

Dynamic Relationships Management Journal

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Aims & Scope

The Dynamic Relationships Management Journal is an international, double blind peer-reviewed bi-annual publication of academics' and practitioners' research analyses and perspectives on relationships management and organizational themes and topics. The focus of the journal is on management, organization, corporate governance and neighboring areas (including, but not limited to, organizational behavior, human resource management, sociology, organizational psychology, industrial economics etc.). Within these fields, the topical focus of the journal is above all on the establishment, development, maintenance and improvement of dynamic relationships, connections, interactions, patterns of behavior, structures and networks in social entities like firms, non-profit institutions and public administration units within and beyond individual entity boundaries. Thus, the main emphasis is on formal and informal relationships, structures and processes within and across individual, group and organizational levels.

DRMJ articles test, extend, or build theory and contribute to management and organizational practice using a variety of empirical methods (e.g., quantitative, qualitative, field, laboratory, meta-analytic, and combination). Articles format should include, but are not restricted to, traditional academic research articles, case studies, literature reviews, methodological advances, approaches to teaching, learning and management development, and interviews with prominent executives and scholars.

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1st INTERNATIONAL CONFERENCE ON ENTREPRENEURSHIP AND SUSTAINABLE BUSINESS DEVELOPMENT

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This special issue of Dynamic Relationship Management Journal is focused on presenting the 1st International Conference on Entrepreneurship and Sustainable Business Development (ICESBD 2022), hosted by Amity School of Business, Amity University Uttar Pradesh, Noida, in collaboration with College De Paris, France, and Goldsmiths, University of London, organized on November 2-3, 2022.

We embark on a captivating intellectual journey that explores the complex interaction of entrepreneurship and sustainable business development across the pivotal domains of marketing, human resources, operations, and finance. As the world grapples with multifaceted challenges, the convergence of these domains not only offers innovative solutions but also presents a blueprint for businesses seeking to thrive in a rapidly evolving landscape.

Entrepreneurial ventures are no longer confined to traditional business pursuits; they now weave sustainability into their very fabric, setting the stage for a new era of purpose-driven commerce. As we delve into the marketing landscape, we unravel how ingenious entrepreneurs are crafting narratives that resonate deeply with conscious consumers, transcending transactions to build authentic connections rooted in shared values. Transitioning to the domain of human resources, we uncover how sustainable practices empower organizations to foster diverse, engaged, and purpose-oriented teams, redefining the conventional paradigms of talent management.

Venturing further, our exploration extends to operations, revealing how the principles of sustainability streamline processes, optimize resource utilization and create resilient supply chains. Here, we showcase instances where entrepreneurial minds are not only driving operational efficiencies but also embracing sustainable practices as the cornerstone of operational excellence. Lastly, we navigate the complex world of finance, examining how sustainable business models can redefine investment strategies, shape risk assessment, and attract capital aligned with a triple-bottom-line approach.

The collection of articles serves as a compass for both scholars and practitioners, guiding them through the uncharted waters of entrepreneurship, sustainable business development, and their seamless integration across diverse business domains. Through insightful articles, we aim to catalyse discussions and inspire action toward building businesses that not only thrive in today's complex landscape but also contribute to a more equitable, sustainable, and prosperous future. We invite readers to immerse themselves in these illuminating perspectives, forging a deeper understanding of how entrepreneurship and sustainability when embraced holistically, can reshape the foundations of modern business practice across multiple dimensions.

The papers in this special issue address some of these topics. The first paper by Renuka Sharma and Anju Singh investigates the factors that influence university students' intentions towards green entrepreneurship. 494 university students were se-

lected for this study and their responses were evaluated on a validated scale using structural equation modelling. Their findings show that country support, subjective norms, risk aversion, and self-efficacy significantly affect their intention to be a green entrepreneur. Authors also found that university students between 18 and 25 years of age evinced the highest interest in green entrepreneurship.

The second paper by Sanjay Chaudhary and Nidhi Gupta determines the relationship between customer experience management dimensions and loyalty for e-commerce websites and mobile applications. The authors have used a simple random sample to collect the response of 104 well informed and active e-commerce customers. The collected data has been analysed using Partial Least Square-structural equation modelling for confirming the relationships. The findings of the study demonstrate that 'Effectiveness', 'Efficiency', 'Quality', and 'Satisfaction' have a positive impact on customer loyalty for e-commerce applications. Their study will help the stakeholders in gaining in-depth knowledge of customer experience management.

The third paper co-authored by Nupur Kashyap, Sujata Khandai, and Jones Matthew is a bibliometric study on sustainable consumption. The authors extracted 671 papers from 1984 to 2021 using the Scopus database. Authors used citation analysis, bibliographic coupling, and co-occurrence of keywords bibliometric techniques to identify the trends in the publication, major contributors in terms of influential articles, authors, countries, journals, emerging themes, and future research directions in sustainable consumption literature. Their findings indicate that *Promoting Sustainable Consumption: Determinants of Green Purchases by Swiss Consumers* is the highest cited article with 518 citations and found that sustainable consumption significantly evolved 2016 onwards with the keywords like environmental awareness, environmental knowledge, frugality, green product, ethics, sustainable fashion, and sustainable marketing making a significant impact.

The fourth paper by Sarita Nagvanshi, Neha Gupta, and Sapna Popli explores how social media influencer affects customers' purchase intentions towards sustainable cosmetic brands. Their study

determined the direct as well indirect effects of influencer marketing with the mediating role of brand equity and e-WOM on purchase intention. Authors employed structural equation modelling to assess the responses of 237 respondents and found that influencer marketing has both direct and indirect effect on customer purchase intentions. Also, the study says that brand equity and e-WOM partially mediated the direct and indirect relationship of influencer marketing and purchase intention.

The penultimate paper by Ritu Yadav, Chand Saini, and Amit Dangi examined the relationship of entrepreneurship antecedents like Autonomy, Innovativeness, Proactiveness and Risk-taking with the entrepreneurial orientation that further leads to sustainable entrepreneurial orientation directly and through the mediating effect of social orientation. This study utilized 435 potential entrepreneurs for the collection of responses and used the structural equation modeling (SEM) technique to measure the statistical significance of proposed relations. The findings of the study highlighted that there is a significant direct and indirect relationship between entrepreneurship antecedents and entrepreneurial orientation, and entrepreneurial orientation and sustainable entrepreneurial orientation through the mediating effect of social orientation.

Finally, the sixth paper included in this special issue, authored by Pooja Tiwari and Vikas Garg determines the impact of employee engagement on business sustainability in financial institutions. They conducted a qualitative study and interviewed respondents from eight financial institutions of Delhi and its neighbouring towns. Their findings indicate a positive linkage between organizational identification and business sustainability. Authors conclude that individuals decide on how they maintain their organizational sustainability.



UNCERTAINTY, CONTROLLERS' OUTPUT QUALITY, AND ENTERPRISE PERFORMANCE: IS THERE A RELATIONSHIP?

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Abstract

This paper examines the relationship between uncertainty, controllers' outputs, and enterprise performance. The aim was to prove that there is a positive relationship between competitive intensity and technological turbulence as concepts of environmental uncertainty and the controllers' output quality; i.e., that controllers' output quality has an impact on the enterprise performance. A survey was conducted among controllers of large Croatian companies, resulting in a final sample of 87 responses. Partial least squares structural equation modeling (PLS-SEM) was used to test the hypotheses. The results indicate that both competitive intensity and technological turbulence have a positive and significant effect on the controllers' output quality, and ultimately that controllers' output quality has a positive and significant effect on enterprise performance.

Keywords: *Controllers' output quality, Uncertainty, Competition, Technological turbulence, Enterprise performance*

1 INTRODUCTION

Controllers are internal economists, experts, consultants, and business analysts who help companies increase the efficiency and effectiveness of their operations and achieve set goals and values by analyzing various business areas (Vitezić & Lebefromm, 2019). Accordingly, their main role is to provide management with accurate, timely, significant, and comprehensive information through various outputs, i.e., analyses, reports, suggestions, etc. Due to digitalization, the speed of change, environmental uncertainty, and the related expansion of available data, controllers have become business partners of managers (Schäffer, 2019), and their associated analytical and informational role puts them in the position of co-bearers of responsibility in the decision-making process (Vitezić,

Lebefromm, & Petrić, 2019). They become co-responsible for efficient and effective business performance. Whereas the efficiency of the controller is reflected in the transformation of various data and information into quality outputs, the effectiveness results from the final impact of these outputs on managerial decision-making (Weißenberger & Angelkort, 2011) and company performance (Ismail, Isa, & Mia, 2018).

The impact of the outputs on decision-making and performance depends on the quality of the outputs. Thus, the quality of the controllers' outputs is influenced by different factors inside and outside the company. Internally, the quality of the controllers' outputs is influenced by the organizational structure; strategic orientation of the company; internal relations; organizational culture; level of technological adoption, including the quality of

information systems; and other organizational characteristics (Ghasemi, Azmi Mohamad, Karami, Hafiz Bajuri, & Asgharizade, 2015; Hammad, Jusoh, & Ghazali, 2013; Pangaribuan, 2016; Weißenberger & Angelkort, 2011; Zoni, 2017); as well as by the knowledge, skills, and abilities of controllers as output creators and of managers as their users (Sathe, 1982). However, although the internal factors can be controlled to a large extent, the external factors are mostly beyond control, although they are equally influential or even more influential, and therefore important. From numerous studies, it can be concluded that the influence of the characteristics of the environment is limited mainly to the analysis of the characteristics of globalization and related technological changes. That is, different combinations of external environment factors occur, related to market dynamism, hostile environment, uncertainty of changes, competitiveness, perceived environmental uncertainty, rate of environmental change, complexity, level of technological changes or turbulence, etc. (e.g., Ahmad & Zabri, 2015; Eker & Eker, 2019; Jaworski & Kohli, 1993; Kafetzopoulos, Psomas, & Skalkos, 2019; Krishnan & Ramasamy, 2011; Miller & Friesen, 1983; Ojra, 2014).

In the field of controlling, most researchers consider the influence of competition (Ghasemi et al., 2015; Ghasemi, Azmi Mohamad, Karami, Hafiz Bajuri, & Asgharizade, 2016; Ismail et al., 2018; Löfsten & Lindelöf, 2005; Mia & Clarke, 1999) on controller and firm performance. However, technological turbulence, which is a phenomenon that measures the extent to which the application of new technologies determines the possibility of business growth, the creation of new ideas, the improvement of business processes, and the more efficient use of available data and information, undoubtedly is an important element in analyzing the controller's overall effectiveness, that has not been investigated in terms of its relationship with controllers' output quality.

Therefore, this paper examined the relationship between environmental uncertainty in terms of technological turbulence and competitive intensity, and the controllers' output quality, and its relationship to enterprise performance. A survey was conducted among controllers from large Croatian companies. Partial least squares structural equation modeling (PLS-SEM) was used for model testing.

This study contributes to the field of controlling, specifically to the controller profession by confirming the importance of controllers' involvement in decision-making. The study underscores the importance of external factors, with emphasis on technological turbulence, which includes IT innovations, and which controllers must take into account when making their output, i.e., analyses and recommendations for decision-making purposes.

The paper is structured as follows. After the introduction, the second section presents a literature review of the relationship between environmental uncertainty and controllers' output quality, and enterprise performance, and the set conceptual model with hypotheses. The third section provides the methodology of the study, including the process of data collection, sample description, and the measurement of research variables. Section 4 presents the results of the conducted empirical study, followed by the discussion and conclusion, along with limitations and suggestions for further research.

2 LITERATURE REVIEW

Numerous factors can affect the efficiency and effectiveness of controllers' work, and, consequently, enterprise performance. According to Sathe (1982), the controllers' level of involvement in business decision-making depends on three basic categories: (1) characteristics of the controllers, (2) characteristics of managers, and (3) company and environmental characteristics. Therefore, controller involvement is defined as the degree to which controllers perform different roles as participants in operational and strategic business decision-making, that is, the role of presenting information and analysis, proposing action plans, and being ready for the challenges that these plans bring (Sathe, 1982). Thus, their role is to ensure quality outputs—analyses, plans, reports, and recommendations. The set framework was applied in the research of Zoni and Merchant (2007), and Rouwelaar, Bots, and de Loo (2018). Whereas Rouwelaar et al. (2018) examined the influence of organizational and controller characteristics, Zoni and Merchant (2007) focused mainly on company and environmental characteristics. To confirm the influence of external factors on the controller involvement in decision-making, Zoni

and Merchant (2007) used environmental change measured through seven categories, including technical developments and competitor actions. Although other research has investigated the impact and relationship of different internal and external characteristics on controllers' involvement and their impact on performance (Fadhilah, Harahap, & Setyaningrum, 2015; Pierce & O'Dea, 2003; Wolf, Weißenberger, Wehner, & Kabst, 2015), Rouwelaar et al. (2018) justifiably points out their scarcity.

As already mentioned, in the field of controlling, competition is the most researched environmental uncertainty factor. For example, Ghasemi et al. (2015) confirmed the direct and positive relationship between the level of market competition and the change in management accounting system (MAS) information and its impact on organizational performance, as well as the direct relationship between MAS information and organizational performance. Similar relationships were proven by Ghasemi et al. (2016) and Mia and Clarke (1999) regarding the impact of competition on performance. Ismail et al. (2018) proved that the use of MAS information has an impact on performance, but no significant impact of the intensity of market competition on the use of MAS information was proven. Lindelöf and Löfsten (2006) proved that aggressive competition affects controlling (i.e., management accounting defined by planning, controlling, costing, directing, and decision-making systems) in terms of overall importance and the importance of budgeting and investment planning.

According to Mia and Patiar (2001), when competition increases, it is important for managers to use market information for decision-making. Thus, in a competitive environment that creates turbulence, stress, and uncertainty, active organizations will scan the environment for data and information to create a benefit (Ghasemi et al., 2015). Due to the current vast amount of information, managers are not expected to perform the process of data mining and analysis. Therefore, as competition and uncertainty increase, controllers' information increasingly is needed by management to compete effectively and make proper decisions using accurate and up-to-date information (Ahmad & Zabri, 2015). By using external and internal information as inputs to their analysis, controllers as business partners in

decision-making increase the quality of their outputs and consequently improve the performance of the organization. Thus, the competition will influence the controller's role of ensuring quality information for proper decisions.

Considering the main role of controllers and the concepts of digitalization and big data, the turbulence of technological change plays an important role in the quality and overall effectiveness of controlling. For example, Herwiyanti (2015) used technological uncertainty as a mediator to demonstrate the impact of information technology capability on the quality of the controllers' outputs. In addition, authors outside the area of controlling (e.g., Pratono, 2018) use information technology (IT) turbulence as a measure of environmental unpredictability, which can be applied directly to controlling in terms of the use of IT and efficient reporting and forecasting. However, most research addressing the impact of technological turbulence on the controller's role does not study its impact as a separate phenomenon, but instead considers it as an item of environmental uncertainty; it is studied through perceived environmental uncertainty (PEU). For example, Eker and Eker (2019) investigated how environmental uncertainty, as a construct of technological, market, and competitive uncertainty, affects management control systems and performance. Rachmawati and Saudi (2019) proposed a model in which they emphasized that environmental uncertainty affects the quality of management accounting information systems (MAIS) and that the quality of MAIS affects the quality of management accounting, i.e., controllers' information. Jorissen, Laveren, Martens, and Reheul (n.d.) investigated the relationship between PEU, MAS, and company performance. Lal and Hassel (1998) examined the effect of PEU, rated by the manager, on MAS in terms of scope, time, aggregation, and integration. They concluded that when environmental uncertainty, including technological change, is high, managers will consider additional MAS information to be useful to cope with complexity. Similarly, Agbejule (2005) proved that the higher the level of PEU, the more positive is the relationship between the use of MAS and managerial performance. Technological breakthroughs and innovations enable the development of many new products (Jaworski & Kohli, 1993) but also create better business processes and enable

more-efficient use of data in analysis and business decision-making. It is likely that companies operating in an environment of frequent technological change, and those making technological breakthroughs, are more dependent on the use of quality decision-making input, but also will be the driving force for the application of new technologies to improve these inputs. In short, the quality of controllers' outputs as a prerequisite for good decision-making is constantly under the influence of technological change. Therefore, we propose the following hypotheses:

H1: *There is a positive and significant relationship between environmental uncertainty and controllers' output quality.*

H1a: *There is a positive and significant relationship between competitive intensity and controllers' output quality.*

H1b: *There is a positive and significant relationship between technological turbulence and controllers' output quality.*

Weißenberger and Angelkort (2011) analyzed the influence of the integration level of accounting systems and the consistency of financial language on controller output quality and its impact on management decisions. The quality of the controlling department's output was measured in terms of scope, timeliness, or accuracy, as perceived by management. A similar study was conducted by Fadhilah et al. (2015). Wixom and Todd (2005) defined the quality of the outputs using the DeLone and McLean information system success model, i.e., through four dimensions: relevance, accuracy, completeness, and format. A similar approach was used by Sulaiman and Ghanem (2016) to highlight the effect of controlling and information quality on organizational performance. Both Weißenberger and Angelkort (2011) and Fadhilah et al. (2015) examined the influence of controllers' output on decision-making (i.e., the impacts and benefits that managers gain from using the output), using either MAS characteristics or information quality to measure controllers' output quality.

Other research considered the direct impact of controllers on organizational performance, mostly using MAS characteristics as a measure of controlling

quality (Ghasemi et al., 2015; Ismail et al., 2018; Ngo, 2021; Pedroso, Gomes, & Yasin, 2020). As Ismail et al. (2018: 49) stated and confirmed, "managerial use of MAS information could facilitate firms in making more accurate economic decisions, which could then positively impact organizational performance." Controllers provide decision makers with information that enables the setting of better objectives and standards, leading to better performance (Ghasemi et al., 2015). Organizational performance, i.e., enterprise performance, can be measured in terms of various aspects: real or perceived, financial and non-financial performance, market performance, customer perspective, operational excellence, overall performance, etc. Controlling is a function that coordinates and integrates all management functions, and thus is involved in decision-making at different organizational levels. That is, controllers' outputs consider suggestions for different aspects of organizational improvement. However, the ultimate goal of any enterprise is financial improvement, to which other performance aspects contribute. Therefore, the quality of controllers' outputs enables managers to contribute to the enterprise performance by making relevant and timely decisions. Therefore following hypothesis is proposed:

H2: *There is a positive and significant relationship between controllers' output quality and enterprise performance.*

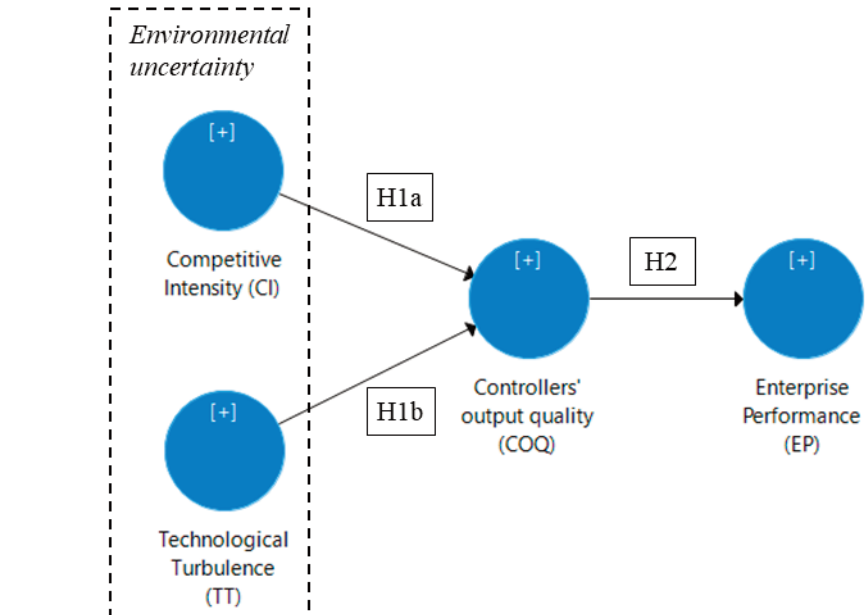
Based on the foregoing literature review, the aim of this study, and the defined hypotheses, a conceptual model is proposed (Figure 1).

3 METHODOLOGY

3.1 Data Collection and Sample

Data for this study were collected using a questionnaire developed based on existing and valid measurement scales. The questionnaire was subjected to pretesting. Four controlling experts were included to check the validity of the content, and a pilot study was conducted with respondents representing the target population of the study, i.e., controllers in the Republic of Croatia working in large companies. Because there is no database of Croat-

Figure 1: Research model with hypotheses



ian companies with a controlling department, and therefore no records of controllers, the starting point for creating our own database was the Lider Top 1000, a list of the top Croatian companies (in 2019). The questionnaire was sent via LinkedIn to controllers who had an active position in controlling in their profile. In addition, direct emails were sent to companies that were known to have a controlling department. The questionnaire was sent to a total of about 600 controllers, which was considered to be our own database of controllers in Croatia. However, because the questionnaire also was shared publicly on LinkedIn, the exact total number cannot be determined.

A total of 87 valid questionnaires were collected, a response rate of 14.5%, which is considered to be a representative research sample (Nitzl, 2018; Reinartz, Haenlein, & Henseler, 2009; Weißenberger & Angelkort, 2011). Additionally, according to the 10-times rule widely used in PLS-SEM, which assumes that the sample size should be greater than 10 times the maximum number of inner or outer model links pointing at any latent variable in the model (Hair, Hult, Ringle, & Sarstedt, 2017), the minimum sample size required for this research was 20 responses. The profile of the respondents is presented in Table 1.

The data were collected from controllers working in different types of organizations. Manufacturing companies accounted for the largest share, 40.2%, followed by wholesale and retail trade, i.e., repair of motor vehicles and motorcycles (20.7%); other organization types accounted for 10% or less. Most of the respondents were between 30 and 45 years old, and there were more female (56.3%) than male (43.7%) respondents. A total of 69% had a master's degree, 13 controllers had an MBA, and 10 had a Master of Science degree. Most respondents (37.9%) had more than 10 years of experience in controlling; however, a large share also applies to those with less than 10, i.e., 5 years.

3.2 Measurement of Research Variables

This study adopted measurements from previous studies, with minor adjustments. A 7-point Likert scale was used for all constructs in the study.

Competition intensity. To measure the intensity of market competition of the companies in which the controllers worked, this study used the instrument of Jaworski and Kohli (1993) with some modifications made by Asare, Brashear, Yang, and Kang (2013) and Eker and Eker (2019), who used modified

Table 1: Profile of respondents

Variable	Category	Frequency	%
Age (years)	Less than 30	9	10.3
	30–45	53	60.9
	More than 45	25	28.7
Gender	Female	49	56.3
	Male	38	43.7
Education level	High school	2	2.3
	Bachelor's degree	2	2.3
	Master's degree	60	69.0
	MBA	13	14.9
	Master of Science	10	11.5
Experience in controlling (years)	Less than 5	26	29.9
	5–10	28	32.2
	More than 10	33	37.9
Type of organization (NACE rev. 2)	Agriculture, forestry, and fishing	2	2.3
	Manufacturing	35	40.2
	Electricity, gas, steam, and air conditioning supply	1	1.1
	Water supply; sewerage, waste management, and remediation activities	1	1.1
	Construction	3	3.4
	Wholesale and retail trade; repair of motor vehicles and motorcycles	18	20.7
	Transportation and storage	2	2.3
	Accommodation and food service activities	9	10.3
	Information and communication	8	9.2
	Financial and insurance activities	4	4.6
	Professional, scientific, and technical activities	2	2.3
	Other service activities	2	2.3

versions of the scale of Jaworski and Kohli (1993) in their own research. The variable was measured with a six-item instrument that respondents rated on a scale of 1 (strongly disagree) to 7 (strongly agree).

Technological turbulence. A slightly modified version of Jaworski and Kohli's (1993) scale also was used to measure the turbulence of technological change. The modification was also based on those by Asare et al. (2013) and Eker and Eker (2019), and on the theoretical knowledge of controlling. A 5-item instrument was applied, measured on a scale from 1 (strongly disagree) to 7 (strongly agree).

Controllers' output quality. Controllers were asked to rate the quality of the outputs (information in the form of reports, presentations, dashboards, oral counselling, etc.) they provide to their managers in terms of accuracy, timeliness, significance, form, and comprehensiveness. To measure this variable, we used a modified measurement scale from Weißenberger and Angelkort (2011), which was made according to Bauer (2002). The measurement scales of Wixom and Todd (2005) regarding information quality and of Ghasemi et al. (2016) regarding the MAS characteristic timeliness were used for the modification. A 10-item instru-

ment was used to rate the controllers' output quality on a scale from 1 (strongly disagree) to 7 (strongly agree).

Enterprise performance. To measure the performance of the companies, controllers were asked to rate, on average, the performance of their company compared with that of competitors in the last 3 years. A 3-item measurement scale was used, which was an abbreviated version of the scale used by Pratono (2016). The respondents rated the items from 1 (has deteriorated significantly) to 7 (has improved significantly).

The specific items of each construct, including descriptive statistics, are presented in Table 2.

4 EMPIRICAL RESULTS AND ANALYSIS

In this study, partial least squares structural equation modeling in SmartPLS 3 software was used to analyze the respondents' data. PLS-SEM is a second-generation multivariate technique the application of which has increased significantly in recent years, and the application of which in the field of controlling is emphasized (Nitzl, 2016, 2018; Nitzl & Chin, 2017). Moreover, PLS-SEM allows the analysis of small sample sizes, and it is recommended for explanatory studies (Hair et al., 2017), which was the case in this paper.

PLS-SEM analysis includes two steps: (1) evaluation of the measurement model, and (2) assessment of the structural model. Reliability and validity of the theoretically defined constructs are determined by evaluating the measurement model, whereas assessment of the structural model (1) considers collinearity analysis within the structural model, (2) tests the significance and size of the impact of structural relationships between constructs, and, if suitable, (3) assesses the exploratory and predictive ability and its significance (Hair et al., 2017).

4.1 Evaluation of the Measurement Model

The evaluation of the measurement model assesses (1) indicator reliability, (2) convergent validity, (3) internal consistency reliability, and (4) discriminant validity of the constructs.

All indicators (items) of the evaluated model are reflective. Therefore, the reliability and validity of all items was confirmed by outer factor loading (Table 3). The loadings of almost all items were found to be above the recommended threshold of 0.70. Some indicators (CI3, CI5, TT1, COQ1, and COQ6) had loadings between 0.40 and 0.70 but because the average variance extracted (AVE) value of the constructs containing these indicators met the set threshold of 0.50, the indicators were not dropped. According to Hair et al., (2017) when an indicator has a value of less than 0.40 it needs to be dropped from the model, but if the value is 0.40–0.70, the AVE value determines the retention of the indicator in the model. The AVE values of all other constructs were greater than 0.50, Hence, the measurement model's convergent validity is acceptable.

The internal consistency reliability of the constructs was assessed based on the Cronbach's alpha (α) and composite reliability (CR). All the values of Cronbach's alpha and composite reliability were greater than the set threshold of 0.70 (Hair et al., 2017), suggesting that all constructs had acceptable reliability (Table 3).

A significant part of the analysis of reflective constructs is the analysis of discriminant validity. The literature recognizes three common approaches to examine discriminant validity: (1) the Fornell–Larcker criterion, (2) cross-loading, and (3) the heterotrait–monotrait (HTMT) criteria. Within PLS-SEM, the HTMT criteria is recommended (Hair et al., 2017; Henseler, Ringle, & Sarstedt, 2015). According to Henseler et al. (2015), HTMT values above 0.85 (or 0.90) indicate that discriminant validity has not been established. The results showed that the model of this study meets the condition of discriminant validity (Table 4). That is, all HTMT criteria had values less than 0.85. The results obtained for the Fornell–Larcker criterion and the cross-loadings confirmed this.

After the quality of the measurement model was confirmed, the structural model was evaluated.

4.2 Evaluation of the Structural Model

The evaluation of the structural model first considers the collinearity analysis within the structural model. Therefore, the structural model is tested for

Table 2: Descriptive statistics for constructs and items

Construct	Code	Item	Mean	Min	Max	SD	Ex.K	Skw
Competitive intensity (CI)	CI1	We are in a business with very aggressive competitors.	5.897	2.000	7.000	1.269	3.063	-1.760
	CI2	Competition in our business is cut throat.	5.816	2.000	7.000	1.369	1.558	-1.411
	CI3	Others can easily imitate products, services, and internal processes that a company has in our industry.	4.874	1.000	7.000	1.429	0.208	-0.760
	CI4	Companies are very aggressively making efforts to capture market share.	6.034	4.000	7.000	0.837	0.643	-0.905
	CI5	One hears of a new competitive move almost every day.	5.195	1.000	7.000	1.363	0.677	-0.833
	CI6	Price competition in this business is severe.	5.736	2.000	7.000	1.334	1.574	-1.420
Technological turbulence (TT)	TT1	Technology changes are very frequent in our industry.	5.034	1.000	7.000	1.466	0.678	-0.975
	TT2	Technological changes provide big opportunities in our industry.	5.667	3.000	7.000	1.100	0.298	-0.829
	TT3	A large number of new product and services have been made possible through technological breakthroughs in our industry.	5.736	3.000	7.000	1.066	0.519	-0.897
	TT4	Technological breakthroughs enable the creation of better business processes within the company.	5.782	3.000	7.000	1.011	0.868	-0.973
	TT5	Technological breakthroughs and innovations enable more efficient use of data in analysis and business decision-making.	5.977	4.000	7.000	0.884	0.080	-0.768
Controllers' output quality (COQ):	Information that I provide...							
	COQ1	covers all important fields of business activity.	6.046	5.000	7.000	0.623	-0.390	-0.032
	COQ2	reflects actual circumstances in a comprehensive and valid fashion.	6.046	4.000	7.000	0.677	-0.032	-0.283
	COQ3	reflects a high level of usefulness, explanatory power, and content.	6.080	4.000	7.000	0.665	0.150	-0.332
	COQ4	is very precise.	6.103	4.000	7.000	0.695	0.590	-0.562
	COQ5	is up to date.	6.207	4.000	7.000	0.729	0.398	-0.708
	COQ6	contains correct data/information.	6.356	5.000	7.000	0.606	-0.636	-0.373
	COQ7	is clearly presented.	6.287	5.000	7.000	0.545	-0.502	0.049
	COQ8	is aligned.	6.253	5.000	7.000	0.629	-0.617	-0.260
	COQ9	contains most relevant information.	6.253	5.000	7.000	0.591	-0.471	-0.141
COQ10	is ensured through frequently reports (daily/monthly etc. or by request).	6.483	5.000	7.000	0.544	-1.011	-0.367	
Enterprise performance (EP)	EP1	Gross profit	5.141	2.000	7.000	1.279	0.331	-1.110
	EP2	Sales	5.176	2.000	7.000	1.233	-0.158	-0.795
	EP3	Overall performance	5.274	2.000	7.000	1.087	0.971	-1.068

Notes: SD = standard deviation, Ex.K = excess kurtosis, Skw = skwenes

Table 3: Measurement model results

Construct	Code	Loading	α	CR	AVE
Competitive intensity (CI)	CI1	0.857	0.882	0.909	0.627
	CI2	0.781			
	CI3	0.694			
	CI4	0.820			
	CI5	0.691			
	CI6	0.888			
Technological turbulence (TT)	TT1	0.475	0.860	0.882	0.608
	TT2	0.892			
	TT3	0.911			
	TT4	0.773			
	TT5	0.770			
Controllers' output quality (COQ)	COQ1	0.666	0.915	0.929	0.568
	COQ2	0.789			
	COQ3	0.792			
	COQ4	0.838			
	COQ5	0.714			
	COQ6	0.665			
	COQ7	0.755			
	COQ8	0.759			
	COQ9	0.755			
	COQ10	0.787			
Enterprise performance (EP)	EP1	0.980	0.955	0.971	0.919
	EP2	0.983			
	EP3	0.910			

Notes: α = Cronbach's Alpha; CR = Composite reliability; AVE = Average variance extracted.

Table 4: Heterotrait–monotrait (HTMT) criterion

No.	Construct	1	2	3	4
1	Competitive intensity (CI)				
2	Controllers' output quality (COQ)	0.336			
3	Enterprise performance (EP)	0.050	0.174		
4	Technological turbulence (TT)	0.528	0.292	0.065	

collinearity by examining each set of predictor constructs separately for each subpart of the structural model (Hair et al., 2017). For this, the inner variance inflation factor (VIF) is analyzed; the value should be higher than 0.2 and less than 5.0, and ideally close to or below 3.0 (Hair et al., 2017; Hair, Risher, Sarstedt, & Ringle, 2019). Because all the inner VIF values of the set model were below 3.0 (CI → COQ = 1.250; TT → COQ = 1.250; COQ → EP = 1.000), it can be concluded that the model meets the collinearity criterion and that there is no common method bias (Kock, 2015).

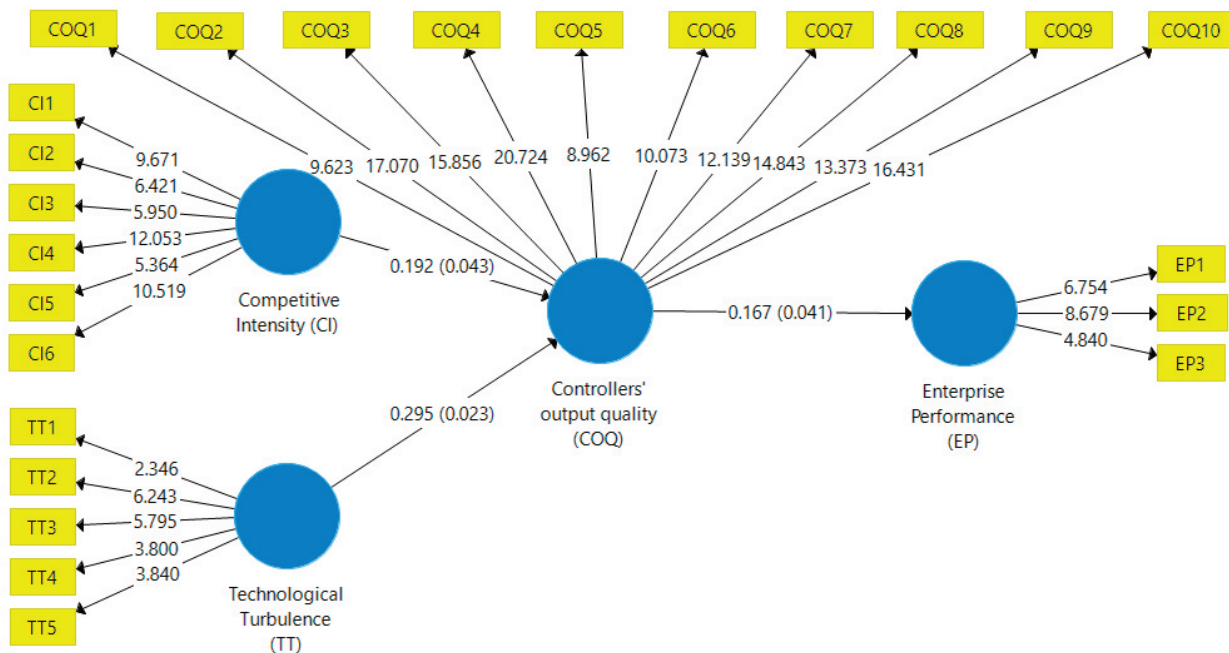
The second step in evaluating the structural model involves hypotheses testing, i.e., the assessment of the significance and strength of the relationships within the model. To compute the standardized beta values (*b*) of the path coefficients and to determine the significance of the relationship between the constructs, the bootstrapping technique was used (5,000 subsamples; two-tailed; *p* ≤ 0.05; bias-corrected and accelerated (BCa) bootstrap).

The evaluation of the structural model revealed that the two set hypotheses [H1 (i.e., H1a and H1a) and H2] are supported (Figure 2). Each arrow between

two constructs represents a hypothesized relationship, whereas the arrows between constructs and items represent the *t*-values of each construct item. Thus, the assessment confirmed a positive and significant relationship between competitive intensity and controllers' output quality (H1a; $\beta = 0.192$, $t = 2.029$, $P = 0.043$), technological turbulence and controllers' output quality (H1b; $\beta = 0.295$, $t = 2.266$, $P = 0.023$), and controllers' output quality and enterprise performance (H2; $\beta = 0.167$, $t = 2.043$, $P = 0.041$).

The third step of the structural model evaluation considers the assessment of the predictive ability of the model, including in-sample and out-of-sample prediction. The coefficient of variation (R^2) and the effect size (f^2) indicated a very weak in-sample prediction: 17.5% ($R^2 = 0.175$) of COQ was explained by CI and TT, and only 2.8% ($R^2 = 0.028$) of EP was explained by COQ. However, as stated by Hair et al. (2019), the acceptable value depends on the context and field of research. Falk and Miller (1992, in Streukens & Leroi-Werelds, 2016) stated that R^2 should be greater than or equal to 0.10, whereas Cohen (1988) considered a value of 0.13 to be moderate. In addition, R^2 is a function of the number of predictor constructs; the greater

Figure 2: Research model results of hypotheses testing



their number, the higher R^2 will be. In the set model, there is only one predictor construct for the final endogenous construct EP. For f^2 , values above 0.02, 0.15, and 0.35 indicate weak, moderate, and strong effect sizes (Cohen, 1988). Effect size values assess how strongly an exogenous construct contributes to explaining a single endogenous construct in terms of R^2 (Hair et al., 2019). For COQ, CI had $f^2 = 0.036$ and TT had $f^2 = 0.085$. A value of $f^2 = 0.029$ was determined between COQ and EP.

