



## Exploring the mediating role of knowledge management practices to corporate sustainability

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### ABSTRACT

This study aims to elaborate and recognize a model in which knowledge management practices affect corporate sustainability via corporate structure, corporate culture, corporate leadership style, and a unique variable social capital, used for the first time. Knowledge management is now used as a mediating variable for corporate sustainability. Creating long-term sustainable strategies emphasizes the need for a distinctive model of knowledge management practices in a rapidly changing business environment. Therefore, this paper delivers insights on how an organization can sustain its performance by addressing new dimensions due to the changing socio-economic environments and the pursuit of incessant improvement of competition. The authors used a quantitative research approach. Data is collected through a well-designed questionnaire from 130 respondents from Dhaka's textile sector, a significant sector of Bangladesh's economy and the world's second-largest ready-made garment (RMG) manufacturer and exporter. The result revealed that corporate sustainability is significantly related to corporate structure, culture, social capital, and corporate leadership styles. The mediated role of knowledge management in the link between organizational culture and sustainable performance is also crucial, and the relationship between leadership style and sustainable performance is also vital. A new variable known as social capital is also identified. Giving value and novelty to the academic literature also confirmed knowledge management and corporate sustainability theories that governments and regulators should follow.

### 1. Introduction

Corporate sustainability is the ability of the organization to meet its customers' and other stakeholders' maintaining effective management organizations (Ferdig, 2007) of the needs and expectations over an extended period while maintaining such effective management of the organization through employee awareness (Farooq, 2019).

Sustainable development was initiated 30 years ago in response to resource and global environmental challenges. The Stockholm Conference on the Human Environment in 1972 marked a turning point in the awareness that human activities harm the environment, endangering civilization (Yadav and Bethard, 2019).

In a globalized economy, the world's largest corporations have realized that short-term earnings are not a guarantee of success in a highly competitive market, and thus the policy of maximizing short-term profits must be complemented with the creation of a long-term

sustainable strategy (Rebeka and Indradevi, 2015; Mahdi et al., 2019). As a result, it is becoming more necessary for businesses to focus on guaranteeing sustainable performance by balancing financial, social, and environmental outcomes.

Companies use the techniques to accomplish corporate sustainability through knowledge management (Torres et al., 2018). Knowledge has traditionally been seen as a company's most valuable asset, with some authors going so far as to say that it happens due to the solitary cause of the advantages of sustainable competitiveness (Mahdi et al., 2019). Even while this is a widely held concept, not everyone agrees. Knowledge management's mediating role, on the other hand, has received less attention (Schniederjans et al., 2013; Bozer and Jones, 2018). Knowledge is a non-measurable phenomenon that can only acknowledge via observable outputs. As a result, a study into the function of knowledge management being a mediating factor is indispensable for sustainable corporate performances. One obstacle while incorporating knowledge

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management in business operations is an uncooperative corporate culture (Lozano et al., 2013; Adeinat and Abdulfatah, 2019; Bhatti et al., 2020).

As a consequence, the findings of research on the impact of corporate culture are inconsistent with knowledge management practice. The corporate culture helps with knowledge management (Faraoni et al., 2018), while it might sometimes conflict with the initiatives' knowledge management (Bedford, 2013). The company culture stifles knowledge management (Ajmal and Koskinen, 2008; Gachanja, 2020). Since knowledge management and long-term performance are linked, studying corporate culture and leadership style is vital and exciting.

The purpose of this study is an investigation the relationship between corporate culture, leadership, and long-term performance. Also, to investigate the knowledge management services as a mediator between corporate culture and leadership style with corporate sustainability.

As a consequence, the following research questions are addressed in this study:

- i. How does corporate culture impact knowledge management and corporate sustainability?
- ii. Does corporate leadership influence knowledge management and corporate sustainability?
- iii. Do knowledge management practices have an impact on sustainability?

Well-trained and well-remembered employees are likelier to perform at their best in textiles. Employees who actively participated in information sharing in the workplace improved their creative thinking and spurred them to invent new products and services (Arsawan et al., 2020). Knowledge management approaches are vital to corporate sustainability in the corporate world. Such an environment stimulates the corporate leader and its staff to share their expertise and experiences. Traditional Corporate culture and the efficacy of transformational leadership approaches are also studied in this research.

In addition, few studies have examined the performance of traditional organizations, such as the textile sectors of Bangladesh, which is why this study is essential. Only business-oriented organizations are found in most empirical studies (Biscotti et al., 2018). As a traditional organization, the textile sector is also aware of the socioeconomic and environmental impacts on sustainable corporate performance (Wiguna and Surata, 2008; Duffield and Whitty, 2016).

These results provide regulators with a framework and insights to help them continuously implement knowledge management throughout the textile sector to achieve lasting performance. The textile contributes to agricultural development and boosts the economy (Surata et al., 2018). As a result, this study provides a model based on recommendations to support the textile sector and maintain its development sustainability through government and non-government support, mainly using the internal capabilities that are important in the era of globalization and modernization.

## 2. Theoretical background and hypotheses

Knowledge management (creating, sharing, and utilizing data and information) is a philosophy, framework, and specific management tool aimed at the company (Nonaka and Toyama, 2015). Research shows that successful knowledge management methods have a significant impact on the corporate sustainability of organizations. The concept of knowledge management is based on knowledge and a variety of resources that illustrate how knowledge is implemented in an organization (Matinaro and Liu, 2017).

In their research study, Nonaka and Toyama (2015) concluded that knowledge is one of an organization's strategic goals, which is ensuring corporate success is based on the knowledge-based perspective. Organizations may build core skills only via the acquisition of new information. Using knowledge as the primary source and input is the

fundamental foundation of this philosophy. As a result, businesses that rely on information can better manage their resources. According to Koehler et al. (2019), knowledge management is a set of procedures that strive to transform data into knowledge or valuable information for the company's advancement. Knowledge creation, acquisition, storage, sharing, and use are all part of these processes (Raudeliūnienė et al., 2018; Mahdi et al., 2019). It is possible to create high-quality information with agile management. Since knowledge management influences the quality of choices and actions, it may be inferred. Arsawan et al. (2020) may achieve a company's ability to produce high returns in a sustainable way by adopting or applying knowledge management strategies.

Norms, beliefs, and attitudes established by individuals within an organization's leadership are referred to as its "culture," which has a significant and positive contribution to the textile sector (McPhillips, 2020). In the manufacturing sector, culture may be defined as the set of shared ideas, beliefs, traditions followed by the textiles, and practices that unite the company's workforce (Komin and Sedana, 2019). An organization's sustainable performance may be improved using various techniques through knowledge management as well one of which is a supportive corporate culture (Lopes et al., 2017).

Nurkholis et al. (2020) their research study stated that cultural transformation is critical to effective corporate knowledge management. As a result, thriving culture for Knowledge Management implementation must be established inside the textile and manufacturing firm to enhance corporate sustainability. Other studies say corporate culture and knowledge management sometimes collide (Bedford, 2013; Anning-Dorson, 2018).

Afsar, B., & Umrani, W. A. (2019) in their research study concluded a positive and significant relationship between corporate culture and knowledge management. The recent research study by Nurkholis et al. (2020) also supported the significant and positive associations between corporate culture and knowledge management. These studies have shown that a company's culture aids the production of new knowledge inside the organization (Afsar, B., & Umrani, W. A. 2019; Nurkholis et al., 2020). Therefore a culture of learning and development within the workforce and a solid infrastructure to support it make it easier for the manufacturing sector to implement knowledge management. According to data, more than half of all issues are attributed to cultural factors but very little research studied how these constraints interact and affect knowledge sharing (Yu, 2020). Hence the hypothesis below is needed to check in the light of the above discussions:

**H1.** Knowledge management is significantly affected by a strong corporate culture.

Leadership style influences knowledge management effectiveness. Transformation leadership influences corporate sustainability and knowledge management (Sunarsi et al., 2020). Change demands great leadership (Quddus et al., 2020). A leader's presence should exhibit ability to manage business difficulties and advance the organization (Yadav and Bethard, 2019). The transformational leadership approach also believes that the leader's actions help employees and organizations think more creatively. An effective leader must also inspire and motivate his team members to use their creative thinking skills in the textile sector (Tseng et al., 2018; Afsar and Umrani, 2019). In their study they concluded that transformational leaders have a significant impact on the use of knowledge management to improve corporate performance of textiles and its sustainability. This is followed by (Ferani et al., 2019) also concluded that transformational leadership has been shown to influence corporate learning and performance of the textile sector in the past (Yadav and Bethard, 2019). Previous studies support this conclusion. Transformative leaders, according to research by Gelard et al. (2014), may motivate their employees to outshine, set the tone, provide direction, instill a sense of pride, and earn followers' trust. Inspiring leaders set the bar high, communicate clear objectives and reward hard worker (giving personal attention, training and advising the

subordinates, treating each employee individually). Noruzy et al. (2013) and Fahlevi (2021) established a connection between transformational leaders, knowledge management, and technological advancement in industry. Knowledge, innovation, and efficiency are all boosted by transformation leadership.

