



IoBM ABSTRACT BOOK

2024

Research, Innovation & Excellence



Prepared by
IoBM Research Office (IRO)

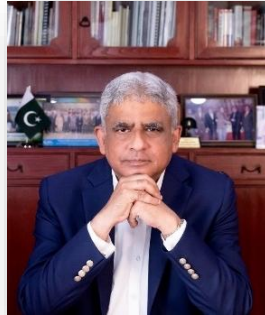
WE ARE LIMITLESS



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President's Message



I am delighted to witness the culmination of efforts by the IoBM Research Office (IRO) in presenting the Abstract Book-2024, a comprehensive compilation featuring abstracts of research endeavors undertaken by IoBM's esteemed faculty. This publication incorporates research papers presented at a myriad of local and international conferences. We anticipate that this meticulously curated document will serve as a pivotal tool, enabling the Institute and its faculty to effectively showcase their research outputs. Moreover, it is poised to foster collaborative research endeavors both domestically and on the global stage.

In an era characterized by unprecedented interconnectedness and the omnipresence of information, it is imperative for researchers, particularly those hailing from developing nations such as Pakistan, to leverage the wealth of global knowledge at their disposal. This endeavor is pivotal in facilitating the development of innovative solutions to address local challenges and propel societal progress.

As the President, it brings me immense satisfaction to witness the remarkable surge in the intellectual contributions of IoBM's esteemed faculty. Their dedication and scholarly endeavor deserves my highest commendations.

However, in our pursuit to contribute meaningfully to our nation's advancement, I urge all researchers to explore avenues for applied research aligned with the needs of our community and industry. By doing so, we can effectively address the persistent challenges that hinder our nation's progress and impede social development. This proactive approach not only enhances our relevance but also underscores our commitment to serving the broader societal interests.

In conclusion, I extend my sincere appreciation to the IoBM Research Office for their diligent efforts in producing the Abstract Book-2024, and I convey my best wishes for their continued success in future endeavors.

Talib Syed Karim
President

Vice President's Message



Research is a vital component of every higher education institution, and Alhamdulillah, the Institute of Business Management (IoBM) remains firmly committed to this principle. We are dedicated to facilitate our faculty in their research endeavors. While reviewing the Abstract Book-2024, I was pleased to note a significant increase in institutional research output. This achievement reflects the dedication of our faculty and merits sincere appreciation. I trust their sustained commitment will propel IoBM to new heights in line with the visionary aspirations of its esteemed founder, Shahjehan Syed Karim May his soul rest in peace, Aa'meen.

This is an opportune time to encourage our faculty to prioritize applied research that addresses societal and industrial challenges, thereby contributing to our communities and industries. They should also align their work with UN SDG-17 to support the UN's Sustainable Development Goals and position IoBM alongside leading centers of learning. I am confident that the Abstract Book-2024 provides a valuable platform for our faculty and research scholars to showcase their work and forge local and international research partnerships. This endeavor will not only enrich their academic pursuits but also help generate collaborative solutions to pressing global problems.

I take this opportunity to express my deep appreciation for the IoBM Research Office (IRO) for producing Abstract Book-2024 under the guidance of the Director Research. I wish them continued success in their future endeavors.

Sabina Mohsin
Vice President, FHE and Chief Advisor, IoBM

Rector's Message



Research is not merely an academic exercise; it is the cornerstone of institutional excellence and the primary engine of progress in the information age. For a developing nation like Pakistan, the value of higher education is measured by its capacity to solve real-world problems. This demands a relentless focus on applied research—intellectual inquiry born in our labs and classrooms but executed in deep partnership with local industry and the broader community.

The *IoBM Abstract Book 2024* stands as a powerful testament to this mission. Looking through this fourth edition, it is immensely gratifying to see a clear upward trajectory in both the scale and substance of our academic output across diverse disciplines. Our faculty's contributions throughout 2024 have been outstanding, and I commend their dedication to pushing the boundaries of knowledge. I am confident this volume will serve as a vibrant showcase of our scholarly endeavors, opening new doors for high-impact collaborations both at home and on the global stage.

An achievement of this scale requires dedicated stewardship. I want to express my deepest appreciation to the IoBM Research Office (IRO), led by the Director of Research, whose hard work and vision made this benchmark publication a reality. To our faculty, I urge you to keep building on this momentum—let our research continue to shape a brighter, more innovative future.

Prof. Tariq Rahim Soomro, PhD

Rector-IoBM

IoBM Research Office (IRO)

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Foreword

It is a matter of profound privilege and pride for the IoBM Research Office (IRO) to present the Fourth Edition of the IoBM Abstract Book. Spanning 96 pages of rigorous intellectual inquiry, this comprehensive volume archives the remarkable academic output of our faculty and research scholars. This edition serves as a definitive repository of our institutional knowledge, indexing peer-reviewed journal publications, pioneering book chapters, contributions to major local and international conferences, and the milestone dissertations of our graduating MPhil and PhD scholars. Designed as an actionable resource for the global scholarly community, each entry provides centralized metadata—including direct URLs, DOIs, and ISSNs—to seamlessly bridge the gap between citation and deep academic discovery.