For out-of-sample predictive relevance, the Stone–Geisserov Q^2 indicator was obtained using the blindfolding procedure (omission distance = 7). The Q^2 indicator explains whether the exogenous variables are significant in predicting the endogenous variables. A Q^2 value greater than zero indicates that the model has predictive significance of endogenous constructs (Hair et al., 2017). According to the cross-validated construct redundancy results, the Q^2 value of both endogenous constructs was greater than zero (COQ = 0.081; EP = 0.012), indicating that the model has predictive significance of the endogenous constructs.

5 DISCUSSION AND CONCLUSION

The economy of the 21st century undoubtedly is characterized by uncertainty due to rapid technological development and the desire to survive in a competitive global market. As a result of digitalization, decision makers have a vast amount of real-time data at their disposal that needs to be transformed into useful information. Controllers, as business analysts and advisors, support managers through their output—various analyses, reports, and suggestions. The quality of the output is related directly to decision-making and thus to enterprises' performance. This was the starting point of this paper. Our research has confirmed that there is a positive relationship between the uncertainty of the environment and the quality of the controllers' analyses and reports. Environmental uncertainty is defined and measured by two dimensions—competitive intensity, and technological turbulence. Currently, the intensity of competition is very aggressive, and companies are struggling to gain market share. The intensity of competition affects corporate success and the content of the controller's reporting. However, technological changes

offer great opportunities that allow companies in different industries to improve and innovate processes and products, as well as to improve performance, by using new day-to-day, real-time-available data. In this research, a positive and significant relationship was confirmed between each of these two factors and the quality of controllers' output. That is, this research confirms the results of previous studies that highlighted the importance of the role of controllers in the decision-making process in an uncertain environment. It has been shown that the aggressiveness of competitors, i.e., price competition and the conquest of market share, is significantly related to the output quality.

Although previous research confirmed positive effects of competitiveness on the controller's role as an information provider (Ghasemi et al., 2016; Ghasemi et al., 2015; Ismail et al., 2018; Löfsten & Lindelöf, 2005), the results of the present study show that in terms of environmental uncertainty, technological turbulence has a stronger relationship ($\beta = 0.295$) with the controllers' output quality than does competitive intensity (Figure 2). This was expected. Controllers use available technological solutions for data collection and processing to produce useful information for the purposes of situation analysis and prediction. It also is to be expected that in companies that learn to constant process innovation and highly integrated information systems, controllers will have better availability of data and information, in terms of both time and quantity, which will have a positive impact on the quality of their work. Thus, controllers are dependent on the turbulence of technological development.

Controllers working in industries with a high rate of technological change are expected to keep up with the challenges these changes bring to their advisory role (e.g., to be able to find and process appropriate information that is changing faster than ever before), but these changes also provide them with more opportunities (e.g., to implement new and better analytical tools and business software, etc.). Therefore both the challenges and the opportunities can contribute to the quality of their work, i.e., output, which ultimately impacts business performance, as confirmed in this paper. This result is also in line with the findings of previous studies (Ghasemi et al., 2015; Ismail et al., 2018; Ngo, 2021),

but is contrary to some (Pedroso et al., 2020). Furthermore, the effect of the involvement of controllers in decision-making has been proven before (Weißenberger & Angelkort, 2011; Zoni & Merchant, 2007), so it is expected that the use of high-quality controller outputs also will contribute to the company's performance. This research confirmed a direct relationship between the quality of controller output and enterprise performance. Thus, it was confirmed that the quality of outputs, which is ensured mainly by their preciseness, comprehensiveness, usefulness, exploratory power, and frequency, has a direct positive relationship with enterprise performance. However, future researchers should keep in mind that better performance of a manager, as a user of controller output, is associated with the performance of the enterprise (Chenhall, 2003; Pedroso et al., 2020).

Like other studies, this paper has limitations that should be considered by future researchers. The final sample of this study included survey results from 87 controllers from large companies in the Republic of Croatia. Although the applied method (PLS-SEM) supports smaller sample sizes, a higher response rate from controllers and extension to other countries would contribute to the validity and significance of the results. The results of the study may have applications beyond the Croatian context, especially in EU countries that have the same controlling concept. Moreover, many companies in Croatia that have controlling departments are subsidiaries of companies from EU countries. However, the share of these companies in the sample of this study is not known, so no generalization to other countries can be made. Furthermore, the proportion of industries in the sample also varied. Although, we do not think that this represents a problem for this research, it would be interesting to test the conceptual model among different industries.

Furthermore, because only controllers were surveyed in this study, to minimize common method bias, the entire model could be tested using managers' responses or by using a dyadic approach in which the controllers rate the constructs of environmental uncertainty and enterprise performance, and managers rate the quality of controllers' output, in order to avoid self-rating. The results of this study show that, on average, controllers rated the quality

of their outputs high ($\bar{x} = 6.211$) and that this quality has a positive impact on their company's performance. However, it is not known whether managers hold the same view and whether they recognize the importance of the controller's role in decision-making. That is, would managers rate the quality of the controller's output the same, and would this rating also confirm the set hypothesis of this study? According to previous studies (Fadhilah et al., 2015; Weißenberger & Angelkort, 2011), it can be expected that the results of such a study would indicate same results. Managers who use and rely on controllers' outputs and accept controllers as business partners will contribute indirectly to the improvement of their output. In addition, it is to be expected that these managers in particular would participate in such a survey. Thus, involving managers who do not accept controllers as partners would undermine the results of the study, because the goal is to assess the quality of the outputs and the impact on a company's performance. Managers who do not use controllers' outputs are not in a position to assess their quality at all. Thus, one can assume that managers who value the controller's profession might even give a higher rating than the controller.

It was not the aim of this paper to evaluate indirect and mediating effects, but these should be considered in further research. Researchers also could contribute in the future by using other measurement and construct setting approaches. For example, environmental uncertainty could be specified as a high-order construct, or the quality of controller outputs could be measured with a different set of items. In addition, financial indicators such as return on assets and return on equipment, or earnings before interest, taxes, depreciation, and amortization, could be used to measure the construct of enterprise performance. Control variables were not included in this study. However, future research should consider the influence of controllers' profiles, such as age and gender or years of work experience, in controlling and similar jobs, as well as educational level. Therefore, partial least squares multigroup analysis (PLS-MGA) should be used to test for significant group differences, or a single-item approach could be used instead to examine the effects of the control variables on the model separately or simultaneously.

The results of the study confirmed the importance of involving controllers in the decision-making process, in terms of their informative and advisory role. That is, the study confirms that the quality of outputs can have a direct impact on the performance of an organization. Therefore, controllers must take into account that the uncertainty of the environment, i.e., the intensity of competition and technological turbulence, are factors that can significantly affect the quality of their work. However, the results should be considered first and foremost by

managers. It is well known that even now controllers have to make great efforts to maintain their position in the decision-making process, that is, to gain their role as business partners. These results should help bridge the gap between controllers and managers, and contribute to the controllers' profession.

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EXTENDED SUMMARY/IZVLEČEK

Negotovost okolja, hiter tehnološki napredek in splošna intenzivnost konkurence prispevajo k vse večji potrebi po povezovanju kontrolerjev in managerjev v procesih odločanja. Kontrolorji, kot poslovni analitiki, vedno bolj delujejo kot svetovalci, zato odnos med njimi in managerji postaja vse bolj partnerski. Kontrolorji na podlagi številnih podatkov izdelujejo različne analize in poročila, zato je v času velikih podatkov njihova kakovost vse bolj pomembna. Namen prispevka je bil dokazati, da obstaja pozitivna povezava med negotovostjo v okolju in kakovostjo rezultatov kontrolorjev, ter da kakovost rezultatov kontrolorjev vpliva na dosežene rezultate pri poslovanju podjetja. Rezultati raziskave zbranih od 87 kontrolorjev iz velikih hrvaških podjetij so bili uporabljeni za dokazovanje povezave med intenzivnostjo konkurence in tehnološkimi turbulencami ter kakovostjo rezultatov (poročila, analize, informacije, predlogi itd.) kontrolorjev ter razmerja med njihovimi donosi in uspešnostjo podjetja. Za testiranje modela je bilo uporabljeno delno modeliranje strukturnih enačb najmanjših kvadratov (PLS-SEM). Rezultati kažejo, da okoljska negotovost, to je intenzivnost konkurence in tehnološke turbulence, pozitivno in pomembno vpliva na kakovost donosov kontrolorjev. Ker njihovi donosi predstavljajo osnovo za odločanje, kontrolorji vplivajo tudi na učinkovitost delovanja podjetja. Ugotovitve podpirajo novo paradigmo o potrebi po svetovalni vlogi kontrolorjev prek partnerstva z managerji.

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FOUNDING LEADERS' PHILANTHROPIC TRANSITION FRAMEWORK: LEADERSHIP JOURNEY FROM BUSINESS TO (FULL-TIME) PHILANTHROPY

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Abstract

This article presents the Founding Leaders' Philanthropic Transition Framework (FLPTF), a novel model examining founding leaders' transition from business to philanthropy. Rooted in ontological principles and leadership theories, the FLPTF explores shifts in leadership styles and organizational dynamics. The article identifies a gap in the existing literature, highlighting the need for comprehensive analyses of these transitions, and offers a theoretical model. The model's dimensions, built on cognitive and behavioral aspects, allow for a thorough exploration of leadership styles as they unfold and develop through the leadership journey of company founders. The FLPTF serves as a theoretical guide and pragmatic tool, anticipating challenges and opportunities during the transition process for potential cases, which are named in the article. It paves the way for deeper investigation into leadership evolution shifts when founding leaders transition from business to full-time philanthropy.

Keywords: Leadership transition, Philanthropy, Founding leaders, Leadership styles, Founding Leaders' Philanthropic Transition Framework

1 INTRODUCTION

As we navigate the 21st century, a pressing question emerges: will the future be shaped more by the innovative drive of businesses or by the altruistic vision of philanthropy? Organizational leadership has been a central theme in both the corporate and non-profit sectors, although with distinct motives and operational mechanisms. Corporate leadership often is directed toward generating profits and increasing shareholder value, whereas leadership in the non-profit and philanthropic sectors focuses primarily on social welfare and positive societal impact (Khan & Khandaker, 2016; Smith et al., 2010).

In recent years, a noticeable trend has emerged in which accomplished corporate leaders transition from business to philanthropy. Several of these figures have inherited significant wealth and subsequently have pivoted toward philanthropic activities, such as Lynn and Stacy Schusterman, the spouse and offspring, respectively, of the late oil tycoon Charles Schusterman. In contrast, some leaders, while still managing their enterprises, have committed to donating substantial portions of their wealth, as in the cases of Warren Buffett and George Soros. Concurrently, a rising cohort, including luminaries such as Mark Zuckerberg and Priscilla Chan, have amassed their own fortunes, and have ventured into philanthropy (Forbes Wealth Team, 2022).

The gradual shift of corporate moguls transitioning from business to full-time philanthropy is becoming increasingly prominent. Evidence of such transitions include Bill Gates's strategic pivot from Microsoft to the Bill and Melinda Gates Foundation (McGoey, 2015). A similar path recently was announced by Jeff Bezos (Simonetti & Kulish, 2022). Significantly, this is not a trend confined to the West. Jack Ma, one of China's most esteemed entrepreneurs, has divulged his philanthropic intentions in the realm of education within China (Doebele, 2019). Furthermore, this shift is discernible even in smaller nations: for example, in Slovenia, Samo and Iza Sia Login, founders of Outfit7 Limited, sold their firm to fuel their philanthropic endeavors through the Login5 Foundation (Polajnar, 2021).

Despite the evident trend of business leaders transitioning to philanthropy, there is a significant gap in our understanding of this shift. The extant literature indicates that there are significant differences between for-profit and not-for-profit organizations' leadership (Viader & Espina, 2014; Young, 2013). However, research on leadership transitions from business to full-time philanthropy remains limited. The absence of a guiding framework can result in philanthropic initiatives that are less impactful, misaligned with community needs, or even counterproductive. Philanthropic organizations may encounter difficulties in aligning their goals, mission, and available resources, which suggests that the leadership approach in philanthropy might require different competencies and strategies compared with business leadership (Jung et al., 2016). Given the increasing trend of business leaders transitioning to philanthropy, understanding this transition is crucial to ensure effective leadership in philanthropic organizations and to contribute to their overall success and impact (Brest & Harvey, 2018).

Philanthropy is receiving self-space and research in different academic areas, and is no longer a part of non-profit studies or studies in the third sector (Harrow et al., 2021). Existing research has produced conflicting findings on how business leaders' transition impacts the success of philanthropy (Cha & Abebe, 2016; Hwang & Paarlberg, 2019). Additionally, prior research often has focused on the

organizational trends of for-profit and not-for-profit organizations without adequately addressing the role of founding leaders in such transitions (Child, 2016; Nieto Morales et al., 2013; Ruvio et al., 2010).

To address these gaps, this article is anchored in two primary streams of the literature: philanthropy and leadership transition. In the first stream, philanthropy is examined in terms of both its historical roots and its modern manifestations. Seminal works in this domain include those by Zunz (2014), Bonati (2019), Reich (2018), Butoescu (2021), Harrow et al. (2021), Einolf (2016), Roundy et al. (2017), Bishop and Green (2015), and Wollheim (2008), and have delved into its historical evolution and modern perspectives. The second stream examines leadership transitions, emphasizing the evolution of leadership styles, the dynamics between founders and managers, and the shifts between profit and non-profit sectors. This is informed by the foundational works of Bass and Riggio (2006), Bass (1985), Dierendonck (2010), Spears (2010), Keller and Meaney (2018), Hoch and Kozlowski (2014), Nanjundeswaraswamy and Swamy (2014), Hoffman et al. (2011), Child et al. (2015), Viader and Espina (2014), Javaid (2021), Feldman and Graddy-Reed (2014), and Rogers (2015). Central to our study are Schein's (1995) insights into the distinctive roles of founders and managers. His work serves as the bedrock upon which our Founding Leaders' Philanthropic Transition Framework (FLPTF) is built. This framework is intended to deepen the comprehension of leadership transitions from business realms to philanthropic endeavors. By integrating Schein's leadership model, we complement and expand upon existing theories of leadership transitions. Through our comprehensive review, we provide a deeper understanding of the complexities and nuances surrounding leadership transitions, especially those transitioning from business to philanthropy.

The main objectives of this article were as follows. First, to review the existing literature on leadership styles in for-profit and philanthropic organizations, and to understand the constraints and opportunities associated with transitioning between the two. Second, to integrate Schein's leadership model comparing founders and managers and leadership transition to provide a theoretical foundation for understanding how leadership styles

evolve during this transition. Lastly, to propose a conceptual framework, termed the Founding Leaders' Philanthropic Transition Framework, to guide future academic studies of the transition of founding leaders from business to full-time philanthropy.

In the broader perspective, understanding these transitions is crucial for society as well, because it can facilitate the development of more-effective philanthropic organizations, which in turn can have a positive impact on social welfare and sustainable development (Koff, 2017). Through its theoretical contributions, this article augments the knowledge base and stimulates further academic and practical engagements in the domain of leadership transitions to philanthropy. The transition from entrepreneurship to full-time philanthropy brings unique dynamics and challenges, many of which are yet to be fully understood. Each such journey offers a unique perspective on the transition from business leadership to philanthropy, and could reinforce the relevance and potential applicability of the FLPTF.

2 THEORETICAL BACKGROUND

2.1 From Individual to Full-Time Philanthropy

Philanthropy, as Zunz (2014) mentioned, has ancient roots; the term derives from the Greek for "love of humanity." Early philanthropy was associated with religious institutions, as noted by Bonati (2019). Reich (2018) highlighted the surge of large-scale philanthropy in the late 19th and early 20th centuries, driven by wealthy individuals such as Carnegie and Rockefeller.

The first private charitable foundation was founded by the English merchant Thomas Coram (Butoescu, 2021). Today, philanthropy encompasses various forms of giving by individuals, corporations, and foundations, and is characterized by strategic and targeted approaches (Harrow et al., 2021).

Individual philanthropy constitutes a significant aspect of charitable giving. According to Einolf (2016), individual giving often is classified into direct giving, bequests, and donor-advised funds. Furthermore, as Roundy et al. (2017) suggested, entrepreneurs increasingly have engaged in philan-

thropy, employing their business expertise to address social issues, giving rise to the phenomenon of social entrepreneurship.

Philanthropy, despite its altruistic intentions, has faced criticisms. Reich (2018) discussed how large-scale philanthropy inadvertently can reinforce power dynamics and inequalities. Moreover, Bénabou and Tirole (2010) noted that some corporations might engage in philanthropy primarily for reputation management.

The burst of enthusiasm for philanthropy has been due primarily to the rapid accumulation of capital in recent years and its uneven distribution. Not all newly rich people become philanthropic. However, new wealth also creates new opportunities. Mitchell and Sparke (2016) argued that we are at a historic moment in the development of philanthropy. "If only 5–10% of new billionaires are creative in philanthropy, they will be able to completely transform philanthropy in the next 20 years." (Wollheim, 2008, p. 12).

Foundation giving is a form of philanthropy that typically is associated with private foundations. According to Anheier and Leat (2018), private foundations are established by individuals or groups of individuals to support specific causes or organizations. Private foundations typically make grants to non-profit organizations, and they are exempt from paying taxes on their investment income. A particularly significant development in philanthropy is the emergence of philanthrocapitalism, also known as venture philanthropy. Bishop (2006) originally coined the term to describe the strategic application of motives and market methods for philanthropic purposes. It emerged due to the inefficiency and ineffectiveness of traditional philanthropy. Philanthrocapitalism revolves around the idea of "the growing role of private sector actors in addressing the biggest social and environmental challenges facing the planet" (Bishop & Green, 2015, p. 541). Haydon et al. defined philanthrocapitalism as "the integration of market motifs, motives, and methods with philanthropy, especially by HNWSIs (high-net-worth individuals) and their institutions" (2021, p.15).

Philanthropy has evolved, and elite philanthropy now is a dominant force in social, economic, and political arenas, especially in the US and UK. Although traditionally seen as a benevolent gesture,

it now is recognized as deeply connected to elite power dynamics. This influence often focuses resources on elite institutions and causes, potentially intensifying existing inequalities. Viewing philanthropy through the lens of power dynamics offers a more comprehensive understanding of its impact (Maclean et al., 2021).

Full-time philanthropy is a manifestation of how the philanthropic landscape has evolved. In full-time philanthropy, individuals or organizations entirely dedicate themselves to philanthropy, often focusing on grant-making. This sometimes is referred to as career philanthropy. Notable figures such as Bill Gates, Warren Buffett, and John D. Rockefeller have become synonymous with this form of giving. Konrath (2014) noted that philanthropy does not necessarily involve monetary donations; individuals also can donate their time, talent, or other resources for societal good.

Elizabeth and Charles Handy, as explained by Phillips and Jung (2016), have collaborated to develop what is known as the "new philanthropists." These are individuals who have acquired wealth and decide to pivot from focusing solely on financial success to also helping those in need. These new philanthropists often work in conjunction with community members to ensure that their initiatives are sustainable.

In conclusion, individuals and organizations are playing increasingly dynamic and interconnected roles in the philanthropic sector. The emergence of full-time philanthropy, philanthrocapitalism, and celanthropism signifies the evolution and diversification of strategies in philanthropy. These approaches, characterized by innovation, strategic thinking, and, in some instances, the application of market-oriented methods, have the potential to address some of the world's most pressing challenges.

2.2 Leadership transition

Leadership transitions at different organizational levels entail shifts in leadership roles and responsibilities as individuals progress in their careers. The nature of leadership varies depending on the hierarchical level within an organization, with lower management levels typically focused on controlling

and directing tasks, whereas higher levels encompass overseeing and controlling the entire organization. These transitions require leaders to develop a better understanding of the organization, the roles of various employees, and the market environment. Clear role definitions and effective management of cultural dynamics are crucial for a successful leadership transition (Keller & Meaney, 2018).

Leadership transitions occur across various levels within an organization, and each level necessitates different leadership styles and skill sets. Leadership styles also may vary at different levels, and selecting an appropriate leadership style is essential for building trust and ensuring organizational effectiveness (Hoch & Kozlowski, 2014; Nanjundeswaraswamy & Swamy, 2014).

Hoffman et al. (2011) highlighted that one of the primary responsibilities of leaders is to provide a sense of vision, inspiration, agenda-setting, and team management. Leadership style plays a significant role in how these aspects are managed, and can determine the success of an organization.

For the purpose of building the model, we focused on three specific leadership styles. The first is transformational leadership, which fosters an environment of innovation and inspires followers to achieve remarkable results, as described by Bass and Riggio (2006). The second is transactional leadership, a style centered on supervision, organization, and performance, involving a system of rewards and punishments, as outlined by Bass (1985). The third is servant leadership, a style that prioritizes the needs of others above the leader's own, emphasizing employee satisfaction and community, as detailed by Dierendonck (2010) and Spears (2010).

Transitions between profit and non-profit organizations entail distinct shifts in leadership and management approaches. Moving from a profit-oriented business to a non-profit organization requires leaders to adapt their mindset, skill set, and approach to align with the philanthropic goals and social missions of the non-profit sector. Not-for-profit organizations prioritize social service provisions rather than profit generation, necessitating leaders to develop skills in fundraising, donor engagement, and social impact assessment. Understanding the differences in target audiences, funding sources, and problem-solving

strategies between profit and non-profit organizations is essential for leaders navigating this transition (Child et al., 2015; Viader & Espina, 2014).

Transitioning from a business to philanthropy involves a shift in focus from profit-making to making a meaningful social impact. Business leaders who embark on philanthropic endeavors need to establish stronger connections with the community and integrate social responsibility into their business models. Philanthropy can enhance business continuity and success by appealing to socially conscious consumers and promoting corporate social responsibility. Leaders must develop philanthropic literacy and skills in ethical decision-making, risk management, and identifying critical social issues to drive effective philanthropic initiatives (Jansons, 2015; Shang & Sargeant, 2020).

Some leaders transition from business to full-time philanthropy, dedicating their time and resources entirely to philanthropic endeavors.

Philanthropy, as a concept, has deep historical roots, and its practice has been evident across centuries. An examination of the list of the top ten philanthropists, as presented by the EdelGive Hurun report, underscores this historical continuity; of these ten, only two initiated their philanthropic endeavors after the year 2000. However, a noteworthy evolution in the realm of philanthropy is the emerging trend of individuals dedicating themselves full-time to their charitable pursuits. Although the act of giving is not novel, this intensified, full-time commitment to philanthropy represents a unique shift in how modern benefactors approach their contributions to society (Javaid, 2021).

Full-time philanthropists focus on improving human welfare through charitable donations, supporting social causes, and engaging in philanthropic initiatives. Prominent examples include leaders such as Bill Gates and Warren Buffet, who have made substantial contributions to various philanthropic causes. This transition requires leaders to delegate the management of their business organizations and develop expertise in philanthropic psychology, strategic philanthropy, and effective altruism. Full-time philanthropists play a vital role in driving positive change and maximizing their impact on society (Feldman & Graddy-Reed, 2014; Rogers, 2015).

The transition from founders to managers represents a critical phase in organizational development. Founders have a significant influence on organizational culture, values, and problem-solving approaches. As companies grow and professional managers are introduced, tensions may arise between the original values and the focus on short-term financial performance. The challenge lies in successfully transitioning to the next generation of leaders while maintaining core cultural elements and adapting to the changing external environment. Understanding the differences between founders and professional managers in terms of motivational, analytical, interpersonal, and structural dimensions is crucial for managing this transition effectively (Davis et al., 1997; Schein, 1995).

Based on the foundational work of Schein (1995) about founders and managers, which we use as a grounded theory, a new model of dimensions is proposed to encompass a broader range of potential comparative analysis between profit-driven business organizations and philanthropic entities. This model integrates leadership styles into the comparison. The model is informed not only by academic theory but also by the lead author's personal ontological experiences as a leader in both profit-driven and philanthropic organizations. This fusion of theory and practical insights is consistent with the principles of reflective practice and experiential learning. Schön (1983) posited that professionals can derive insights from their experiences to refine their practices, and Kolb's experiential learning theory underscores the significance of experience as a primary source of knowledge creation. Leadership studies further emphasize this symbiotic relationship; Bennis (2009) stated that the journey of becoming a leader is deeply intertwined with personal narratives and challenges. Moreover, the narrative inquiry approach in qualitative research, as described by Clandinin and Connelly (2000), places paramount importance on personal stories and lived experiences to understand and interpret phenomena. Thus, the model's integration of theory with lived experiences not only aligns with these foundational academic frameworks but also enhances its validity and applicability in real-world contexts, bridging the gap between academic research and lived experiences.

3 FOUNDING LEADERS' PHILANTHROPIC TRANSITION FRAMEWORK

3.1 Introduction to the Framework

The Founding Leaders' Philanthropic Transition Framework is a model that systematically dissects the journey of founding leaders as they transition from a business-oriented environment to philanthropy. As founding leaders' transition from business to philanthropy, their leadership styles evolve. The personal dimension of the FLPTF examines the shift in leadership styles. It was hypothesized for this paper that whereas transactional leadership often suffices in the corporate world, as leaders move to philanthropy, transformational and servant leadership styles may take precedence. This hypothesis reflects the general premise that the nature of philanthropy may demand a different kind of leadership than the business sector.

The model is founded on a crucial aspect: leadership style. The leadership style serves as the personal aspect of the transition, embodying the characteristics and strategies employed by the founding leaders grounded in transformational, transactional, and servant leadership, drawing inspiration from the work of Bass and Riggio (2006).

Critical to the Founding Leaders' Philanthropic Transition Framework is the construction of dimensions that are both theoretically grounded and practically relevant. The dimensions are formed based on an ontological foundation, assessing what founders need to cognitively think and behaviorally do to establish organizations.

The first dimension is the cognitive aspect. This facet focuses on the mental processes and thought patterns that founders engage in. It assesses how leaders conceptualize, strategize, and evaluate different components involved in establishing an organization. The second dimension is the behavioral aspect. Unlike the cognitive aspect, the behavioral facet is concerned with the tangible actions and practices that founders adopt while setting up an organization. These two dimensions together provide a comprehensive understanding of the transition process from a business leadership role to a philanthropic one.

The ontological basis subsequently is juxtaposed with Schein's theoretical work on the leadership of managers and founders (Schein, 1995), which offers a rich tapestry of insights into organizational culture and leadership. The FLPTF leverages Schein's theoretical constructs (Schein, 1995) to refine and authenticate the dimensions further in creating a dimensional matrix. By integrating both the cognitive and behavioral aspects, the FLPTF distills a novel set of dimensions that are specifically tailored for comparing business and philanthropy realms. These dimensions not only allow a comparative study between business and philanthropy, but also enable an examination of leadership styles and set expectations for outcomes based on different leadership approaches. As the founding leaders navigate the convergence of business and philanthropy, the FLPTF provides a comprehensive lens through which we can understand this transition. The framework is not only a theoretical model, but serves as a pragmatic tool for leaders to anticipate the challenges and opportunities that lie ahead in their journey. Furthermore, it empowers stakeholders to understand the dynamism and complexity of this transition.

In summary, the FLPTF elucidates the complex journey of founding leaders as they transition from business to philanthropy. With its foundations in leadership styles, it allows for a nuanced analysis of personal changes.

3.2 Process of Building the Founding Leaders' Philanthropic Transition Framework

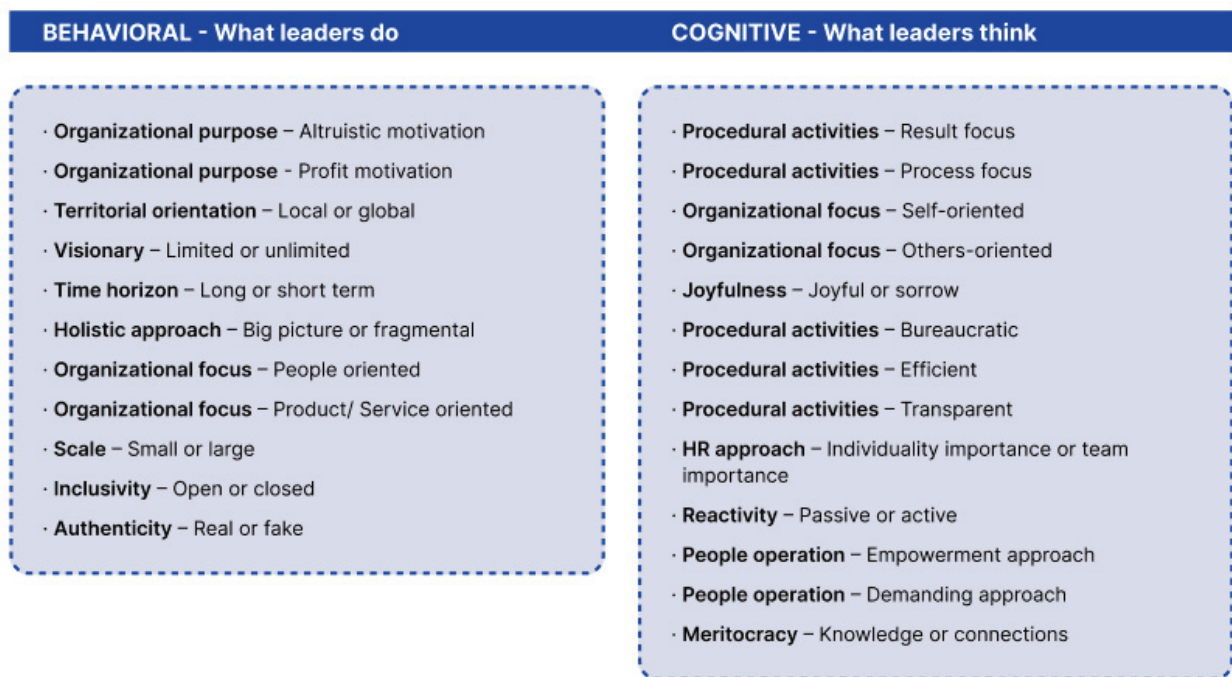
This section describes the research process to shed light on the development of dimensions and their integration with the Schein model. A closer examination of the steps involved in this process provides insights into the construction of a robust research framework. Figure 1 illustrates the initial phase, wherein leadership dimensions were identified based on relevant experiences. Subsequently, a framework was conceptualized by aligning these dimensions with the established Schein model, resulting in a new integrated framework proposal. Beginning on an ontological standpoint grounded in personal experiences and extensive involvement in diverse managerial roles, particularly through a longstanding professional relationship with the Lo-

gins, a cognitive constructivist approach was used for this article. The underlying ontological belief centers around the notion that knowledge and reality are shaped by experiences and interactions, aligning significantly with the principles of cognitive constructivism (Piaget, 1954). Accumulated experiences and insights gained from managing various organizations shed light on two pivotal components of leadership within the context of organizational establishment and steering: cognitive and behavioral aspects. This division aligns with the constructivist perspective, which recognizes the dynamic interplay between cognitive thought processes and behavioral actions in shaping leadership roles and influencing organizational dynamics. In conceptualizing the leadership dimensions, the intention is to introduce a structured approach for tracking longitudinal changes in leadership styles. These dimensions extend beyond cognitive and behavioral aspects, encompassing dimensions such as morality. However, dimensions that elicit binary responses have been avoided intentionally, enabling a nuanced exploration of leadership transformations over time. At this preliminary stage of the research,

the decision was made to categorize the dimensions into two broad umbrellas: cognitive, and behavioral. Although there may be some overlap among certain dimensions, such as joyfulness, which can be argued to manifest both cognitively and behaviorally, establishing these overarching categories simplifies the initial understanding of the dimensions and facilitates the tracking of changes within them over time.

The proposed dimensions were mapped onto an existing scientific model; the Schein model was chosen for this purpose. The Schein model (1995), which compares founders and professional managers, was used as the foundation for developing the research model because it delineates a nuanced distinction between the leadership of founders and professional managers, segmented across four pivotal dimensions. These dimensions—motivational and emotional orientation, analytical orientation, interpersonal orientation, and structural/positional differences—serve to highlight the inherent contrasts in approach, mindset, and operational modus operandi between these two leadership archetypes. The model underscores the unique paradigms from

Figure 1: First dimension proposal



Source: The authors, 2022

which each leadership style emerges, suggesting that their behaviors and actions are intrinsically tied to their foundational roles within organizations.

Building upon this foundation, this paper extends the model to include a comparison of three leadership styles (transactional, transformational, and servant leadership) as well as an examination of organizational change from profit to non-profit contexts, specifically focusing on the transition from business to philanthropy. Schein's model categorizes dimensions into motivational and emotional orientations, analytical orientation, interpersonal orientation, and structural/positional differences. This categorization offers a valuable framework for understanding the multifaceted nature of leadership. By leveraging Schein's model, this research expanded its applicability and relevance to address the specific research focus. This entailed developing a comprehensive framework that encompasses various leadership styles and explores the dynamics of organizational change within the business and philanthropy context.

Even though this research primarily focuses on comparing management styles based on profitability and non-profitability, whereas the Schein model compares founders and managers, it still provides insightful dimensions for comparative analysis. Schein proposed and grouped dimensions such as motivation and emotional orientation, analytical orientation, interpersonal orientation, and structural and positional differences. Building upon the Schein model, the researchers mapped these dimensions with their own framework. Notable modifications were made during the development of the model.

Operational aspects were added to the analytical orientations to enhance the comprehensiveness of the model. However, the structural dimension, which primarily pertains to the differences in the functioning of founders and professional managers, deliberately was excluded because it diverged from the research focus. Furthermore, the researchers acknowledge the cognitive capacity of leaders to think in two-dimensional (either/or) or multidimensional (either/or/and) terms. For example, when contemplating the organizational vision, leaders may consider altruistic motives, profit motives, or a combination of both, as in social enterprises. Con-

versely, the concept of authenticity does not allow for a dualistic interpretation; an organization cannot be simultaneously authentic and inauthentic. As a result, some dimensions from the Schein model were merged into a single dimension in the new model to accommodate these complexities.

The two models are compared in Table 1 using as an example motivation and emotional orientation. The dimensions or parts of dimensions in red and marked with an asterisk (*) within these tables indicate modifications made to the Schein model. Additionally, dimensions marked with a plus sign (+) in Table 1 signify the absence of corresponding dimensions in the Schein model, emphasizing the unique contributions of the dimensions incorporated in the new model.

The development of the final dimensions involved several steps. Considering these steps, Figure 2 presents the final proposal for the dimensions. It encapsulates the comprehensive framework resulting from the integration of operational aspects, the consideration of multidimensional thinking, and the comparison with the Schein model. Figure 2 serves as a visual representation of the dimensions, providing a clear overview of the proposed framework and further guiding the conceptual paper.

To advance the research process further, business and philanthropy were compared within the scope of the proposed dimensions. Taking a step beyond the initial comparison, an attempt was made to predict how these dimensions might manifest in both types of organizations. Dimensions for which it was possible to make estimations were categorized as high, medium, or low. In cases involving two-dimensional considerations, an educated guess was made for the second component. For example, when examining territorial orientation, a cosmopolitan perspective was taken.

Continuing the research process, a similar estimation focused on different leadership styles—transactional, transformational, and servant. The approach followed a two-fold process. Firstly, an intensity rate, categorized as high, middle, or low, was assigned to each dimension. Secondly, the potential differences that may arise between leadership styles were studied, considering the relevant leadership dimensions.