Purwanto et al. (2021) and Supriadi et al. (2020) in their research study argue that transformational leaders may have an effect on workers via knowledge management and inspire them through skill development. Hence the hypothesis below is extracted from the literature in the light of the above discussions:

**H2.** Knowledge management is significantly affected by the practices of transformational corporate leadership.

Defined by different scholars (Islam et al., 2017; Tseng et al., 2018; Nguyen et al., 2019) a corporate culture consists of the conventions and values that influence the interactions between management and workers. Culture in an organization emerges naturally over time when commonalities among workers become apparent. A collective understanding of what an organization stands for is formed by its collective perceptions, which all members hold (Nguyen et al., 2018). Several studies on company culture have shown it to be the most critical factor in increasing productivity (Hair et al., 2017; Harun et al., 2019). To ensure corporate sustainability organizations must connect their strategic choices with their corporate culture (Baumgartner, 2014). Businesses and other institutions have begun to implement sustainable development plans and policies. Corporate culture is often altered to support better sustainable growth (Blázková and Dvoutě, 2018; Feng et al., 2017).

Wang and Huang (2022) discusses how business culture might help SMEs thrive. Flexibility and control culture affect creative potential positively and negatively, respectively, and the latter modifies their influence on corporate sustainability. Therefore it is suggested to further study the relationship between corporate culture and sustainability. Corporations must also emphasize cultural change to ensure the long-term sustainability of their performance (Islam et al., 2017). As a result, the hypothesis is laid down as follows:

**H3.** A strong corporate culture has a significant effect on corporate sustainability.

Courrent et al. (2018) define leadership as a person's capacity to persuade others to do or not do something to achieve preset objectives (Dugan, 2017). The textile sector utilizes this skill to motivate and influence subordinates, are enthusiastic about their job, eager to collaborate, and have the discipline to attain particular objectives systematically (Iqbal et al., 2018). The leadership factor is a unique necessity for guiding the textile business to attain its long-term goals (Yong et al., 2020). To properly and regularly display their accomplishment, a leader must create a vision and encourage his employees (Zhao et al., 2012). As a result, leaders dedicated to these steps are required for corporate sustainability (Ozusaglam et al., 2018). Transformational leadership is seen to be suited for meeting these requirements. Leaders must constantly raise their awareness and inspire their employees to enhance their performance to attain corporate objectives (Cavazotte et al., 2013; Khan et al., 2019). Despite the lack of study on the subject, an experiment on transformative leaders by (Kaman and Othman, 2019) revealed that their intellectual stimulation competence best matches their long-term sustainability strategy. Through transformational leadership strategies, it is possible to overcome the limitations of both the authentic-consultative and the autocratic-bureaucratic systems (Adha et al., 2020).

Asif et al. (2019) in their study identified a significant and positive influence of transformative leadership practice and corporate sustainability stated that it encourages individual sacrifice on the part of team members. Through the use of shared values, collaborative decision making, shared vision, and shared authority, visionary leaders are able to transform the many desires, preferences, perspectives, and ambitions

of their followers into a cohesive whole (Zhou et al., 2018). Jing et al. (2020) in their study also gained much from transformative leadership and concluded that it enhances organizational success (Gerard et al., 2017). Strategies for sharing information are supported by leaders who can effect transformation. People are inspired to do their best by leaders who use transformational leadership. Academic investigation (Zhang et al., 2019; Zhang et al., 2019) hereby stressed to analyze it with a clearer investigation hence the following hypothesis has been advanced:

**H4.** Transformational corporate leadership style is significantly influencing corporate sustainability.

An organization's capacity needs to compete to manage its knowledge. Improved quality boosts a company's competitiveness, and competitiveness is founded on knowledge (Bloodgood, 2018). The goal of knowledge management is to help identify and manage corporate knowledge for the company's long-term benefit (Akanmu et al., 2020). When deciding an organization's long-term destiny, knowledge management is an essential instrument, not just low-cost manufacturing processes. Although it covers a wide variety of jobs, knowledge management includes the creation and growth of added value, amongst a host of other responsibilities. (Paillé et al., 2019).

In today's global market, handling better information is vital to gaining a competitive edge while maintaining corporate performance (Soniewicki and Paliszkiwicz, 2019). According to Zhao et al. (2016) research, it's important to determine the goals of other components and stakeholders before constructing a set of variables with various corporate sustainability objectives. Knowing and comprehending stakeholders helps firms enhance performance. Following this Torres et al. (2018) and Mahdi et al. (2019) argue that knowledge assets are a source of competitive advantage for organizations. The firm has reaped the benefits of implementing or using solutions for knowledge management (Iqbal et al., 2018; Arsawan et al., 2020). Knowledge management, in particular, may help companies improve overall performance (Graha et al., 2019; Alshawabkeh et al., 2020). Studies have demonstrated a clear correlation between knowledge management methods and corporate performance (Hameed et al., 2020). Gul et al. (2021) in their study concluded positive and significant influence of knowledge management on corporate sustainability. They identified that knowledge-driven organizations enable employees to participate in company decisions and suggest dynamic solutions to organizational difficulties, which is beneficial for corporate sustainability. The study of Lam et al. (2021) is also related to KMPs to innovation and sustainability's, concluded that Innovation requires KM and diversified capital. Knowledge management practices have significant impact on the corporate sustainability through provision of green technology. Knowledge management affects corporate performance, according to research (Areed et al., 2021; Al-Mansoori et al., 2021). As a consequence, the following is the hypothesis:

**H5.** Knowledge management has significant effect on corporate sustainability.

Culture in the workplace is a source of corporate competitiveness (Lee et al., 2016). In previous research, corporate culture is a crucial factor in corporate performance (Rustiarini et al., 2019). Adaptability, consistency, commitment, and purpose are four elements of a good corporate culture that have been confirmed by previous research (Hosseini et al., 2019). If the company applies knowledge management, the process of performance sustainability will be accelerated. Individuals and companies may profit from the link between corporate culture and sustainability (Marques, J.M.R. 2019), such as corporate sustainability (Koohang et al., 2017). Abbas (2020) investigated the importance of corporate culture through knowledge management in Pakistani industrial and service firms. They linked information sharing benefits organizations' economic and sustainability, but not their social sustainability. Knowledge management practices are valuable corporate

assets for generating new ideas and achieving long-term corporate success. As a result, knowledge management can relate corporate culture to corporate sustainability. This emphasized that mediated role of knowledge management is checked as a result; the hypothesis is developed as follows:

**H6.** The relationship between corporate culture and sustainability is mediated by Knowledge management.

Knowledge management strategies may be implemented with the support of transformational leadership. Corporate performance may be improved by a leadership style that supports knowledge acquisition (Martins et al., 2019). An organization's transformational leadership style may be accelerated by using knowledge management techniques (Birasnav, 2014). Leaders who often acknowledge their employees' contributions to the company's success also increase performance via the knowledge management process. Since knowledge management might be a mediator between corporate performance and transformative leadership in this context (Lemmetty et al., 2020). Kordab et al. (2020) in his recent study concluded that management in knowledge-based businesses ensures transformative leadership and long-term viability. For a company to be successful, whether public or private, it must have a strong focus on long-term sustainability (Ullah et al., 2021). Hence very rare researchers analyzed the company's ability to keep hold of and expand upon its corporate sustainability through knowledge management is one of the most essential factors in determining whether or not it will be successful in the long run. This emphasized to check the mediated role of knowledge management as a result the hypothesis is developed as follows:

**H7.** The relationship between transformational corporate leadership and corporate sustainability is mediated by Knowledge Management.

