring the success of the manufacturing sector in the Kingdom.

In view of the findings, there are managerial implications which are recommended for the manufacturing sector to achieve sustainable initiatives and economic performance. Economic sustainability has a major impact on the manufacturing businesses, requiring them to utilize their resources efficiently and prioritize cost-cutting strategies. When companies set plans for waste reduction, the reuse of materials and quality improvement through lifecycle extensions, they provide financial advantages for the business. A better set of strategies helps businesses minimize operational expenses and boost performance. Social sustainability should be a priority for the manufacturing companies in Saudi Arabia in order to provide benefits to employees and ensure workplace equity. Organizations should give fair wages and make sure that the work environment is safe and secure for the employees [44]. When companies set socially responsible strategies, they create a culture and achieve outcomes in the form of winning public trust and enlarged stakeholder commitment. This leads to the long-term commitment of employees to the company and a lasting impact on economic performance. Furthermore, the strong link between technological competence and organizational values highlights that manufacturing organizations should set strategies for technological transformation, as this is much needed nowadays. Thus, the transition to a knowledge-based economy requires strategies to cope with industrial challenges by incorporating artificial intelligence, analytical systems and the automation of production processes, which enhance productivity and ensure sustainable operations. When companies focus more on technological system development and enhance the capacity of employees, they provide benefits in the shape of market sustainability and competitive advantages. Organizations should merge sustainability goals with strategic leadership approaches and opt for communication methods to develop organizational values as a core element of success.

This study has limitations; mainly, the convenience sampling technique limits the generalizability of the study. Moreover, this study used a cross-sectional design, where data was collected at a single point in time, which restricts the ability to establish causal relationships between constructs. Additionally, since the focus was on manufacturing sector organizations in Saudi Arabia, the findings may not fully be applicable to other sectors or geographical contexts. For future research, longitudinal studies are recommended to measure the dynamic relationship between constructs on a temporal scale. The sample selection could be probabilistic sampling methods to achieve better representation and reliability. Moreover, future studies could expand the scope to other sectors and regions to examine contextual variations. Lastly, qualitative approaches such as in-depth interviews could provide new perspectives on sustainability, organizational values and economic performance.

6. Conclusions

This study investigated the influence of economic sustainability, social sustainability, and technological competence on organizational value, which provide better economic results for the manufacturing sector in Saudi Arabia. The study findings indicate that companies that ensure better sustainability practices and develop technical capabilities and organizational values for better business development secure financial gains. Organizational values play a vital role in linking sustainable and technical initiatives to secure economic results. It is necessary for organizations to merge environmental and ethical values with employee-centric values to ensure sustainable and innovative outcomes. This study adds value to the manufacturing sector of Saudi Arabia that operates under the plan of Vision 2030 by focusing more on sustainable practices and smart technologies in operations. Manufacturing companies that implement strategies in line with the sustainability goals achieve positive outcomes in the form of operational effectiveness and corporate social responsibility that lead to enduring business success in a competitive market.

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Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: The data presented in this study are available on request from the corresponding author.

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