Table 1: Comparison of Schein and Vavpotič models: Motivation, and emotional orientation

MOTIVATION AND EMOTIONAL ORIENTATION			
FOUNDERS BY SCHEIN		BEHAVIORAL/ COGNITIVE ASPECT BY VAVPOTIČ	
Oriented toward creating, building		COGNITIVE Organizational purpose <i>Altruistic motivation</i>	
Achievement-oriented		BEHAVIORAL Procedural activities <i>Result focus</i>	
Self-oriented, worried about own image; the need for "glory" high		BEHAVIORAL Organizational focus <i>Self-oriented</i>	
Jealous of own prerogatives, need for autonomy high		BEHAVIORAL Organizational focus <i>Self-oriented</i>	
Loyal to own company, "local"	/		
Willing and able to take moderate risks on own authority		COGNITIVE Visionary – <i>Limited or unlimited risk-taking*</i>	
MANAGERS BY SCHEIN		BEHAVIORAL/ COGNITIVE ASPECT BY VAVPOTIČ	
Oriented toward consolidating, surviving, and growing		COGNITIVE Organizational purpose <i>Profit motivation</i>	
Power- and influence-oriented		BEHAVIORAL Procedural activities <i>Process focus</i>	
Organization-oriented, worried about company image		BEHAVIORAL Organizational focus <i>Others-oriented</i>	
Interested in developing the organization and subordinates		BEHAVIORAL Organizational focus <i>Others-oriented</i>	
Loyal to the profession of management, "cosmopolitan"		COGNITIVE Territorial orientation <i>Local or cosmopolitan*</i>	
Able to take risks, but more cautious and in need of support		/	

BEHAVIORAL / Joyfulness+ / Joyful or sorrow

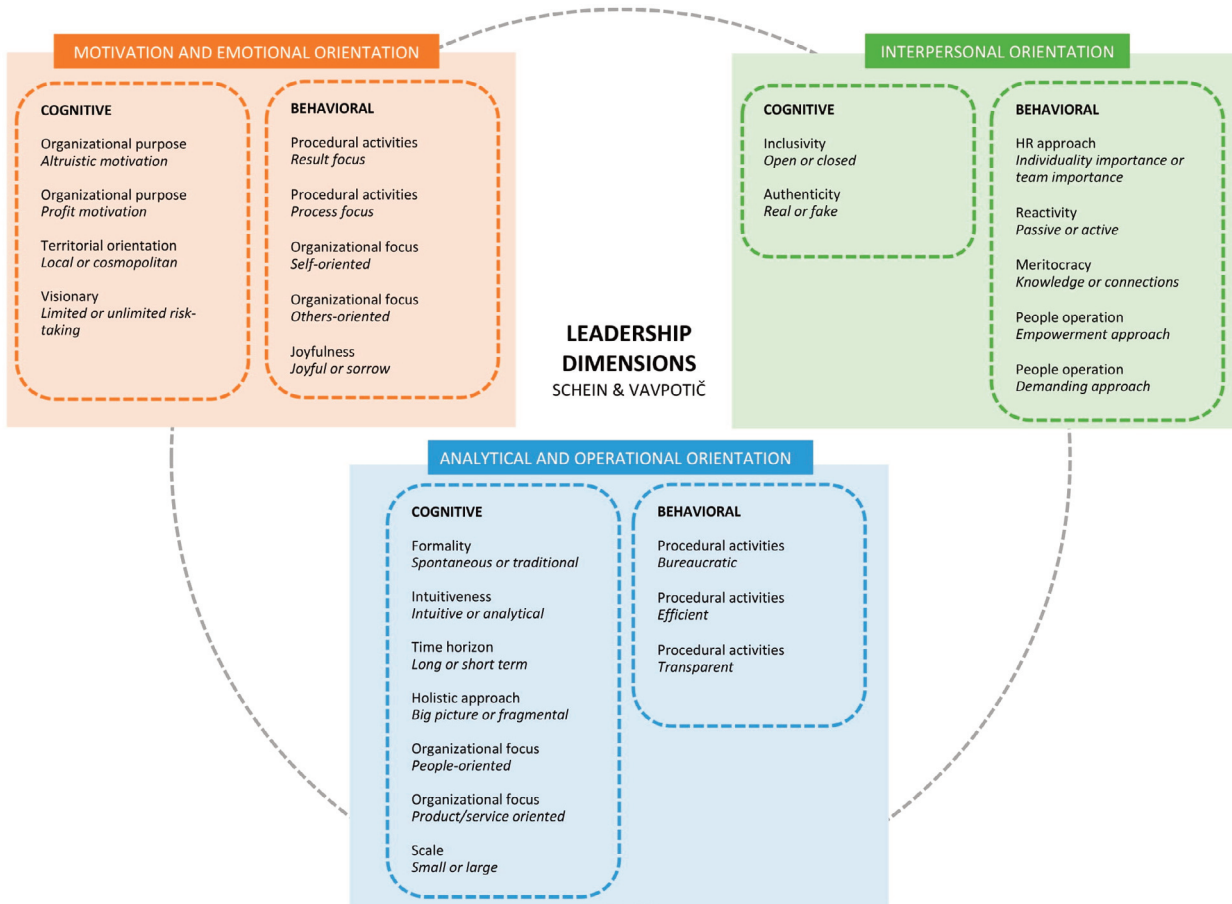
By incorporating these estimations, the research gained insights into the distinctive characteristics and orientations associated with each leadership style. As the research process nears completion, the next step involves speculation about the expected changes in leadership style based on the proposed dimensions. Tables 2, 3, and 4 present a comprehensive list of dimensions along with explanations of the anticipated shifts in leadership style when transitioning from a profit-oriented business to a philanthropic organization. The aim is to identify and examine actual changes in leadership styles, comparing them with the predicted outcomes outlined in the table.

The list of dimensions and corresponding predictions offers a robust framework for understanding the potential transformations that may occur during the transition from a profit-oriented business to a philanthropic organization. The predictions align with the prevailing understanding that leaders in the philanthropic sector often adopt more-altruistic orientations and exhibit transformational and servant leadership styles. These expectations find support in existing theories and empirical evidence on leadership in philanthropic contexts.

For example, the prediction that leaders in philanthropic organizations will display a greater emphasis on altruism and adopt transformational and servant leadership styles aligns with prior research on leadership in the non-profit sector (Bell & Abbas, 2012; Bennis & Goldsmith, 2003). Leaders in these organizations frequently are motivated by a sense of purpose and a desire to create a positive social impact, which corresponds to the altruistic motivation dimension. Moreover, the emphasis on values, mission, and stakeholder well-being within the non-profit sector reinforces the expectation of a transition toward transformational and servant leadership styles.

Additionally, the predictions pertaining to factors such as territorial orientation, visionary approach, organizational focus, and inclusivity reflect the underlying values and characteristics commonly associated with philanthropic organizations (Avolio & Gardner, 2005; Bass & Riggio, 2006). These dimensions underscore the significance of considering the broader societal impact, engaging stakeholders, and fostering inclusive and empowering cultures within the philanthropic sector.

Figure 2: Final dimensions by Vavpotič based on Schein model: Dimensional matrix



5 DISCUSSION

5.1 Interpretation of Findings

Picture this: a seasoned business leader trading the corporate boardroom for a world of giving back. What if the boardroom's bottom line was bettering lives? Would that be a step backward or forward? To truly discern our future's architects, we must first grasp the nuances of leadership within philanthropy. This article reveals the exciting journey of founding leaders who make a grand leap from the business world to philanthropy. It offers insights into the essentials that make business and philanthropy tick and explores the enthralling ways in which they are alike and unlike. The topic not only provides a deeper understanding of the differences between business (for-profit) and philanthropic (non-profit) leadership but also focuses specifically on the transition to full-time philanthropy by creating the unique model to study it—the FLPTF.

The FLPTF integrates Schein's leadership model to create a holistic framework that addresses the change in leadership styles as founding leaders transition from business to philanthropy. The framework is positioned not just as a theoretical model but also as an analytical tool that could serve as the basis for empirically studying real-life cases. The FLPTF considers both cognitive and behavioral dimensions, providing a comprehensive guide for understanding the nuances of this transition. The FLPTF is particularly ground-breaking because it encapsulates the shifts in leadership styles during this transition. This, in turn, elucidates the complex interplay adding depth to existing models and giving birth to a novel framework that bridges theory and practice. Moreover, this framework makes a seminal contribution to leadership and organizational theory by applying Schein's models in an under-explored context.

Table 2: Expected change in leadership style through dimensional matrix: Motivation and emotional orientation

MECHANISMS	DIMENSIONS GROUNDED IN ONTOLOGY AND LITERATURE REVIEW
MOTIVATION AND EMOTIONAL ORIENTATION	
COGNITIVE Organizational purpose <i>Altruistic motivation</i>	From business to philanthropy, we expect leaders to be more altruistic-oriented, meaning that leaders will have a more transformational and servant leadership style.
COGNITIVE Organizational purpose <i>Profit motivation</i>	From business to philanthropy, we expect leaders to be less profit-oriented, which means that leaders will have a less transactional leadership style.
COGNITIVE Territorial orientation <i>Local or cosmopolitan</i>	From business to philanthropy, we expect leaders to be a bit more cosmopolitan, which means that leaders will have a more transactional or servant leadership style.
COGNITIVE Visionary <i>Limited or unlimited risk-taking</i>	From business to philanthropy, we expect leaders to be a bit more visionary and not limited to risk-taking, which means that leaders will have a more transactional or servant leadership style.
BEHAVIORAL Procedural activities <i>Result focus</i>	From business to philanthropy, we expect leaders to stay result-focused, so we do not expect a significant change in leadership style from this dimension.
BEHAVIORAL Procedural activities <i>Process focus</i>	From business to philanthropy, we expect leaders to stay process-focused, so we do not expect a significant change in leadership style from this dimension.
BEHAVIORAL Organizational focus <i>Self-oriented</i>	From business to philanthropy, we expect leaders to be less self-oriented, which means that leaders will have a less transactional leadership style.
BEHAVIORAL Organizational focus <i>Others-oriented</i>	From business to philanthropy, we expect that leaders will be more other-oriented, meaning that leaders will have a more transactional or servant leadership style.
BEHAVIORAL Joyfulness <i>Sorrow or joyful</i>	From business to philanthropy, we expect leaders to be more open to joyfulness, which means that leaders will have even servant leadership style.

5.2 Theoretical contribution

Leadership, as a field of study, has been dissected extensively, with scholars predominantly focusing on individual leadership styles such as transformational (Bass & Riggio, 2006), transactional (Bass, 1985), and servant leadership (Greenleaf, 1977). These styles, although pivotal, often exist in academic silos, with limited exploration of

their interplay, especially in dynamic contexts such as transitioning from business to philanthropy.

The inception of the FLPTF marks a significant departure from traditional leadership studies. This framework innovatively amalgamates various leadership styles, offering a tailored approach for leaders who are at the crossroads of business and philanthropy. This synthesis not only addresses a

Table 3: Expected change in leadership style through dimensional matrix: Analytical and operational orientation

ANALYTICAL AND OPERATIONAL ORIENTATION	
<p>COGNITIVE Formality <i>Spontaneous or traditional</i></p>	<p>From business to philanthropy, we expect leaders to be less formal in the traditional way and more spontaneous, which means that leaders will have a less transactional leadership style.</p>
<p>COGNITIVE Intuitiveness <i>Intuitive or analytical</i></p>	<p>From business to philanthropy, we expect leaders to be more intuitiveness and analytical, which means that leaders will have a less transactional leadership style.</p>
<p>COGNITIVE Time horizon <i>Short or long term</i></p>	<p>From business to philanthropy, we expect leaders to be more long-term focused on time horizon, which means that leaders will have servant leadership styles.</p>
<p>COGNITIVE Holistic approach <i>Fragmental or big picture</i></p>	<p>From business to philanthropy, we expect leaders to behave more holistically toward the big picture, which means that leaders will have servant leadership styles.</p>
<p>COGNITIVE Organizational focus <i>People-oriented</i></p>	<p>From business to philanthropy, we expect leaders to be more people-oriented, which means leaders will have servant leadership styles.</p>
<p>COGNITIVE Organizational focus <i>Product/service oriented</i></p>	<p>From business to philanthropy, we expect leaders to stay product/service focused, so we do not expect a significant change in leadership style from this dimension.</p>
<p>COGNITIVE Scale <i>Small or large</i></p>	<p>From business to philanthropy, we expect that leaders will want to achieve success on a larger scale, so we do not expect a significant change in leadership style from this dimension.</p>
<p>BEHAVIORAL Procedural activities <i>Bureaucratic</i></p>	<p>From business to philanthropy, we expect leaders to be less bureaucratic, which means that leaders will have a less transactional leadership style.</p>
<p>BEHAVIORAL Procedural activities <i>Efficient</i></p>	<p>From business to philanthropy, we expect leaders to stay efficient, so we do not expect a significant change in leadership style from this dimension.</p>
<p>BEHAVIORAL Procedural activities <i>Transparent</i></p>	<p>From business to philanthropy, we expect leaders to be more transparent, which means that leaders will have servant leadership styles.</p>

glaring gap in the literature but also poses intriguing theoretical questions about the fluidity and adaptability of leadership styles in transitional phases.

By weaving in Schein's leadership model (1995), the FLPTF gains a robust theoretical backbone, further complemented by Yin's (2017) endorsement of

case study methodologies for dissecting intricate phenomena. This dual anchoring ensures that the FLPTF is not just theoretically sound but also primed for empirical exploration. In addition to its academic merit, the FLPTF stands as a pragmatic guide, shedding light on the nuances of leadership transitions for practitioners and industry veterans.

Table 4: Expected change in leadership style through dimensional matrix: Interpersonal orientation

INTERPERSONAL ORIENTATION	
BEHAVIORAL HR approach <i>Individuality importance or team importance</i>	From business to philanthropy, we expect leaders to have more HR team approach, which means leaders will have servant leadership styles.
BEHAVIORAL Reactivity <i>Passive or active</i>	From business to philanthropy, we expect leaders to stay actively reactive, so we do not expect a significant change in leadership style from this dimension.
BEHAVIORAL Meritocracy <i>Connections or knowledge</i>	From business to philanthropy, we expect leaders to be more meritocratic, which means that leaders will have a more transformational or servant leadership style.
BEHAVIORAL People operation <i>Empowerment approach</i>	From business to philanthropy, we expect leaders to empower people, which means that leaders will have servant leadership styles.
BEHAVIORAL People operation <i>Demanding approach</i>	From business to philanthropy, we expect leaders to stay demanding, so we do not expect a significant change in leadership style from this dimension.
COGNITIVE Inclusivity <i>Closed or open</i>	From business to philanthropy, we expect leaders to be more inclusive and open to new ideas and talents, which means that leaders will have more transformational or servant leadership styles.
COGNITIVE Authenticity <i>Fake or real</i>	From business to philanthropy, we expect that leaders will be more authentic, meaning that leaders will have a more transformational or servant leadership style.

The FLPTF's integrative approach offers a panoramic view of leadership dynamics, especially in the context of transitioning from business to philanthropy. Although individual leadership styles such as transformational and servant leadership have been celebrated for their potential to drive societal change and instill a service ethos (Bass & Riggio, 2006), the FLPTF elevates this discourse. It meticulously contextualizes these styles, highlighting the unique challenges and opportunities that the philanthropic landscape presents. This enriched perspective not only broadens the theoretical horizons but also sets the stage for a plethora of future research endeavors.

The FLPTF, while harmonizing with broader leadership paradigms, also introduces fresh perspectives that challenge some conventional wis-

dom. By emphasizing the versatility and adaptability of leadership in transitional scenarios, it offers both a nod to and a critique of established leadership tenets. This intricate dance of alignment and divergence accentuates the framework's pivotal role in shaping the trajectory of leadership studies.

In summary, the FLPTF stands as a beacon in leadership studies, bridging traditional leadership styles with contemporary challenges. Its holistic approach not only augments academic discourse but also offers invaluable insights for leadership practice, especially in the multifaceted world of philanthropy. By melding diverse leadership paradigms and offering a comprehensive exploration of leadership transitions, the FLPTF encapsulates the evolving essence of leadership in today's dynamic contexts.

5.3 Implications for Founding Leaders and Organizations

The FLPTF offers valuable insights for leaders and organizations transitioning from business to philanthropy. For founding leaders, the FLPTF maps the cognitive and behavioral shifts necessary for a smoother transition, highlighting the need for a possible shift toward transformational and servant leadership styles (Bass & Riggio, 2006). For organizations, the FLPTF provides a roadmap for supporting these transitions, aiding in the development of supportive cultures and training programs. It also can serve as a diagnostic tool for practitioners to assess leader readiness for philanthropy and the alignment of leadership transitions with organizational culture and objectives. In essence, the FLPTF not only illuminates the complex transition process but provides practical tools to guide and support it, benefiting leaders, organizations, and stakeholders in the philanthropic sector.

5.4 Conclusion, Limitations, and Future Research Directions

The FLPTF represents a significant stride in the field of leadership. The framework is comprehensive, and, bridging theory and practice, it offers a systematic approach to understanding and navigating the complex terrain of leadership transitions from business to philanthropy.

A key limitation of the FLPTF is that it primarily addresses the personal view of the transition, and

puts less emphasis on the organizational perspective. Considering the well-established connection between leadership style and organizational culture in the literature (Bass, & Riggio, 2006; Brown, 1992; Schein, 2010), incorporating an organizational lens could enrich the framework. Specifically, the organizational culture serves as a crucial triangulation tool; changes in leadership style theoretically should precipitate concomitant changes in organizational culture. By examining organizational culture, additional insights could be gleaned and changes in leadership styles could be validated as leaders transition from business to philanthropy.

Future research directions include applying the FLPTF in empirical case studies to validate its applicability and efficacy. Studying the long-term impacts of these transitions on leaders and organizations can contribute to further refining and evolving the FLPTF. Additionally, extending the framework to incorporate an organizational perspective and culture could provide a more holistic understanding of leadership transitions. This conceptual paper sets the groundwork for what could be a promising avenue for more in-depth studies and practical applications in leadership transitions.

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EXTENDED SUMMARY/IZVLEČEK

Članek predstavlja model prehoda ustanovnih vodij v filantropijo (Founding Leaders' Philanthropic Transition Framework - FLPTF), nov model, ki preučuje prehod ustanoviteljev iz poslovnega sveta v filantropijo. FLPTF, ki je zasnovan na ontoloških načelih in teorijah vodenja, raziskuje spremembe v slogih vodenja in dinamiki organizacije. Študija opozarja na vrzel v obstoječi literaturi, s tem pa poudarja potrebo po celoviti analizi teh prehodov, ki so se pojavili v zadnjih letih. Dimenzije modela, zasnovane na kognitivnih in vedenjskih vidikih, omogočajo temeljito raziskavo slogov vodenja. Za vedno več primerov ljudi, ki se odločijo za prehod v filantropijo, lahko služi FLPTF kot teoretični vodnik in pragmatično orodje, ki anticipira izzive in priložnosti v procesu prehoda. Odpira pot za globlje raziskovanje evolucije vodenja, ko ustanoviteljske voditelje preidejo iz poslovanja v poslovnem svetu v popolno filantropsko delovanje.

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EXAMINING THE FACTORS AFFECTING GREEN ENTREPRENEURSHIP INTENTIONS IN UNIVERSITY STUDENTS: AN EMPIRICAL STUDY

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Abstract

Green entrepreneurship refers to creating new businesses that focus on environmental sustainability and social responsibility. Understanding the factors that influence students' intention to engage in green entrepreneurship can help develop educational programs, policies, and strategies promoting sustainable entrepreneurship. Research in this area can help identify the key drivers and barriers that affect students' intentions to engage in green entrepreneurship. These studies can investigate the impact of entrepreneurship education, environmental awareness, personal values, and resource access on students' intention to engage in green entrepreneurship. This study investigated the variables influencing university students' intentions to engage in green entrepreneurship using structural equation modeling of a sample of 494 university students. The results show that country support, subjective norms, risk aversion, and self-efficacy significantly affect the intention to be a green entrepreneur, but do not hold much importance according to the respondents; risk aversion had the highest influence. The results also indicate that university students between 18 and 25 have the highest interest in green entrepreneurship.

Keywords: *Green entrepreneurship, Green entrepreneurial intention, Sustainable development, University students*

1 INTRODUCTION

Academics have given the idea of green entrepreneurship much attention because they want "becoming green" to be recognized as a strategy to improve environmental sustainability (Parry & Baird, 2012), and (Yi et al., 2019) stated that green business is the solution to environmental and social issues. It is the entrepreneurial process of discovering and developing unrealized goods and services that support environmental sustainability (Cohen & Winn, 2007).

The concept of entrepreneurship has been transformed into green entrepreneurship and has become closely related to the green economy. Businesses are adapting to the changing global environment and fo-

cusings more on ecological and sustainable problems. Business owners are seizing the chance presented by the current circumstances by investing and taking calculated risks. Recent work has continued to concentrate on green entrepreneurship and environmental issues. The expansion of economic and social issues because of ecological changes also has been linked to green entrepreneurship (Demirel et al., 2019; Hall et al., 2010).

The need for responsible business models has increased in recent years. The companies that provide green goods or services are innovative and eco-friendly, and they develop incubators and crucial economic players who can influence society's development. Moreover, fundamental social issues, including environmental degradation, population

expansion, and climate change, are increasing in importance despite increased human progress and significant economic growth during the last century. Thus, the necessity for sustainable development that “meets the needs of current generations without compromising the ability of future generations to meet their own needs” is evident (WCED, 1987).

Research has confirmed the benefits of green entrepreneurship, including how it improves and maintains the ecological system, lessens deforestation, and creates better environmental conditions (Shepherd & Patzelt, 2014). University graduates are becoming more and more interested in the idea of green entrepreneurship, and their intents are changing quickly. Other significant advantages of green entrepreneurship include improved employment prospects as well as certain social and economic advantages for the states in which this idea has been implemented (Bogatyreva et al., 2019; Nuringasih & Puspitowati, 2017). Governments and their policymakers have started to pay attention to these benefits and a few others. They view green entrepreneurship as a potential engine for swift social and economic advancement.

These justifications have caused the “go green” concept to spread worldwide. Green entrepreneurship often is praised as an essential underlying process to move toward a green economy. The push for sustainability has resulted in the development of a complete cutting-edge entrepreneurship model related to how to run a firm in an ecologically responsible manner.

Governments, academia, and politicians have given green entrepreneurship a great deal of attention as a solution to social and environmental issues. However, there needs to be more support for green entrepreneurship globally, particularly in underdeveloped nations (Tien et al., 2020). Although governments and policymakers increasingly see green economies as a different perspective on development, observational evidence from businesspeople running green organizations needs to catch up (Gibbs & O’Neill, 2012).

Understanding the factors that affect students’ intentions regarding green entrepreneurship is essential, and many universities must develop specific programmes to promote entrepreneurship. It also

is necessary to be fully aware of whether and how the university achieves this through on-campus and online events.

Determining whether the university facilitates the relationship between start-ups and university students should raise awareness and encourage acquiring empirical knowledge, such as the resources to start businesses. It is essential to understand how students perceive the support they receive, because countries typically generate support for entrepreneurship. Students investigate numerous criteria regarding ecological or environmental research to understand the elements influencing their intentions.

Universities are changing to teach entrepreneurship, considering long-term global trends in education, health, and sanitation (Bogatyreva et al., 2019). Green entrepreneurship acts as a conduit to prevent environmental damage in order to keep pace with sustainable, social, and economic development (Ndu-bisi & Nair, 2009). Students occasionally are passionate about starting their own green business but decide against doing so for personal and financial reasons. (Liguori et al., 2009). Because green entrepreneurship intention (GEI) is a new area that requires research, this study adds unique insight to the relevant literature. (Bogatyreva et al., 2019). College students’ green entrepreneurial intentions are influenced by many variables (Bruton et al., 2010; Zhou & Verbarg, 2020). To study green entrepreneurship in various contexts, preliminary research has been conducted (Grinevich et al., 2019). This paper fills a research gap in student green entrepreneurial ambitions by analyzing the relationship between green entrepreneurial intention and different entrepreneurial characteristics, particularly national support.

This study quantified several essential factors. First, we assessed the impact of conceptual development support, defined as the university’s assistance in motivating students and offering them fresh ideas for starting a new business. Country support, which assesses the nation’s support concerning legislation and state programs to promote entrepreneurship, is another factor that was examined. The encouragement to create ventures, pre-professional practices, and interactions with entrepreneurs also were measured, along with the

regular entrepreneurship courses the university delivers. Entrepreneurial self-efficacy refers to a student's belief in their ability to engage in entrepreneurship and start a business. Finally, a variable called green entrepreneurial intention assesses the student's intention to practice green entrepreneurship.

In terms of statistical techniques, these studies mostly applied structural equation models. (Soomro et al., 2020; Thelken & de Jong, 2020; Risco et al., 2021; Yasir et al., 2021).

Research questions for the study were as follows:

Research Question 1: (RQ1): *What are the main determinants of the relationship between green entrepreneurship intention and green entrepreneurship behavior?*

Research Question 2: (RQ2): *Do attitude, subjective norm, university education, training support, self-efficacy, risk-aversion, and country support significantly impact the green entrepreneurial intention?*

This study is important because colleges worldwide want to foster student entrepreneurship, and intergovernmental organizations are urged to create initiatives based on the United Nations Sustainable Development Goals (SDGs). To develop green entrepreneurship programs for their students, colleges and policymakers must understand clearly the issues that affect this field.

2 LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Numerous nations have conducted studies of the experiences of university-level entrepreneurship education. Initial studies of entrepreneurship at universities examined several European countries. For example, Frazier (1991) studied Poland; Johannisson (1991) studied Sweden; Van der Sijde and Van Aslté (1998) studied the Netherlands; Tamkivi (1999) studied Estonia; Watkins and Stone (1999) studied the UK; Kloften and Jones-Evans (2000) studied Ireland; Virtanen and Laukkanen (2002) studied Finland; Campanella, Della, and Del Giudice (2013) studied Italy; Klandt and Volkmann (2006) studied

Germany; and Karanassios et al. (2006) studied Greece. Recent research has revealed several factors affecting people's inclination to start green businesses.

The idea of green entrepreneurship has been introduced to corporate circles through subjective literary studies. Ajzen's theory of planned behavior (1991) in this area is the best theory for predicting green entrepreneurship. It expands the idea of reasoned action (Azmitia et al., 1993), in which *intention* is defined as a person's willingness to engage in entrepreneurial behavior or commitment to creating a new enterprise. Green entrepreneurship is the transition of two concepts first proposed by researchers, such as entrepreneurship and the environment at the beginning of the 1990s (Adebisi et al., 2015). Many academics recognized that there was no consensus on its meaning or content as time passed. A thorough literature study (Gast et al., 2017) supported numerous definitions of green entrepreneurship. The terms "sustainable entrepreneurship," "ecologically sustainable entrepreneurship," and "eco-entrepreneurship" all are derived from this idea (McQuaid, 2013). For example, the concept of green entrepreneurship seeks to solve environmental issues by creating brand-new, cutting-edge goods. (Adebisi et al., 2015) It is an entrepreneurial move motivated by financial and environmental considerations (Blue, 1990). According to Schaper (2002), green entrepreneurship now encompasses a wider range of environmental issues.

2.1 Green Entrepreneurial Intention

The state of mind, i.e., the purpose, drives a person's focus and interest to carry out a particular activity. Numerous factors directly and indirectly influence the intention to act. An action's preparation precedes its actual performance. Entrepreneurship tends to affect the growth of an economy. Both people and businesses may use the notion of entrepreneurship. There are more ideas involved with green entrepreneurship. Farinelli et al. (2011) asserted that engaging in green entrepreneurship involves encouraging customers to support the green economy. Despite the goal of green entrepreneurship, business owners struggle to determine whether a project is green. These initiatives are characterized by research findings to aid in their

comprehension. As a result, it can be said with certainty that green entrepreneurship solves environmental issues and has a positive impact, e.g., by using eco-friendly products, eco-friendly production processes, waste management, and recycling.

2.2 Attitude toward Green Entrepreneurship Intention

Green business attitudes are more likely to respond following preferences for or opposition to green entrepreneurship (Soomro et al., 2020), exhibiting admiration for business practices through presence or absence. According to Schröder and Schmitt-Rodermund (2006), entrepreneurship education fosters a positive business mindset, helps people maintain their interest in entrepreneurship, and encourages self-employment, all of which assist people in developing a perspective suitable for starting new businesses. In addition, Souitaris et al. (2007) noted that educational initiatives could encourage and educate aspiring businesspeople to adopt entrepreneurial attitudes and intentions.

In contrast to previous findings, a positive attitude was demonstrated to be caused by students' goal to build a start-up, according to Usman and Yenita (2019), Soria-Barreto et al. (2017), and Widayat et al. (2017). Similar conclusions were reached by Vamvaka et al. (2020), who found that perceived self-efficacy and a positive perspective are unquestionably the best predictors of entrepreneurial success aspiration. Peng et al. (2021) found that attitude acts as a helpful bridge between environmental principles and sustainable entrepreneurial goals.

Therefore, the following hypothesis is proposed:

H1: *Attitude has an impact on green entrepreneurship intentions.*

2.3 Educational Support for Green Entrepreneurship Intention

Qazi et al. (2021) mentioned that every university's educational support category must incorporate green entrepreneurship. Students would gain business knowledge and skills, and graduate enterprises would be given more power, if universities developed

an atmosphere that supports green business. This concept is regarded as universities' activities to prepare students to launch businesses (Bergmann et al., 2018). The purpose of financial aid for education is to provide courses that explain how to establish ventures, including actual projects, and to learn about venture creation. It also focuses on delivering pre-professional practice in businesses oriented toward entrepreneurship. This construct also is evaluated in terms of whether academic seminars and conferences are offered to help students connect with successful entrepreneurs and build their skills. Dodgson and Gann (2020) measured whether education development assistance affects self-efficacy for the growth of ecological entrepreneurship. University education support (UES) is essential to foster innovation and entrepreneurial activities. The parameters and talent needed to promote the development of fresh green concepts can be established by UES. Preserving the transaction flow, which creates new chances for college students to engage in venture capital and assist in establishing green entrepreneurial projects, also will be put to practical use.

Therefore, we propose that:

H2: *Educational support has an impact on green entrepreneurship intentions.*

2.4 Subjective Norms and Green Entrepreneurship Intention

Utami (2017) suggested that the subjective norm influences the aim of student entrepreneurship and is one of the key factors that fuel the development of a person's entrepreneurial desires. The results of this study, as per Aditya (2020), demonstrate that the environment or social norms that support students' entrepreneurial tendencies affect them. Noor et al. (2021) discovered that subjective standards are a good indicator of entrepreneurial intent. It has been proposed that attitudes and beliefs about entrepreneurship and careers are influenced by firsthand experience with a business endeavor or launching a new firm.

Several studies have thus shown a strong correlation between the desire to launch a new business and knowing someone who has done so, such

as a parent, a family member, or a role model. According to prior studies, the subjective norm considerably influences entrepreneurial ambition. Therefore, we propose:

H3: *The subjective norm has an impact on green entrepreneurship intentions.*

2.5 Self-Efficacy and Green Entrepreneurship Intention

Gielnik et al. (2019) stated that an individual's self-efficacy relates to their confidence in their ability to carry out the behaviors required to obtain performance outcomes. Self-efficacy is a cognitive concept that supports the growth of self-belief in one's aptitude for carrying out activities, mastering one's thinking and knowledge, and making decisions that impact company operations. Because it includes self-motivation and discrepancy perception as contending motivational factors, self-efficacy variability energizes action.

According to studies, entrepreneurial self-efficacy has a positive impact on an individual's intention to start a business (Kumar & Shukla, 2019; Li et al., 2020; Mei et al., 2017). As a result, individuals with high levels of self-efficacy, based on high confidence levels, are more likely to start new entrepreneurship activities. Therefore, the following hypothesis is proposed:

H4: *Self-efficacy has an impact on green entrepreneurship intentions.*

2.6 Risk-Aversion and Green Entrepreneurship Intention

Zaleskiewicz et al. (2020) and Oliver & Velji (2018) claimed that entrepreneurship requires a futuristic mindset and is prepared to take a significant risk to realize an idea. College students have goals and want to start their businesses in the future. However, their intense personal struggles lead them to assume that becoming an entrepreneur is an impossible dream, discouraging them from having any interest in the field. Some university students are concerned that pursuing commercial endeavors may result in losing their resources or possessions (Mahola et al., 2019).

Sarwar et al.'s (2020) results demonstrated that every research variable they studied was statistically significant in predicting investors' investment intentions, and risk-aversion is the most potent predictor. A fear of taking risks negatively impacts entrepreneurship aspirations (Aderibigbe et al., 2019). Therefore, we propose:

H5: *Risk aversion has an impact on green entrepreneurship intentions.*

2.7 Country Support for Entrepreneurship

Fichter and Tiemann (2018) stated that country support is a nation's effort to work together on projects. The factor explains students' opinions toward the nation's initiatives to support and promote environmental and ecological endeavours. The perception of the ease of obtaining bank loans for carrying out enterprises may be used to examine whether a student believes that the country offers possibilities for creating businesses. To determine if national support impacts one's belief in one's ability to promote ecological entrepreneurship, the following hypothesis is proposed:

H6: *Country support has an impact on green entrepreneurship intentions.*

2.8 Green Consumption Commitment to Entrepreneurship

Anderson and Weitz (1992), Mamun et al. (2017), Chang et al. (2012), and Laroche et al. (2001) defined "green consumption" as consumption that places a particular emphasis on consumers' perceptions of and preferences for goods with environmental benefits. The primary drivers of consumer adoption of green purchasing behaviors include viewpoints on economic reality, social reality, and environmental concern. The term "green consumption commitment" (GCC) refers to a consumer's willingness and support behavior to spend money and time on environmentally friendly goods and services. According to Anderson and Weitz (1992), commitment is the desire shown by coworkers to achieve a short-term objective beneficial to the long-term partnership. Therefore, we propose:

H7: *Green consumption commitment has an impact on green entrepreneurship intentions.*

3 METHODOLOGY

This research is a causal research design. The goal was to identify and investigate components that might inspire green entrepreneurship.

3.1 Population and Sample

Students from 10 private universities in Gurugram and Jaipur, India, made up the study's sample. The respondents were students in business management and entrepreneurial courses pursuing a bachelor's or master's degrees.

The sample consisted of 494 participants, 280 men (56.6%) and 214 women (43.3%), between the ages of 18 and 29 years. Snowball sampling was used to collect primary data.

3.2 Data Collection and Instrument

The data were collected using a well-structured and self-administered questionnaire circulated using Google Forms on various online platforms such as LinkedIn, WhatsApp, etc. The structured questionnaire included statements related to subjective norms, risk aversion, attitude, country support, green entrepreneurship intention, educational support, and self-efficacy. The variables were measured using a 5-point Likert-type scale, where 5 = strongly agree, 4 = agree, 3 = neutral, 2 = disagree, and 1 = strongly disagree.

4 ANALYSIS AND INTERPRETATION

Data were analyzed using SPSS 26 and AMOS. Table 1 presents the details of the respondents. Most of the respondents were in an undergraduate

program. The ratio of male to female respondents did not have a significant variation.

The Cronbach's Alpha values for the variables are presented in Table 2.

The normality of the parameters was examined using SEM in Amos. The skewness and kurtosis values for the variables were within the acceptable limits for skewness (-2 and +2) and kurtosis (-7 and +7) (Finney & DiStefano, 2006). Hence, the data were found to be normally distributed. The composite reliability (CR) value of the multivariate analysis for the normality test was 4.78, indicating that the maximum likelihood estimation method can be used for SEM analysis (Byrne, 2009).

The value of the average variance extracted (Table 2) shows the convergent validity of the construct. The value of the convergent validity for all the factors was greater than 0.50. Hence, the construct was valid (Ambad, 2016).

Path analysis was conducted in this study. Structural equation modeling was developed using the maximum likelihood method. The sample size for the survey was 494. The model contained eight observed variables, eight unobserved variables, and eight exogenous variables. The number of distinct sample models was 36, and the number of different parameters to be estimated was 15. The degree of freedom was 21, with a chi-squared value of 107.810 and a probability level of 0.000. Hence, the model is over the identifiable model.

4.1 Model Estimates

Using maximum likelihood estimates, the strength of the impact was measured and the hypotheses were tested for significance.