According to Orbay and Ararat (2006), even though the bulk of the study has focused on the fundamental dilemma between cultures introduced by the corporate managers and dispersed shareholders, there has been some progress in the field; significant shareholders are substantially more common in many nations than dispersed structural organizations. While huge shareholders are being explored as a possible answer to the traditional agency problem between managers and dispersed shareholders, there has been little study on their costs. The influence of such disparities on company investment performance is examined in this research. According to this study, companies that balance corporate structures, dual-class shares, or other strategies that allow substantial owners greater control over their cash flow rights had a lot higher investment success. A firm's structure impacts how executives are selected, objectives are set, and performance is measured, all of which impact the organization's long-term (Friedrich et al. (2020).

**H8.** A strong corporate structure has a significant effect on corporate sustainability.

Many academics, both in developed and developing country studies, are increasingly taking into consideration social capital but very rarely recognize, which acts as a binding force that keeps institutions in place (Ndofor et al., 2011; Brink, 2011; Bradley et al., 2012; Agyapong et al., 2017). Scholars have rarely investigated the relationship between social capital and organizational management (Clarke et al., 2016; Pratono (2018), while Stam, et al., 2014). researchers looked at the effects of an entrepreneur's social capital on the success of small businesses. In an organization, social capital is substantial because it contributes to the organization's knowledge and gives opportunities to understand its network structure, both of which are essential to the company's success (Roy, D. et al., 2020). Recently the research conducted by Zezhou et al. (2022) found significant obstacles to the exchange of information in reverse logistics. The results show that the three most prominent impediments affecting the IS in RL of C&D waste are lack of clarity in the market environment, lack of government assistance and lack of trust among stakeholders. The trust level is the key indicator of social capital

need to be analyzed hence it is following the below hypothesis:

**H9.** Social capital is significantly enhancing corporate sustainability.

After reviewing relevant literature, the following theoretical framework is offered to validate and answer the research issue addressed in this study. Fig. 1 with this depicts the conceptual framework that is developed after the literature analysis and hypothetical development

### 3. Methodology

A questionnaire was utilized to obtain the data needed for the research in this investigation. The influence of knowledge management on corporate sustainability is investigated via the lens of the questionnaire, which contains questions on the effect of corporate structure, culture, leadership, and social capital on corporate sustainability. The study background and papers (Caiado et al., 2018) were utilized to achieve this goal and build questionnaire questions for the constructs of culture, structure, strategy, and technological innovation. A quantitative research approach is used, and data is collected through a well-designed questionnaire from 130 respondents from the textile sector of Dhaka, which is the leading sector of Bangladesh's economy. The garment market sector is selected as it favors Bangladeshi fabrics. Bangladesh makes textiles and knitwear to boost exports. Bangladesh exports more than China and the US combined as 80% of exports are textiles hence is the second-largest ready-made garment (RMG) manufacturer and exporter in the world. The survey covers demographic questions, including age and gender, as well as job experience and educational attainment questions. A 5-point Likert scale, one of the most commonly used measuring scales, was utilized to assess the indices in the survey questionnaire. Most of the questions in this research were standard, assuring their consistency. Following the preparation of the questionnaires, they were delivered to a significant number of respondents from the target population, and essential drugs were developed in response to their responses and observations. The questionnaire's reliability was determined using Cronbach's alpha.

In most cases, an alpha value of higher than 0.7 is sufficient. Cronbach's alpha was determined using SPSS software to validate the questionnaire's reliability. Table-1 shows that the Cronbach's alpha for each scale was more than 0.70.

This study's statistical population comprises all of the target community's administrative personnel. At the time of this research, there were 180 participants. The sample size was 130, as determined by Cochran's formula:

$$\text{Sample size} = \frac{N \cdot Z_{\alpha/2}^2 \cdot pq}{e^2 \cdot (N - 1) + Z_{\alpha/2}^2 \cdot pq}$$

p and q are often set to half of the population size (0.5), the percent probability (0.05) of error (e) is set to less than ten percent, and the amount of z under the assumption of 0.05 is obtained using the normal distribution table, where N is the population size (z 1.96).

Questionnaires were distributed randomly among members of the target group, and a total of 130 questionnaires were collected per the sample size. Table-2 contains information on the demographics of the population (see Table 3).

A descriptive, inferential, and confirmatory factor analysis approach was used to assess the information gathered from the questionnaires in this research. Following the determination of the data normality and Bartlett and KMO tests finishing point, the partial least squares approach was used to assess each research hypothesis independently through data analysis. This method was also used in the general study model, which resulted in some interesting findings.

### 4. Demographic information

According to the demographic data (Fig. 2), females made up 22.30

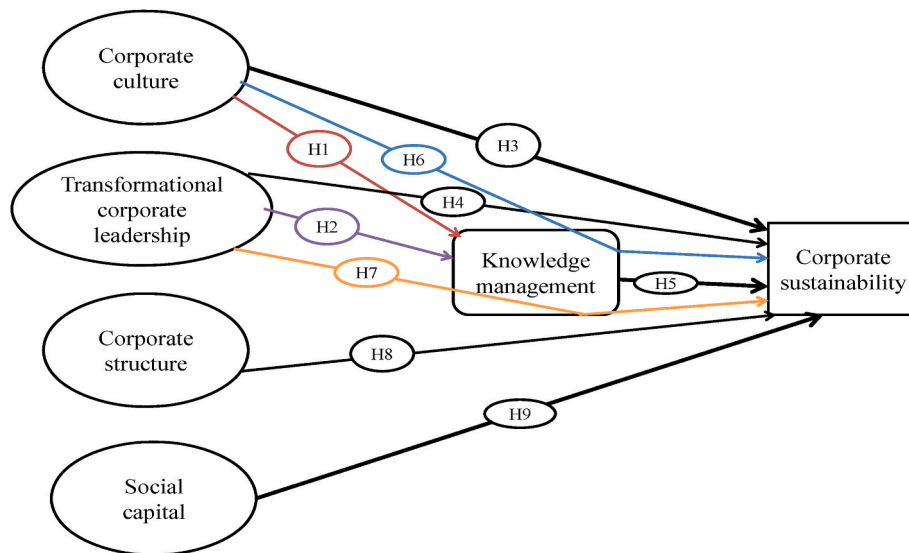


Fig. 1. Research Framework Source: Author.

**Table-1**  
Research questionnaire reliability.

Variables	Cronbach's alpha	Sample Size of Variable (N)
Corporate structure	0.843	05
Corporate culture	0.846	05
Corporate leadership	0.804	05
Social Capital	0.823	05
Knowledge management	0.843	05
Corporate Sustainability	0.832	05
Total	0.830	30

**Table-2**  
Testing normality.

Variables	N	Skewness	Skewness (SD)	Kurtosis	Kurtosis (SD)
Corporate structure	130	130		0.698	
Corporate culture	130	-0.932	0.243	1.322	0.472
Corporate leadership	130	-0.832	0.243	0.852	0.472
Social Capital	130	-0.983	0.243	1.623	0.472
Knowledge management	130	-0.246	0.243	-0.512	0.472
Corporate Sustainability	130	-0.702	0.243	0.700	0.472

**Table-3**  
KMO and Bartlett tests.

Variables	KMO	Bar >Chi-sq	Bar>d.f	Bar>Sig
Corporate structure	0.880	280.062	10	0.000
Corporate culture	0.848	259.275	10	0.000
Corporate leadership	0.753	215.657	10	0.000
Social Capital	0.790	360.852	15	0.000
Knowledge management	0.765	360.643	10	0.000
Corporate Sustainability	0.850	358.086	21	0.000
All questions	0.803	7770.156	1128	0.000

percent of those who responded to the poll questions, while men made up 73.07 percent. Furthermore, the most prevalent age group was 32–41 years old, which accounted for 53.8 percent of the population. Finally, regarding experience level, individuals with 5–10 years of experience (51.5 percent) had the highest percentage, while those with less than 5 years had the lowest (17.7 percent).