The overarching mission of this volume is to break down institutional silos and project IoBM’s research directly into the ecosystems of sister universities, professional associations, and policymakers. Within these pages, readers will find a vibrant tapestry of multi-disciplinary inquiry, bridging fields from business management and behavioral economics to computer science and advanced engineering. By sharing these diverse research streams, we aim to catalyze high-impact, cross-border collaborations, inviting global research centers to partner with IoBM in the mutual transfer of cutting-edge skills, insight, and innovation.

As Director of Research, it is immensely gratifying to witness the exponential trajectory of our institutional research output. This sustained growth is a direct reflection of our faculty's intellectual vitality, and they deserve our highest commendation for consistently pushing the boundaries of knowledge.

An endeavor of this magnitude requires meticulous execution. I extend my heartfelt gratitude to the IRO team, whose tireless dedication, precision, and unwavering support have made this fourth landmark edition a resounding success.

Dr. Muhammad Arif
Director Research

Summary of Faculty Research Publications 2024:

IoBM Faculty Research Publications 2024 at a Glance:

S. No.	Department	No. of Papers Published by the Faculty Members and Scholars in 2024		
1.	College of Business Management	a	Accounting & Finance	17
		b	Entrepreneurship	7
		c	Industrial Management & Environment and Energy Management	9
		d	Management & HRM	7
		e	Marketing	7
		f	Communication & Languages	2
		g	Supply Chain & Logistics	14
2.	College of Computer Science and Information Systems	a	Computer Science and MIS	14
		b	Math & Statistics	2
3.	College of Engineering Science	a	Electrical Engineering & Engineering Management	20
4.	College of Economics and Social Development	a	Economics	6
		b	Education	3
		c	Business Psychology	2
		d	Center for Policy & Area Studies	1
Total			111	



1. College of Business Management (CBM)

S. No.	Faculty	Department	No. of paper published by Faculty Members	
1	Faculty of College of Business Management	a	Accounting & Finance	17
		b	Entrepreneurship	7
		c	Industrial Management & Environment and Energy Management	9
		d	Management & HRM	7
		e	Marketing	7
		f	Communication & Languages	2
		g	Supply Chain & Logistics	14
			Total	63

1(a). Department of Accounting & Finance

1.	Author(s)	Faraz Ahmed, Arsalan Hussain, Sajjad Nawaz Khan, Arsalan Haneef Malik, Muhammad Asim, Sadique Ahmad, Mohammed El-Affendi	The digital economy's rise has fueled the growth of digital banking, but concerns linger about customer protection. While offering advantages like financial inclusion, this shift disrupts traditional banking experiences and introduces potential risks. Customer safety in this new landscape is paramount, as dissatisfied users may switch providers and institutions risk reputational damage. To remain competitive, financial institutions must prioritize a secure experience that aligns with customer expectations. This study investigates five key factors influencing customer protection in Pakistan's digital financial services. Analysis reveals all factors positively impact customer protection, with information security holding the most weight. These findings highlight the need for robust information security measures as a critical driver for the Pakistani digital banking industry's success.
	Title	Digital Risk and Financial Inclusion: Balance between Auxiliary Innovation and Protecting Digital Banking Customers	
	Journal Name	Risks	
	College	College of Business Management	
	Department	Accounting & Finance	
	Keywords	Digital risk; financial inclusion; customer protection; risk management; digital banking	

	HEC Category	X	
	Pages	1-21	
	Volume No.	12	
	Issue No.	8	
	ISSN	ISSN 2227-9091	
	DOI	https://doi.org/10.3390/risks12080133	
	URL/Link	https://www.mdpi.com/2227-9091/12/8/133	
2.	Author(s)	Jameel Ahmed Khan, Imam uddin, Nayeem ul hassan Ansari	<p>The current study aimed to assess and compare the impacts of energy infrastructure investment on renewable electricity production in Asia's growing nations (China, India, Indonesia, Malaysia, Pakistan, the Philippines, and Thailand) using Public Private Partnership (PPP). The study used annual data from 1993 through 2017. To do this, specific panel econometric methods were employed: Augmented Mean Group (AMG) and Grouped-Mean Group Estimators (GMGE). The findings in H1 suggest that the impacts of improved energy infrastructure are greater in increasing the production of renewable electricity in developing Asian nations. Additionally, it was also determined that Financial Development (FD), economic expansion, and openness increase the volume of renewable electricity production. Furthermore, the authors suggested new ways in which the investment of energy infrastructure might be encouraged by development agencies and present models for sustainable development in developing Asian nations. For instance, the governmental and private sectors' collaboration towards the construction of cost-effective green energy and renewable energy sources, that are not renewable, would provide tangible steps towards renewable energy.</p>
	Title	Powering Asia's Future: How Energy Infrastructure Investments Drive Renewable Energy Growth in Developing Economies	
	Journal Name	Empirical Economic Review (EER)	
	College	College of Business Management	
	Department	Accounting & Finance	
	Keywords	Public Private Partnership, Energy Infrastructure Investment, Renewable Electricity Production, AMG, GMGE	
	HEC Category	Y	
	Pages	75-103	
	Volume No.	7	
	Issue No.	2	
	ISSN	ISSN (E): 2522-2465 ISSN (P): 2415-0304	
	DOI	https://doi.org/10.29145/eer.72.04	
	URL/Link	Powering Asia's Future: How Energy Infrastructure Investments Drive Renewable	