Table 1: Profile of respondents

Category	Item	Number of respondents	Percentage of respondents (%)
Gender	Male	280	56.6
	Female	214	43.3
Program	Undergraduate	296	60.08
	Post-graduate	198	39.91
	Total	494	100

Table 2: Factorwise reliability statistics

Factor	Cronbach's alpha	Average variance extracted (%)	No. of items
A. Green entrepreneurship intention	0.915	58.23	9
B. Attitude	0.854	69.8	4
C. Educational support	0.954	75.8	8
D. Country support	0.719	56.45	4
E. Risk-aversion	0.823	65.37	4
F. Self-efficacy	0.922	68.35	7
G. Subjective norms	0.859	64.01	5
H. Green consumption commitment	0.888	74.91	4
Sample size	494		

Figure 1: Structural equation modeling

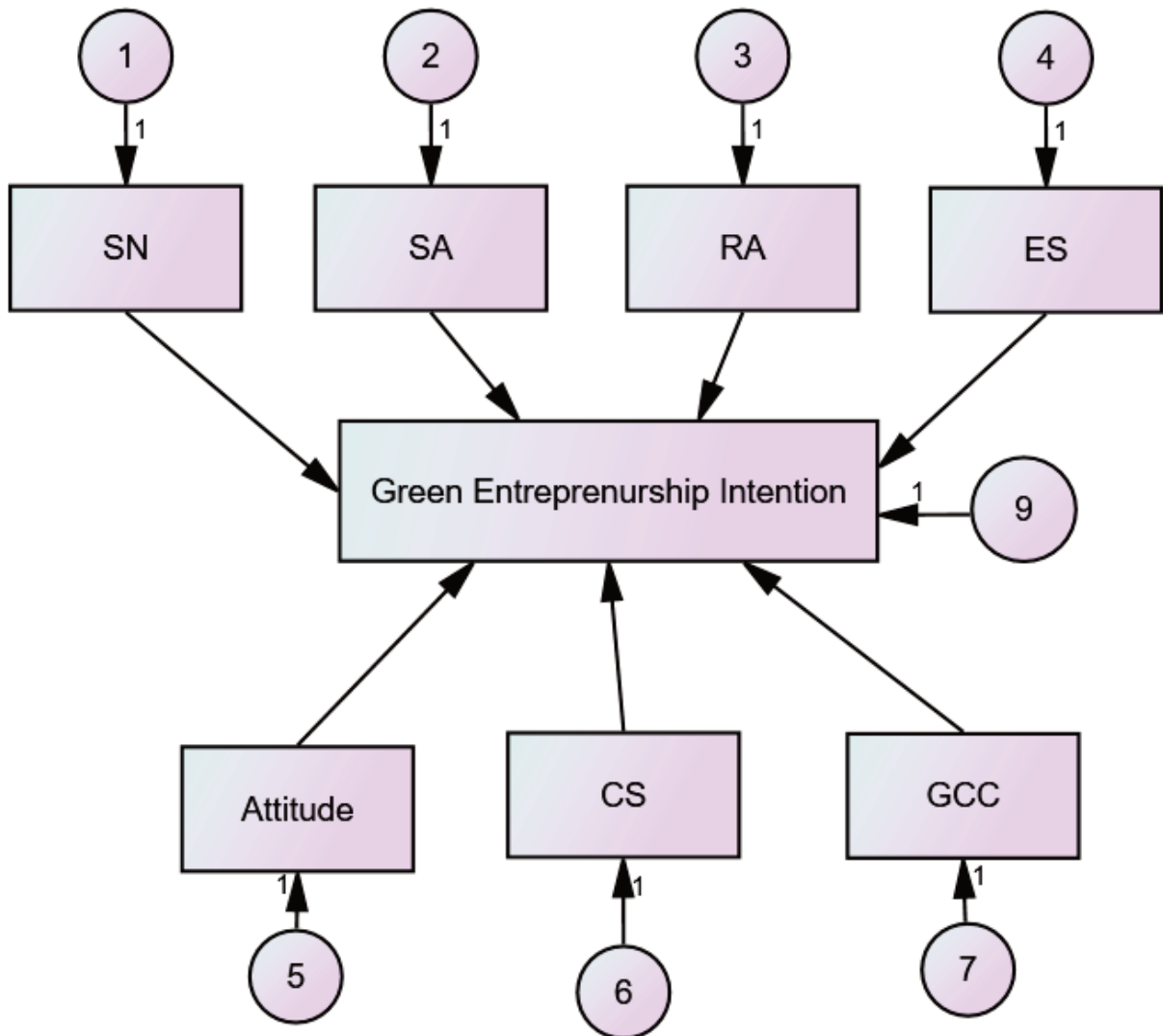


Table 3: Regression weights

Association between variables (path)			Regression weights (RW)					Standardized regression weights
			Estimate (R)	SE	CR	p	Results	Estimates (R)
Green entrepreneurship intention	<—	Subjective norm	0.509	0.034	14.970	***	Supported	0.541
		Self-efficacy	0.181	0.027	6.703	***	Supported	0.253
		Risk aversion	0.352	0.029	12.137	***	Supported	0.461
		Educational support	0.456	0.067	6.805	***	Supported	0.298
		Attitude	0.408	0.051	8.000	***	Supported	0.351
		Country support	0.518	0.067	7.731	***	Supported	0.281
		Green consumption commitment	0.602	0.042	14.333	***	Supported	0.502

*** $p < 0.05$ Note. SE = standard error.

The p -value for all the variables (attitude, subjective norms, country support, educational support, self-efficacy, green consumption commitment, and risk-aversion) was less than 0.05, which means that the results are significant and the null hypothesis is accepted. Furthermore, the squared multiple correlations show the strength of the independent variables and describe the variances. The squared multiple correlation value was 0.491, meaning that the R^2 value is 49%. The variances of the independent variables were as follows: attitude (0.430) = 33%, educational support (0.263) = 26%, green consumption commitment (0.198) = 19%, subjective norms (0.175) = 17%, country support (0.110) = 11%, risk-aversion (0.070) = 7% and self-efficacy (0.050) = 5%. All the variables' estimated values were positive; hence all the hypotheses are accepted.

4.2 Model Fit Summary

The CMIN/df critical limit was 2–5 and the model estimate was 5.09, which is within the acceptable range. The value of goodness of fit, 0.983, was greater than 0.95, and the CFI value, 0.910, was between 0 and 1. The RMSEA value was less than 0.08 and is considered sufficient for the model fit. The parsimony measurement model is found to fit; the values of PCFI and PNFI were less than 0.50: 0.381 and 0.391, respectively (Hooper et al., 2008).

5 RESULTS

The structural equation modeling analysis of the green entrepreneurship intention had significant results. The impact of the selected independent variables was found to be significant. Based on their variances, the variables can be ranked in the following order from most to least important: attitude, educational support, green consumption commitment, country support, subjective norms, risk aversion, and self-efficacy.

Attitude leads to greater variance in green entrepreneurship intention than do the other variables. Attitude toward behavior is the measurement of the individual's perception based on a person's opinion. A positive attitude toward behavior leads to stronger green entrepreneurial intention (Fayolle & Gailly, 2015). The present study found a strong positive impact of attitude on green entrepreneurial intention.

Educational support and training for entrepreneurship education increases the development of the entrepreneurial intention toward green entrepreneurship. The proper environment, conceptual clarity, and the reasons of for engaging in green entrepreneurship are deliberated through the education system of any country. This study found educational support to be a significant variable affecting the green entrepreneurship intention of the students.

The results for green consumption commitment as an independent variable are also significant. Green consumption commitment is one of the biggest drivers toward developing the green industry and economy in the future.

The variables country support and subjective norms also were significant for green entrepreneurship intention. The correct policies and relevant infrastructure to support the development of the green economy become an incentive for those who intend to engage in green entrepreneurship, because the individual decision to adopt entrepreneurship as a career option is affected by the opinion of the reference group. Their negative or positive perceptions affect the support they provide to one who aspires to engage in green entrepreneurship (Solesvik et al., 2013).

This study found that risk aversion plays a significant role in developing green entrepreneurial intention. However, the intensity of the impact could be much higher (Mahola et al., 2019). This suggests that green entrepreneurial intentions are affected by the ability to take a risk and make decisions for the growth of the venture (Sarwar et al., 2020).

The last independent variable that was found to be significant was self-efficacy. The results show that self-efficacy as an independent variable is vital to the student's perception of green entrepreneurship. Self-efficacy indicates the motivation and confidence of an entrepreneur in making judgments and acting (Gielnik et al., 2020).

6 DISCUSSION

This study examined the factors affecting green entrepreneurship intention among students. Attitude is the most significant parameter for developing green entrepreneurial intention among youth. The contribution of consumption commitment and educational support also significantly influence the students' intent to consider green entrepreneurship, which indicates the role of the higher education system as a driving force for green entrepreneurship. The education system provides the necessary ecosystem to the students, in which the students can nurture ideas and work toward sustainable use of the resources in the present. This study also found that country support, subjective norms, risk aversion, and

self-efficacy significantly affect the intention to be a green entrepreneur, but hold little importance for university students. This study can be extended to examine the challenges related to adopting green entrepreneurship intention among students. In the future, the development of the impact of education support and green consumption commitment can be explored. The findings of this study will assist government, policymakers, and university administrators in creating awareness programs tailored via curricula development with a stronger tendency toward green and sustainable education of entrepreneurship.

6.1 Theoretical contributions

The academic literature on the growth of green entrepreneurship and related research is relatively sparse, and limited information about the variables influencing students' desire to engage in green entrepreneurship is available. We added to the model as a new aspect the sense of internal and external support that students have. Evaluation of internal assistance comes from outreach to entrepreneurs, training sessions, event promotion, and even investment in new business ideas. Government assistance is assessed externally based on normative factors, direct assistance, or training assistance. Given the diverse support provided by governments and even universities, which still are considered to be a component of the concept of internal–external impacts, it is expected that the outcome for each country may be changed.

6.2 Practical implications

Universities can play a pivotal role in creating a new generation of green entrepreneurs committed to creating a more sustainable future. The findings of this study can help universities focus on students' priorities so that they can improve course material and provide funding to encourage green businesses. Universities can create awareness campaigns to educate students about the importance of sustainability and encourage them to adopt green business practices. With the support of the incubation and acceleration facilities, universities can promote the development of green products. Universities can support research and development in green entrepreneurship. This can include funding research on sustainable business

practices, developing new technologies, and creating sustainable business models. By adopting these measures, universities can play a pivotal role in creating a new generation of green entrepreneurs committed to creating a more sustainable future.

6.3 Limitations and future research

This assessment was concerned solely with the students' ambitions to launch their own businesses after graduation. The sample included individuals al-

ready operating their firms and those who planned to do so. Second, the sample size, 494 participants, was limited; hence, future research should use a longitudinal model that considers how students manage their enterprises during college. The authors recommend extending the respondents' coverage in order to fully comprehend the students' intentions by employing contextual factors as a predictor to analyze green entrepreneurship goals. To monitor the various student behaviors, the sample should include private and public universities.

EXTENDED SUMMARY/IZVLEČEK

Študija je preučevala dejavnike, ki vplivajo na namere zelenega podjetništva med študenti. Zeleno podjetništvo se nanaša na podjetniške dejavnosti, ki dajejo prednost trajnosti in okoljski odgovornosti. Ta raziskava je preučevala motivacije in determinante, ki ženejo študente, zlasti tiste, ki opravljajo MBA, k razmišljanju o zelenem podjetništvu kot poklicni poti. Poudarja pomen odnosa, izobraževanja, okoljske ozaveščenosti in podpornih mrež pri oblikovanju prihodnosti trajnostnega podjetništva med študenti. Ugotovitve imajo praktične posledice za izobraževalne ustanove in oblikovalce politik, ki jih zanima spodbujanje zelenega podjetništva. Študija tudi poudarja, da so podpora države, subjektivne norme, nenaklonjenost tveganju in samoučinkovitost pomembni dejavniki, ki vplivajo na namero biti zeleni podjetnik, vendar po mnenju študentov nimajo velikega pomena. Sklepi študije bodo pomagali vladi, oblikovalcem politik in univerzitetnim vodjem pri ustvarjanju programov ozaveščanja, ki so posebej prilagojeni prek razvoja učnih načrtov, da bi lahko imeli močnejšo težnjo k zelenemu in trajnostnemu izobraževanju.

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EFFECT OF CUSTOMER EXPERIENCE MANAGEMENT ON LOYALTY TO AN E-COMMERCE APPLICATION

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Abstract

The study analysed the relationship between customer experience management dimensions and loyalty for e-commerce websites and mobile applications. Suggestions are made to measure, benchmark, and improve the customer experience dimensions to gain and maintain customer loyalty. In a field survey, simple random sampling was used to collect online responses from 104 well-informed, active e-commerce customers across India. Partial least squares structural equation modeling using SmartPLS software was conducted to analyze the hypothesized relationship in the framework. Among the dimensions of customer experience, the results show that effectiveness, efficiency, quality, and satisfaction positively affect customer loyalty to the e-commerce application. The positive impact of customer support on one of the determinant constructs, satisfaction was statistically significant. A practitioner may use the customer experience dimensions to holistically measure whether an e-commerce application version or customer experience design leads to better customer loyalty. The positive findings related to measurement results in terms of an intuitive graphical user interface, simplifying the process flow, data backup, using serverless cloud computing, deploying security measures, and deploying artificial intelligence chatbot and customer support should lead to the required improvement of the dimensions for better customer loyalty. The study adds to the knowledge base related to customer experience management with the associated framework.

Keywords: Customer experience measurement, E-commerce, Loyalty, Mobile application, Website

1 INTRODUCTION

The digitalization revolution in marketplaces has increased e-commerce significantly. For example, the share of e-commerce in global retail sales was 21% in 2022, and is expected to increase to 24.5% in 2025, showing a clear shift in purchase behavior. In India, the market value of e-commerce is poised to increase significantly from USD 22 billion in 2018 to USD 350 billion in 2030 (eMarketer, 2021; Statista, 2022a, 2022b).

In e-commerce, the customer has newer expectations. To date, much of the research has focused

on the effect of service quality on customer behavior. However, in the new market, customers seek a customer experience (CX) and become value co-creators (Edvardsson, 2005; Gronroos & Voima, 2013; Lusch & Vargo, 2006; Parasuraman et al., 1988; Vijayarath & Jones, 2000).

Customer experience management (CXM) is a new phenomenon in the fast-growing e-commerce industry in developing countries such as India. Research on CXM has been developing over the years (Bolton, 2018; McColl-Kennedy et al., 2019), and now encompasses digital interfaces (Ahmad et al.,

2022; Gahler et al., 2023; Gupta et al., 2023; Molinillo et al., 2022; Yang & Lee, 2022). A search of the Web of Science and Scopus databases shows a need for more scholarly research on customer experience management for e-commerce applications.

The online CX is a customer's reaction to interactions with an organization before, during, or after purchase via online channels. Online CXM may be defined as a higher-order resource of contextual mindset toward customer experience, strategic CX design instructions, and organizational competencies to repeatedly improve CX (Homburg et al., 2017; Kranzbühler et al., 2018). In the current competitive market, superior customer experience management is necessary for the commercial success of an e-commerce business. It also is gaining increasing attention in the app economy and the metaverse, in which applications deliver three-dimensional in-store experiences and social interactions (Holmlund et al., 2020). In a research survey, 76% of customer experience professionals worldwide stated that challenges persist in satisfying increased customer expectations due to improved e-commerce and logistics capabilities and in addressing digital-first self-service or omnichannel customer interactions (Verint, 2022).

CX is a subjective impression, so it is not easy to measure. However, given the importance of this characteristic, it is essential to measure it accurately. The measure can be used to gauge whether an e-commerce website or a mobile application (both are called applications) version is achieving and maintaining high customer loyalty.

CX measurement currently focuses on usability (ISO, 2018), customer satisfaction score (CSAT), or Net Promoter Score (NPS) of a e-commerce application (Zaki et al., 2021). However, many of these measures' implementations could be more holistic. These implementations do not consider the customer job roles (user, influencer, decision maker) specific to the e-commerce type context [business-to-business (B2B) or business-to-consumer (B2C)], variation in e-commerce application new features, digital-first customers, e-commerce company size, and customer support dimension (San-Martín et al., 2019; Yusof et al., 2022).

During the Covid-19 pandemic, many new businesses and users joined the e-commerce customer list. E-commerce revenue in India grew by 38.5% in 2020, and 81% of consumers acknowledged a change in their shopping habits (Statista, 2022c). CXM in the e-commerce domain has become complex in developing countries, in which customers use applications to transact business using an inconsistent infrastructure. They also must deal with the workforce and users with varied capabilities and capacities, leading to the changing and complex dynamics of CXM.

Thus, there is a gap in the literature concerning the holistic measurement of customer experience management and an updated framework of customer experience dimensions in the context of e-commerce and developing markets, deployment of recent technologies, and change in consumer behavior and loyalty expectations in the post-pandemic era.

These gaps may be filled by answering the following questions: Which CX dimensions are significant for e-commerce applications? Are they perceived to be effective in achieving the loyalty of customers? Do users with various roles (user, influencer, and decision maker) call for customizing CX design? Moreover, how can the CXM practice be improved to maintain loyalty?

The questions led to the following research objectives:

- Evaluate the effect of customer experience dimensions on loyalty to e-commerce applications.
- Suggest ways to improve the customer experience dimensions for the decision makers.

This study was motivated by the needs to address the trend of lower loyalty among Gen Z, to lower the knowledge gap in research on the CXM framework for e-commerce, and to analyze the changing requirements for CXM in the post-pandemic era.

This paper is organized as follows: The literature review explains the constructs' proposed framework and theoretical underpinnings. The method used to achieve the research objectives is detailed

in the methodology section. The data analysis section describes the inferences drawn using statistical analysis. The impact of customer experience management constructs on customer satisfaction and loyalty is analyzed in the discussion section. The conclusion section recommends improving customer experience dimensions for better loyalty specific to e-commerce applications in India.

2 LITERATURE REVIEW

CXM is an emerging practice that is gaining increased research interest. To date, public research emanates from the USA, China, and Europe. With a post-pandemic digitalization boom in developing countries, there is a need for more academic researchers to address the phenomenon in developing countries.

For illustration purposes, the search for the term “customer experience management” as a topic of scholarly articles in the Web of Science database for 2003–2023 resulted in 3,005 papers. From only 33 articles in 2003, it grew to 88 in 2010, 240 in 2020, and 318 in 2022. Relatively, the terms “customer experience management” and “website” were found in fewer articles (77) in the same period, with only one paper in 2012, 11 articles in 2021, and seven articles in 2022. Most of these articles were published in journals from the USA, China, and England; only one was published in an Indian journal. A search for the terms “customer experience management” and “mobile application” found very few (44) scholarly published articles in the academic journals covered by the Web of Science for 2003–2023. Most of these articles were published in journals from the USA, China, and Europe.

The review of scholarly journal articles in academic databases (Dimension, Scopus, and Web of Science) and Google Scholar was used to develop the theorized CXM framework for loyalty.

2.1 Constructs of Conceptual CXM Framework

Empirical research has identified loyalty as the outcome of positive CXM (Verhoef et al., 2009). In the study, the constructs (dimensions) of CX were collated from the review of scholarly articles. Six

constructs were construed as the determinants influencing loyalty in e-commerce applications (Table 1). An additional variable, user role (user/influencer/decision maker), was construed as the moderating variable. The constructs were considered, analyzed, and eventually managed in the e-commerce website and mobile applications context.

The six constructs detailed in Table 1 are inter-linked in the proposed conceptual CXM framework for loyalty to e-commerce applications (website or mobile applications) (Figure 1). After a review of several frameworks (Du & De, 2016; Johnston & Kong, 2011; Mummigatti, 2012; Newbery & Farnham, 2013), the ISO 9241 standard (ISO, 2018) was found to be suitable to extend for the appropriate framework. The ISO 9241 standard provides a framework for usability and application to situations in which people interact with interactive systems such as e-commerce applications.

2.2 Hypotheses

In Table 1, effectiveness (EFT) is the accuracy and completeness of achieving the specified goal of buying or selling using e-commerce applications. If the customer can complete the task without any error, it motivates them to reuse the application frequently (Ali et al., 2020; Tcha-Tokey et al., 2018; Yoo et al., 2023). The first null and alternative hypotheses are proposed as follows:

H01: *Effectiveness does not affect the loyalty to an e-commerce application.*

HA1: *Effectiveness affects the loyalty to an e-commerce application.*

Efficiency (EFC) is the resources used for the transaction results achieved. To build customer loyalty to an e-commerce application, the service provider should improve simplicity so that the customer easily and quickly finds the products, content, or information while saving costs on applications (Parasuraman et al., 2005; Sari, 2022; Shankar et al., 2003). The second alternative hypothesis is as follows:

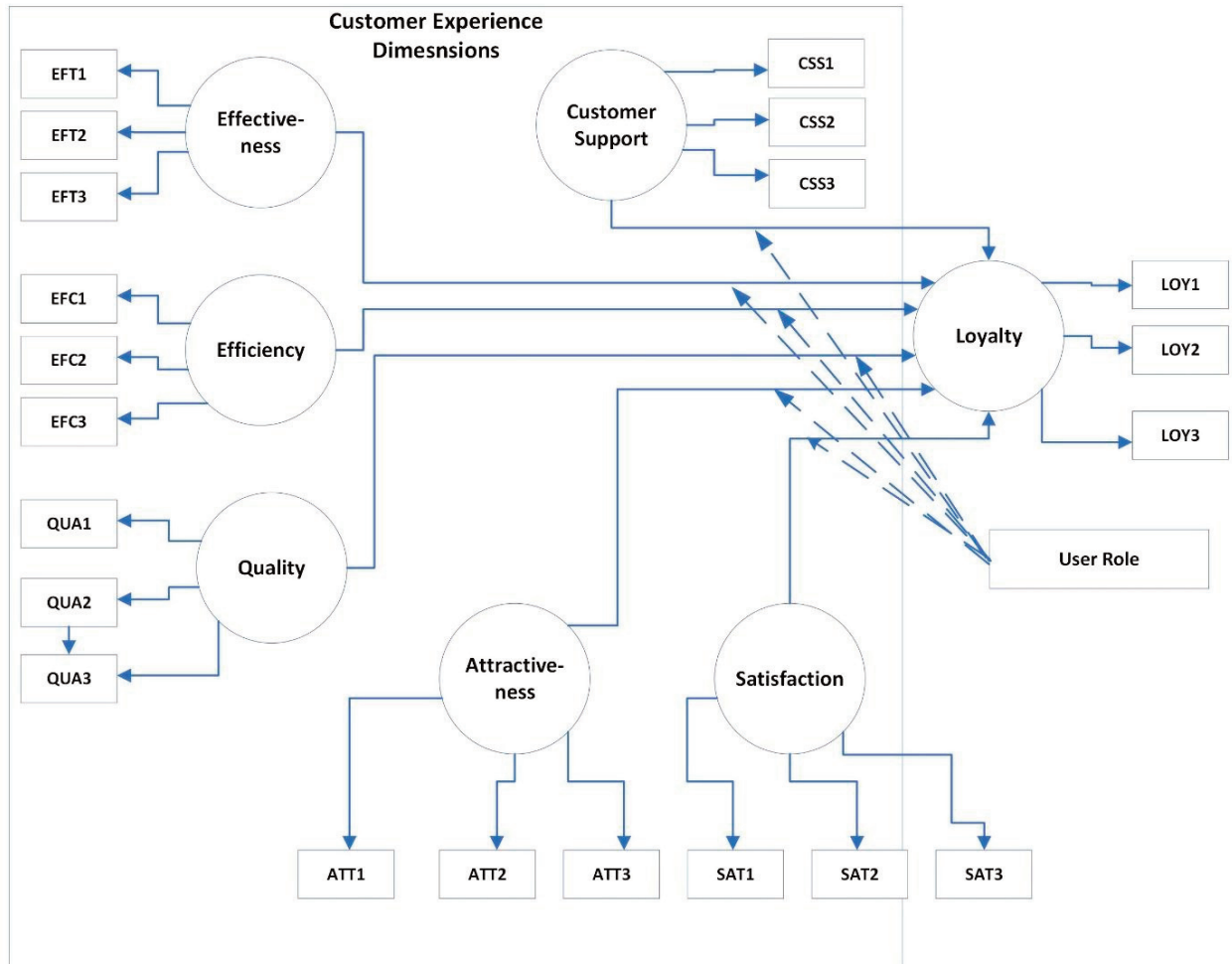
HA2: *Efficiency affects the loyalty to an e-commerce application.*

Table 1: Determinants in the proposed framework

Construct (code)	In-context definition	Microvariable (code)	Query in the questionnaire	Reference
Effectiveness (EFT)	The accuracy and completeness of achieving the specified goal of buying/selling.	Task completion (EFT1)	The transaction (buy/sell) can be successfully completed.	(Ali et al., 2020), (ISO, 2018), (Quesenberg & Theofanos, 2005), (Tcha-Tokey et al., 2018), (Yoo et al., 2023).
		Frequent use (EFT2)	Are you likely to use an application frequently?	
		Error-free (EFT3)	The transaction on the application is without any error.	
Efficiency (EFC)	The resources used concerning the transaction results achieved.	Simple to use (EFC1)	The application is simple to buy/sell.	(Ali et al., 2020), (ISO, 2018), (Quesenberg & Theofanos, 2005), (Rolland & Freeman, 2010), (Tcha-Tokey et al., 2018), (Yoo et al., 2023).
		Time improvement (EFC2)	The time taken to complete the transaction on the application is low compared to offline trade.	
		Cost improvement (EFC3)	The cost of transactions on an application is low compared to offline.	
Quality (QUA)	We are achieving the fundamental technical aspects of the application performance.	Quick to respond (QUA1)	The application can quickly load and respond.	(Al-Debei et al., 2015), (Ali, 2016), (Gregg & Walczak, 2010), (Huang et al., 2020), (Król & Zdonek, 2020).
		Easy to navigate (QUA2)	The application interface is easy to navigate.	
		Secure (QUA3)	I trust the transaction security through the application.	
Attractiveness (ATT)	How pleasant, attractive, or engaging is the application interface?	Engaging (ATT1)	I find the application engaging	(Green & Pearson, 2006), (Quesenberg & Theofanos, 2005), (Schrepp et al., 2017), (Yusof et al., 2022).
		Enjoyable (ATT2)	The application is enjoyable.	
		Exciting (ATT3)	I find the application exciting.	
Customer Support (CSS)	To help customers queries about use, transaction, or experiences during the pre-to-post-use cycle.	Availability (CSS1)	I am happy with the availability/responsiveness of the customer support/relationship officer.	(Aranyi & Van Schaik, 2016), (Chou & Cheng, 2012), (Huang et al., 2020), (Król & Zdonek, 2020), (Liu et al., 2013), (Rolland & Freeman, 2010), (Tarasewich & Warkentin, 2000).
		Timeliness (CSS2)	I am happy with the timeliness of issue resolution by the customer support/relationship officer.	
		Reviews (CSS3)	I may write a positive review about the application.	
Satisfaction (SAT)	The extent to which the customers physical, cognitive, and emotional responses result from using the application to meet their needs and expectations.	Comfortable (SAT1)	It is comfortable to use the application.	(Ali et al., 2020), (Chi, 2018), (ISO, 2018), (Liu et al., 2013), (Tcha-Tokey et al., 2018).
		Satisfied (SAT2)	I am satisfied with the application.	
		Delight (SAT3)	I am delighted with the application.	
Loyalty(LOY)	The extent to which the buyer/seller is loyal to the application.	Refer (LOY1)	I refer the application to other buyers/sellers or your friends.	(Ali et al., 2010), (Baek & Yoo, 2018), (Du & De, 2016), (Girija & Sharma, 2020), (Król & Zdonek, 2020) (Yusof et al., 2022)
		Recommend (LOY2)	I recommend the application to friends or other buyers/sellers.	
		Revisit (LOY3)	My chances of revisiting the application are high.	

Source: Authors' compilation

Figure 1: Proposed conceptual CXM framework for loyalty



Notes. EFT1 = task completion, EFT2 = frequent use, EFT3 = error-free, EFC1 = simple to use, EFC2 = time improvement, EFC3 = cost improvement, QUA1 = quick to respond, QUA2 = easy to navigate, QUA3 = secure, ATT1 = engaging, ATT2 = enjoyable, ATT3 = exciting, CSS1 = availability, CSS2 = timeliness, CSS3 = Reviews, SAT1 = comfortable, SAT2 = satisfied, SAT3 = delight, LOY1 = refer, LOY2 = recommend, LOY3 = revisit.

Source: Authors compilation.

The Quality dimension significantly affects customer loyalty in terms of reusing or revisiting the e-commerce application (Puriwat & Tripopsakul, 2017; Simanjuntak et al., 2023; Sundaram et al., 2017). The third alternative hypothesis is proposed as follows:

HA3: Quality affects the loyalty to an e-commerce application.

The attractiveness (ATT) dimension is defined as how pleasant, attractive, or engaging the application interface is in the study context. If an individual cus-

tomers finds the user interface engaging, exciting, and enjoyable, they will reuse the application repeatedly (Li et al., 2023; Schrepp et al., 2017; Yusof et al., 2022). The fourth alternative hypothesis is proposed as follows:

HA4: Attractiveness affects the loyalty to an e-commerce application.

Customer support (CSS) involves helping customers with queries about use, transaction, or experiences during the pre-to-post-use cycle. Customer support affects loyalty to an e-commerce application

(Aranyi & Van Schaik, 2016; Huang et al., 2020; Król & Zdonek, 2020; Nandakar et al., 2023). Customers become disappointed if there is no customer support or timely resolution to their grievances, leading to negative feedback. The fifth alternative hypothesis is:

HA5: *Customer support affects the loyalty to an e-commerce application.*

The Satisfaction dimension affects customer loyalty. If a customer is satisfied with a specific e-commerce application experience, the customer will make another purchase as and when required, spread positive feedback about the product or service, and become loyal (with repetitive purchases) over a period (Dhingra et al., 2020; Hossain et al., 2018; Hsu et al. 2023). The sixth alternative hypothesis is proposed as follows:

HA6: *Satisfaction affects the loyalty to an e-commerce application.*

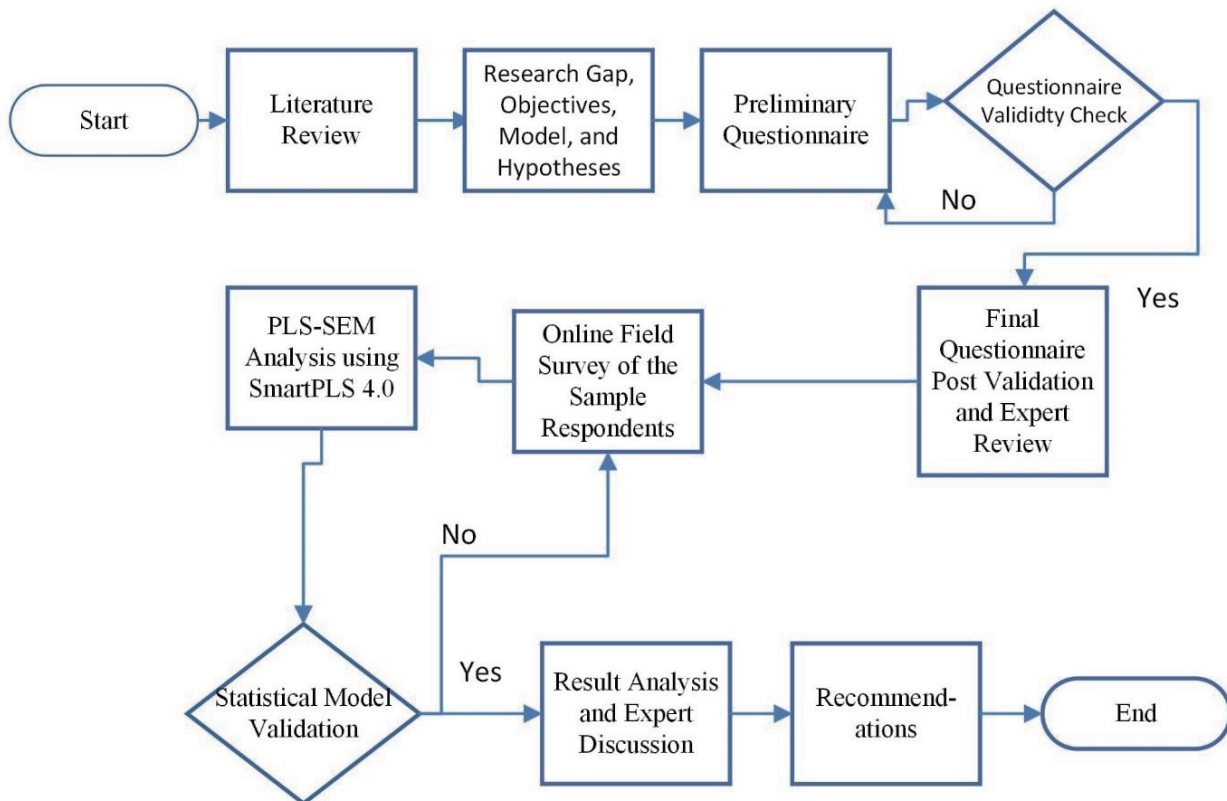
3 METHODOLOGY

The method-design approach (Offermann et al., 2010) was used to validate the CXM framework for e-commerce applications. The methodology is depicted in Figure 2.

After the review of the scholarly journal articles and reports for the development of a conceptual framework, the partial least squares structural equation modeling (PLS-SEM) statistical technique (Sarstedt et al., 2021) was used to validate the proposed conceptual framework numerically, and the constructs (dimensions) of customer experience affecting the loyalty construct.

Using a review of peer-reviewed scholarly articles, a structured questionnaire was created. Two experts reviewed the language and content of the draft questionnaire. The questions were modified to fit the context of the study. The final questionnaire had 16 items on a 7-point Likert scale, where 1 indi-

Figure 2: Research methodology



Source: Authors' analysis.

cated strongly disagree and 7 indicated strongly agree. Based on a pilot study with 30 respondents, the questionnaire's internal consistency and context-specific adjustments were validated.

The primary data were gathered from a field survey of 104 respondents. The sampling unit was a user of a popular e-commerce application in India. The respondents were selected randomly from the sampling frame (a database in MS Excel format) of e-commerce users maintained by three educational institutes. Because all customers in the database had an equal chance of being chosen, bias was eliminated.

In 2022, the survey was conducted online for 3 months (August–October). Of 110 questionnaire responses collected, 104 were complete and considered for further analysis. Among respondents, 81% used an e-commerce website for buying, 2% used one only for selling, and 17% used an e-commerce website for both buying and selling. Among the respondents, 46% were decision-makers, 5% were influencers, and the remaining 49% were users. These respondents were a homogenous group of e-commerce users. For the respondent group, a sample size of 100 is considered to be sufficient (Hair et al., 2021). Of the respondents, 28% represented business-to-business (B2B) and 72% represented business-to-consumer (B2C) e-commerce types. Among these respondents, mobile applications were the preferred mode of access (72%), followed by websites (28%). The age groups represented were Baby Boomers (1946–1964) = 8%, Gen X (1965–1980) = 12%, Millennials (1981–1996) = 32%, and Gen Z (1997–2012) = 48%.

The data were coded in Microsoft Excel and imported into PLS-SEM analysis software SmartPLS 4.0. The observed independent variables were normally distributed. There were no missing values or outliers in the data. For three reasons, PLS-SEM was preferred for data analysis over covariance-based structural equation modeling (CB-SEM) (Hair et al., 2021). First, the exploratory study's goal was to identify vital influencing constructs. Second, the sample data were limited to 104 respondents, 17 responses fewer than the 130 required to meet the rule of thumb that responses should be 10 times the number of observed variables (i.e., 13). Third, three latent constructs were linked to fewer than three observed variables.

4 DATA ANALYSIS

The proposed framework's statistical (PLS-SEM) analysis is divided into two steps: measurement model validation, and structural model validation.

4.1 Measurement Model Validation

PLS-SEM best practices were used to evaluate the measurement model. All the observed variables had item loadings greater than 0.7, implying a significant contribution to the assigned construct. Items EFT2, EFT3, EFC2, EFC3, and QUA3 were deleted because their loadings were less than 0.7. The model offers adequate construct reliability. The internal consistency reliability was determined to be good because all the composite reliability (CR) values were between 0.80 and 1.00. Cronbach's alpha values were greater than 0.70, indicating good internal consistency reliability. Average variance extracted (AVE) values validate convergent validity. All the AVE values were greater than 0.65; thus, convergent validity is established (Hair et al., 2019). Table 2 presents the reliability and validity assessment values.

The Fornell–Larcker (FL) criterion and the heterotrait–monotrait (HTMT) criterion are used to ascertain discriminant validity (Henseler et al., 2015). The FL criterion is fulfilled when the AVE of each construct exceeds the squared interconstruct correlation of that construct and all other reflectively measured constructs. The HTMT criteria also were satisfied, because the calculated values were less than 0.9, indicating sufficient discriminant validity values (Table 3).

4.2 Structural Model Validation

There are no circular feedback loops in the recursive model of the framework. The structural model (Figure 3) demonstrates the relation of the constructs of the research framework. Path coefficients (β), p -values, and t -statistics are used to test the relationships.