Following the results of the tests shown in Table 2, the skewness of the variables varied between 2 and 2, the kurtosis statistics varied between 3 and 3, and the standard deviation of all the variables varied between 2 and 2 for all variables. Consequently, it is reasonable to deduce that the research data was normally distributed for further analysis.

As seen in Table-4, the assumption of independence of all variables is disproved, owing to the test's significance level is less than 0.05. As a consequence, at least one set of parameters is not independently connected to the other, as shown in the study results. Furthermore, the greater than 0.7 values of KMO for all the variables indicated that they were appropriate for the examined variables. A consequence is that it is possible to use factor analysis methodologies to examine all of the research indicators simultaneously.

**5. The confirmatory factor analysis**

After developing a general research model, we proceeded to investigate the measurement model and the structural model is a mathematical model that defines the link between each latent variable and the observable variables (which describes the relationship between latent variables with one another), and the fitting of the general research model in a step-by-step approach. The bootstrap approach was used to assess the significance of the associations, and the t-statistics were calculated to indicate the relevance of the relationships. In addition, each episode featured a portion on evaluating research hypotheses based on correlations between variables, which served as a bonus for the audience.

**6. Model measurement: analysis of fit indices**

Table-4 illustrates the relevance of factor loading and t values in terms of statistical significance in terms of factor loading and the measurement model itself. As recommended by the literature, the factor loading value should exceed 0.4 in all cases, showing a strong link between observable variables and the latent variables associated with them. Aside from that, the t statistics between the observable variables and their associated latent variables must always be more than 1.96 in all cases, regardless of the situation.

**7. Inner model: Evaluation of structural model**

The R-square test was used to analyze the structural model. Using R-

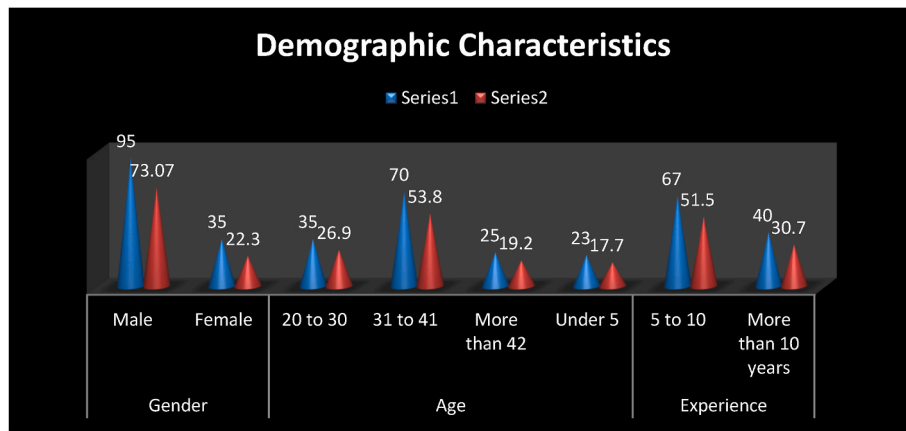


Fig. 2. Demographic Characteristics Note: Series-1 demonstrate frequencies while series-2 shows percentage.

Table-4 External Model: Factor loading.

Variable	Question	Factor Loadings	t-stat
Corporate Structure	OS1	0.698	5.788
	OS2	0.832	20.676
	OS3	0.853	14.335
	OS4	0.790	18.790
	OS5	0.853	27.585
Corporate Culture	OC6	0.844	21.903
	OC7	0.871	39.605
	OC8	0.844	15.833
	OC9	0.691	8.363
	OC10	0.828	23.606
Corporate Leadership	OL11	0.643	12.021
	OL12	0.803	17.558
	OL13	0.735	11.006
	OL14	0.792	9.961
	OL15	0.852	19.550
Social Capital	SC16	0.699	9.400
	SC17	0.759	11.505
	SC18	0.761	11.502
	SC19	0.794	14.921
	SC20	0.897	44.434
Knowledge Management	SC21	0.816	14.271
	KM22	0.742	11.038
	KM23	0.846	24.807
	KM24	0.775	8.709
	KM25	0.857	29.141
Corporate Sustainability	KM26	0.872	22.661
	SP27	0.812	14.579
	SP28	0.781	10.837
	SP29	0.820	16.033
	SP30	0.770	15.472
	SP31	0.784	14.216
	SP32	0.675	10.245
	SP33	0.660	10.077

square values, we could quantify the impact of certain exogenous latent factors on endogenous ones that had a meaningful influence. The results of the R-square estimation are shown in Table-5.

For the structural model employing a good fit model is significant with predictive relevance of Q-Square in addition to using R-square and other measures of predictive significance. The greater value than zero f A Q-square suggested that the model has predictive significance; however, it implies that the model’s predictive validity is less than zero. To

Table-5 R-Square.

S. No	Variable	R-Square
i	Knowledge Management Y1	0.734
ii	Corporate Sustainability Y2	0.860

Table-6 Testing hypotheses.

Variables and Relationship	(Bootstrapping)	T-Statistics	Sig	Decision
Corporate culture → knowledge management	0.343	3.002	0.023*	H <sub>1</sub> is accepted
Transformational Corporate Leadership → knowledge management	0.553	4.684	0.018*	H <sub>2</sub> is accepted
Corporate culture → corporate sustainability	0.358	2.902	0.003*	H <sub>3</sub> is accepted
Transformational corporate Leadership → corporate sustainability	0.223	2.320	0.033*	H <sub>4</sub> is accepted
Knowledge management → corporate sustainability	0.410	3.080	0.045*	H <sub>5</sub> is accepted
Corporate Structure → corporate sustainability	0.543	4.650	0.000	H <sub>6</sub> is accepted
Social Capital → corporate sustainability	0.362	3.002	0.002	H <sub>6</sub> is accepted

\*Sig at 5% (two-sided t-test).

calculate Q-Square, the following formula is used:

$$\begin{aligned}
 Q^2 &= 1 - (1 - R1^2)(1 - R2^2) \\
 &= 1 - (1 - 0.735)(1 - 0.823) \\
 &= 1 - (0.263)(0.134) \\
 &= 0.96
 \end{aligned}$$

Q2 (the predictive relevance of Q-Square) computation yielded a score of 0.96, which is a good result. The Q2 value might be used to assess how effectively the model with its estimated parameter creates the observed value compared to other models. Q2 values larger than zero (zero) signify that the model performed satisfactorily, but Q2 values less than zero (zero) signify that the model performed poorly in predictive relevance. Q2 for the construct of endogenous latent variable in this study model was 0.96, which was higher than 0 in the previous research (zero). As a result, the model’s predictions were deemed to be valid. The hypotheses that had been formed were the subject of the following test. Based on the hypothetical testing, the following conclusions were reached.

The second test looked at the impact of the knowledge management variable (Y1) in mediating the corporate culture (X1) and corporate sustainability (Y2) association (see Table 6). The effect of the variable (Y1), which represents the knowledge management in mediating (X2), which represents the leadership style and corporate sustainability

**Table-7**  
Mediated effects.

Relationship	Effect				Mediated Effects		Decision	
	1	2	3	4	Knowledge Management (Y <sub>1</sub> )	Sig	Hypothesis	
Corporate culture (X <sub>1</sub> ) → sustainability performance (X <sub>2</sub> )	0.376	0.545	0.338	0.409	0.348	0.002	H <sub>6</sub> is accepted	
Transformational corporate Leadership (X <sub>3</sub> ) → Corporate sustainability (X <sub>2</sub> )	0.243	0.454	0.541	0.409	0.532	0.028	H <sub>7</sub> is accepted	

Source: Author Calculation

relationship, was also investigated in this research (Y2). Therefore, the hypothetical experiment on indirect effects was conducted, and the results are reported in Table-7.

### 8. Discussions

When it comes to the first hypothesis, a solid corporate culture, according to the hypothesis, helps the enhancement of knowledge management techniques. In the tests, the t-statistical value is 3.002 points higher than 1.96 points, and the significance value is 0.023 points higher than 0.05 points, showing that the t-statistical value exceeds 1.96 points; as a result, it was established that the fundamental theory was correct. It is possible to conclude that corporate culture positively influences knowledge management techniques in general, but this is by no means the end of the discussion. The organizational culture of a firm supports the understanding, offering, and execution of new ideas, all of which contribute to the growth of innovativeness in the organization as a result of the company’s organizational culture. Knowledge activities must be promoted, and people must be motivated to learn and engage in them to succeed. Organizational culture is critical to a company’s success. Organizational culture is a trait of a corporation that influences employee behavior. Essentially it is a character trait of a company that influences employee behavior and is also characterized by the previous research (Rastegar and Seyed, 2016; Hutomo et al., 2018; Balasubramanian et al., 2019) has shown that knowledge management and organizational culture are positively associated.