The majority of variance inflation factor (VIF) values were less than 3, and are all less than 4. As a result, collinearity between determinant constructs

Table 2: Reliability and validity assessment

Construct (code)	Microvariable (code)	Item loading	Mean value	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted
Effectiveness (EFT)	Task completion (EFT1)	1.00	6	N/A	N/A	N/A	N/A
Efficiency (EFC)	Simple to use (EFC1)	1.00	6.14	N/A	NA	NA	NA
Quality (QUA)	Quick to respond (QUA1)	0.91	5.79	0.80	0.86	0.90	0.86
	Easy to navigate (QUA2)	0.94					
Attractiveness (ATT)	Engaging (ATT1)	0.88	5.50	0.80	0.89	0.90	0.79
	Enjoyable (ATT2)	0.88					
	Exciting (ATT3)	0.90					
Customer Support (CSS)	Availability (CSS1)	0.86	5.25	0.80	0.80	0.80	0.72
	Timeliness (CSS2)	0.89					
	Reviews (CSS3)	0.79					
Satisfaction (SAT)	Comfortable (SAT1)	0.93	5.93	0.90	0.90	0.90	0.87
	Satisfied (SAT2)	0.94					
	Delight (SAT3)	0.93					
Loyalty (LOY)	Refer (LOY1)	0.74	5.44	0.70	0.82	0.80	0.65
	Recommend (LOY2)	0.85					
	Revisit (LOY3)	0.82					

Table 3: Discriminant validity

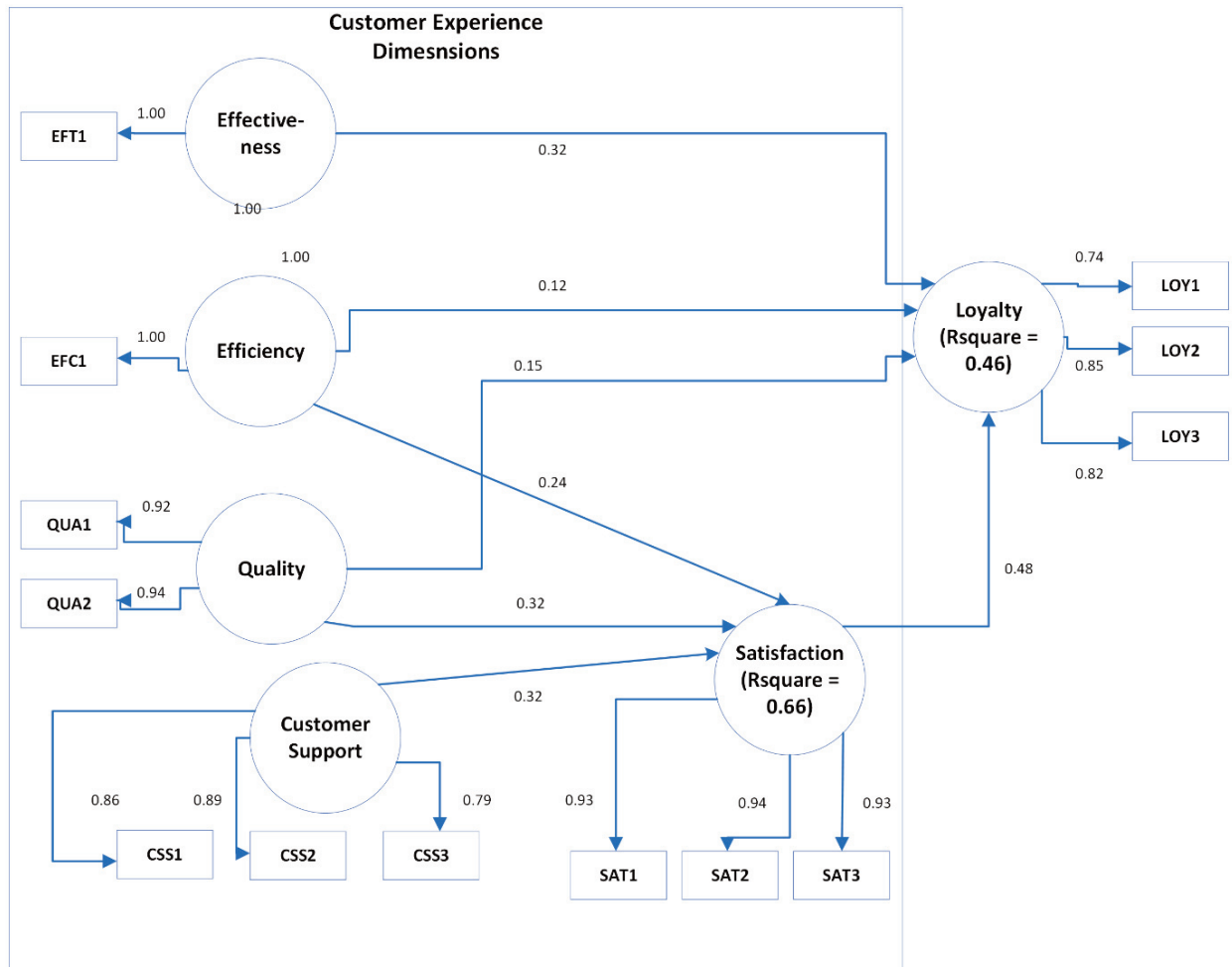
Heterotrait–monotrait criterion								Fornell–Larcker criterion						
	ATT	CSS	EFF	EFT	LOY	QUA	SAT	ATT	CSS	EFF	EFT	LOY	QUA	SAT
ATT								0.89						
CSS	0.66							0.56	0.85					
EFF	0.59	0.46						0.57	0.41	1.00				
EFT	0.39	0.24	0.37					0.36	0.23	0.37	1.00			
LOY	0.66	0.62	0.47	0.57				0.53	0.52	0.46	0.52	0.81		
QUA	0.73	0.70	0.71	0.39	0.48			0.66	0.58	0.65	0.36	0.44	0.93	
SAT	0.68	0.75	0.66	0.42	0.64	0.81		0.63	0.66	0.64	0.40	0.61	0.72	0.94

did not bias the results. The coefficient of determination (R^2) value was 0.46 for the primary dependent construct, loyalty. A value of 0.46 is considered to be moderate in behavioral sciences research. The R^2 for the second dependent variable, satisfaction (SAT), was 0.66, which is significant. The structural model has a moderate explanatory power in-sample

(Hair et al., 2011). Table 4 presents the frameworks' structural model's R^2 value and PLS-SEM fit indices.

The standardized root-mean-square residual (SRMR) value was 0.09, and the non-fuzzy index (NFI) value was 0.70. The model for the adoption framework is a reasonable fit because the SRMR value was less than 0.1, and the NFI was close to 1 (Ringle, 2016).

Figure 3: Structural model of CXM framework for loyalty



Notes. EFT1 = task completion, EFC1 = simple to use, EFC2 = time improvement, EFC3 = cost improvement, QUA1 = quick to respond, QUA2 = easy to navigate, CSS1 = availability, CSS2 = timeliness, CSS3 = reviews, SAT1 = Comfortable, SAT2 = satisfied, SAT3 = delight, LOY1 = refer, LOY2 = recommend, LOY3 = revisit

Source: Authors analysis.

Table 4: PLS-SEM fit indices

Model element	Value
R ² for loyalty (LOY)	0.46
R ² for satisfaction (SAT)	0.66
SRMR	0.09
NFI	0.7

Table 5 presents the PLS-SEM results for the structural model of the CXM framework for loyalty (Fig. 3). For significance (p -values < 0.05 and t -

values > 1.96), all but two hypotheses (H_{A4} and H_{A5}) are supported. The path coefficients also are given in Table 5.

Satisfaction has a moderate effect on loyalty. Effectiveness also has a moderate impact on loyalty. Customer support has a moderate effect on satisfaction, because the size effect (f^2) value was more than 0.15 but less than 0.35. The other two constructs (efficiency and quality) have a small effect on satisfaction, because the f^2 effect size was less than 0.15. The Q^2 value was more than zero. These parameters indicate the model's predictive adequacy (Hair et al., 2019).

Table 5: Structural results

Hypotheses	Notation	Path coefficient	t-value	p-value	Remark
H _{A1} : Effectiveness affects the loyalty to an e-commerce application.	EFT → LOY	0.33	3.45	0.00	Supported*
H _{A2} : Efficiency affects the loyalty to an e-commerce application.	EFC → LOY	0.12	2.15	0.03	Supported*
H _{A3} : Quality affects the loyalty to an e-commerce application.	QUA → LOY	0.15	2.48	0.01	Supported*
H _{A4} : Attractiveness affects the Loyalty to an e-commerce application.	ATT → LOY	0.05	1.05	0.29	Not Supported
H _{A5} : Customer support affects the loyalty to an e-commerce application.	CSS → LOY	0.15	1.81	0.07	Not Supported
H _{A6} : Satisfaction affects the loyalty to an e-commerce application.	SAT → LOY	0.48	4.68	0.00	Supported*

*Significant (p-values < 0.05, and t-values > 1.96).

The satisfaction construct partially mediates the relationship between the constructs efficiency and loyalty and constructs quality and loyalty. For the other construct, customer support, the effect passes through satisfaction, and there is complete mediation.

5 DISCUSSION

The CXM framework for loyalty was examined using a multistage analysis and was found to be suitable.

5.1 Observations Regarding the Framework

The uniqueness of the study is due to the different manifestation of the construct in the e-commerce sector compared to the other industry groups for the respondents in the sample. The CXM framework for loyalty is distinct for the e-commerce sector. CX in e-commerce is characterized by an online environment with inconsistent digital infrastructure, web presence substituting for physical elements, variation in customer role (user, influencer, or purchase decision maker), varying levels of digital literacy, and user proficiency in e-commerce technologies.

The validated adoption framework fills the knowledge base gap by defining CX dimensions and constructs for loyalty to e-commerce applications in

India, adding two new constructs (quality and customer support) to the current constructs of usability measurements (ISO 2018), and calculating the strength of relationships between constructs.

The model accounts for 46% of the variance for the primary dependent variable loyalty and 66% for the second dependent variable, satisfaction. More cross-sectional studies based on the framework of this study may be conducted with a larger cross-country sample size to validate the framework further.

5.2 Customer Experience Measurement

For a quick interpretation, on a scale of 1 to 7 in the survey questionnaire, a mean value of 4 for a construct represents neutral (Table 2). A score above 4 indicates a positive evaluation of the CX construct (dimension). The survey sample for CX measurement for new pre-launch applications is about 20 or fewer respondents in 65% of cases (Martin et al., 2017). In such cases, for a new website or a mobile application, a dimension's mean score should be greater than 4, and the same as or higher than the mean values reported in Table 2. Because the websites analyzed in this study were B2B and B2C market leaders in India, the mean score of individual dimensions was at least 5.25, with an overall 5.72 mean of means.

For better insight, it is even better if the mean value of dimensions is better than the score of the nearest competitors in the market. In the case of repetitive evaluation (A/B testing), a *t*-test comparing the sample means may be used to see if Version A is better than Version B. If more-extensive sample data are collected, because the framework proposed in the study has predictive capacity, the customer survey data can be fed into the PLS-SEM model of the framework to determine if an application version is leading to higher loyalty than that of competitors (in the case of a new website or mobile application) or to higher loyalty than its previous version (in the case of repetitive evaluation of same website or mobile application).

5.3 Implications of the Findings

The PLS-SEM analysis results show an effect of CX dimensions on loyalty for e-commerce applications. The statistical results indicate that effectiveness, efficiency, quality, and satisfaction positively affect customer loyalty.

Satisfaction partially mediates between effectiveness, efficiency, quality, and quality, whereas its mediation is complete mediation between customer support and loyalty. This study contributes to the existing literature and knowledge base by theorizing and evaluating the CXM framework for loyalty in the context of e-commerce applications.

Because many customers have a busy schedule, they have elevated expectations from e-commerce applications in terms of ease of use, timely completion of tasks, and easy navigation. If apps are not user-friendly, using takes a great deal of time, wasting customers' time and frustrating potential customers. Therefore, the service provider needs to ensure the speed and ease of use of services for their users (Csikszentmihalyi, 1990). Similarly, in the current app economy, service providers may consider all the significant dimensions of CXM to enhance loyalty. This study helps service providers to gain better insight into customers' opinions concerning important CX dimensions.

For the effectiveness dimensions, one dimension (task completion) was considered for construct representation based on factor loading, and the

other two dimensions (frequent use and error free) were dropped in the study context. The hypothesis that there is a positive relationship between effectiveness and loyalty is accepted. Service providers should provide easy task completion by incorporating redundancy and scaling in applications through cloud computing.

This study shows that efficiency significantly affects loyalty in the case of the second accepted hypothesis test (Table 5). The crucial parameter that improves the efficiency of CXM is simplicity through an intuitive graphical interface. The dimension is relevant even in the metaverse, where the user uses multiple technologies (artificial intelligence, virtual reality, augmented reality, and image recognition and manipulation) and functionalities to shop in the metaverse marketplace.

The result of the third hypothesis test (Table 5) shows that quality significantly affects customer loyalty regarding reusing the e-commerce application. Because 80% of the respondents in this research were Generation Z or Millennials, quality was one of the significant factors that induced them to revisit and not switch to another application. Therefore, e-commerce service providers should ensure high technical quality; applications should be search-engine-optimized (SEO), quick to load, quick to respond, and easy to navigate to engage the customer for a longer period.

The hypothesis that customer support affects the loyalty to an e-commerce application is not supported directly, but satisfaction is a mediator between customer support and loyalty. This means that customer support leads to customer satisfaction, which eventually influences loyalty. Therefore, real-time chatbots and timely action to resolve customer issues and help them when required are vital for application service providers to keep customers satisfied and loyal.

The sixth hypothesis (Table 5) is accepted, because customer satisfaction significantly affects customer loyalty. A satisfied customer is a happy customer who always wants to build a long-term association with a brand or service provider. The results of this research agree with the results of the empirical studies (Chinomona et al., 2014; Saeedeh, 2016; Puriwat & Tripopsakul, 2017).

The critical insight from this research paper is that the degree to which online CXM is persuasive can be defined, measured, and related well to customer loyalty. The constructs in the validated framework (Figure 2) relate in significant ways to loyalty. As per expert suggestions (Edelman & Abraham, 2022), a practical CX evaluation should lead to the proper design of an application, functional alignment via cross-functional working groups, initiatives for improvement of framework dimensions (constructs) via activities and processes linked to the observed variables, continuous monitoring, and training of employees regarding essential variables of the dimensions (the observed variables). It should lead to better customer interaction, resulting in better loyalty (Duncan et al., 2016).

The business gains open-ended customer feedback in the omnichannel environment. Such qualitative data are gathered from customers through open-ended comments in surveys or social media. Artificial intelligence (AI) is a recent technology that analyzes qualitative and quantitative data in real time, gauging the CX and predicting customer spending and loyalty. Artificial intelligence increasingly is deployed to improve online CX, train CX executives, and prioritize relative actions (Edelman & Abraham, 2022).

AI technology proactively adds intelligence to CX delivery. If applications offer customization to make the potential customer comfortable, use a recommendation algorithm to customize offers and discounts, or celebrate or thank customers on occasion to delight them, it will add to the long-term relationship. The AI use-case scenario for experience customization is particularly applicable in the metaverse, where different digital personas interact with shopping in the metaverse marketplace.

Online customers want to deal with e-commerce applications that can be trusted to complete the task, are simple, respond quickly to their requests, and are reliable in providing services. Thus, e-commerce application businesses, while using the latest technology, still may focus on essential dimensions to build customer loyalty rather than spreading resources widely. The focus on the CX dimension also helps create a competitive advantage.

6 CONCLUSION

The study adds to the CXM knowledge base by validating a CXM framework for customer loyalty in e-commerce, developing countries, and across varied user roles and age groups. The framework will help practitioners to design and measure the customer experience dimensions for contemporary e-commerce applications. Among the constructs of CX, results show that the application effectiveness, efficiency, quality, and satisfaction positively affect customer loyalty to the e-commerce application. The effect of construct attractiveness on customer loyalty was not statistically significant. The positive impact of customer support on one of the determinant constructs of loyalty, i.e., satisfaction, was statistically significant. The determinant constructs (dimensions) must be promoted to deliver a holistic CXM leading to higher customer loyalty. Job role affects the relationship between CX dimensions and loyalty (although it was statistically non-significant), because the positive effect of dimensions on loyalty is more important for decision-makers than for users.

A practitioner may use the measures for CX dimensions suggested in this paper to gauge whether an e-commerce application version or CX design leads to better customer loyalty. The measurement may lead to a change in the customer experience implementation, if required. The study interpreted the measurement results without previous benchmarks or results of earlier evaluations. The dimensions suggested in the CXM framework for customer loyalty may be improved through a better graphical user interface, simplicity of application design, using cloud computing functionalities, improving security, and providing customer support to better understand application interactions with users, pre-empt problems in customers' journeys, and build loyalty.

The CXM-led changes to build and sustain loyalty may require enterprises to acquire technology and skills in real-time data collection, data warehousing, big data analytics, customer analytics and forecasting, artificial intelligence, virtual or extended reality, business process management, leadership support, and organisational structure alignment to the end-to-end customer processes.

EXTENDED SUMMARY/IZVLEČEK

Študija je analizirala razmerje med dimenzijami ravnanja z uporabniško izkušnjo in zvestobo spletnim e-trgovinam in mobilnim aplikacijam. Predlagano in ovrednoteno je bilo ogrodje za ravnanje z uporabniško izkušnjo za aplikacije e-trgovine. Predlagani so tudi predlogi za merjenje, primerjavo in izboljšanje dimenzij uporabniške izkušnje za pridobitev in ohranjanje zvestobe strank. V terenski raziskavi je bilo uporabljeno preprosto naključno vzorčenje za zbiranje spletnih odgovorov od 104 dobro obveščenih in aktivnih strank e-trgovine po vsej Indiji. Analiza hipotez je vključevala delno modeliranje strukturne enačbe najmanjših kvadratov z uporabo programske opreme SmartPLS. Med dimenzijami uporabniške izkušnje rezultati kažejo, da učinkovitost, zmožljivost, kakovost in zadovoljstvo pozitivno vplivajo na zvestobo strank aplikaciji za e-trgovino, medtem ko učinek dimenzij privlačnost in podpora strankam na zvestobo strank ni bil statistično značilen. Pozitiven vpliv podpore strankam na enega od determinantnih konstrukтов, zadovoljstvo, je bil statistično značilen. Strokovnjaki lahko uporabijo dimenzije uporabniške izkušnje za celovito merjenje ali različica aplikacije za e-trgovino ali zasnova uporabniške izkušnje vodi k večji zvestobi strank. Pozitivni ukrepi v smislu intuitivnega grafičnega uporabniškega vmesnika, poenostavitve toka procesa, varnostnega kopiranja podatkov, uporabe brezstrežniškega računalništva v oblaku, uvajanja varnostnih ukrepov in uvajanja chatbota umetne inteligence ter podpore strankam bi morali voditi k zahtevanemu izboljšanju dimenzij za večjo zvestobo strank. Ta študija dopolnjuje bazo znanja, povezano z upravljanjem uporabniške izkušnje s pripadajočim ogrođjem. Podani so predlogi glede izboljšanja tehnologije, veščin, procesov in osredotočenosti na upravljanje organizacij, vključno z uporabo tehnologij umetne inteligence za zagotavljanje sodobnega ravnanja z uporabniškimi izkušnjami v e-trgovini.

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SUSTAINABLE CONSUMPTION: A BIBLIOMETRIC STUDY

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Abstract

This paper presents a quantitative investigation of academic research on sustainable consumption using a bibliometric approach. This study extracted 671 articles published between 1984 and 2021 in the sustainable consumption field from the Scopus database. Three different bibliometric techniques were applied—citation analysis, bibliographic coupling, and co-occurrence of keywords—to identify the trends in the publication of and major contributors in terms of influential articles, authors, countries, journals, emerging themes, and main keywords in the sustainable consumption literature. Citation analysis identified the most influential article to be “Promoting sustainable consumption: Determinants of green purchases by Swiss consumers” (Tanner & Kast, 2003) that developed the conceptual framework of sustainable consumption, with 518 citations. Bibliographic coupling extracted six clusters that show the emerging themes associated with the sustainable consumption field, such as drivers of green consumption behavior, country-wise differences in sustainable consumption, marketing and consumption, antecedents of sustainable consumption, barriers to adopting sustainable consumption, and sustainability in fashion consumption. The sustainable consumption research field has grown significantly since 2016, and this study identified seven clusters. The clusters provide emerging keywords such as environmental awareness, environmental knowledge, frugality, green product, ethics, sustainable fashion, and sustainable marketing. The most common keyword is sustainable consumption. The study concludes by discussing avenues for future research.

Keywords: Sustainable consumption, Bibliometric analysis, VOSviewer, Citation analysis, Bibliographic coupling, Co-occurrence of author keywords

1 INTRODUCTION

Sustainable consumption is a recognized field of research that has received significant recognition from researchers in recent years (Liu et al., 2017). The term sustainable consumption was coined at the Oslo symposium in 1994, and is defined as “the use of goods and services that respond to basic needs and bring a better quality of life, while minimizing the use of natural resources, toxic materials and emissions of

waste and pollutants over the life cycle, so as not to jeopardize the needs of future generations” (UNEP, 2010). In addition to purchasing green goods, sustainable consumption encompasses using and disposing of products and avoiding consumption altogether (Orellano et al., 2020). Hence, sustainable consumption ensures that present and future generations will have access to basic needs and a better quality of life (Haider et al., 2022). Most of the existing environmental issues, such as global warming and pollution,

are caused by non-sustainable consumption, which leads to the exhaustion of natural resources that ultimately will affect future generations (Trudel, 2019).

Several terms related to sustainable consumption appear frequently in the literature, including socially responsible consumption (Antil, 1984), ecologically concerned consumption (Henion & Wilson, 1976), and responsible consumption (Fisk, 1973). Previous work focused on factors influencing sustainable consumption on different levels, such as consumer motivations (Rezvani et al., 2018), happiness and well-being (Guillen-Royo, 2019), altruism (Costa Pinto et al., 2019), personal norms, concern and ethical ideologies (Žabkar & Hosta, 2021). There have been fewer studies of the evolution of sustainable consumption. Past studies used bibliometric techniques such as citation analysis, co-word analysis, and co-authorship and network analysis to trace the themes, subthemes and networks of the sustainable consumption literature (Hasbullah, 2021; Liu et al., 2017).

The knowledge of sustainable consumption still is in its infancy, and many aspects must be explored to comprehend this domain fully. Therefore, a comprehensive review of the literature is needed to summarize the ongoing developments and progress of the concept of sustainable consumption to date. In contrast to previous studies, this study conducted a more detailed bibliometric analysis to fill this gap in sustainable consumption research through performance analysis and science mapping. Three different bibliometric techniques were applied—citation analysis, bibliographic coupling, and co-occurrence of keywords—to identify the trends in the publication of and major contributors in terms of influential articles, authors, countries, journals, and main keywords in sustainable consumption literature. Bibliographic coupling is an essential technique in bibliometric analysis that focuses on identifying emerging themes. This research is broader in scope and answers the following research questions about sustainable consumption:

- How has the field of sustainable consumption evolved over the period between 1984 and 2021? What are the research trends in the field? Who are the most influential articles, journals, authors, and countries that have significantly contributed to this research?

- Which documents are closely connected in this field of research? What are the emerging themes associated with the sustainable consumption field?
- Which are the most prominent and emerging keywords associated with the sustainable consumption field?

This study contributes to the understanding of the sustainable consumption field in the Business, Management, and Accounting discipline in terms of most cited articles, journals, countries, and authors, along with the publication trend in this field. Most importantly, this study provides a comprehensive and detailed review of sustainable consumption literature. In this study, emerging themes in this research field were identified through the bibliographic coupling technique, contributing to the theory of sustainable consumption.

2 BIBLIOMETRIC ANALYSIS AND METHODOLOGICAL PROCEDURES

Bibliometrics has been defined as “the application of mathematics and statistical methods to books and other media of communication” (Pritchard, 1969). It is a widely accepted field of study, especially in the discipline of management and organization (Zupic & Čater, 2015). This methodology provides a more accurate interpretation of a database as quantitative rather than qualitative (Baker et al., 2020). Bibliometrics has two approaches: performance analysis, and science mapping or graphic mapping of science (Noyonns et al., 1999). Performance analysis evaluates the publication performance of articles, countries, journals, and authors. In this study, performance analysis used popular indicators considering the number of citations and publications (Yu & Shi, 2015). The first technique applied was citation analysis, which evaluates the different aspects of a research domain, such as influential journals, articles, authors, and countries, to analyze the most cited studies.

Science mapping offers insights into the structure and connections of a scientific field (Zupic & Čater, 2015). Bibliographic coupling and co-occurrence of author keywords analysis are applied to examine the articles on sustainable consumption. Bibliographic coupling measures the commonality

in the reference lists of two documents. Co-occurrence of author keywords analysis studies the frequency of the co-occurrence keywords in documents to establish a conceptual relationship between them. Concepts in the papers are said to be co-related if the keywords frequently co-occur in these documents.

2.1 Research Method

This study extracted data from the Scopus database because it has more-comprehensive coverage of social sciences publications than the Web of Science (WOS) (Mongeon & Paul-Hus, 2016). Although the Web of Science traditionally is a widely used citation database, Scopus is a worthy substitute for WOS in the social sciences (Adriaanse & Rensleigh, 2013). Research fields and journals covered by Scopus exceed 60% of those in the Institute for Scientific Information database (Zhao & Strotmann, 2015).

2.1.1 Identification and Screening of Articles

The search process was performed in April 2021 using the following keywords in the title/abstract/keyword field: “sustainable consumption” OR “green consumption” OR “eco-friendly consumption” OR “environmentally responsible consumption” OR “responsible consumption” OR “environmentally friendly consumption” OR “environmental-friendly consumption.” The period of the search included publications between 1984 and 2021. Keywords and periods were selected based on the recommendations of two subject matter experts. Restrictions on the subject area of Business, Management, and Accounting were imposed. The study considered articles published only in journals. Conference papers, unpublished working papers, letters, reviews and book chapters were excluded from this study because academicians and practitioners refer to journals to gather new information and findings (Ngai, 2005). Generally, the information cited in conference papers and book chapters is obtained only from journals (Saha et al., 2020). This study considered only articles published in English, because the authors have competency in the language.

2.1.2 Selection of Articles

After the aforementioned restrictions, the search process resulted in 927 articles. Of these, 255 documents were excluded because their titles, keywords, and abstracts did not address the topic under consideration. Finally, 671 articles were selected for analysis to address the proposed research questions. After completing the reading process, the bibliometric methodology was used to measure, analyze, and summarize the extant literature on sustainable consumption.

This study used VOSviewer (Van Eck & Waltman, 2010). It is an essential tool for conducting bibliometric analysis to represent and visualize the networks within a selected field of study using various indicators. It helps construct bibliometric maps of moderately large numbers (generally at least 100) of items (Van Eck & Waltman, 2010). It generates output consisting of a network of clusters represented by different colors.

3 RESULTS

3.1 Performance Analysis

Figure 1 shows the trend in the number of publications on sustainable consumption between 1984 and 2021. Publication in the 1980s amounted to only one or none per year. The term “sustainability” was explained in the context of corporate social responsibility between 1980 and mid-1990. In 1992, at the United Nations Conference on Environment and Development, it was realized that unsustainable consumption is a significant cause of increased pollution and environmental deterioration (Quoquab & Mohammad, 2020), which attracted the attention of researchers in this field. Consumers were interested in sustainable goods, and believed in protecting the environment through consumption choices (Roberts, 1995). Over the last decade, publications substantially increased, especially between 2016 and 2021, when 418 papers were published, representing 62.30% of the total volume. There are several reasons for this growth. First, in the last decade consumers and researchers realized the need for long-lasting, sustainable goods (McMeekin & Rothman, 2012). Second, many organizations were producing environment-friendly products, and consumers were willing

to buy products that caused less or no environmental harm. Finally, due to the increasing awareness, researchers started to focus increasing attention on this emerging field, and the number of publications thus increased remarkable (Joshi & Rahman, 2015).

One of the indicators used to highlight the most influential research field is the number of citations a publication has received. Figure 2 presents the data summarized according to the total number of citations. A total of 347 citations attributed to only two papers published in 1988 is noticeable. These two studies contributed greatly to this area of environment and sustainability. One study highlighted the environmental effects of the production and consumption of plastics, and suggested areas of improvement in sustainable plastics (Mulder, 1998). The other study focused on Patagonia’s contribution to environmental pollution, and suggested active participation in protecting and restoring the environment (McSpirit, 1998).

The most citations were generated in 2014—2,550, in 38 publications—as consumers and researchers sought to protect the environment and ensure that future generations were taken care of (Sun & Ko, 2016). Table 1 summarizes the number of citations per paper in the data accumulated from the Scopus database in the field of sustainable consumption. Three papers were cited more than 500 times, and 472 papers (70.33%) were cited at least 25 times.

Table 1: General citation structure in Scopus

Number of citations	Number of papers	Percentage of papers (%)
≥500	3	0.44
≥250	11	1.64
≥100	62	9.24
≥50	135	20.12
≥25	261	38.89
≤25	199	29.66
Total	671	

3.1.1 Most Influential Articles

Table 2 presents the 10 most cited documents in sustainable consumption research; each has been cited least 100 times. The articles are presented in descending order and ranked in the total number of citations received. Notably, the most influential article is “Promoting sustainable consumption: Determinants of green purchases by Swiss consumers” (Tanner & Kast, 2003), with 518 citations that developed the conceptual framework of sustainable consumption. It explored the influence of personal and contextual factors on green purchases by Swiss consumers. The next most cited article is “Green consumption or sustainable lifestyles? Identifying the sustainable consumer” (Gilg et al., 2005), with 418 citations that examined the holistic concept of sus-

Figure 1: Number of publications per year in sustainable consumption since 1984

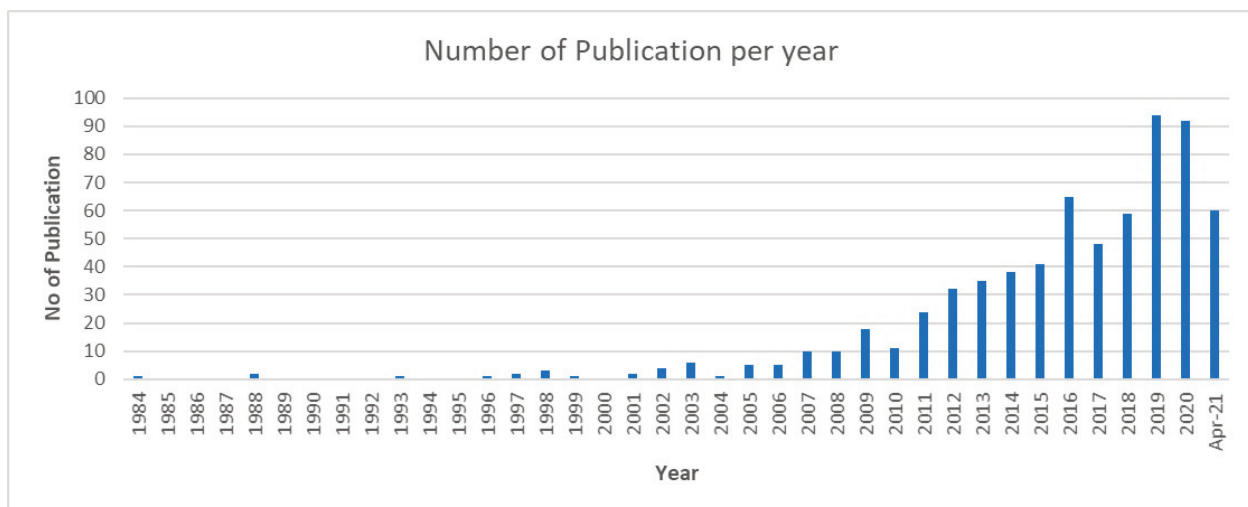


Figure 2: Total citations per year in sustainable consumption since 1984

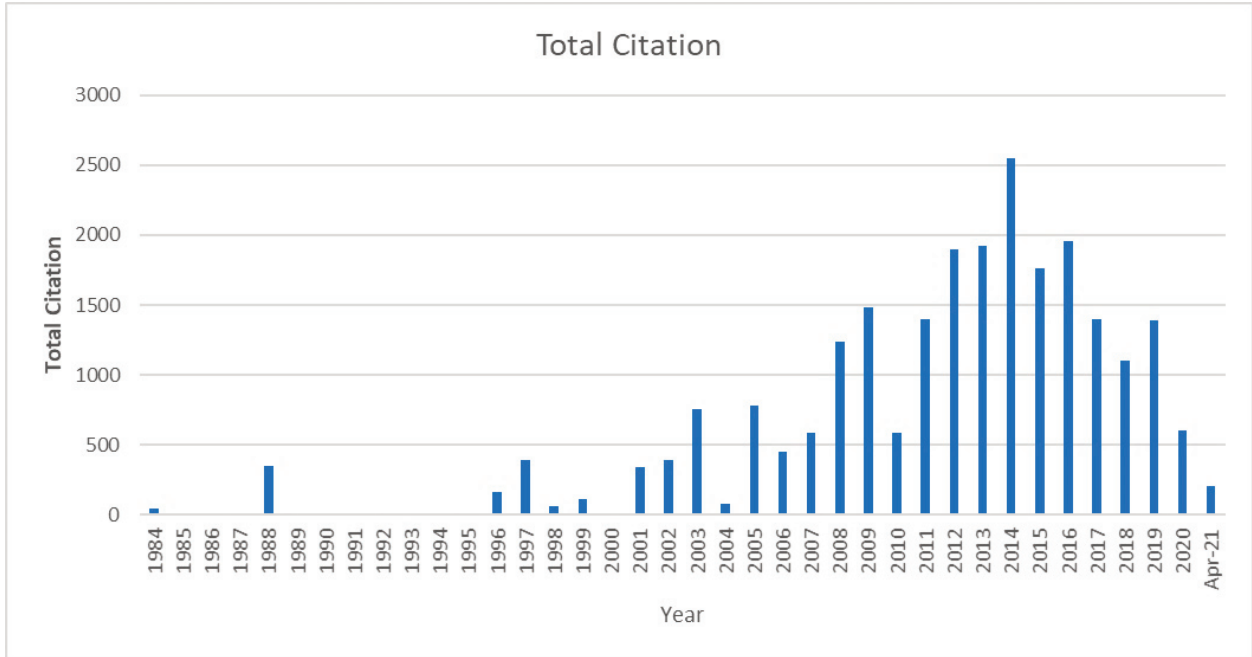


Table 2: Most cited articles in sustainable consumption research

Rank	Document	No. of citations
1	Promoting sustainable consumption: Determinants of green purchases by Swiss consumers (Tanner & Kast, 2003)	518
2	Green consumption or sustainable lifestyles? Identifying the sustainable consumer (Gilg et al., 2005)	418
3	Sustainable consumption: Opportunities for consumer research and public policy (Prothero et al., 2011)	379
4	Social marketing: A pathway to consumption reduction? (Peattie & Peattie, 2009)	336
5	Against the Green: A Multi-method Examination of the Barriers to Green Consumption (Gleim et al., 2013)	299
6	Sustainable consumption and the quality of life: A macromarketing challenge to the dominant social paradigm (Prothero et al., 2011)	297
7	Personality variables and environmental attitudes as predictors of ecologically responsible consumption patterns (Balderjahn, 1988)	297
8	Green consumption: Life-politics, risk and contradictions (Connolly & Prothero, 2008)	273
9	A re-examination of socially responsible consumption and its measurement (Webb et al., 2008)	264
10	What affects green consumer behavior in China? A case study from Qingdao (Zhao et al., 2014)	255

tainable lifestyles. It explored green consumption in the context of different groups of individuals leading different lifestyles.

3.1.2 Most Influential Journals

Table 3 lists the 10 most influential journals in the sustainable consumption field. These journals are

ranked in the order of the total number of citations received. They are sorted based on their reputation and the publication of sustainable consumption field papers with more than 100 citations. The *Journal of Cleaner Production* is the leading journal, with 120 documents and 5,275 citations. The journal publishes articles on sustainable consumption research to help societies adopt sustainable, ecological, and ethical

practices. It has gained increasing importance among journals in the field of sustainability (Zou et al., 2017). The next most productive journal is the *International Journal of Consumer Studies*, with 63 documents and 2,606 citations. This journal focuses on topics such as sustainable consumption, green and organic consumption behavior, and green purchase intentions (Paul & Bhukya, 2021).

3.1.3 Most Influential Authors

This section presents the 10 most influential authors in sustainable consumption research. In Table 4, the authors are ranked based on the total

number of citations received. Andrea Prothero and Michael G. Luchs are prominent authors in this field, with 1,101 and 706 citations, respectively. Andrea Prothero is an influential researcher whose research focuses on sustainability, societal marketing, consumer behavior, and social entrepreneurship, and who has authored various papers in the field. Prothero’s article “Sustainable consumption: Opportunities for consumer research and public policy” (Prothero et al., 2011) has the third position in our study’s list of influential articles, with 379 citations. Other influential authors such as Michael G. Luchs have contributed significantly to this field. Luchs’s interest is predominantly in sustainable consumption and new product development.

Table 3: Most influential journals (based on total citations received)

Rank	Journal	Documents	Citations
1	<i>Journal of Cleaner Production</i>	120	5,275
2	<i>International Journal of Consumer Studies</i>	63	2,606
3	<i>Journal of Business Research</i>	19	1,860
4	<i>Psychology and Marketing</i>	15	1,212
5	<i>Journal of Consumer Policy</i>	22	1,077
6	<i>Journal of Micromarketing</i>	15	1,036
7	<i>Business Strategy and the Environment</i>	22	932
8	<i>Journal of Business Ethics</i>	27	904
9	<i>Journal of Consumer Culture</i>	11	640
10	<i>International Journal of Retail and Distribution Management</i>	11	481

Table 4: Most influential authors (based on total citations received)

Rank	Author	Documents	Citations
1	Prothero, A.	4	1,101
2	Luchs, M. G.	5	706
3	Balderjahn, I.	8	533
4	McDonald, S.	5	483
5	Oates, C. J.	4	414
6	Wang, Y.	5	362
7	Kahle, L. R.	4	251
8	Phipps, M.	4	248
9	Peyer, M.	5	227
10	Schrader, U.	5	193

3.1.4 Most Influential Countries

Table 5 lists the highly influential countries with the most cited work on sustainable consumption research. The United States is the most productive country, with 122 publications and 5,784 total citations, followed by the United Kingdom, with 87 publications and 5,557 total citations, and Germany, with 65 publications and 2,475 total citations. Notably, the United States and the United Kingdom have prominent journals and authors that began sustainable consumption research. Currently, authors from the top two countries are working on the dimensions of sustainability, such as sustainable and green consumption, green purchase intentions, sustainable fashion, and ethical consumption. Publications in journals and citations are concentrated primarily in these two countries, because both are home to many of the principal authors in the sustainable consumption field. Notably, only two Asian countries, China and India, are in the top 10, with 48 and 45 documents, respectively. However, given the economic importance attached to sustainable consumption research and the execution of sustainable development goals, a higher rate of growth is expected in this field in the future, especially from emerging countries.

3.2 Science Mapping

The previous section presented performance analysis results of the sustainable consumption research field. A science mapping is performed in this

section to corroborate the results obtained. This section involves graphic mapping of the bibliographic material related to the sustainable consumption research field. It employs essential indicators such as bibliographic coupling and co-occurrence of keywords to analyze the research conducted on sustainable consumption.

3.2.1 Bibliographic Coupling

This section analyzes the bibliographic coupling network of documents. Bibliographic coupling measures the similarities between two documents via the number of references they share. Bibliographic coupling occurs when two different documents commonly cite a third document (Farrukh et al., 2021). Compiling the connections between all the publications in a research field can create a field map to identify research clusters (subgroups) (Zupic & Cater, 2015). This technique was applied to 671 articles with at least 100 citations per document. The results are presented in Figure 3 as six clusters satisfying the aforementioned filters from 62 documents.

Cluster 1 (Red): Drivers of Green Consumption Behavior

Cluster 1 focuses on examining the drivers of green consumption behavior. This cluster includes 15 of 62 documents and contains several of the most cited papers. Publications in this cluster high-

Table 5: Most influential countries (based on total citations received)

Rank	Country	Documents	Citations
1	United States	122	5,784
2	United Kingdom	87	5,557
3	Germany	65	2,475
4	China	48	1,966
5	Australia	38	1,461
6	Netherlands	26	1,385
7	France	31	971
8	India	45	921
9	Italy	36	789
10	Spain	28	722

light the factors contributing to green consumption. Tanner and Kast (2003), with 518 citations, analyzed how personal and contextual factors affect the green purchase behavior of Swiss consumers. Moser (2015) found that willingness to pay and personal norms are critical predictors of green purchasing behavior.

In addition, this cluster includes publications which associate environmental knowledge and awareness (Haron et al., 2005) with environmental concern, and knowledge and beliefs with sustainable consumption behavior (Pagiaslis & Krontalis, 2014). Few studies have explored the moderating roles of demographic characteristics on green purchasing intentions and motivational factors. Highly educated individuals' motivations for green purchases are higher, especially among female consumers (Chekima et al., 2016).

Cluster 2 (Green): Country-Wise Differences in Sustainable Consumption

This cluster includes articles that explored sustainable consumption behavior in different geographical locations. Adomßent et al. (2014) stated that management education and higher education for sustainable development and consumption are emerging areas that have made significant progress regarding concepts and practices in Central and Eastern Europe. Echegaray and Hansstein (2017) focused on how likely consumers are to recycle electronic waste in a developing country (Brazil), and found that a minority of respondents adopted e-waste recycling practices. Materialism, collectivism, and face consciousness are essential in adopting public bicycle-sharing schemes as shared sustainable consumption practices in China (Yin et al., 2018).

In addition, environmental and contextual factors also impacted the sustainable consumption behavior of Chinese rural residents (Wang et al., 2014). Sahakian and Wilhite (2014) examined how consumption patterns might be shifted toward more sustainable patterns by studying how bottled water is consumed in London restaurants; how high-fat foods are consumed in Oklahoma City, US; and how local food is consumed in Geneva, Switzerland. They offered practical recommendations for promoting more-sustainable consumption.

Cluster 3 (Blue): Marketing and Consumption

The articles in this cluster investigated the potential of marketing disciplines to explain consumption behavior. Peattie and Peattie (2009) explored the difficulties in implementing conventional marketing theories and practices to promote more-sustainable lifestyles and reduced consumption, thus adopting social marketing approaches. This cluster also contains a study investigating consumers' demand for green products based on firms' marketing strategies (Wong et al., 1996).

Interestingly, Jones et al. (2008) found an inter-relationship between marketing and sustainability. They argued that more companies are recognizing the importance of sustainability in their marketing and business initiatives. In addition, marketers recognize consumers' crucial role in moving toward sustainable practices. Kilbourne et al. (1997) found that the association between sustainable consumption and quality of life can be explained by macro-marketing.

Cluster 4 (Yellow): Antecedents of Sustainable Consumption

This cluster concentrates on various antecedents of sustainable consumption concerning different areas. It includes a paper investigating the association between religion and sustainable behavior from a sample of 388 South Korean and US consumers based on self-determination theory, value research, and inoculation theory (Minton et al., 2015). Antonetti and Maklan (2014) confirmed that guilt or pride induced by a single consumption makes consumers see themselves as responsible for sustainability outcomes, thus resulting in sustainable consumption.

There is evidence of a robust gender effect on the antecedents of sustainable consumer behavior in the articles included in this cluster. Using personality constructs, Luchs and Mooradian (2012) tested a model that explains the effect of sex and personality on sustainable consumer behavior, and clarified mechanisms underlying the observed sex effect. In a study of green feminism and sustainable consumption, Brough et al. (2016) demonstrated through seven studies that the concepts of feminin-

ity and greenness are cognitively interconnected. Accordingly, consumers who engage in green behaviors are stereotyped as more feminine by others.

Cluster 5 (Purple): Barriers to Adopting Sustainable Consumption

This cluster includes studies that emphasized the hindrances or barriers to adopting sustainable consumption practices. Luthra et al. (2016) identified barriers to implementing sustainable consumption and production practices in the supply chain of businesses to ensure sustainability. According to their findings, developing countries have a great opportunity to advance sustainable practices in the plastic industry. Mangla et al. (2017) described barriers to sustainable consumption and production trends using the context of ancillary auto manufacturers in India. The organizational barrier is the most significant barrier to adopting such practices.

Cluster 6 (Pink): Sustainability in Fashion Consumption

Only two papers in the final cluster focused on the environmental impact of the disposal of fashion products and suggested measures to increase sustainable consumption. Birtwistle and Moore (2007) summarized the consumers' need for knowledge regarding the environmental impact of their disposal

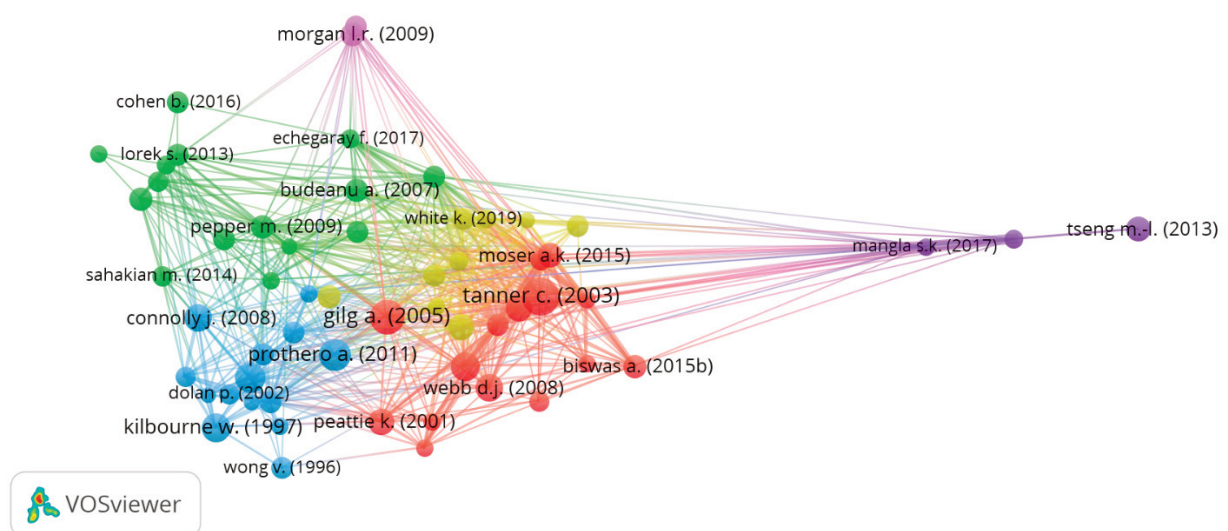
of fashion products and how clothing can be reused and recycled to increase sustainable consumption. Morgan and Birtwistle (2009) addressed the growing problem of textile waste and made fashion consumption more sustainable by acknowledging consumers' unawareness of how their behavior affects the environment.

3.2.2 Co-Occurrence of Author Keywords

This section investigates the co-occurrence of keywords of the documents in the sustainable consumption research field. This analysis helps to identify the key topics of the research field. This study used the authors' keywords to represent the articles accurately. Orange et al. (2017) stated that the authors' keywords show the essence of the study, and the authors most carefully chose the primary focus of the research.

Figure 4 depicts the co-occurrence of author keywords with a threshold of 5 occurrences. There were a total of 1,930 author keywords, of which only 78 met the threshold. The keywords were analyzed and separated into eight clusters and 507 links. The first five clusters represent the most important keywords. Sustainable consumption, used 217 times [Cluster 2 (blue)], was the most prominent keyword for publication in this field, followed

Figure 3: Bibliographic coupling of all 671 documents



the number of publications on sustainable consumption significantly increased over the years since its conception, and has increased tremendously over the last decade, especially post-2016. The results of the performance analysis indicate that the most cited article is “Promoting sustainable consumption: Determinants of green purchases by Swiss consumers” (Tanner & Kast, 2003), and the leading journal is the *Journal of Cleaner Production*. Additionally, Andrea Prothero and Michael G. Luchs are highly influential authors, and the United States and the United Kingdom appear to be highly productive countries. However, there are many sustainable consumption practices in developing countries which will come to the fore soon.

We applied the bibliographic coupling technique to address the second research question. This study extracted six clusters that show the emerging themes associated with the sustainable consumption field, such as drivers of green consumption behavior, country-wise differences in sustainable consumption, marketing and consumption, antecedents of sustainable consumption, barriers to adopting sustainable consumption and sustainability in fashion consumption. Finally, the co-occurrence of author keywords technique was applied to address the third research question. It provides prominently used keywords. There has been an upward trend in the publications post-2016. Thus, we also identified the research topics and keywords since 2016. The research provides promising keywords such as environmental awareness, environmental knowledge, frugality, green product, ethics, sustainable fashion, and sustainable marketing for future research directions in this field.

5 LIMITATIONS AND AVENUES FOR FUTURE RESEARCH

Despite the significant contributions, this study does have limitations. The major limitation is that the data were collected and synthesized using a single database, Scopus. Reviewing multiple databases, such as Web of Science and Google Scholar, may provide additional insights. A bibliometric analysis of the existing literature identified some key research directions for the future. The research focused only on articles related to sustainable

consumption in the Business, Management, and Accounting discipline. Other academic disciplines, such as social sciences, environmental sciences, consumer law, and psychology, may influence the research area in the future. We conducted a bibliometric analysis of the field through citation analysis, bibliographic coupling, and co-word analysis. Future researchers may combine bibliometric analysis with other techniques, including correspondence analysis, thematic analysis, and scientific knowledge mapping, to find new trends in this field.

The primary purpose of such research is to explore and analyze large volumes of scientific data, uncover the evolutionary nuances of a specific field, and determine the emerging areas in the field (Donthu et al., 2021). As sustainability concerns gather pace across the globe, this research will help provide the required direction for researchers and practitioners to make significant contributions to this critical field. Bibliographic coupling analysis assists researchers in positioning their current research and identifying future research directions. A qualitative or quantitative study of a specific cluster could be conducted with this information. For example, articles in Clusters 4 and 5 emphasized the antecedents and barriers of sustainable consumption practices. The focus of recent publications on sustainable consumption (Chowdhury et al., 2022; Sheoran & Kumar, 2022; Nath & Agrawal, 2023) justifies the significance of this cluster. Moreover, Cluster 3 may be valuable to studies comparing sustainable consumption across countries. The findings also suggest that more quantitative studies of sustainable consumption should be performed in the context of developing countries.

The keyword analysis suggests that future research may focus on the impact of environmental factors (such as environmental awareness, beliefs, attitude, knowledge, and concerns) on sustainable consumption behavior. Additionally, the details provided in this study may change in the future depending on the thematic trends contemplated by sustainable consumption researchers. Thus, future follow-up bibliometric studies can be performed for this field to obtain insights into further developments of recently emerging studies.

EXTENDED SUMMARY/IZVLEČEK

V prispevku je predstavljena celovita raziskava trajnostne potrošnje z uporabo bibliometrične analize. Študija je preučila 671 člankov s področja trajnostne potrošnje, objavljenih med letoma 1984 in 2021 z uporabo podatkov bazi Scopus. Z uporabo tehnik bibliometrične analize, vključno z analizo citatov, bibliografskim spajanjem in sopojavljanjem avtorskih ključnih besed, so bili raziskani pomembni avtorji, države in revije, ki pomembno prispevajo k literaturi o trajnostni potrošnji, nastajajoče teme ter ključne besede. Analiza citiranja je pokazala znatno rast na področju trajnostne potrošnje od leta 2016. Tako je ta študija identificirala nastajajoče ključne besede in raziskovalne teme na tem področju od leta 2016. Potencialni raziskovalci jih lahko uporabijo za identifikacijo možnih področij za prihodnje raziskave. Bibliografsko povezovanje je poudarilo šest skupin, ki prikazujejo nastajajoče teme povezane s področjem trajnostne potrošnje, in sicer: gonilne sile zelenega potrošniškega vedenja, razlike med državami v trajnostni potrošnji, trženju in potrošnji, predhodniki trajnostne potrošnje, ovire za sprejemanje trajnostne potrošnje in trajnost v modni potrošnji. Pomisleki glede trajnosti naraščajo po vsem svetu; ta raziskava bo pomagala zagotoviti potrebno usmeritev, tako raziskovalcem kot strokovnjakom, da bodo pomembno prispevali k temu kritičnemu področju.

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SOCIAL MEDIA INFLUENCER MARKETING TOWARD CUSTOMERS' PURCHASE INTENTION: A CASE OF SUSTAINABLE COSMETIC BRANDS

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Abstract

Social media has witnessed a global surge in popularity, fueled by continuous technical advancements that have disrupted traditional media industry patterns, procedures, and standards. This has resulted in the developing of fresh and inventive marketing tools and strategies, such as influencer marketing. This study explored the direct and indirect effects of influencer marketing by sustainable cosmetic brands on customers' purchase intention, focusing on the mediating role of brand equity and electronic word-of-mouth (e-WOM). Structural equation modeling (SEM) was utilized to assess the proposed model based on the responses gathered from 237 respondents. The findings show that there is a significant impact of influencer marketing on purchase intention both directly and indirectly. Both mediators were found to be partially mediating the relationship. This study will be extremely helpful to practitioners and decision-makers as they develop their plans and seize up-and-coming market opportunities.

Keywords: *Influencer marketing, Social media marketing, Influencer endorsements, Celebrity endorsements*

1 INTRODUCTION

Due to the growing popularity of social media, theoretical research on social media marketing has received significant interest (Hudson et al., 2016; Okazaki & Taylor, 2013; Xie & Lee, 2015). It has become one of the most relevant platforms for entertainment, networking, business, and public awareness of significant social, political, and economic issues. It also provides users with a unique interactive space in which opinions and ideas about topics are communicated, including discussions of consumer experiences with products or services (Gaber, 2014; Heinrichs et al., 2011). Additionally, it has created new connections between marketers and consumers, enhancing brand awareness (com-

Score, 2009). Marketers increasingly have used platforms such as Facebook and Twitter to promote businesses and influence customer perceptions (Rusfian & Alessandro, 2021). Social networking has a significant influence on modern marketing practices, in which, as opposed to conventional marketing, it gives marketing initiatives a more personal touch by providing an open platform for existing, potential, and new customers to connect, discuss, and provide feedback on products and services. Some of these customers with huge followings or significant influence help other customers in purchase decisions and are known as social media influencers. Influencers are now preferred over traditional endorsements, and they serve as credible electronic word-of-mouth sources and influen-

tial tastemakers (Dewangan et al., 2022). Influencers play an important role in influencing social media users' behavior significantly.

Climate change and sustainable development have become two of the most important topics. Extensive research is required in these areas from social, political and business points of view. The Brundtland Report, presented to the UN General Assembly in 1987, popularized the term "Sustainability" (Kaul et al., 2022; Lee et al., 2000; WCED, 1987), a word that is being used a great deal by many industries, and has been responsible for the change in the behavior of consumers and companies, leading to new directions for the development of raw materials and products, environment, people, and waste management, improving the application of energy resources and consumer behavior (Adams & Jeanrenaud, 2008; Brower & Leon, 2009; Fonseca-Santos et al., 2015). Since the release of the Brundtland Report, the idea has been applied widely in numerous contexts while retaining its potency to highlight crucial problems for humanity (Grădinaru et al., 2022), and several industries, businesses, and brands have aligned their practices with sustainability standards. Although facing scrutiny for chemical use, unethical ingredient sourcing, pollution, environmental disasters, packaging composition, and safety issues (Grădinaru et al., 2022), a considerable segment of the cosmetic industry successfully has embraced sustainability in their manufacturing and distribution practices. Many present-day cosmetic customers also are connected and aware, and seek brand experiences and make selections based on logic and emotion (Wolfe, 2019). They emphasize the significance of buying cosmetics with a conscience by looking for ethical and clean products (Sahota, 2014). According to Erzmonet et al. (2017), brands that have sustainable products must communicate so that customers can understand and become aware of them. Such firms now frequently use influencer marketing to communicate their larger purposes to prospective customers.

The assumption that people are becoming more aware of the triple bottom line (TBL) of the sustainability agenda—i.e., a balanced view of the economy, environment, and social justice—and that they prefer brands that cater to these standards, is the basis of this study. The literature review highlights the dearth of research in this area, emphasizing the need for

more studies focused on the topic. Hence, this study analyzed the extent of influencers' impact on people's purchase intention (PI) for sustainable cosmetic brands. Additionally, it investigated the effect of social media influencer marketing on brand equity (BE) and electronic word-of-mouth (e-WOM). A survey-based research approach and partial least squares structural equation modeling (PLS-SEM) to validate the research model was utilized in this study.

2 THEORETICAL BACKGROUND AND RESEARCH FRAMEWORK

The American Marketing Association defines influencer marketing as leveraging individuals with influence over potential buyers to drive brand messages to the larger market (AMA, 2021). Hermenda et al. (2019) investigated the effect of influencers on the purchase intention of cosmetic consumers through the mediating role of brand image and self-concept. They found that influencers did not affect purchase intention directly or through the mediation of self-concept, but the brand image did play a significant role as a mediator. According to Ali & Alquda, (2022) findings, influencer marketing significantly impacts brand awareness, overall brand equity, and engagement. Khairunnisa and Astuti (2022), who investigated the effect of influencers' persuasive power on followers' behavior in the context of local skincare products, also concluded that influencer endorsements positively impacted purchase intention. A systematic literature review of influencer marketing by Dewangan et al. (2022, page 14) noted that "there have been studies in Asia related to influencer marketing, but the studies did not show its growing impact on the Indian market." They also mentioned that "the findings have highlighted the need for additional research in influencer marketing, particularly in the context of Indian consumer behaviour" (Dewangan et al., 2022, page 14). Table 1 summarizes the key findings from the literature review.

2.1 Social Media Influencer Marketing

Influencer marketing refers to efforts made by the business world to sell goods or raise brand awareness by using content shared by social media users who are seen as influential (Carter, 2016). Cur-

Table 1: Summary of key findings from the literature review

Source	Focal products, brands, or organizations	Sample and data	Key findings	Constructs	Path coefficients
(Ulva & Rasyid, n.d.)	Wardah (brand)	First phase: 25 informants were interviewed to explore indicators. Second phase: data were collected from 154 respondents	The findings indicated that influencer marketing simultaneously and partially had a significant influence on purchase intention. Influencer marketing services could be used best to review the product and increase the customers' trust and awareness of the advertised products.	Influencer marketing à purchase intention	0.363
(Ali & Alquda, 2022)	5-star hotels in Jordan	438 participants were included in the investigation	The results indicated that influencer marketing directly influenced overall brand equity, brand awareness, and customer brand engagement mediating the relationship between influencer marketing and overall brand equity.	Influencer marketing à brand equity	0.32
(Yani, 2022)	Endek ambassadors	100 respondents with a simple random sampling technique	Influencer marketing has a significant positive effect on purchase intention. Brand equity has a significant positive effect on the purchase intention variable	Influencer marketing à purchase intention	0.31
				Brand equity à purchase intention	0.42
(Shaban, 2022)	Mobile phone companies in Egypt	—	Influencer marketing had a direct positive impact on purchase intention and brand equity. Brand equity and electronic word-of-mouth (e-WOM) also had a direct positive impact on purchase intention.	Influencer marketing à purchase intention	0.482
				Influencer marketing à brand equity	0.579
				Brand equity à purchase intention	0.590
				E-WOM à purchase intention	0.087
				Influencer marketing à brand equity à purchase intention	0.279
(Hermenda et al., 2019)	Cosmetic products	Samples were gathered using the convenience sampling technique from 219 respondents	The research found a significant negative influence of both social media influencers and self-concept on the purchase intention, whereas brand image had a significant positive effect.	Influencer marketing à purchase intention	0.067
(Raza et al., 2023)	—	300 respondents	Social media influencer marketing did not have a significant positive impact on purchase intention.	Influencer marketing à purchase intention	-0.004

rently, many people use social media as a platform to produce content that could aid consumers in making wiser purchase decisions. They use and evaluate products and services, which helps customers choose the best options for their needs. They also assist businesses in spreading the word about new products and promoting them. Influencers are a

subset of endorsers who utilize blogs, tweets, postings, and other social media sites such as Facebook and Instagram to alter the attitudes of their audience (Gorry & Westbrook, 2009).

According to AlFarraj et al. (2021), influencer marketing has three components: attractiveness, trustworthiness, and expertise. According to Backaler

(2018), people who are knowledgeable or passionate about or interested in a certain topic are known as category influencers. Although category influencers may not be well known to the public, they have a major impact. People with widespread fame, power to sway their audience, and a large following—for example, actors, sportspersons, and artists—are categorized as celebrity influencers, and influencers who are enthusiastic about a specific product area but do not have a significant online following are categorized as micro-influencers (Backaler, 2018).

Influencers also are classified based on the number of followers they have. Mega-influencers, also known as social superstars, have over 1 million followers (BiL et al., 2022; Vyatkina, 2020). Micro-influencers have 1,000–100,000 followers, whereas macro-influencers have 100,000–1,000,000 followers (BiL et al., 2022; Vyatkina, 2020). Nano-influencers have fewer than 1,000 followers (BiL et al., 2022; Vyatkina, 2020).

2.2 Brand Equity

The measurement of brand equity has been explored in the marketing literature from two main perspectives: firm-based brand equity, and customer-based brand equity (Aaker, 1991; Keller, 1993; Nam et al., 2011; Yoo & Donthu, 2001). Aaker's

(1991) customer-based brand equity approach was used for the present study. Brand equity has been defined as the advantage that a brand offers to a product (Farquhar, 1989). According to Aaker (1991), a strong and trustworthy brand image enables consumers to develop positive attitudes and feelings about the brand, increasing its perceived value. Brand equity typically can increase or decrease a product's value, making it possible for consumers to understand the process better and remember all its information (Aaker, 1991). Four factors make up brand equity: brand association, brand loyalty, brand awareness, and perceived quality. Anything linked in memory to a brand is referred to as a brand association (Aaker, 1991). The brand association can take many forms and reflect product features or aspects unrelated to the product itself (Cheng-Hsui Chen, 2001). From a behavioral standpoint, brand loyalty is the extent to which a purchasing unit, such as a household, focuses its purchases over time on a specific brand within a product category (Schoell et al., 1990). From an attitudinal standpoint, brand loyalty is defined as "the tendency to be loyal to a focal brand as demonstrated by the intention to buy it as a primary choice" (Oliver, 1999, page 3). Brand awareness refers to a potential customer's ability to recognize or recall a brand as a member of a specific product category (Aaker, 1991), and perceived qual-

Table 2: Constructs and definitions

No.	Authors	Concept	Definition
1	(Carter, 2016, page 2)	Influencer marketing	"Influencer marketing refers to efforts made by the business world to sell goods or raise brand awareness by using content shared by social media users who are seen as influential."
2	(Loeper et al., 2014, page 3)	Influencer marketing	"Influencers are individuals who actively use their social media accounts and are often involved in a certain topic, as well as providing new information."
3	(Kim & Ko, 2012, page 1481)	Purchase intention	"A consumer's interest in and desire to buy a product are combined to form their purchase intention."
4	(Farquhar, 1989)	Brand equity	"The advantage that a brand offers to a product."
5	(Arndt, 1967, page 1)	Word of mouth	"Word of mouth is defined as oral, person-to-person communication between a receiver and a communicator whom the receiver perceives as non-commercial, concerning a brand, a product, or a service."
6	(Ladhari & Michaud, 2015, page 2)	Electronic word of mouth	"E-WOM is a group phenomenon that influences consumer perceptions through positive or negative buzzwords created by opinion leaders (influencers) on the internet."

ity is one of the major facets of the customer-based brand equity framework (Aaker, 1991). It is the customer's perception of the overall quality or superiority of the product (or service) rather than the actual quality (Zeithaml, 1988). This leads to the first hypothesis:

H1: *Social media influencer endorsement has a significant impact on brand equity.*

2.3 Electronic word of mouth

"Word of mouth is defined as oral, person-to-person communication between a receiver and a communicator whom the receiver perceives as non-commercial, concerning a brand, a product, or a service." (Arndt, 1967, page 1). Word of mouth (WOM) communications can occur in person or by phone, email, mailing list, or any other means of communication (Silverman, 2001). Word of mouth has taken on several new names since the advent of information technologies and the internet, such as viral marketing, email marketing, internet word-of-mouth, and word-of-mouth marketing (Goyette et al., 2010). According to Ladhari and Michaud (2015), e-WOM is a group phenomenon that influences consumer perceptions through positive or negative buzzwords created by opinion leaders (influencers) on the internet. Goyette et al., (2010) divided e-WOM into four dimensions: intensity, positive valence, negative valence, and content. The number of opinions that consumers write on a social networking site is called the intensity (Goyette et al., 2010). Positive or negative valence is part of the valence of opinion (Aji et al., 2020). The intention is a motivational behavior that drives people to do something (Rezvani et al., 2012). This leads to the second hypothesis:

H2: *Social media influencer endorsement has a significant impact on e-WOM.*

2.4 Purchase Intention

Zeithaml (1988) found that a customer's decision to purchase a product was heavily influenced by the product's value and recommendations from previous customers, such as those published on social media. A consumer's interest in and desire to

buy a product are combined to form their purchase intention (Kim & Ko, 2012). Purchase intention is a factor that develops because of purchasers being stimulated by the products they see and how these incitements affect their interest in making and keeping purchases (Hansopaheluwakan et al., 2020). The present study investigated the direct and indirect impact of social media influencer marketing on customers' intention to purchase a product. The following hypotheses were developed:

H3: *Brand equity has a significant impact on purchase intention.*

H4: *e-WOM has a significant impact on purchase intention.*

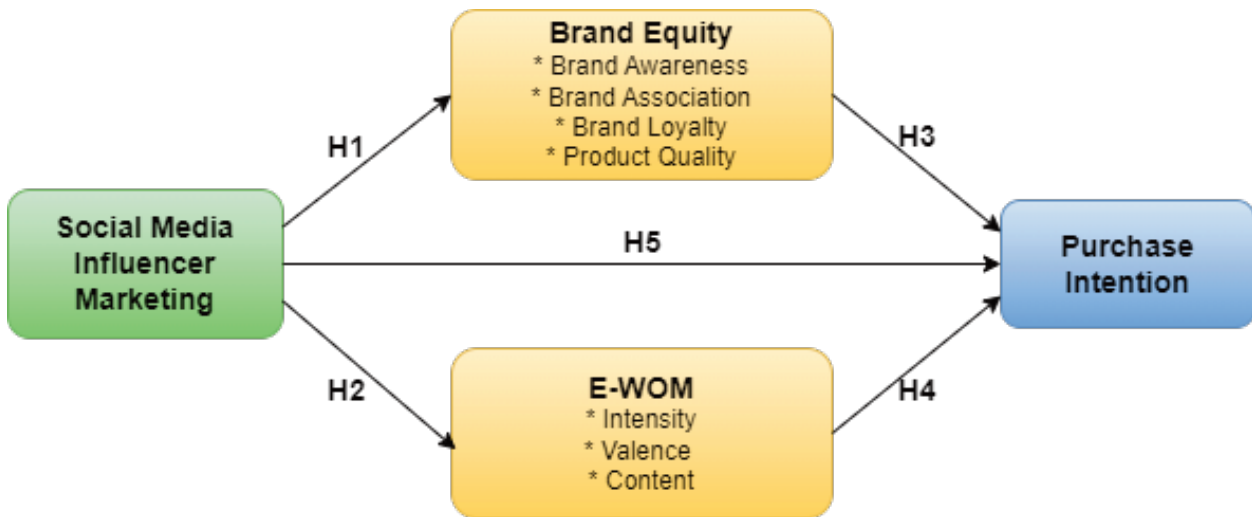
H5: *Social media influencer endorsement has a significant direct impact on purchase intention.*

Figure 1 depicts the proposed research framework.

3 MATERIAL AND METHODS

A descriptive and empirical research design was employed to study the effect of influencer marketing on customers' purchase intention. The mediation of brand equity and e-WOM also was studied to understand both direct and indirect effects. This study delved deeply into the persuasive power of influencers and how they can bind their followers to develop specific behavior toward endorsed brands (Jiménez-Castillo & Sánchez-Fernández, 2019). For this purpose, an empirical study was conducted among respondents from New Delhi, India. An online structured form (Google Forms) was created and administered to the respondents through WhatsApp, Instagram, email, and other social media platforms. According to Cobanoglu and Çobanoğlu (2003), the best way to collect data for studies involving online platforms is through Google Forms or an online survey. The authors' network, social media pages, and websites of online communities all were used to promote the survey URL. The questionnaire was divided into two parts. The first section dealt with respondents' demographic information, and the second section included 21 statements rated on

Figure 1: Proposed research framework



a 5-point Likert scale from strongly disagree to strongly agree. Non-probability sampling methods such as snowball sampling were employed. The data were collected from 260 respondents. The respondents' demographic details and social media usage profiles are presented in Table 3. The survey items were taken from previous studies and reframed to meet the needs of the study. The survey instrument was pre-tested on 45 respondents (28 female and 17 male).

3.1 Demographic Summary of Respondents

Because of careless responses, 23 of the 260 sampled participants were excluded from the final analysis. Therefore the responses of 237 respondents were examined further. Most of the respondents were from the Gen Z age group (born 1997–2012), and 60% of the respondents had a bachelor's degree.

A total of 75.53% of the participants used social media daily, and 14.34% confirmed that they used social media every hour. The most popular social media platforms were Instagram and YouTube; 89.02% and 77.21% of participants used them, respectively. Facebook and Twitter were less popular platforms; only about 20% of respondents used each. This may be because platforms such as Facebook and Twitter are less popular among Gen Z respondents, who made up the majority of the sample.

4 RESULTS

4.1 Measurement Model

A consistent partial least squares (PLS) algorithm (PLSc) was utilized to calculate indicator loadings, internal consistency, reliability, convergent validity, and discriminant validity for the evaluation of the reflective measurement model (Hair et al., 2019). Indicators with loadings greater than 0.5 were retained for the study. Due to weak loadings, four indicators—BE1 (brand equity), BE3, BE5, and EW4 (e-WOM)—were eliminated (Table 4).

Cronbach's alpha (α), rho_a, and composite reliability (CR) values were used to evaluate the construct's reliability (Table 5). The suggested threshold for Cronbach's alpha (α), and that for composite reliability is 0.7 (Bland & Altman, 1997). With a 0.7 threshold limit, the reliability measure rho_a is thought to be the most suitable for evaluating construct reliability (Dijkstra & Henseler, 2015; Hair et al., 2019). According to Diamantopoulos et al. (2012) and Drolet and Morrison (2001), a composite reliability value higher than 0.95 is regarded as troublesome because it demonstrates data redundancy. The convergent validity of the construct was assessed based on the average variance extracted (AVE), with an AVE value above 0.50 considered acceptable (Hair et al., 2019).

Table 3: Respondents' demographics

Category	Description	Frequency	Percentage (%)
Gender	Female	122	51.5
	Male	115	48.5
Age group	Gen Z (born 1997–2012)	181	76.4
	Millennial (born 1981–1996)	47	19.8
	Gen X (born 1965–1980)	5	2.1
	Boomer (born 1946–1964)	4	1.7
Education	High school diploma or less	43	18.1
	Bachelor's degree	144	60.8
	Master's degree	43	18.1
	Doctoral degree	7	3
Employment	Student	187	78.9
	Working	37	15.6
	Unemployed	11	4.6
	Business	2	0.9
Social media Usage	Daily	179	75.53
	Every hour	34	14.34
	Every other day	15	6.32
	Every two days	5	2.1
	Once a week	4	1.68
Social media platforms	Instagram	211	89.02
	YouTube	183	77.21
	LinkedIn	87	36.71
	Facebook	50	21.09
	Twitter	47	19.83
	Others	65	27.42

The measurement model's discriminant validity also was assessed. The Fornell–Lacker criterion (Table 6) and heterotrait–monotrait ratio (HTMT) criterion (Table 7) were utilized to analyze the discriminant validity of the construct. The latent construct variance of indicators as given on the diagonal (see Table 6, bold data) was higher than that for other latent constructs (Sarr & Ba, 2017), successfully conforming to the construct discriminant validity. According to Henseler et al. (2015), the HTMT is a more accurate way to gauge discriminant validity, and a lower limit of 0.85 is considered acceptable. This study's findings supported the constructs' discriminant validity.

4.2 Structure model

For structure model evaluation, standard criteria such as the coefficient of determination (R^2), strength of effect (f^2), cross-validated redundancy measure (Q^2) based on blindfolding, and statistical significance of path coefficients commonly are employed (Khan

et al., 2022). To test the hypothesized relationship between latent variables, a consistent PLS bootstrap approach with 5,000 resamples was used. The R^2 value was used to assess the model's explanatory power (Shmueli & Koppius, 2011). Based on Henseler et al.'s (2009) criteria of 0.25, 0.50, and 0.75, a model was classified as weak, moderate, or substantial.

A beta coefficient (β) closer to 1 indicates a strong effect. A t -statistic value above 1.645 was considered significant because the study was one-tailed. A p -value over 0.05 indicates an insignificant relationship between the variables. Hence, a hypothesis was accepted only if the p -value was less than 0.05 (Table 8). Based on the PLS bootstrap estimates, the results of the hypothesis were indicated as follows:

Hypothesis 1: The results showed that influencer marketing had a positive and significant impact on brand equity ($\beta = 0.662$, $p = 0.000$, and $t = 16.431$). Thus, H1 was supported.

Table 4: Measurement items and indicator loading

Construct	Item	Description	Indicator loadings	Source
Social media influencer endorsements (SMIE)	SMIE1	Social media influencer endorsements are relevant to me.	0.837	—
	SMIE2	Social media influencer endorsements are important to me.	0.873	
	SMIE3	Social media influencer endorsements fit with my preferences.	0.866	
	SMIE4	Social media influencer endorsements fit my interests.	0.811	
Brand equity	BE1	I trust the quality of products from sustainable cosmetic brands endorsed by social media influencers.	0.455 (Removed)	(Tong & Hawley, 2009)
	BE2	Products from sustainable cosmetic brands endorsed by social media influencers offer excellent features.	0.793	
	BE3	I can recognize products from sustainable cosmetic brands endorsed by social media influencers quickly among other competing brands.	0.439 (Removed)	
	BE4	I am familiar with sustainable cosmetic brands endorsed by social media influencers.	0.746	
	BE5	Sustainable cosmetic brands endorsed by social media influencers have a very unique brand image, compared to competing brands.	0.469 (Removed)	
	BE6	I admire people who use products from sustainable cosmetic brands endorsed by social media influencers.	0.807	
	BE7	When buying sustainable cosmetics, brands endorsed by social media influencers would be my first choice.	0.808	
	BE8	I consider myself to be loyal to sustainable cosmetic brands endorsed by social media influencers.	0.896	
e-WOM	EW1	I speak about sustainable cosmetics brands endorsed by social media influencers much more frequently than about other brands.	0.852	(Goyette et al., 2010)
	EW2	I speak about sustainable cosmetics brands endorsed by social media influencers to many individuals.	0.838	
	EW3	I recommend sustainable cosmetic brands endorsed by social media influencers.	0.714	
	EW4	I speak about the good sides of sustainable cosmetic brands endorsed by social media influencers.	0.477 (Removed)	
	EW5	I discuss the ease of transaction with sustainable cosmetic brands endorsed by social media influencers.	0.814	
	EW6	I discuss the prices of products offered by sustainable cosmetic brands endorsed by social media influencers.	0.834	
Purchase intention	PI1	I often want to buy from sustainable cosmetic brands because they are endorsed by social media influencers.	0.867	(Zhang, 1996)
	PI2	In social commerce, I strongly want to buy from a sustainable cosmetic brand if it was recommended by a social media influencer.	0.918	
	PI3	I will buy from a sustainable cosmetic brand if it was reviewed by a social media influencer.	0.912	

Table 5: Assessment of construct reliability and convergent validity

Construct	Cronbach's alpha (>0.7)	Composite reliability (rho_a) (>0.7)	Composite reliability (rho_c) (>0.7)	Average variance extracted (>0.50)
Social media influencer endorsements	0.869	0.87	0.91	0.718
Brand equity	0.869	0.87	0.906	0.659
e-WOM	0.869	0.876	0.906	0.659
Purchase intention	0.882	0.882	0.927	0.809

Table 6: Fornell–Lacker criterion

	Brand equity	e-WOM	Purchase intention	Social media influencer endorsements
Brand equity	0.811			
e-WOM	0.723	0.812		
Purchase intention	0.693	0.781	0.9	
Social media influencer endorsements	0.662	0.662	0.744	0.847

Table 7: Heterotrait–monotrait ratio ≤ 0.85

	Brand equity	e-WOM	Purchase intention	Social media influencer endorsements
Brand equity				
e-WOM	0.832			
Purchase intention	0.791	0.885		
Social media influencer endorsements	0.764	0.76	0.848	

Hypothesis 2: Social media influencer marketing also had a strong positive impact on electronic word of mouth ($\beta = 0.662$, $p = 0.000$, and $t = 18.271$). Thus, H2 was supported.