Secondly, it was proposed that information and knowledge management practices are influenced by the methods of transformational corporate leadership, which was supported by evidence from the literature. The statistical significance level of the difference is 0.018 > 0.05, and the t-statistical value is 4.684 > 1.96 when we look at the data in detail. It has been shown that the second hypothesis was correct. Transformational leaders, according to Kim’s Knowledge Management Model (KMM), are accountable for four important functions, which are as follows: idealized influence, inspiring motivation, intellectual stimulation, and individual care (Rai et al., 2019). Immediately following this is the transformational leadership notion, which proposes that a leader’s actions may accelerate an employee’s creative thinking, improving both their performance and the company’s overall performance (Rustiarini et al., 2019; Feranita et al., 2020).

It was observed via data analysis that a statistically significant value of 0.0030 < 0.05 was discovered to support the third hypothesis, which was supported by the t-statistical value of 2.902 > 1.96.

The t-statistical value was 3.080 > 1.96, and the significance value was 0.02, 0.05, indicating that the data was significant. It confirms the fifth hypothesis; knowledge management strategies affect an organization’s long-term sustainability.

It has a good impact on the long-term sustainability of a company’s operations due to knowledge management. The use of low-cost manufacturing techniques, as well as methodologies capable of producing and growing a variety of value-added commodities, may be considered in the case of knowledge management (van et al., 2016). Employee quality may be improved while at the same time offering a competitive advantage to the organization via the use of organizational knowledge (Arsawan et al., 2020). A common understanding of the organization’s management was critical in persuading Textile’s members to increase their knowledge of agricultural operations throughout the

modernization phase and use environmentally friendly technologies (Lim et al., 2018). Aside from that, it required knowledge management techniques to demonstrate the functions of Textiles institutions, which included, among other things, accommodating production, distribution, and marketing operations. As a result, Textiles organizations collaborate with local communities to assist them in carrying out their economic operations to attain long-term sustainability.

In the sixth hypothesis, it was argued that knowledge management is a mediating component in the link between corporate culture and long-term sustainability. As shown in table-7, the results of the statistical tests indicate that the mediated effect is statistically significant in this particular case. When it comes to identifying the mediating element that is influenced by the notion of knowledge management, Park and Kim (2018) describe how the study provides a technique for doing so. Generally speaking, if the implicit value of the measure is more than one, a statistically significant relationship between the mediating and dependent variables is indicated.

On the seventh hypothesis, we see whether corporate leadership style and the long-term health of a corporation are affected by knowledge management in any way. As a consequence of the findings, it was determined that the mediated impact is much more. Providing conducive environments for their workers to transmit their expertise while contributing to the development of knowledge management practices is essential for organizations seeking to succeed in the field of expert management. Numerous researches have shown the influence of knowledge management and its procedures on organizational performance and the leadership styles of individuals in organizations. This data is particularly important since it is consistent across many studies (Balasubramanian et al., 2019; Arsawan et al., 2020). In this instance, it emphasizes the critical role that information plays in increasing an organization’s long-term sustainability and success through a corporate structure, which has significant results as indicated in the eighth hypothesis.

The ninth hypothesis checks the effect of a newly emerged variable known as the social capital impact on corporate sustainability. The t-statistical value was 3.002 > 1.96, and the significance value was 0.002, indicating that social capital strategies significantly and positively affect the textile long-term corporate sustainability.

### 9. Conclusions and recommendations

According to this article, there are many contexts for the effects of knowledge management, as mediating components, on the relationships between corporate sustainability and corporate culture, social capital, and leadership that are statistically significant (Bilan et al., 2020). The garment-textile sector of Bangladesh was mainly targeted for the investigation because it is the second-largest ready-made garment (RMG) manufacturer and textile exporter in the world; hence there is a strong need for these sorts of enterprises to be able to function continuously to provide a complete framework to other sectors across the world. Knowledge management has tremendous potential for the textile industry, but there is still much more work to be done to reap the advantages of these factors. This study hereby explored the mediated effects of knowledge management on corporate leadership style and corporate sustainability with significant results. The result is supported by a recent research study (Ordonez de-Pablos and Lytras, 2018; Kantabutra, and Ketprapakorn. 2020) stated that corporate sustainability

and corporate culture, according to (Ordóñez de Pablos and Lytras, 2018) are two factors that might have affected by mediating effect of knowledge management.

To this end; to effectively utilize knowledge management tools and programs to promote a specific shift in culture within the textile sector as well as the organization of the exact nature across the world, therefore their leaders must exercise patience and endurance (Koehler, F. et al., 2019), as well as use a diverse variety of tactics and tools that are supported by a clear, recognized logic, to enhance corporate sustainability (Hameed, Z. et al., 2020).

A new variable called social capital is examined in the ninth hypothesis to see how it affects the long-term corporate sustainability of the textile sector of Bangladesh. Because the significance level was 0.002 and the t-statistical value was  $3.002 > 1.96$ , social capital regulations significantly impact the textile industry's long-term corporate sustainability. In light of current economic problems, small and medium enterprises are looking for new foundations to enhance their capability for long-term success (Arsawan et al., 2020) and sustainability. Within this paradigm, indicators of sustainable development are prominently included in the concept of social capital.

It is not recommended to employ short-term activities and counseling for lasting changes in deeply ingrained attitudes and beliefs. A key barrier to effective knowledge management is people's unwillingness to share their information for any purpose, preferring instead to utilize it only for their improvement; therefore, social capital practices improve the trust and solidarities between the employee (Zarutskaya, V.S., Orekhova, S.V. 2019). Those who feel the information is power and should not be lost may be misreading the situation. Through social capital, the worker attitudes such as teamwork, task sharing, and mutual trust will enable information to flow more easily across the company, increasing productivity and corporate sustainability.

The organization's culture in which information is produced, acquired, and disseminated will impact all of these aspects of the sustainability process (Kantabutra, S. and Ketprapakorn, N. 2020). Consequently, it is advised that organizations provide their workers with more discretionary authority, that people cooperate more in the course of their tasks, and that managers make an effort to foster a more cohesive working atmosphere among their employees, among other things. Also stated is the notion that leadership plays a role and should be led by their beliefs and goals rather than their personal preferences and desires (Graha et al., 2019; Hameed et al., 2020). Every team member must be aware of his or her personal strengths and shortcomings, and they must continually be on the lookout for new learning opportunities to supplement their knowledge. While working across the organization, the leadership constantly questions the status quo and enhances the working environment. It is the leader's responsibility to pay attention to all of the persons in the company, establish social capital among team members, and design acceptable organizational cultures and behaviors. This is a legal requirement (Ferdig, 2007; Dugan, 2017; Farooq, 2019). The trust-building culture among workers is thus essential for the organization's success (Cavazotte et al., 2013; Bozer and Jones, 2018; Graha et al., 2019). When it comes to business, this is referred to as "social capital" since it is the cornerstone of a highly cooperative workplace that stimulates knowledge sharing and collaboration, enhancing corporate sustainability. To assist workers in overcoming their apprehension about sharing the knowledge, which measures should be encouraged and supported, such as It is vital to have strong social capital faith in other people to have strong social capital based on trust in the organization, and to have social capital faith in one's talents at various points in one's life.

## 10. Novelty

As a consequence of knowledge management, we developed a model for long-term corporate sustainability introducing a new dimension known as "social capital" within Bangladesh's textile and small-medium

garment enterprises. An understanding of the connection between knowledge management and the long-term viability of corporate sustainability of small and medium enterprises across the world may be gained by using this model and theory, based on our research into the existing literature.