Hypothesis 3: Brand equity had a significant influence on purchase intention ($\beta = 0.130$, $p = 0.032$, and $t = 1.857$), but the relation was not very strong, because the path coefficient indicated that a change in brand equity would lead to an approximately 13% change in purchase intention.

Hence, H3 was supported but the intensity of the relationship was weak.

Hypothesis 4: In contrast to brand equity, electronic word of mouth had a stronger significant in-

fluence on purchase intention ($\beta = 0.447$, $p = 0.000$, and $t = 6.524$). Hence, H4 also was supported.

Hypothesis 5: The direct impact of social media influencer marketing on purchase intention was calculated, and it was supported by the results ($\beta = 0.361$, $p = 0.000$, and $t = 6.619$).

4.3 Mediation analysis

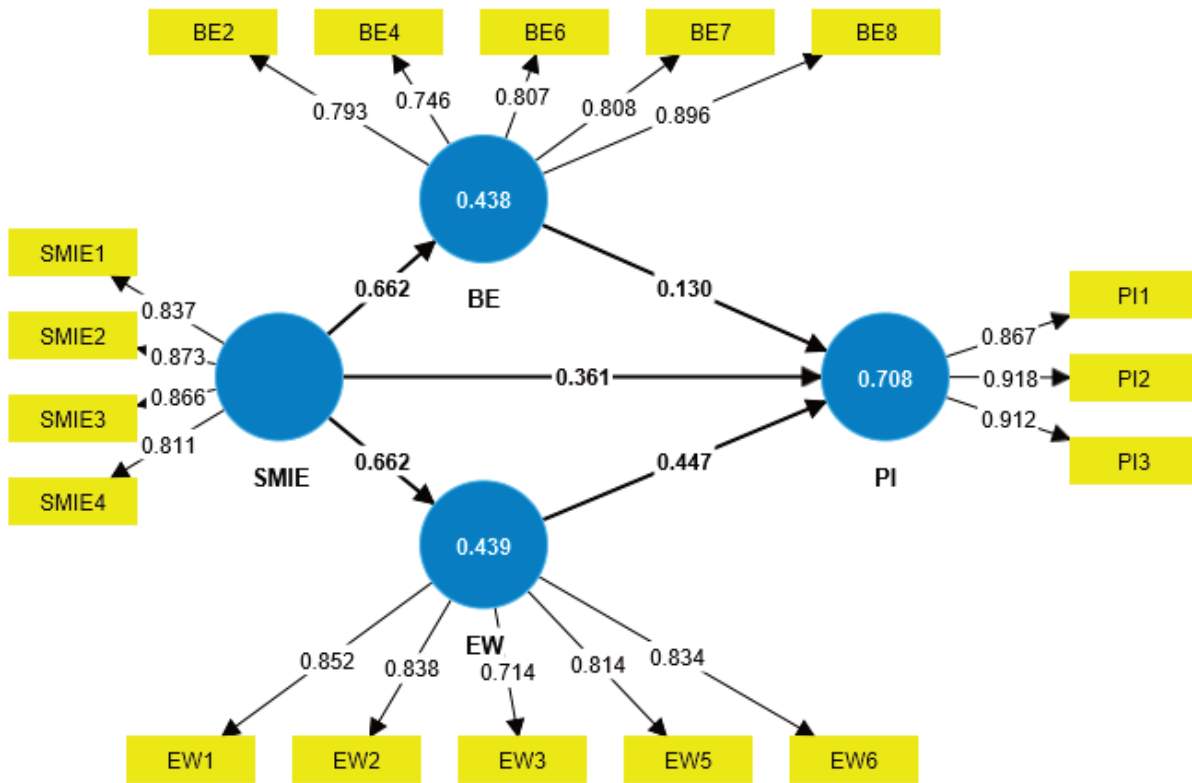
The mediating role of brand equity ($\beta = 0.086$, $p = 0.033$ and $t = 1.836$) and e-WOM ($\beta = 0.296$, $p = 0.000$ and $t = 6.064$) between influencer marketing and purchase intention also were confirmed through the PLS bootstrapping (Table 9). The total

Table 8: Path coefficients

Hypothesis	Dependency	f^2	Path coefficients (β)	Standard deviation	t-statistic	p-value	Conclusion
H1	SMIE → BE	0.024	0.662	0.040	16.431	0.000	Supported
H2	SMIE → e-WOM	0.286	0.662	0.036	18.271	0.000	Supported
H3	BE → PI	0.780	0.130	0.070	1.857	0.032	Supported
H4	e-WOM → PI	0.782	0.447	0.069	6.524	0.000	Supported
H5	SMIE → PI	0.220	0.361	0.055	6.619	0.000	Supported

Notes: SMIE = Social media influencer endorsement. Brand equity $R^2 = 0.438$, e-WOM $R^2 = 0.439$, purchase intention $R^2 = 0.708$.

Figure 2: Structural model



effect of influencer marketing on purchase intention was 0.744 ($p = 0.000$): the direct effect was 0.361, and the remaining 0.382 was attributed to the mediation of brand equity (0.086) and e-WOM (0.296). Because both the direct and indirect effects were significant, the mediation was considered to be partial.

Model fit was examined using the standardized root mean square residual (SRMR). The recommended criteria for a SRMR value less than 0.08 was met; the SRMR for the study was 0.07, which proved that the model was a good fit. Figure 2 depicts the structure model, along with standardized loadings of indicators and coefficients of determination.

Table 9: The mediating role of e-WOM and brand equity

Relationship	Total effect	Direct effect	Indirect effect	Total indirect effect	Mediating effect	Conclusion
SMIE → BE → PI	0.744	0.361	0.086	0.382	Partial mediation	Supported
SMIE → EW → PI			0.296		Partial mediation	Supported

5 IMPLICATIONS

5.1 Theoretical Implications

This study investigated how marketing efforts through social media influencers affect consumers' purchase intention. Additionally, it examined how brand equity and e-WOM mediate the relationship between influencer endorsements and purchase intention. The findings of this study demonstrate that brand equity, e-WOM, and purchase intention for sustainable cosmetic brands are highly impacted by social media influencer marketing. The findings show that brand equity, e-WOM, and purchase intention increased by 66.2%, 66.2%, and 36.1%, respectively, for every unit change in influencer marketing. The study's findings showed how crucial influencer marketing is for increasing sustainable cosmetics' overall brand equity, e-WOM, and purchase intent on social media sites such as Facebook, YouTube, Instagram, and Twitter. Therefore, through social media posts by influencers that include texts, videos, pictures, and other unique and creative content, product purchase intention can be increased and brand equity and e-WOM can be improved. The results are consistent with those of previous studies such as Shaban (2022), who found a similar impact of influencer marketing on brand equity and purchase intention, and Ishola Idomi (2022) who concluded that influencer marketing can increase customer purchase intention and improve business performance through determinants such as e-WOM and social influence. Yani (2022) reported a similar impact, finding that 31% of purchase intention was explained by influencer marketing.

There is a significant positive correlation between brand equity, e-WOM, and purchase intention. The findings show that brand equity accounts for 13.7% of the variance in purchase intention, and e-WOM accounts for 44.7% of the variance in pur-

chase intention. These findings suggest that consumer purchase intention is influenced positively by brand equity and e-WOM. In other words, this finding shows that consumers' purchase intentions are positively high when they have high and positive brand equity and e-WOM. The findings align with those of Reza Jalilvand and Samiei (2012), who found that 47% of purchase intention was explained by e-WOM, and 32% by brand equity.

The mediation results showed that brand equity and e-WOM played a major role in explaining the relationship between social media influencer marketing and purchase intention, with effects of 8.6% and 29.6%, respectively. The mediation analysis results were in line with those of Napitupulu et al. (2022) and Aji et al. (2020).

5.2 Practical Implications

This research's primary objective was to examine the relationships between social media influencer marketing, brand equity, e-WOM, and purchase intention. The results of this study have significant implications for marketers and brand managers, particularly those in charge of sustainable cosmetic brands. The study's results specifically shed light on the relative importance of influencer marketing used on social media platforms for building strong brand equity and e-WOM and encouraging a favorable purchase intention. Therefore, brand managers can use the model validated in this study to help them choose the best marketing tools for growing their brand's awareness, association, loyalty, word of mouth, and purchase intentions.

The study's findings also show that influencer marketing on social media accounts for larger variations in brand equity and e-WOM, which in turn have a high impact on purchase intention both di-

rectly and indirectly. This shows that marketers successfully can employ influencer marketing to build e-WOM and promote the overall brand equity of their brands, which eventually will lead to high purchase intention. Additionally, according to this study, influencer marketing can aid a brand's overall growth if used effectively. This is because it significantly impacts how customers interact with brands and makes it easier for them to remember them.

Furthermore, this study's conclusions suggest that e-WOM accounts for a greater share of purchase intention than does brand equity. This indicates that consumers will react more favourably to electronic word-of-mouth than to their associations, images, and perceptions of the brand. This suggests that using marketing techniques to increase e-WOM could benefit marketers. Brand equity should not be fully disregarded even though it does not influence purchasing intention as strongly. Tools that improve both factors would be even more useful because their combined impact would be greater than the sum of their impacts. Therefore, this study offers guidance for brand managers and owners to concentrate on generating e-WOM and brand equity.

The results of this study also contribute to understanding the effects of social media channels on interactions and engagements between businesses,

customers, and brand management when considering the widespread use of social media as a marketing communications channel by brand managers. In conclusion, this study reveals that stronger brand equity and e-WOM can be generated by utilizing social media techniques such as influencer marketing to influence customers' buying behaviors.

5.3 Limitations and future research directions

Despite being one of the few studies that have correlated social media influencer marketing and customers' purchase intention toward sustainable cosmetic brands, this study isn't free from limitations. The data were drawn from customers from New Delhi, India. A broader region could be studied for better results. Most participants were from the Gen Z age group, who might have different tastes and preferences than other age groups. This gives scope for future studies to investigate individual age groups. This paper studied the sustainable cosmetics sector. Other sectors also are influenced by influencer marketing. As a result, future research could concentrate on other emerging product categories. Future studies also could focus on specific genders, income groups, geographical areas, etc. They also could include other brand equity variables such as brand image, brand attitude, brand preference, brand love, etc.

EXTENDED SUMMARY/IZVLEČEK

Ta študija je preučevala vpliv trženja vplivnežev na družabnih omrežjih na nakupno namero strank za trajnostne kozmetične izdelke. Študija je temeljila na podatkih zbranih z anketo, predlagani raziskovalni model pa je bil potrjen z modeliranjem strukturnih enačb po metodi delnih najmanjših kvadratov (PLS-SEM). Poglobljena analiza podatkov 237 anketirancev v New Delhiju v Indiji potrjuje močan vpliv podpore trženja vplivnežev na družbenih omrežjih tako na vrednost blagovne znamke kot tudi na elektronski od ust do ust (angl., e-WOM). Poleg tega vzpostavlja vlogo vrednosti blagovne znamke in e-WOM kot mediatorjev v interakciji med trženjem vplivnežev na družbenih omrežjih in nakupno namero potrošnika. Ugotovitve poudarjajo pomen trženja vplivnih oseb na družbenih omrežjih pri spreminjanju odnosa in izbor potrošnikov glede trajnostnih kozmetičnih izdelkov. Ta študija prispeva k boljšemu razumevanju metod, s pomočjo katerih trženje vplivnežev na družbenih omrežjih vpliva na vedenje potrošnikov v kontekstu trajnosti, in ponuja pristope za podjetja, ki si prizadevajo za učinkovito sodelovanje z družbeno ozaveščenimi potrošniki.

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ENTREPRENEURIAL ORIENTATION TO SUSTAINABLE ENTREPRENEURIAL ORIENTATION: MEDIATING EFFECT OF SOCIAL ORIENTATION

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Abstract

The fundamental aspiration of this research was to establish a relationship between entrepreneurial orientation and sustainable entrepreneurial orientation. This research examined the relationship of antecedents of entrepreneurship (autonomy, innovativeness, proactiveness and risk-taking) with the entrepreneurial orientation that is further linked to sustainable entrepreneurial orientation directly and through the mediating effect of social orientation. This empirical research was conducted using a sample of 435 potential entrepreneurs selected using the purposive sampling technique. The structural equation modeling (SEM) technique was used to measure the statistical significance of proposed relations. The study's results show that autonomy, innovativeness, proactiveness, and risk-taking are significantly associated with entrepreneurial orientation. Entrepreneurial orientation is significantly associated with sustainable entrepreneurial orientation directly and indirectly through the mediating effect of social orientation. Social orientation strengthens the relationship between entrepreneurial orientation and sustainable entrepreneurial orientation.

Keywords: *Entrepreneurship, Entrepreneurial orientation, Sustainable entrepreneurial orientation, Social orientation, SEM*

1 INTRODUCTION

Entrepreneurial orientation (EO) is the organizational strategy and approach that focuses on innovation, risk-taking, and proactiveness. It involves a set of behaviors and practices that allow companies to identify and pursue new opportunities and market niches. Sustainable entrepreneurial orientation (SEO) refers to incorporating sustainability practices into entrepreneurial orientation (EO). That integrates the environmental, social, and economic considerations for developing sustainable business models and making decisions.

SEO has gained traction recently as organizations strive to incorporate sustainability practices into their operations. The integration of sustainability practices has become increasingly important due to the global challenges facing the world, such as climate change, resource depletion, and social inequality. Several studies have explored the relationship between EO and sustainability, highlighting the potential benefits of incorporating sustainability practices into EO. For example, studies have shown that SEO can improve firm performance, increase innovation, and enhance competitive advantage. SEO also can increase stakeholder satisfaction, enhancing

a company's reputation and brand value. Michaelis et al. (2021) examined the impact of SEO on firm innovation and found that companies that incorporate sustainability practices into their EO are more likely to engage in innovation activities. Sarasvathy and Venkataraman (2011) explored the role of effectuation in sustainable entrepreneurship, highlighting the importance of creating a sustainable business model based on resource conservation, ethical business practices, and community engagement.

Overall, the literature suggests that SEO can benefit organizations, such as through improved performance, innovation, and competitive advantage. Therefore, organizations need to incorporate sustainability practices into their EO to remain competitive in the global marketplace and contribute to a sustainable future. This study accepted the need for sustainable entrepreneurial orientation from economic, social, and environmental perspectives and established a path between entrepreneurial and sustainable entrepreneurial orientations.

2 REVIEW OF LITERATURE

Entrepreneurial orientation refers to the strategic orientation of firms that emphasizes innovation, proactiveness, risk-taking, and competitive aggressiveness. Sustainable entrepreneurial orientation is a relatively new concept that integrates sustainability principles with EO, and it emphasizes the importance of long-term environmental and social sustainability along with economic sustainability. In recent years there has been growing interest in studying SEO and its implications for business performance. This literature review discusses the concept of SEO, its antecedents, and its consequences, with references to relevant literature.

2.1 Concept of Sustainable Entrepreneurial Orientation

Sustainable entrepreneurial orientation is a strategic orientation combining entrepreneurship and sustainability principles. It emphasizes the importance of considering social and environmental sustainability and economic sustainability in firms' strategic decision-making (Hockerts & Wüstenhagen, 2010). SEO

reflects a long-term perspective on sustainability beyond short-term profit maximization, and focuses on creating value for all stakeholders, including customers, employees, suppliers, communities, and the environment (Shepherd & Patzelt, 2011).

Several factors influence the development of sustainable entrepreneurial orientation in firms. One important antecedent is the firm's environmental awareness and concern. Firms that are more environmentally aware and concerned are more likely to adopt SEO, because they recognize the importance of sustainability for their long-term success (Hockerts & Wüstenhagen, 2010). Another important antecedent is the firm's stakeholder pressure. Firms that face pressure from their stakeholders to adopt sustainable practices are more likely to develop SEO (Lambooy, 2011). Additionally, internal factors such as the firm's culture, leadership, and resources also can influence the development of SEO (Shepherd & Patzelt, 2011).

Sustainable entrepreneurial orientation has been shown to have several positive consequences for business performance. For example, firms that adopt SEO are more likely to achieve long-term economic success, because they can better adapt to changing market conditions and customer preferences (Hockerts & Wüstenhagen, 2010). Additionally, these firms are more likely to enjoy positive reputational effects, which can enhance their brand image and attract customers, employees, and investors (Shepherd & Patzelt, 2011). Finally, they are more likely to contribute to achieving sustainable development goals, such as reducing carbon emissions, promoting social justice, and preserving biodiversity (Lambooy, 2011).

2.2 Autonomy and Entrepreneurial Orientation

Autonomy in entrepreneurship refers to the degree of independence and control that entrepreneurs have over their ventures. Autonomy allows entrepreneurs to pursue their innovative ideas, take risks, and make decisions that are not subject to the constraints of external stakeholders (Zampetakis et al., 2014). Autonomy is critical for entrepreneurs because it allows them to act on their vision and intuition, which is essential for identifying and exploiting new opportunities (Shane, 2000). Autonomy is closely related to EO, because entrepreneurs need a high degree

of autonomy to pursue innovative ideas and take risks. Empirical research has shown that firms with high levels of autonomy are more likely to exhibit EO (Zampetakis et al., 2014). Autonomy allows entrepreneurs to act on their vision and intuition, which is critical for identifying and exploiting new opportunities. Additionally, firms with high levels of autonomy are more likely to engage in exploratory activities that lead to innovation and growth (Rauch et al., 2009).

The relationship between autonomy and entrepreneurial orientation is complex and multifaceted. On the one hand, autonomy is necessary for EO because it allows entrepreneurs to pursue their innovative ideas and take risks. On the other hand, EO can enhance the firm's autonomy level because it encourages experimentation, learning, and decision-making that is not constrained by external stakeholders (Rauch et al., 2009). Research has shown that the relationship between autonomy and EO is moderated by factors such as the firm's size, industry, and stage of development (Zampetakis et al., 2014). Additionally, the relationship between autonomy and EO can be influenced by the entrepreneur's personality traits, such as creativity, risk-taking, and self-efficacy (Shane, 2000). Thus, it can be hypothesized that:

H1: There is a significant positive linkage of autonomy with entrepreneurial orientation.

2.3 Innovativeness and Entrepreneurial Orientation

Innovativeness in entrepreneurship refers to the degree to which entrepreneurs engage in creative and original activities that lead to developing new products, services, or processes. Innovativeness is critical in entrepreneurship because it allows entrepreneurs to create value by identifying and exploiting new opportunities (Mousavi et al., 2016). Innovativeness is not limited to technological innovation, but includes social, process, and business model innovation (Foss et al., 2013). Innovativeness is a key component of EO, because it is one of the dimensions of innovation that EO encompasses (Lumpkin & Dess, 1996). Empirical research has shown that firms with high levels of EO are likelier to exhibit innovativeness (Mousavi et al., 2016). EO encourages firms to proactively identify and exploit

new opportunities, take calculated risks, and aggressively pursue market share.

The relationship between innovativeness and entrepreneurial orientation is strong and positive. Innovativeness is a critical component of EO, and firms with high EO levels are likely to exhibit innovativeness (Lumpkin & Dess, 1996). Innovativeness pushes entrepreneurial orientation by encouraging experimentation, learning, and decision-making (Rauch et al., 2009). Additionally, firms with high levels of innovativeness are more likely to engage in exploratory activities that lead to innovation and growth (Foss et al., 2015). From this discussion, the following hypothesis is proposed:

H2: There is a significant positive linkage of innovativeness with entrepreneurial orientation.

2.4 Proactiveness and Entrepreneurial Orientation

Proactiveness in entrepreneurship refers to the extent to which entrepreneurs take proactive steps to identify and exploit new opportunities rather than waiting for opportunities to arise (Lumpkin & Dess, 1996). Proactiveness is a key component of EO, because it involves taking proactive steps to identify and exploit new opportunities (Lumpkin & Dess, 1996). Empirical research has shown that firms with high levels of EO are more likely to exhibit proactiveness (Wiklund & Shepherd, 2003). EO encourages firms to proactively identify and exploit new opportunities, take calculated risks, and aggressively pursue market share. The relationship between proactiveness and entrepreneurial orientation is strong and positive. Proactiveness is a critical component of EO, and firms with high levels of EO are more likely to exhibit proactiveness (Lumpkin & Dess, 1996). Proactiveness can enhance a firm's EO level by encouraging experimentation, learning, and decision-making (Rauch et al., 2009). Additionally, firms with high levels of proactiveness are more likely to engage in exploratory activities that lead to innovation and growth (Wiklund & Shepherd, 2003). The following hypothesis is proposed based on the preceding discussion:

H3: There is a significant positive linkage of proactiveness with entrepreneurial orientation.

2.5 Risk-Taking and Entrepreneurial Orientation

Risk-taking in entrepreneurship refers to the willingness of entrepreneurs to take calculated risks to pursue new opportunities and achieve business success (Sarasvathy, 2001). Risk-taking involves the willingness to accept uncertainty, ambiguity, and potential losses in pursuit of potential gains (Venkataraman, 1997). Risk-taking is a key component of EO, because it involves taking calculated risks to pursue new opportunities and achieve business success (Lumpkin & Dess, 1996). Empirical research has shown that firms with high levels of EO are likelier to exhibit risk-taking behavior (Rauch et al., 2009). EO encourages firms to take risks, experiment, and innovate in pursuit of competitive advantage. The relationship between risk-taking and entrepreneurial orientation is strong and positive. Risk-taking is a critical component of EO, and firms with high levels of EO are more likely to exhibit risk-taking behavior (Lumpkin & Dess, 1996).

Additionally, risk-taking increases EO via experimentation, learning, and decision-making that external stakeholders do not constrain (Rauch et al., 2009). Risk-taking is essential for entrepreneurs to pursue new opportunities and achieve business success, which are key objectives of EO. Hence it can be proposed that:

H4: Risk-taking has a significant positive linkage with entrepreneurial orientation.

2.6 Entrepreneurial Orientation to Sustainable Entrepreneurial Orientation

Entrepreneurial orientation is a strategic orientation of firms that emphasizes innovation, proactiveness, risk-taking, and competitive aggressiveness. EO and SEO share common characteristics, such as innovation and proactiveness, but SEO emphasizes the integration of sustainability objectives into the firm's strategic orientation (Shepherd & Patzelt, 2011). Firms with high levels of EO are likely to exhibit sustainable behavior and adopt sustainability practices (Hockerts & Wüstenhagen, 2010). EO encourages firms to pursue new opportunities and achieve. The relationship between SEO and EO can be influenced by factors such as a firm's leadership, values, and culture (Hockerts & Wüstenhagen, 2010).

Additionally, the relationship between SEO and EO can be moderated by a firm's size, industry, and stage of development (Shepherd & Patzelt, 2011). Finally, the relationship between SEO and EO can be influenced by external factors such as the regulatory environment, stakeholder expectations, and market conditions (Afshar Jahanshahi et al., 2018). Thus the following direct and indirect relationships between entrepreneurial orientation and sustainable entrepreneurial orientation can be proposed:

H5: There is a significant direct linkage of entrepreneurial orientation with sustainable entrepreneurial orientation.

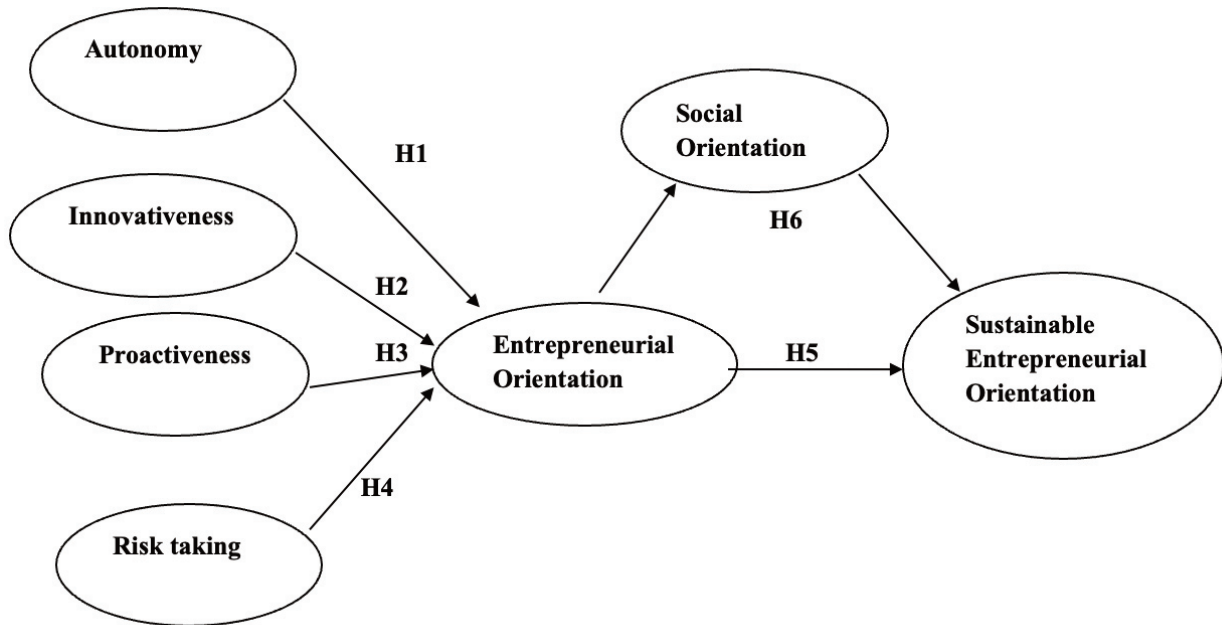
H6: There is a significant indirect linkage of entrepreneurial orientation with sustainable entrepreneurial orientation through the mediating effect of social orientation.

3 METHODOLOGY

This empirical investigation studied the relationship of entrepreneurial antecedents with entrepreneurial orientation and measured the relationship between entrepreneurial orientation and sustainable entrepreneurial orientation directly and through the mediating effect of social orientation (Figure 1). A sample of 435 potential entrepreneurs was targeted from Haryana, Rajasthan, and Uttar Pradesh, India, based on a purposive and snowball sampling technique. Potential entrepreneurs were identified as business students of universities and institutions planning to start their ventures. A Google form was circulated among students' groups, with a message providing details regarding the eligibility of the respondents to fill out the form.

The survey instrument was designed based on an extensive literature review (Autio et al., 2001; Davidsson, 1995; Prakash et al., 2021; Gomis et al., 2017; Gawel, 2012). The initial instrument contained 30 statements grouped under seven headings. A pilot study was conducted using a sample of 40 respondents. Based on the pilot study results, two statements were removed from the survey instrument, and necessary changes were incorpo-

Figure 1: Research framework



rated in terms of technical terms, language, etc. The face validity of the instrument was judged based on expert opinion. The survey instrument was reliable based on the Cronbach’s alpha value ($\alpha = 0.902$).

AMOS structural equation modeling (SEM) was used to study the hypothesized relationship. SEM was considered to be an appropriate technique for checking the appropriateness of the conceptual model (Figure 1). Previous researchers also considered SEM to be an appropriate technique for empirically testing conceptual models (Chin, 1998; Prakash et al., 2021).

4 RESULTS

A total of 435 respondents submitted the Google form, and the data were entered into SPSS 21 for data analysis; eight respondents’ responses were discarded during the data cleaning and coding stage, and 427 respondents’ responses were found to be suitable for final analysis. A brief demographic profile of respondents is presented in Table 1.

The researchers adopted the structural equation modeling technique using AMOS 21. Analyzing the relationship between multiple independent and dependent variables, assessing the role of media-

tors and moderators, and studying direct and indirect relationship structure equation modeling were considered to be appropriate statistical techniques (Chin, 1998; Tomarken and Waller, 2005).

Anderson and Gerbing’s (1988) two-stage approach to SEM—a measurement model, and a structure model—was adopted to analyze the conceptual model developed in the study. The measurement model based on confirmatory factor analysis helps assess the constructs’ validity (Mueller, 1996), whereas the structural model is used to investigate the hypothesized relationship between variables (Hair et al., 2019). The maximum likelihood approach was used to evaluate the model’s fit of the data. Numerous fit indicators were suggested in this approach for assessing the model’s fitness to data. The researchers used the most widely used fit indicators to evaluate the model fitness: CMIN/df = 2–5 (Wheaton et al., 1977); CFI ≥ 0.90 (Bentler, 1990; Byrne, 1998); RMSEA < 0.08 (MacCallum et al., 1996); PGFI > 0.50 (Mulaik et al., 1989), and RMR < 0.05 (Byrne, 1998).

A seven-factor measurement model with 28 observed variables was developed in this study. Fit indicators for the initial measurement model were computed (CMIN = 1066.649; df = 329; CMIN/df = 3.242; $P = 0.000$; RMR = 0.048; PGFI = 0.693; CFI =

Table 1: Demographic summary of respondents

Category	Description	Frequency	Percentage
Gender	Male	220	51.52
	Female	207	48.48
Educational qualification	Graduate	175	40.98
	Postgraduate	154	36.07
	Doctorate	98	22.95
Age	Below 30 years	158	37.00
	30-40 years	145	33.96
	More than 40 years	124	29.04
Area	Rural	235	55.03
	Urban	192	44.97

0.915; RMSEA = 0.073). One statement was removed from the initial measurement model due to poor indicator loading, and error terms e26 and e27 were joined because of their high degree of covariance. The refined measurement model (Figure 2) with 27 indicators appropriately fitted the data (CMIN = 867.757; df = 302; CMIN/df = 2.873; $P = 0.000$; RMR = 0.048; PGFI = 0.695; CFI = 0.930; RMSEA = 0.066). Standardized indicator loadings with observed variables are presented in Table 2. All indicators had loadings above the threshold criteria (greater than 0.5) recommended by Hulland (1999).

The measurement model was assessed further based on reliability and validity (Table 3). The model's reliability was assessed based on Cronbach's alpha (α). The value of Cronbach's alpha for all the constructs ranged from 0.843 to 0.938, above the threshold value of 0.7 (Hair et al., 2017). The convergent validity of the construct was assessed based on average variance explained (AVE) and composite reliability (CR). The AVE for all the constructs was greater than 0.5, and CR was higher than 0.7, which fulfilled the required criteria (Malhotra and Das, 2016). The discriminant validity of the model was evaluated further based on the Fornell and Larcker (1981) criterion. The covariance of each latent variable with itself is higher than the covariance with other variables, which proved the discriminant validity of the construct. The desired model successfully passed the reliability and validity of the construct.

A structural model with path analysis (Figure 3) was developed to study the hypothesized relationship between variables. A bootstrap approach with a 2,000 subsample groups at a 95% confidence level was adopted to measure the statistical significance of hypothesized relations.

Initially, the structural model was assessed based on the model fit indicator, and the model proved to be appropriate for the data (CMIN = 920.750; df = 310; CMIN/df = 2.970; $P = 0.000$; RMR = 0.055; PGFI = 0.707; CFI = 0.924; RMSEA = 0.068). The hypothesized relation of entrepreneurial orientation with autonomy ($\beta = 0.203$; $P = 0.001$), innovativeness ($\beta = 0.335$; $P = 0.001$), proactiveness ($\beta = 0.357$; $P = 0.001$), and risk-taking ($\beta = 0.262$; $P = 0.001$) was found to be statistically significant. As a result, Hypotheses H1, H2, H3, and H4 are accepted. Proactiveness showed the maximum effect on the entrepreneurial orientation of respondents, followed by innovativeness, risk-taking and autonomy. Sustainable entrepreneurial orientation was directly associated with entrepreneurial orientation ($\beta = 0.716$; $P = 0.001$). The mediating effect of social orientation between entrepreneurial orientation and sustainable entrepreneurial orientation ($\beta = 0.042$; $P = 0.027$) also was statistically significant. Thus, Hypotheses H5 and H6 also are accepted. Table 4 summarizes of hypothesized relations and their significance. The total effect of entrepreneurial orientation on sustainable orientation was 0.759, of

Figure 2: Measurement model

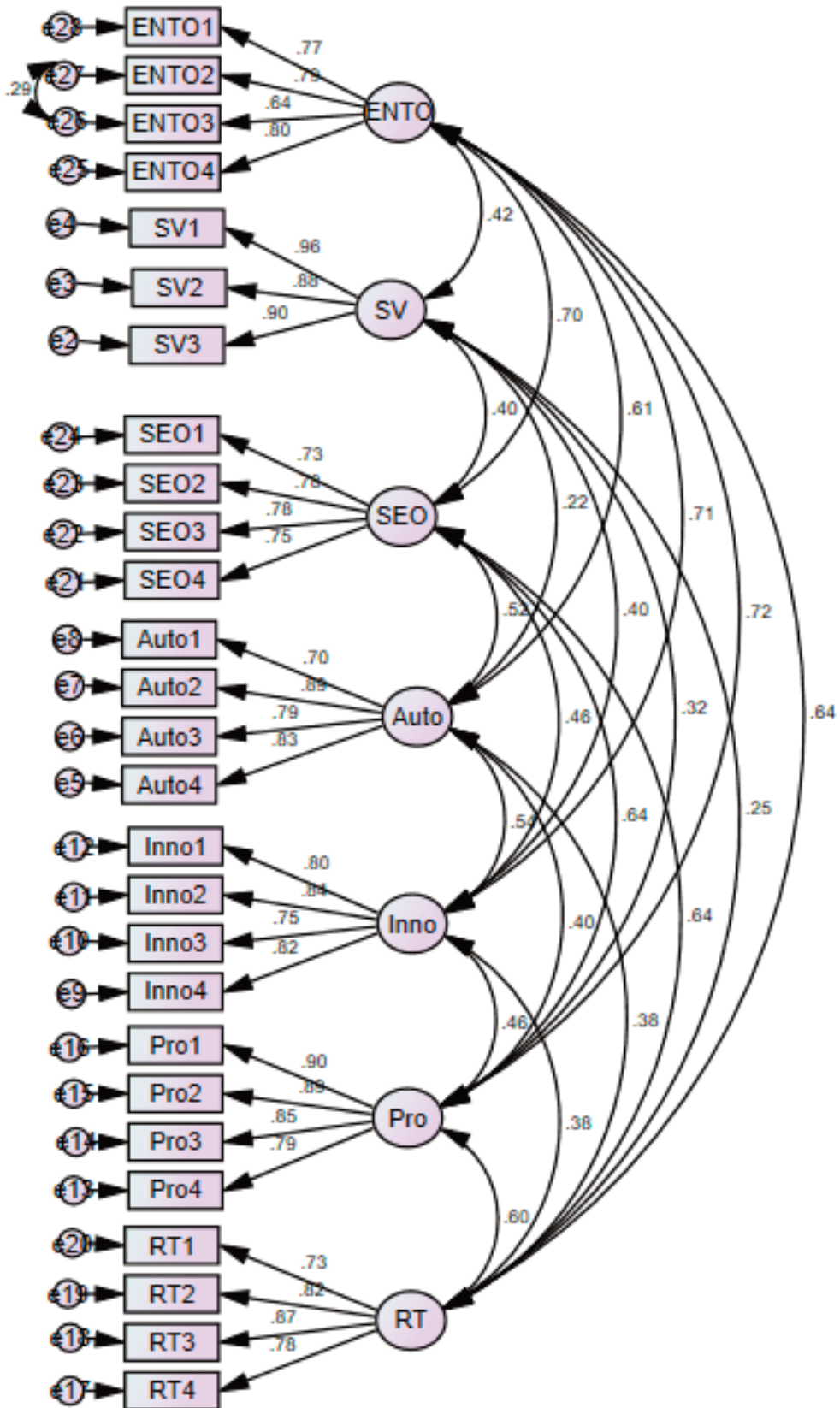


Table 2: Standardized indicator loadings

S. No.	Construct	Statement	Code	Indicator loading
1.	Autonomy	I can make my own decisions when it comes to starting a business.	Auto 1	0.70
		Autonomy is important to me when it comes to pursuing entrepreneurial opportunities.	Auto 2	0.89
		Autonomy allows me to be creative and innovative in my approach to entrepreneurship.	Auto 3	0.79
		I enjoy the freedom of being an entrepreneur and having the autonomy to make my own choices.	Auto 4	0.83
2.	Innovativeness	I enjoy the challenge of finding creative solutions to problems.	Inno1	0.80
		I believe that taking risks is a necessary part of entrepreneurship and can lead to great success.	Inno2	0.84
		I am always looking for new and innovative ideas to pursue.	Inno3	0.79
		I am always on the lookout for opportunities to innovate.	Inno4	0.82
3.	Proactiveness	I am proactive in identifying and addressing potential problems in my business.	Pro1	0.90
		I actively seek out new business opportunities.	Pro2	0.89
		I am constantly adapting to changes in the market to stay ahead of the competition.	Pro3	0.85
		I am willing to make strategic decisions to position my business.	Pro4	0.79
4.	Risk-taking	I am willing to take calculated risks to achieve business success.	RT1	0.73
		I am willing to accept failure as part of the entrepreneurial process.	RT2	0.82
		I am willing to take calculated risks, but not reckless ones.	RT3	0.87
		I am willing to learn from my mistakes.	RT4	0.78
5.	Entrepreneurial orientation	I have a keen interest in starting my own business one day.	ENTO1	0.77
		I am strongly determined to establish my own business.	ENTO2	0.79
		Professional goal of my career is to become an entrepreneur.	ENTO3	0.64
		I will put my best efforts into establishing a new venture.	ENTO4	0.80
6.	Social orientation	I always thought about the welfare of society.	SV1	0.96
		I always try to contribute something to social development.	SV2	0.88
		I am ready to contribute monetarily and non-monetarily to the development of society.	SV3	0.90
		I always keep my monetary goals over social goals.	SV4	Removed
7.	Sustainable entrepreneurial orientation	I would prefer to establish a business that doesn't negatively impact the environment.	SEO1	0.73
		I am always concerned about the impact of business on society.	SEO2	0.78
		My orientation is always toward the contribution of my new venture to the country's economic development.	SEO3	0.78
		My inclination will always be toward sustainable products, processes, methods etc., for my new business.	SEO4	0.75