## 11. Limitation and future research contribution

Corporate sustainability through knowledge management is well-documented in the empirical and theoretical literature. Still, strategic management practices combined with knowledge management, which uses social capital as a mediator of corporate sustainability in Bangladeshi SMEs, have received little attention. Preliminary research on the research methodology and factors restricted this investigation. Secondly, there is a lack of financial assessment in the present study, which should include in future research aims. Thirdly, as the study's sample was gathered from just a subset of Bangladesh's textile garment industry, there's a chance it missed out on some of the players. As a result, future studies should focus on small, medium, and micro textile businesses in general. Fourth, no consideration was given to the company's specific features in this investigation. Research in the future should examine the influence of company size and ownership on the connection between knowledge management and corporate sustainability in order to solve this constraint. Finally, the model created in this study might be applied to other industries. As a result of this research's cross-sectional nature, a longitudinal study should be done to examine changes in a corporation's financial performance and its linkages with corporate sustainability and knowledge management as mediators.

## CRedit authorship contribution statement

**Md Billal Hossain:** Conceptualization, Methodology, Software, Validation, Formal analysis, Investigation, Resources, Data curation, Writing – original draft, Writing – review & editing, Project administration, Funding acquisition. **Samia Nassar:** Visualization, Funding acquisition. **Mujib Ur Rahman:** Methodology, Investigation, Resources, Data curation. **Anna Dunay:** Validation, Visualization, Project administration, Funding acquisition. **Csaba Bálint Illés:** Conceptualization, Validation, Supervision, Project administration, Funding acquisition.

## Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

## Data availability

Data will be made available on request.

## References

- Abbas, J., 2020. Impact of total quality management on corporate sustainability through the mediating effect of knowledge management. *J. Clean. Prod.* 244, 118806.
- Adeinat, I.M., Abdulfatah, F.H., 2019. Organizational culture and knowledge management processes: case study in a public university. *VINE J. Inf. Knowledge Manag. Syst.* 49 (1), 35–53.
- Adha, M.A. 2020. Adha, M.A, Ariyanti, N.S., Bafadal, I., 2020. In: Analysis of success factors implementation of computer-based management information system in higher education. Atlantis Press. Atlantis press, pp. 80–85.
- Afsar, B., Umrani, W.A., 2019. Transformational leadership and innovative work behavior: the role of motivation to learn, task complexity and innovation climate. *Eur. J. Innovat. Manag.*
- Agyapong, F.O., Agyapong, A., Poku, K., 2017. Nexus between social capital and performance of micro and small firms in an emerging economy: the mediating role of innovation. *Cogent Bus. Manage.* 4 (1), 1309784.
- Ajmal, M.M., Koskinen, K.U., 2008. Knowledge transfer in project-based organizations: an organizational culture perspective. *Proj. Manag. J.* 39 (1), 7–15.



- Akanmu, M.D., Hassan, M.G., Bahaudin, A.Y.B., 2020. A preliminary analysis modeling of the relationship between quality management practices and sustainable performance. *Qual. Manag. J.* 27 (1), 37–61.
- Al-Mansoori, L., Al-Jaber, H., Prince, M.S., Elrayess, M.A., 2021. Role of inflammatory cytokines, growth factors and adipokines in adipogenesis and insulin resistance. *Inflammation* 1–14.
- Alshawabkeh, R., Rumman, A.A., Al-Abbadi, L., Abu-Rumman, A., 2020. The intervening role of ambidexterity in the knowledge management project success connection. *Probl. Perspect. Manag.* 18 (3), 56.
- Anning-Dorson, T., 2018. Innovation and competitive advantage creation: the role of organizational leadership in service firms from emerging markets. *Int. Market. Rev.*
- Areed, S., Salloum, S.A., Shaalan, K., 2021. The role of knowledge management processes for enhancing and supporting innovative organizations: a systematic review. *Recent Adv. Intell. Systems Smart Appl.* 143–161.
- Arsawan, I.W.E., Koval, V., Rajiani, I., Rustiari, N.W., Supartha, W.G., Suryantini, N.P.S., 2020. Leveraging knowledge sharing and innovation culture into SMEs sustainable competitive advantage. *Int. J. Prod. Perform. Manag.*
- Asif, M., Khan, A., Pasha, M.A., 2019. Psychological capital of employees' engagement: moderating impact of conflict management in the financial sector of Pakistan. *Glob. Soc. Sci. Rev.* IV, 160–172.
- Balasubramanian, S., Al-Ahbab, S., Sreejith, S., 2019. Knowledge management processes and performance: the impact of ownership of public sector organizations. *Int. J. Public Sect. Manag.* 33 (1), 1–21.
- Baumgartner, R.J., 2014. Managing corporate sustainability and CSR: a conceptual framework combining values, strategies and instruments contributing to sustainable development. *Corp. Soc. Responsib. Environ. Manag.* 21, 258–271. <https://doi.org/10.1002/csr.1336>.
- Bedford, D., 2013. A case study in knowledge management education-historical challenges and future opportunities. *Electron. J. Knowl. Manag.* 11 (3), pp199–213.
- Bhatti, A., Akram, H., Basit, H.M., Khan, A.U., Raza, S.M., Naqvi, M.B., 2020. E-commerce trends during COVID-19 Pandemic. *Int. J. Future Gen. Commun. Netw.* 13 (2), 1449–1452.
- Bilan, Y., Hussain, H.I., Haseeb, M., Kot, S., 2020. Sustainability and economic performance: role of organizational learning and innovation. *Eng. Econ.* 31 (1), 93–103.
- Birasnav, M., 2014. Knowledge management and organizational performance in the service industry: the role of transformational leadership beyond the effects of transactional leadership. *J. Bus. Res.* 67 (8), 1622–1629.
- Biscotti, A.M., D'Amico, E., Monge, F., 2018. Do environmental management systems affect the knowledge management process? The impact on the learning evolution and the relevance of organizational context. *J. Knowl. Manag.*
- Blažková, L., Dvoulitý, O., 2018. Investigating the differences in entrepreneurial success through the firm-specific factors: microeconomic evidence from the Czech food industry. *J. Entrepreneur. Emerg. Econ.*
- Bloodgood, J.M., 2018. Knowledge acquisition and firm competitiveness: the role of complements and knowledge source. *J. Knowl. Manag.* 23 (1), 46–66.
- Bozer, G., Jones, R.J., 2018. Understanding the factors that determine workplace coaching effectiveness: a systematic literature review. *Eur. J. Work. Organ. Psychol.* 27 (3), 342–361.
- Caiaado, R.G.G., Quelhas, O.L.G., Nascimento, D.L.M., Anholon, R., Leal Filho, W., 2018. Measurement of sustainability performance in Brazilian organizations. *Int. J. Sustain. Dev. World Ecol.* 25 (4), 312–326.
- Cavazotte, F., Moreno, V., Bernardo, J., 2013. Transformational leaders and work performance: the mediating roles of identification and self-efficacy. *BAR-Brazilian Admin. Rev.* 10, 490–512.
- Clarke, A., Mena, J., García, M., Barkatsas, A., 2016. An analysis of three different approaches to student teacher mentoring and their impact on knowledge generation in practicum settings. *Eur. J. Teacher Educ.* 39 (1), 53–76.
- Courrent, J.M., Chassé, S., Omri, W., 2018. Do entrepreneurial SMEs perform better because they are more responsible? *J. Bus. Ethics* 153 (2), 317–336.
- Duffield, S.M., Whitty, S.J., 2016. Application of the systemic lessons learned knowledge model for organizational learning through projects. *Int. J. Proj. Manag.* 34 (7), 1280–1293.
- Dugan, J.P., 2017. *Leadership Theory: Cultivating Critical Perspectives*. John Wiley & Sons.
- Fahlevi, M., 2021. Mediating effect of motivation on employees' performance in a private hospital, Indonesia. *IOP Conf. Ser.: Earth Environ. Sci.* 729, 23–24. <https://doi.org/10.1088/1755-1315/729/1/012001>.
- Faraoni, M., Rialti, R., Zollo, L., Pellicelli, A.C., 2018. Exploring e-Loyalty Antecedents in B2C e-Commerce: empirical results from Italian grocery retailers. *Br. Food J. Innovat. Sci.*
- Farooq, R., 2019. Developing a conceptual framework of knowledge management. *Int. J. Innovat. Sci.*
- Feng, Y., Zhu, Q., Lai, K.H., 2017. Corporate social responsibility for supply chain management: a literature review and bibliometric analysis. *J. Clean. Prod.* 158, 296–307.
- Feranita, N.V., Nugraha, A., Sukoco, S.A., 2020. Effect of transformational and transactional leadership on SMEs in Indonesia. *Probl. Perspect. Manag.* 18 (3), 415–425.
- Ferdig, M.A., 2007. Sustainability leadership: Co-creating a sustainable future. *J. Change Manag.* 7 (1), 25–35.
- Friedrich, J., Becker, M., Kramer, F., Wirth, M., Schneider, M., 2020. Incentive design and gamification for knowledge management. *J. Bus. Res.* 106, 341–352.
- Gachanja, 2020. *Influence of Leadership on Innovation Efficiency in Manufacturing Firms in Kenya*. Gachanja, I. M., Nganga, S. L., & Kiganane, L. M. (2020).
- Gelard, P., Boroumand, Z., Mohammadi, A., 2014. Relationship between transformational leadership and knowledge management. *Int. J. Inf. Sci. Manag. (IJISM)* 12 (2), 67–82.
- Gerard, L., McMillan, J., D'Annunzio-Green, N., 2017. Conceptualizing sustainable leadership. *Ind. Commer. Train.* 49, 116–126. <https://doi.org/10.1108/ict-12-2016-0079>.
- Graha, A.N., Sudiro, A., Armanu, A., Ratnawati, K., 2019. The role of knowledge management in organizational performance: case study of University of Malang, Indonesia. *Probl. Perspect. Manag.* 17 (1), 230–243.
- Gul, R.F., Liu, D., Jamil, K., Kamran, M.M., Awan, F.H., Qaiser, A., 2021. Consumers' assessment of the brand equity of garment brands. *Industria Textila* 72 (6), 666–672.
- Hair Jr., J.F., Matthews, L.M., Matthews, R.L., Sarstedt, M., 2017. PLS-SEM or CB-SEM: updated guidelines on which method to use. *Int. J. Multivariate Data Anal.* 1 (2), 107–123.
- Hameed, Z., Khan, I.U., Islam, T., Sheikh, Z., Naeem, R.M., 2020. Do green HRM practices influence employees' environmental performance? *Int. J. Manpow.*
- Harun, A., Othman, B., Rashid, W., Ali, R., 2019. The impact of Umrah service quality on customer satisfaction towards Umrah travel agents in Malaysia. *Manag. Sci. Lett.* 9 (11), 1763–1772.
- Hosseini, S.S., Tekmedash, Y.N., Karami, A., Jabarzadeh, Y., 2019. The impact of knowledge management strategy on service innovation performance in private and public hospitals. *Iran. J. Manag. Stud.* 12 (1), 1–24.
- Hutomo, A., Haizam, M., Sinaga, O., 2018, June. The mediating role of organizational learning capability on green distribution and green packaging towards sustainability performance as a function environmental dynamism: Indonesia and Malaysia fishery industries. In: *IOP Conference Series: Earth and Environmental Science*, 164. IOP Publishing. No. 1, p. 012018.
- Iqbal, Q., Ahmad, N.H., Ahmad, B., 2018. Enhancing sustainable performance through job characteristics via workplace spirituality: a study on SMEs. *J. Sci. Technol. Pol. Manag.*
- Islam, J.U., Rahman, Z., Hollebeck, L.D., 2017. Personality factors as predictors of online consumer engagement: an empirical investigation. *Market. Intell. Plann.*
- Jing, F.F., Avery, G.C., Bergsteiner, H., 2020. RETRACTED: Leadership Variables and Business Performance: Mediating and Interaction Effects, 11777/1548051818824532.
- Kaman, Z.K.B., Othman, Z., 2019. EMS 14001: an instrument for environmental protection-A petrochemical perspective. *Int. J. Bus. Manag.* 3, 16–20.
- Kantabutra, S., Ketprapakorn, N., 2020. Toward a theory of corporate sustainability: a theoretical integration and exploration. *J. Clean. Prod.* 270, 122292.
- Khan, N.U., Saufi, R.A., Rasli, A.M., 2019. Green human resource management practices among ISO14001-certified Malaysian manufacturing firms. In: *Green Behavior and Corporate Social Responsibility in Asia*. Emerald Publishing Limited, pp. 73–79.
- Koehler, F., Caetano Bastos, L., Cid Bastos, R., 2019. Understand the dynamic theory of organizational knowledge creation: roots and future. *Int. J. Innovat. Edu. Res.* 7 (9), 124–141.
- Komin, W., Sedana, G., 2019. Sustainable agricultural technologies on rice farming: case of Subaks' in Bali province, Indonesia. *J. Sustain. Dev. Sci.* 1 (1), 18–26.
- Koohang, A., Paliszkievicz, J., Goluchowski, J., 2017. The Impact of Leadership on Trust, Knowledge Management, and Organizational Performance: A Research Model. *Industrial Management & Data Systems*.
- Kordab, M., Raudeliūnienė, J., Meidutė-Kavaliauskienė, I., 2020. Mediating role of knowledge management in the relationship between organizational learning and sustainable organizational performance. *Sustainability* 12 (23), 10061.
- Lam, L., Nguyen, P., Le, N., Tran, K., 2021. The relation among organizational culture, knowledge management, and innovation capability: Its implication for open innovation. *J. Open Innov.: Technol. Market. Complexity* 7 (1), 66.
- Lee, J.C., Shue, Y.C., Chen, C.Y., 2016. Examining the impacts of organizational culture and top management support of knowledge sharing on the success of software process improvement. *Comput. Hum. Behav.* 54, 462–474.
- Lemmetty, S., Glèveanu, V.P., Collin, K., Forsman, P., 2020. Un) sustainable creativity? Different manager-employee perspectives in the Finnish technology sector. *Sustainability* 12 (9), 3605.
- Lim, C., Kim, K.H., Kim, M.J., Heo, J.Y., Kim, K.J., Maglio, P.P., 2018. From data to value: a nine-factor framework for data-based value creation in information-intensive services. *Int. J. Inf. Manag.* 39, 121–135.
- Lopes, C.M., Scavarda, A., Hofmeister, L.F., Thomé, A.M.T., Vaccaro, G.L.R., 2017. An analysis of the interplay between organizational sustainability, knowledge management, and open innovation. *J. Clean. Prod.* 142, 476–488.
- Lozano, R., Lukman, R., Lozano, F.J., Huisingh, D., Lambrechts, W., 2013. Declarations for sustainability in higher education: becoming better leaders, through addressing the university system. *J. Clean. Prod.* 48, 10–19.
- Mahdi, O.R., Nassar, I.A., Almsafir, M.K., 2019. Knowledge management processes and sustainable competitive advantage: an empirical examination in private universities. *J. Bus. Res.* 94, 320–334.
- Martins, V.W.B., Rampasso, I.S., Anholon, R., Quelhas, O.L.G., Leal Filho, W., 2019. Knowledge management in the context of sustainability: literature review and opportunities for future research. *J. Clean. Prod.* 229, 489–500.
- Matinaro, V., Liu, Y., 2017. Towards increased innovativeness and sustainability through organizational culture: a case study of a Finnish construction business. *J. Clean. Prod.* 142, 3184–3193.
- McPhillips, M., 2020. Trouble in paradise? Barriers to open innovation in regional clusters in the era of the 4th industrial revolution. *J. Open Innov.: Technology, Market, and Complexity* 6 (3), 84.
- Nguyen, M., Bensemann, J., Kelly, S., 2018. Corporate social responsibility (CSR) in Vietnam: a conceptual framework. *Int. J. Corporate Social Responsibility* 3 (1), 1–12.