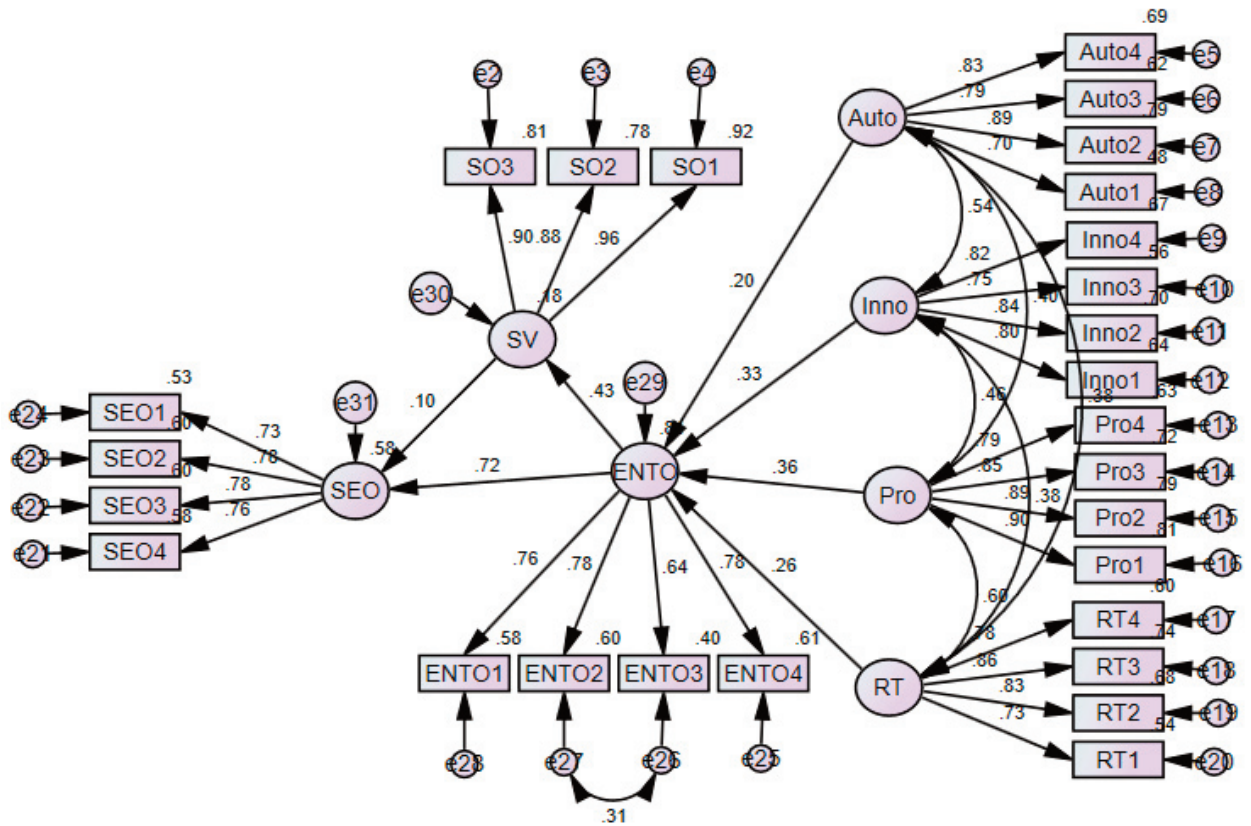
Table 3: Reliability and validity assessment

	Cronbach's alpha	CR	AVE	MSV	MaxR(H)	SV	Auto	Inno	Pro	RT	SEO	ENTO
SV	0.938	0.939	0.837	0.172	0.951	0.915						
Auto	0.876	0.879	0.647	0.371	0.895	0.222	0.804					
Inno	0.877	0.878	0.643	0.504	0.881	0.397	0.542	0.802				
Pro	0.919	0.918	0.738	0.518	0.925	0.317	0.396	0.460	0.859			
RT	0.876	0.877	0.642	0.413	0.887	0.255	0.382	0.375	0.602	0.801		
SEO	0.843	0.846	0.578	0.497	0.847	0.404	0.524	0.457	0.636	0.643	0.760	
ENTO	0.846	0.838	0.565	0.518	0.847	0.415	0.609	0.710	0.720	0.640	0.705	0.752

Source: Primary data.

Note. CR = composite reliability; AVE = average variance explained; Auto = autonomy; Pro = proactiveness; Inno = innovativeness; RT = risk-taking; SEO = sustainable entrepreneurial orientation; ENTO = entrepreneurial orientation; SO = social orientation.

Figure 3: Structural model



which 0.716 was the direct effect and 0.042 was through mediating variable, i.e., social orientation. The desired model explained 58% of variance in sustainable entrepreneurial orientation.

5 DISCUSSION, IMPLICATIONS, AND FUTURE SCOPE FOR RESEARCH

This research investigated the antecedents of entrepreneurial orientation and the impact of entrepreneurial orientation on sustainable entrepreneurial orientation directly and through the mediating effect of social orientation. The study’s results proved that autonomy, innovativeness, proactiveness, and risk-taking behavior significantly and positively impact entrepreneurial orientation. The results of the study are in line with those of previous research. Prakash et al. (2021), Zampetakis et al. (2014), and Rauch et al. (2009) highlighted the significant linkage of autonomy with entrepreneurial intention. Shane (2000), Zampetakis et al. (2014), and Rauch et al. (2009) showed the significant association of innovativeness with entrepreneurial intent. Wiklund and Shepherd (2003) and Lumpkin and Dess (1996) showed the association of proactiveness with entrepreneurship. The risk-taking behavior of an individual also is found to be positively associated with entrepreneurial orientation (Venkataraman, 1997; Lumpkin & Dess, 1996; Rauch et al., 2009).

The study’s results further proved the positive impact of entrepreneurial orientation on sustainable entrepreneurial orientation directly and indirectly through mediator social orientation. Shepherd and

Patzelt (2011) and Hockerts and Wüstenhagen (2010) found a linkage of entrepreneurial orientation with sustainable orientation. Shepherd and Patzelt (2011) and Hockerts and Wüstenhagen (2010) also considered the indirect linkage of entrepreneurial orientation with sustainable orientation.

Sustainable entrepreneurship is an area of research that demands further study because not much work has been conducted in this area. This research narrowed the existing literature gap. This study will benefit academicians and researchers who are working in this area. Entrepreneurship and sustainable development are no longer mutually exclusive issues. Entrepreneurs must incorporate sustainability into their strategies to survive in an uncertain environment. This study draws future entrepreneurs’ attention to changing their strategic orientation towards sustainable entrepreneurship. This research further draws the attention of society members toward sustainable entrepreneurship for sustainable growth and development. Through this investigation, the researchers suggest that regulatory authorities take initiatives for sustainable entrepreneurial ventures. This study guides them to understand the social and environmental preferences for making investment decisions. This will enhance the institutional and student understanding of the skills required per the antecedents of entrepreneurial orientation creation. The outcome of any course on entrepreneurship should be to motivate the students to create jobs rather than to seek jobs in other established organizations. An understanding of sustainable entrepreneurial orientation will help to achieve this objective.

Table 4: Acceptance and rejection of hypotheses

Hypothesis	Relations	Beta (β)	Sig.	Significance
H1	Autonomy	0.203	0.001	Significant
H2	Innovativeness	0.335	0.001	Significant
H3	Proactiveness	0.357	0.001	Significant
H4	Risk-taking	0.262	0.001	Significant
H5	Entrepreneurial orientation, sustainable entrepreneurial orientation	0.716	0.001	Significant
H6	Entrepreneurial orientation, social orientation, sustainable entrepreneurial orientation	0.042	0.027	Significant
Total effect ($\beta = 0.758$; $P = 0.001$)				

Source. Primary data

This study draws future entrepreneurs' attention toward sustainable entrepreneurship. However, some drawbacks provide directions for future research. This research was conducted using a sample of potential entrepreneurs from Haryana. Future research can be conducted by taking a sample from across India. A comparative analysis can be conducted among rural and urban entrepreneurs regarding sustainable entrepreneurship. Sustainable entrepreneurial orientation antecedents can be studied in the future.

Furthermore, future research may analyze entrepreneurial intentions based on various demographics. The moderating role of an individual's learning, emotional strength, and psychological perspective also can be studied. Sustainability in entrepreneurial orientation may vary based on different entrepreneurial choice segments. Therefore, researchers should consider these future research directions.

EXTENDED SUMMARY/IZVLEČEK

Raziskava vzpostavlja povezavo med podjetniško naravnostjo in trajnostno podjetniško naravnostjo. Študija je raziskovala razmerje med predhodniki podjetništva, tj. avtonomijo, inovativnostjo, proaktivnostjo in prevzemanjem tveganja, ter njihovo korelacijo s podjetniško usmerjenostjo. Poleg tega študija raziskuje, kako je ta podjetniška naravnost povezana s trajnostno podjetniško naravnostjo, tako neposredno kot s posrednim vplivom socialne naravnosti. Raziskava je bila izvedena empirično in je zajela vzorec 435 potencialnih podjetnikov, izbranih s tehniko namenskega vzorčenja. Statistična analiza za oceno pomembnih predlaganih razmerij je bila izvedena z modeliranjem strukturnih enačb (SEM). Ugotovitve raziskave poudarjajo pomen avtonomije, inovativnosti, proaktivnosti in prevzemanja tveganja v povezavi s podjetniško usmerjenostjo. Ugotovljeno je bilo, da so ti predhodniki pomembno povezani s podjetniško usmerjenostjo. Poleg tega je študija ugotovila neposredno povezavo med podjetniško naravnostjo in trajnostno podjetniško naravnostjo. Predvsem je raziskava našla dodatno povezavo: posredniško vlogo socialne naravnosti. In sicer, ugotovljeno je bilo, da socialna naravnost krepi razmerje med podjetniško naravnostjo in trajnostno podjetniško naravnostjo.

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EMPLOYEE ENGAGEMENT AND ITS IMPACT ON BUSINESS SUSTAINABILITY IN FINANCIAL INSTITUTIONS

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Abstract

This study explored the relationship between organizational identification and sensemaking and understanding how employee engagement influences the business sustainability of any organization. To conduct this study, a qualitative method was adopted, and the authors used qualitative data. Data were collected by interviewing the middle-level managers of eight financial institutions located in the Delhi National Capital Region (NCR) of India. The results of the qualitative study indicated a positive linkage of organizational identification with the organization and the contribution of organizational identification to the goals and actions for business sustainability. Conversely, individual actions for sustainability contribute to the increase in organizational identification. The results of the interviews indicated that people have different objectives, obstacles, and ways of maintaining organizational sustainability. The results analyzed the processing of cognitive and emotional dynamics present in the sample, and provide implications for practitioners and future studies.

Keywords: Organizational identification, Sensemaking, Organizational sustainability, Employee engagement

1 INTRODUCTION

Much research has been conducted to understand strategies of different organizations for managing sustainability. Business sustainability has become a much-discussed phenomenon in volatility, uncertainty, complexity, and ambiguity (VUCA) research (Andrey & Bourne, 2011). Moreover, the majority of organizations are transforming their actions toward business sustainability. Although the phrase “sustainable development” is derived from “sustain” and “ability,” in recent decades it has denoted “the capacity to maintain.” The potential to endure and adapt can also be considered as sustainability, raising the issue of whether current conditions must be preserved. Several businesses and NGOs have realized that long-term success necessitates carefully considering one’s environmental factors, impact on communities, global society, and

economic growth (Elkington, 1997; Savitz & Weber, 2006). The ability of a company to achieve its business objectives and boost long-term shareholder value by combining economic, environmental, and social prospects into its business plans is one definition of sustainability, according to Symposium on Sustainability (2001). Different authors have proposed different definitions of sustainable development, and still there is lack of consensus regarding the importance of sustainable development or how organizations must understand and identify the most effective way to sustain in all areas.

Several businesses have successfully integrated sustainability into their strategic objectives to reach a high level of management for sustainability (Laszlo & Zhexembayeva, 2011). However, it is imperative to become more familiar with the underlying processes that motivate workers to pursue sustainable

objectives. Andrey and Bourne (2011) concluded that there is a link between motivation and performance appraisal, which ultimately influences the organization's overall performance. In addition, they concluded that certain people's behaviors influence an organization's business sustainability.

The main focus of the present study is to examine the motivation behind employee engagement and its impact on organizational sustainability. This requires the authors to understand the following research questions:

1. How do employees interpret environmental stimuli in their environment?
2. What connection does this organizational sensemaking have on the fundamentals of the employee? Can it increase their sense of belonging to the organization?
3. When the organizational identification is high, does an individual want to become more involved in sustainability efforts? If so, does increased involvement strengthen that organizational identity in a positive feedback loop?

According to researchers, it is crucial to understand an employee's mindset regarding managing sustainability in the organization (Fairfield, 2018; Rimanoczy, 2013; Schein, 2015a, 2015b). This will help to understand how an individual is involved in decision-making and add extra factors to already complex problems. They may cover various topics, such as the effect of developing new products on the inner and outer environment (Wirtenberg, 2014). Many justifications for why businesses incorporate sustainability issues into their strategy have been put forth by academics, consultants, and industry professionals.

In a pioneering study, Bansal and Roth (2008) examined 53 companies and identified the key factors for motivating and managing ecological stewardship. They identified different factors, such as competitive advantage, linked with maximizing profits or increasing sales or marketing skills. However, what motivates the people to become so committed that they work tirelessly, passionately, and creatively to bring about sustainable activities presents a more specific difficulty. How do employees understand their environment, explore the influence of social or ecological factors on the organization, and

understand the level of motivation for sustainability, taking into consideration organizational sensemaking? In addition, what kind of an impact does such sensemaking have on employees and the motivation level to manage sustainability? What are the factors that contribute to sensemaking?

According to certain studies, an employer's perceived social responsibility actions improve the likelihood that potential employees will join the company and want to stay (Jones et al., 2014). Does a stronger organizational identity result in greater effort to achieve those sustainability outcomes? In addition, are workers more likely to identify with their company if they implement active tactics for increased sustainability (Glavas & Piderit, 2009)? According to certain evidence, workers frequently care more about sustainability issues than they believe their employers do (Slepian & Jones, 2013). There is a disconnect between what is understood about the dynamics of human behavior and the enterprise-level pursuit of sustainable management. This study bridges the gap.

Limited research has been conducted in this domain, and scholars have suggested that business conduct and leadership are always crucial factors; for example, studies have investigated the effects of leadership strategies for pursuing sustainability management, and discovered that organizations that made this promise had higher executive responsibility, stakeholder engagement, long-term focus, and disclosure of non-financial information. Importantly, these businesses outperformed their competitors in terms of capital valuation. According to organizational academics, implementing strategic goals will be accelerated if staff involvement and commitment are increased below the executive level (e.g., Fairfield, Harmon, & Benson, 2011; Gratton, 2007). Some authors contend that self-organized behavior and self-driven activity are essential for any long-lasting transformation (Knowles, 2006).

To enhance the psychological potential of the employees, the present study explored the basic strategies of engaging people in sensemaking concerning sustainable management. This study also examined how organizational identification might be a pioneer to the sustainability mindset, a byproduct of it, or both, given the strength of social impact and identity. This research examined these issues by reviewing the liter-

ature on organizational identity and individual and communal sensemaking. The outcomes of exploratory research are reported. Interviews with manager involved in managing sustainability has yielded positive results. This research article presents profiles of eight firms from the financial industry and their varying degrees of commitment to sustainability.

2 LITERATURE REVIEW

In research between 1993 and 1995, Weick proposed that sensemaking is rooted in building one's identity, which will promote self-enhancement, self-efficacy, and self-consistency in the individual. According to Weick's interpretation of Follett's (1924) early work, "People receive stimuli as a result of their activity," and sensemaking gains meaning only when it is performed in an organizational environment (Weick, 1995, p. 32). It makes us consider how others could view and assess us, and the possible positive or negative emotions that might result (Dutton & Dukerich, 1991). This happens when the situations in the organization can be expressed in words and can be discussed. This discussion works as a stimulus to act and helps generate fresh stimuli to repeat the process.

Making sense of a situation is more about the cyclical relationship between action and interpretation than evaluating a situation to make a decision (Weick et al., 2005). Because sensemaking derives from the individual perspective of socialization, it is implied that individuals will be influenced by the people with whom they socialize, whether in their personal lives or their work environments (Sonenshein, 2010). In a professional environment, the process of socialization starts with hiring and onboarding. People are "thrown into the heart of things," receiving cues from superiors, coworkers, and the larger culture. As a result, sensemaking never ends (Weick et al., 2005, p. 44). Making sense begins with asking "What occurred here?" and looking backward.

It inherently draws from prior experience, which has aided in developing a person's mental model. The inevitable question of "What do I do now?" arises in an employee's mind. A person does something, and that something then is construed to lead to more doing. Even when a person's sensemaking is incorrect, it proceeds because it is believable.

This study investigated how a person's feeling of sustainability motivates them to take personal action. The self-evaluation of employees has a significant impact on whether they support sustainability-related problems. Sonenshein, DeCelles, and Dutton (2014) examined how participants rated their sustainability in their qualitative study.

Although a person's self-assertion and values might influence their willingness to support sustainability, their self-doubts can inhibit that willingness. Instead of being an unwavering advocate or a reluctant observer, each person exhibits a mix of self-assertion and self-doubt. Bansal (2003) contended that when individual interests align with organizational values, this can be the best course of action. Conversely, if there is no support from the company, an individual's desire for a cause with societal benefits will be diminished. The idea that sensemaking does not occur on a merely cognitive level is fundamental (Haidt, 2013; Kahneman, 2013).

Sonenshein (2007) asserted that individuals create issues before reaching an intuitive conclusion. The person then starts to justify and explain their decision. Similarly, Haidt (2013) claimed that we hardly ever objectively discuss opposing viewpoints with people in order to modify our own. Instead, we act more like lawyers by rationalizing evidence to support our claims and win a disagreement due to our self-protective emotions. As a result, appealing to employees' instincts and emotions rather than their intellect is necessary to persuade them to embrace sustainability initiatives; according to Porac, Thomas, and Baden-Fuller (1989), elements inside and outside organizational boundaries impact sensemaking in organizations.

To comprehend what is occurring in the organization's competitive environment, a person explores "the consensual identity and underlying beliefs formed by top management" (Porac et al., 1989, p. 401). Employees can observe how these viewpoints relate to the company's marketing strategy. Constant actions and reactions enable people to modify or improve their core ideas about themselves and the world, leading to group-level sensemaking (Sonenshein, 2016; Stigliani & Ravasi, 2012). For example, Marcal Paper Products, which was established in the 1950s, uses recycled paper to produce different types of products. The employees involved in this process

might have little understanding of corporate social responsibility (CSR) because it is an old tradition that has not been advertised widely (Glavas & Godwin, 2013). The management reframed its business strategy by referring to itself as an eco-friendly sustainability corporation in the latter half of the 20th century. As a result, it launched an aggressive marketing effort that highlighted the plantation that was procured by utilizing only recycled paper. Employees then could modify their identities as members of an organization prioritizing sustainability (Weick, 1995). "Identification with all Humanity" is another factor that plays a role in sensemaking (McFarland et al., 2012). Through this, the concern of the organization for the environment and their inclination toward philanthropical needs are validated (McFarland & Matthews, 2005). This trait also is considered to be one of the crucial factors in understanding the organizational inclination toward sustainability.

Organizational dynamics also were interpreted by Sonenshein (2016). The mission of the company is another strong influence on sensemaking. Some well-known sustainable businesses point to a long history in which concern for the environment and the general welfare appears to be ingrained in their "Nature." Social learning theory can be used to better understand how individual beliefs and values interact with organizational reality (Bandura, 1977). The organization's internal and external factors impact the sensemaking of the individual. When the belief of a particular group in the organization changes, it occasionally influences the organization's mission as well. Biomimicry training helps increase employees' internal motivation and engagement, which helps with sustainable innovation. Due to COVID-19 restrictions, the present study conducted interviews with middle-level managers online in order to investigate the phenomena.

2.1 Organizational Identification and Sustainability Management

A person's sense of self and belonging to a group are crucial to sensemaking (Whetton & Albert, 1985). Social identity theory is the foundation of organizational identification. Tajfel & Turner (1986) provided evidence that people's responses to others depend on whether they belong to a clique or an out-group.

Employees prefer the group to the out-group because it provides important information about their identity (Tajfel & Turner, 1986; Turner et al., 1987). As a result, belonging to a group that performs well compared with other groups boosts self-esteem, inspiring pride and encouraging group-friendly conduct (Tyler, 1989). Organizational identity is "how an individual links the organizational identity with his/her identity based on the information of groups" (Dutton et al., 1994, p. 242). An individual begins to feel that "the organization's successes are my successes" (Ashforth & Mael, 1989, p. 23) and that "the organization's failures are my failures" (Pratt, 1998, p. 194) by defining themselves in terms of their organizational identities. Identifying with an organization is tremendously inspiring (Van Knippenberg, 2000).

In addition, organizational identification is specific to the organization, unlike organizational commitment, which is focused on goals and values that can be attained by various organizations (Vadera & Pratt, 2013). According to Ashforth and Mael (1989), Deaux et al. (1999), Dutton et al. (1994), and Pratt (1998), organizational identification also has been demonstrated to support a person's demand for belongingness, ambiguity, and self-respect. According to additional research, it can boost motivation and job satisfaction (Alpander, 1990). In addition, it can influence individuals to perform in the company's best interests (Cheney, 1983). According to Farooq, Payaud, Merunka, and Valette-Florence (2014), organizational identification, which is roughly comparable to sustainability management, is correlated with corporate social responsibility, and fully mediates the relationship between CSR and organizational dedication. Two routes may lead to organizational identity, according to Pratt (1998). Affinity is one route, in which individuals look for groups that resemble their own. An example is choosing a place to work. Emulation is the second route, in which one's self-concept is altered such that "participation in a group becomes part of one's self-concept" (Pratt, 1998, p. 174; see also Gioia, Schultz, & Corley, 2000). The final route aligns with the present study, which examined whether individual engagement with sustainability may change a person's self-perception and encourage them to take on a more active role.

A specific organizational vision, a societal purpose, or a worldview may be linked to organizational identity (Collins & Porras, 1991; Lofland & Stark, 1965; Pratt, 1998; Schein, 2015a, 2015b). Empathy for the organization may be developed on the consumers' part if the company's reputation is upright (Dutton et al., 2010). Turban & Greening (1997) and Pratt (1998) considered these to be examples of "competition" initiators identifying with the organization. Dutton et al. (1994) recognized organizational pride as a distinct component in earlier research. Organizational pride is a more focused psychological phenomenon linked to an individual's self-concept, whereas a firm's identity generally is a multifaceted component (Ricketta, 2005). The enjoyment and respect that people derive from their organizational membership is called "organizational pride" (Jones, 2010, p. 859).

Despite lacking any sense of pride, a worker may identify with a company (Dutton et al., 1994). According to a large global poll, people at work felt gradually more anxious about various environmental issues than they believed their employer to be (Slepian & Jones, 2013). According to Jones et al. (2014), firms prioritizing sustainability have been demonstrated to attract, keep, and inspire employees to experience a strong sense of pride and affiliation. A company's sustainability can be viewed as a type of CSR, at least in part. Jones (2010) examined volunteerism's role in CSR in terms of company identification and pride. The findings provide information about the character of the connection between organizational pride and identification. When employees feel that others hold their organization in high regard, they are more likely to identify with it (Mael & Ashforth, 1992; Smidts et al., 2001; among others).

All these relevant and available studies present motivation for authors to examine organizational identification and employee motivation toward sustainability management.

2.2 Employee Engagement and Sustainability

According to Kahn (1990, 1992), "being there" enables an employee to optimize effort and satisfying results. Kahn's groundbreaking research suggests that employee engagement involves applying physical, mental, and emotional resources to ac-

complish the work function. Kahn's study supported the following three factors as predictors of employee involvement:

1. Similarity among the group members should be valued and realized.
2. Supportive social systems.
3. A fundamental self-evaluation, self-perceptions of confidence and self-consciousness.

These three factors had a full mediating effect on task performance and organizational citizenship behavior (OCB) through job engagement. This has shown that if the engagement level of the employees is higher, they will be able to generate more desirable results. The work of Detert and Pollock (2008) are in line with these findings. According to their research, executives are more likely to support change in the company if there is:

1. an alignment between personal objectives and organizational objectives.
2. supposed personal interest alignment with motivations and lack of deterrents.
3. employee autonomy and the potential of an individual to handle and accept the change.

According to a study of sustainability and human resources executives, they were most actively involved when their objectives and the organization's goals were assumed to be aligned (Harmon et al., 2010). They also were more likely to make changes when they felt that they had the resources and authority to do so (Harmon et al., 2010). In addition, these managers reported feeling more capable and motivated to take on the challenges when they understood that sustainability was a key component of the company's mission. These results are consistent with Csikszentmihalyi's argument (2003) that people intensely immersed in their jobs enter a state of flow in which they are more engaged, creative, and productive. Several factors that contribute to the sense-making that results in employee engagement have been identified through research.

Sustainability, which encourages an organization to involve employees whose performance is at its peak, engaging creative people and quality interpersonal interactions, is a component of perceived corporate citizenship (Glavas & Piderit, 2009; Milliken & See, 2014). Among medical professionals

(Bartel, 2001), social service providers (Dukerich et al., 2002), and nurses, OCB has been reported to increase with stronger identification (Fairfield, 2004).

Additionally, sharing the negative association with the turnover intention, evidence of additional positive outcomes of identifying with the organization has included increased employee level of satisfaction and job involvement (van Dick, Wagner, Stellmacher, & Christ, 2004; Riketta, 2005; Mael & Ashforth, 1995).

In conclusion, sensemaking helps employees understand their external environment, societal concerns, and perspective toward the organization. Conversely, it may be claimed that employees' perceptions of their company implementing sustainability methods and morally righteous activities lead to organizational pride, which limits organizational identification (see also Glavas & Godwin, 2013). Therefore, this study focused on understanding employee engagement toward sustainability.

3 METHODS

Primary research was conducted to understand the phenomena in detail. Qualitative data were collected using the interview method. To conduct this study, the researcher collected data in semi structured interviews with 20 middle-level managers working in 8 different financial institutions. The au-

thor created interview questions to explore the phenomena in detail. Interviews with different respondents were conducted using a hybrid mode. Based on the availability of middle-level managers, interviews were conducted online and offline. Because the data were qualitative, the sample size for conducting the study was 20. There are a total of eight categories of financial institutions, and to conduct the research, the authors used one organization from each category.

4 RESULTS

To maintain the confidentiality of the companies from which data were collected, the names are not revealed. Table 1 presents the responses of various respondents and the rating of the organization on the various reasons for business sustainability.

4.1 Making Sense and Organizational Identification

The results of the interviews indicated several common factors between employers and employees regarding how they define the concept of sustainability. Several factors contribute to the sensemaking of an employee toward an organization, as Weick (1995) concluded. Some of these factors are based on the individual's attitudes, values, and mindset. In addition, the results revealed that this can raise the

Table 1: Response of Various Respondents

Company	Competitive advantage	Legal reasons	Ethical reasons	Comments
Company 1	High	High	Medium	Main focus on sustainability and strategic issues. Focus on product customization.
Company 2	High	Low	High	Company has focus on high customer interaction through employee involvement.
Company 3	Low	Low	Low	Not much focus on sustainability practices, not much action taken due to less impact on overall output.
Company 4	High	Medium	High	High emphasis on product development and focus on energy savings.
Company 5	Medium	Low	Low	Works on the report of employee sustainability and very less awareness on employee awareness
Company 6	Medium	High	Low	Average involvement of employees. Not much strategic orientation for substantivity.
Company 7	Medium	Medium	Low	Employee involvement is not the main concern. Very low involvement of people.
Company 8	High	High	Medium	Major focus on sustainability and trying to incorporate sustainability in products. Also involved in various societal programs.

awareness level of the employee toward environmental activities. Managers revealed that employees devoted to the organizational objective are more committed to actions that promote business sustainability. Organizational identifications also change along with individual sensemaking, depending on the stimuli. A person's organizational identification will be impacted by these stimuli, which is another aspect of sensemaking (Pratt, 1998).

Table 1 presents the different crucial elements that is identified during interview which improves or reduces the affinity for each organization towards sustainability. Companies are involved in business sustainability for competitive advantage and legal and ethical reasons. Three major reasons have been identified and the rating of the organization towards these factors has been done on the basis of the responses of the interviews. Based on the responses it can be inferred that the orientation of the organization towards sustainability is due to various reasons (as mentioned in comment section). The importance of some elements, such as pride in a well-known corporate brand, widespread employee loyalty, and a track record of transparent recruitment practices, may strengthen one's connection with the organization. Organizational pride and identity are can be ignited by specific activities, such as saying things such as "We are proud of the sustainability of our company." However, some elements decrease organizational identity.

4.2 Main Sources for Sustainability

Major focus on sustainability and trying to incorporate sustainability in products and different business actions. Also, involved in various societal programs. Table 2 has shown the various sources of the organizations towards sensemaking and sustainability. Three major sources have been identified and through responses various reasons under these factors have shown the actions of the organization towards sustainability and sensemaking. These factors are categorized into three sources: Individual factors, organizational factors and environmental factors. All the various financial institutions have presented the thrust focus area in all the three respective factors.

5 DISCUSSION

Based on the responses conducted during the interviews, several conclusions can be drawn about organizational identification and sensemaking for each company. Employees are sensitive to certain factors, as revealed by the results of the interviews, such as unambiguous sustainability discussions and actions; not settling previous administrative issues; and pressure from key stakeholders such as clients, suppliers, and nongovernmental organizations. Managers stated that an organization's vision needs to be clear when management attempts to focus on managing sustainability in the organization. Everyone who has worked within an organization should relate to sustainability issues (Sonenshein, 2016). The results revealed that highly engaged employees embrace sustainability issues properly and are more involved in them (Laszlo & Zhexembayeva, 2011; Winston, 2014).

For all of the organizations included in the analysis, Table 1 indicates a roughly positive link between the identification of the organization and the degree of sustainability. It has shown the inclination of the organization towards sustainability in three different dimensions. The results suggest a more intricate connection than a straightforward, direct link. Many would argue that senior administration setting convincing sustainability goals and strongly holding the purpose to move in that track is a fundamental requirement (Fairfield et al., 2011; Harmon et al., 2010).

The study outlines how managerial leadership may or may not demand significant sustainability actions. When stimuli for the sustainability is provided to the employees, due to their organizational sensemaking it can motivate the employee towards sustainability. The mix of sensemaking elements also includes internal aspects such as the organization's history and professional culture and external factors such as market trends and institutional influences.

Employee engagement probably will be moderated by these factors, because the identification with the organization will alter how an individual identifies with the organization, which is influenced by the company's pride. Identification can considerably increase the probability of successfully implementing a thorough sustainability plan (e.g., Fairfield et al., 2011).

Table 2: Sensemaking and sustainability and various sources

Company	Individual factor	Organizational factor	Environmental factor
Company 1	Focus on hiring employees having sustainability orientation.	Focus on code of conduct. Focus on corporate goal linking with sustainability issue	Focus on sustainability due to market dynamics
Company 2	Younger employees are more oriented toward sustainability issues.	Middle-level management is pressurized to achieve results. Follow COD for internal employees.	Need to approach sustainability issue due to motivation from customer.
Company 3	Some employees have focus on local community sustainability issues.	Sustainability programs are designed mainly by the consultant. Focus on go green.	Majority of the investors are more inclined toward profitability then sustainability.
Company 4	Company has been pushed by the customers toward sustainability issues. Lower-level and younger employees are more inclined toward sustainability goals.	Much focus is given to pragmatic products and services. Not much focus is placed on employee engagement. Focusing also is placed on new product development strategies.	Many competitors also are focusing on sustainability issues.
Company 5	Not all the employees are oriented toward sustainability; some are indifferent.	Have set certain goals for sustainable strategies. Not much focus on employee engagement.	Focus of the company is to maintain transparency.
Company 6	Majority of the people are indifferent toward sustainability. Some respondents have shown personal passion for sustainability. Active in local sustainability issues.	Major focus on the value of shareholders, so the threshold is on sustainability.	Sustainability issue is important due to competitive purpose.
Company 7	Young employees are more focused on sustainability. Older employees are less engaged.	Not much clarity about sustainability. HR is not active enough, and employee are less engaged.	Not many customers are persuading the organization to pursue sustainability.
Company 8	Awareness about corporate sustainability, and has a long history related to it.	Involved in many sustainability projects. Also handling oversees projects.	Promoting CSR activities. Employees are engaged in R & D activity and improving the life of the public.

If brand image and reputation of the organization is good or favorable, all efforts to involve people at work in a sustainability strategy may be improved. The strategy provides feedback loops in which meeting sustainability objectives can boost organizational pride and identity, which, in turn, impact a person’s capacity for sustainable thinking.

Comments from some organizations support the initial research on the impact of one’s actions on personal attitudes and beliefs by providing evidence of this beneficial loop (Bem, 1967). Similar findings were made in studies suggesting that job seekers favor businesses prioritizing sustainability (Chapman et al., 2005; Jones et al., 2014). Weick 1995, concluded that making sense since the beginning is not a static but a dynamic concept, which best illustrates the cyclical, dynamic paradigm advanced in the present study.

6 LIMITATIONS AND RECOMMENDATIONS

This study has shown the link between employee engagement and business sustainability by considering other organizational identification and sensemaking factors. The results provide valuable input, but the study still has certain limitations. Only two authors did the interviewing, so the study results may be biased. This study was conducted only in the Delhi National Capital Region (NCR) of India, so the study results cannot be generalized. However, the leadership and cultural resemblance to the Delhi NCR suggests some confidence in extrapolating these findings to Northern India. To extend this inquiry further and clarify its findings, the conclusions drawn from these exploratory findings should be strengthened by interviewing more people at the same and many other companies.

According to our findings, at the small level, an interpretation that strengthens organizational identification will play a significant role in motivating and involving workers in realizing this possibility. Future studies can be conducted using a larger sample size

taking the similar variables in consideration. This study can be strengthened by collecting and analyzing qualitative and quantitative data. Therefore, a mixed-methods approach can be used to conduct future studies.

EXTENDED SUMMARY/IZVLEČEK

V sedanjem okolju nestanovitnosti, negotovosti, kompleksnosti in dvoumnosti (angl., volatility, uncertainty, complexity, and ambiguity; VUCA) je poslovna trajnost postala modna beseda za vse organizacije po vsem svetu. V organizacijah je bilo izvedenih veliko raziskav, da bi razumeli različne strategije, ki jih je mogoče uporabiti za trajnost. Sposobnost vzdržljivosti in prilagajanja lahko imenujemo tudi trajnost, pri čemer se postavlja vprašanje, ali moramo in potrebujemo ohraniti trenutne razmere. Ta študija je raziskovala razmerje med organizacijsko identifikacijo in ustvarjanjem smisla ter razumevanjem, kako zavzetost zaposlenih vpliva na poslovno trajnost katerekoli organizacije. Raziskovalci so zbrali podatke s pomočjo polstrukturiranih intervjujev (izvedenih hibridno) z 20 menedžerji na srednji ravni, ki delajo v 8 različnih finančnih institucijah. Ugotovitve kvalitativne študije so pokazale, da obstaja pozitivna povezava med organizacijsko identifikacijo in njenim prispevkom k ciljem in dejanjem za trajnost poslovanja. Nasprotno pa so posamezni ukrepi za trajnost prispevali k povečanju organizacijske identifikacije. Rezultati intervjujev so pokazali, da imajo ljudje različne cilje, ovire in načine za ohranjanje trajnosti organizacije.

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AUTHOR GUIDELINES

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