- Nguyen, T.T.H., Yang, Z., Nguyen, N., Johnson, L.W., Cao, T.K., 2019. Greenwash and green purchase intention: the mediating role of green skepticism. *Sustainability* 11 (9), 2653.
- Nonaka, I., Toyama, R., 2015. The knowledge-creating theory revisited: knowledge creation as a synthesizing process. In: *The Essentials of Knowledge Management*. Palgrave Macmillan, London, pp. 95–110.
- Noruzi, A., Dalfard, V.M., Azhdari, B., et al., 2013. Relations between transformational leadership, organizational learning, knowledge management, organizational innovation, and organizational performance: an empirical investigation of manufacturing firms. *Int J Adv Manuf Technol* 64, 1073–1085. <https://doi.org/10.1007/s00170-012-4038-y>.
- Nurkholis, N., Dularif, M., Rustiari, N.W., 2020. Tax evasion and service-trust paradigm: a meta-analysis. *Cogent Bus. Manage.* 7 (1), 1827699.
- Orbay, H., Ararat, M., 2006. Corporate Governance in Turkey; Implications for investments and growth. *Implications for Investments and Growth* (December 2006).
- Ordóñez de Pablos, P., Lytras, M., 2018. Knowledge management, innovation and big data: implications for sustainability, policy making and competitiveness. *Sustainability* 10 (6), 2073.
- Ozusaglam, S., Kesidou, E., Wong, C.Y., 2018. Performance effects of complementarity between environmental management systems and environmental technologies. *Int. J. Prod. Econ.* 197, 112–122.
- Paillé, P., Mejía Morelos, J.H., Raineri, N., Stinglhamber, F., 2019. The influence of the immediate manager on the avoidance of non-green behaviors in the workplace: a three-wave moderated-mediation model. *J. Bus. Ethics* 155 (3), 723–740.
- Park, S., Kim, E.J., 2018. Fostering organizational learning through leadership and knowledge sharing. *J. Knowl. Manag.*
- Pratono, A.H., 2018. Does firm performance increase with risk-taking behavior under information technological turbulence? Empirical evidence from Indonesian SMEs. *J. Risk Finance.*
- Purwanto, A., Asbari, M., Santoso, T.I., 2021. Analisis data penelitian marketing: Perbandingan Hasil antara Amos, SmartPLS, WarpPLS, dan SPSS Untuk Jumlah Sampel besar. *J. Ind. Eng. Manag. Res.* 2 (4), 216–227.
- Quddus, A., Panotopoulos, G., Kumar, B., Ahmad, S., Patra, S.K., 2020. GW170817 constraints on the properties of a neutron star in the presence of WIMP dark matter. *J. Phys. G Nucl. Part. Phys.* 47 (9), 095202.
- Rai, K., Dua, S., Yadav, M., 2019. Association of financial attitude, financial behavior and financial knowledge towards financial literacy: a structural equation modeling approach. *FIIB Business Review* 8 (1), 51–60.
- Rastegar, M., Seyed, M.R.D., 2016. The relationship between organizational culture and organizational effectiveness with the mediating role of knowledge management in insurance companies of Kerman province. In: *The Fourth International Conference of Applied Researches in Management and Accounting*. Shahid Beheshti University, Tehran.
- Raudeliūnienė, J., Davidavičienė, V., Jakubavičius, A., 2018. Knowledge management process model. *Entrepreneur. Sustain. Issues* 5 (3), 542–554.
- Rebeka, E., Indradevi, R., 2015. A study on perception of employees during change in an organization. *Mediterr. J. Soc. Sci.* 6 (1), 72.
- Rustiari, N.W., Sutrisno, T., Nurkholis, N., Andayani, W., 2019. Why people commit public procurement fraud? The fraud diamond view. *J. Public Procure.*
- Schniederjans, M.J., Cao, Q., Triche, J.H., 2013. *E-Commerce Operations Management*. World Scientific Publishing Company.
- Soniewicki, M., Paliszkievicz, J., 2019. The Importance of Knowledge Management Processes for the Creation of Competitive Advantage by Companies of Varying. *Rev* 7 (3), 43–63. <https://doi.org/10.15678/EBER.2019.070303>.
- Stam, W., Arzlanian, S., Elfring, T., 2014. Social capital of entrepreneurs and small firm performance: a meta-analysis of contextual and methodological moderators. *J. Bus. Ventur.* 29 (1), 152–173.
- Sunarsi, D., Suryani, N.L., Jati, W., 2020. Covid-19 pandemic analysis toward productivity giving layoffs effect in the company of industrial sector around South Tangerang. *Prosiding ICoI SSE 1* (1), 472–481.
- Supriadi, O., Musthan, Z., Sa'odah, R.N., Haryanti, Y.D., Marwal, M.R., Purwanto, A., et al., 2020. Did transformational, transactional leadership style and organizational learning influence innovation capabilities of school teachers during covid-19 pandemic? *Sys. Rev. Pharm.* 11 (9), 299–311.
- Surata, S.P.K., Jayantini, G.A.R.S., Lansing, J.S., 2018. Exploring community capital of the Balinese subak cultural heritage: a content analysis of participatory maps. *Int. J. Tech. Res. Appl.* 2 (7), 28–34.
- Torres, A.I., Ferraz, S.S., Santos-Rodrigues, H., 2018. The impact of knowledge management factors in organizational sustainable competitive advantage. *J. Intellect. Cap.*
- Tseng, M.L., Lim, M.K., Wu, K.J., 2018. Corporate sustainability performance improvement using an interrelationship hierarchical model approach. *Bus. Strat. Environ.* 27 (8), 1334–1346.
- Ullah, Z., Álvarez-Otero, S., Sulaiman, M.A.B.A., Sial, M.S., Ahmad, N., Scholz, M., Omhand, K., 2021. Achieving organizational social sustainability through electronic performance appraisal systems: the moderating influence of transformational leadership. *Sustainability* 13 (10), 5611.
- Van, D.A., Hendriks, P., Romo-Leroux, I., 2016. Knowledge sharing and social capital in globally distributed execution. *J. Knowl. Manag.*
- Wang, S., Huang, L., 2022. A study of the relationship between corporate culture and corporate sustainable performance: evidence from Chinese SMEs. *Sustainability* 14, 7527. <https://doi.org/10.3390/su14137527>.
- Wiguna, A.A., Surata, K., 2008. Multifungsi ekosistem subak dalam pembangunan pariwisata di Bali. *Aksara Indonesia, Yogyakarta*.
- Yadav, V., Bethard, S., 2019. A Survey on Recent Advances in Named Entity Recognition from Deep Learning Models. *arXiv preprint arXiv:1910.11470*.
- Yong, J.Y., Yusliza, M.Y., Ramayah, T., Chiappetta Jabbour, C.J., Sehnem, S., Mani, V., 2020. Pathways towards sustainability in manufacturing organizations: empirical evidence on the role of green human resource management. *Bus. Strat. Environ.* 29 (1), 212–228.
- Yu, R., et al., 2020. The effects of partial replacement of fishmeal protein by hydrolysed feather meal protein in the diet with high inclusion of plant protein on growth performance, fillet and physiological parameters of Pengze crucian carp (*Carassius auratus var. Pengze*). *Aquacult. Res.* 51 (2), 636–647.
- Zhang, S., Yao, L., Sun, A., Tay, Y., 2019. Deep learning based recommender system: a survey and new perspectives. *ACM Comput. Surv.* 52, 1–38.
- Zhang, W., Sun, S.L., Jiang, Y., Zhang, W., 2019. Openness to experience and team creativity: effects of knowledge sharing and transformational leadership. *Creativ. Res. J.* 31 (1), 62–73.
- Zhao, Z.Y., Zhao, X.J., Davidson, K., Zuo, J., 2012. A corporate social responsibility indicator system for construction enterprises. *Volumes 29–30 J. Clean. Prod.* 277–289. <https://doi.org/10.1016/j.jclepro.2011.12.036>. ISSN 0959-6526.
- Zhao, Z.Y., Zhao, X.J., Zuo, J., Zillante, G., 2016. Corporate social responsibility for construction contractors: a China study. *J. Eng. Des. Technol.* 14 (3), 614–640. <https://doi.org/10.1108/JEDT-07-2014-0043>.
- Zezhou Gan, J., Tang, H., Ma, H., Gan, Z., 2022. What It Takes to Be an Effective “Remote Leader” during COVID-19 Crisis: The Combined Effects of Supervisor Control and Support Behaviors. *The Int. J. Human Resour. Manag.* 1–23.
- Zhou, F., Wang, X., Lim, M.K., He, Y., Li, L., 2018. Sustainable recycling partner selection using fuzzy DEMATEL-AEW-FVIKOR: A case study in small-and-medium enterprises (SMEs). *J. Clean. Prod.* 196, 489–504.