		Energy Growth in Developing Economies Empirical Economic Review	
3.	Author(s)	Muhammad Ali Faisal, Murat Donduran	In this study, we use a novel approach to explore possible connections between foreign exchange and stock returns using Turkish financial data from 2005 to 2022. Our method involves a two-stage technique. The first stage begins by decomposing individual time series signals into separate intrinsic mode functions (IMFs) with a complete ensemble empirical mode decomposition with added noise algorithm. Extracted IMFs are then used to construct high and low-frequency components through a fine-to-coarse algorithm. In the second phase, we utilized a cross-quantilogram technique to analyze the dependence in quantiles of the original return series along with frequency components obtained in the previous stage. Results revealed several important insights. Firstly, a relatively higher effect ran from stock returns to exchange rate returns for the pertinent period. Secondly, tail dependence is apparent, as returns are discernibly linked.
	Title	A Two-Stage Analysis of Interaction Between Stock and Exchange Rate Markets: Evidence from Turkey	
	Journal Name	Annals of Data Science	
	College	College of Business Management	
	Department	Accounting & Finance	
	Keywords	CEEMDAN Cross-quantilogram Borsa Istanbul Turkish Lira	
	HEC	X	
	Category		Thirdly, the tail dependence in the returns is more profound in the high-frequency composition than in the low-frequency component. Lastly, the structure of dependence has stayed mostly constant throughout the sample period analyzed.
	Pages	171–198	
	Volume No.	12	
	Issue No.	1	
	ISSN	2199-4781 (Print) 2199-479X (Online)	
	DOI	https://doi.org/10.1007/s40745-024-00547-y	
	URL/Link	https://link.springer.com/article/10.1007/s40745-024-00547-y	

4.	Author(s)	Awais Ur Rehman, Arsalan Haneef Malik, Malik Shahzad Shabbir, Arsalan Hussain, Khawaja Masood Raza	<p>Purpose Know your customer is one of the cornerstones of financial industry success. Extant literature has explained the reasons for choosing an Islamic financial institute, but no study has explored customers' psychological behavior in making this decision. Based on attribute substitution theory, this study examined the psychology of customers during the selection process, and whether differences in personality type could influence the decision-making process.</p> <p>Design/methodology/approach Methodologies combining qualitative and quantitative approaches were employed. An experiment was conducted to generate a discussion among the five focus groups, and their personalities were also noted.</p> <p>Findings Results suggest that, despite customers feeling more attached to Islamic institutions that perform better in terms of Sharia compliance, interest-free, and CSR programs, their interpretations of these aspects vary considerably. In addition, the name tag of Islamic and Sharia had been the source of heuristically made decisions, where customers adopted Islamic institutes solely because of their Islamic labels or positive recommendations from Sharia scholars. Finally, it was found that different personality types have different selection criteria.</p> <p>Originality This paper was the first attempt to analyze the decision-making process of customers when choosing an Islamic financial institute by employing attribute substitution theory. It is pertinent to note that personality types were also discussed for the first time in this regard.</p>
	Title	Does Sharia Tag Constitute Heuristic While Choosing an Islamic Financial Institute? Evidence From Pakistan	
	Journal Name	GISRAS Journal of Management & Islamic Finance	
	College	College of Business Management	
	Department	Accounting & Finance	
	Keywords	Attribute substitution, behavioural finance, heuristics, Islamic finance, Sharia tag	
	HEC Category	Not in HJRS	
	Pages	1-25	
	Volume No.	3	
	Issue No.	4	
	ISSN	P:2710-5083 E:2788-6042	
	DOI	https://orcid.org/0000-0001-8940-4850	
URL/Link	https://gjmif.com/index.php/GJMIF/article/view/75		
5.	Author(s)	Dr Jahanzaib Alvi, Dr Muhammad Rehan, Muhammad Nadeem Khan	Purpose -To investigate the effect of circuit breakers on investors' post-event investment behavior and

Title	Investors' Overreaction on Stock Circuit Breakers and Signaling: A Research on Pakistan Stock Exchange	potential overreaction.
Journal Name	KASBIT Business Journal	
College	College of Business Management	
Department	Accounting & Finance	
Keywords	Circuit Breakers, Signaling, Prospect Theory, Disposition Effect	Design/methodology/approach-We analyzed daily stock returns (as the dependent variable) for instances when a circuit breaker was triggered, using the preceding day's returns as an independent variable. To enhance the study's robustness, we divided our sample into three distinct panels and conducted mean and variance equality tests for each. The sample consisted of firms from the KSE-100 index. We applied Ordinary Least Squares (OLS) regression analysis to these panels.
HEC Category	Y	
Pages	56-74	
Volume No.	17	Findings-The average return for stocks on the day following a circuit breaker event was found to be 6.20% (1.24 times the circuit breaker threshold). Returns typically followed the same direction (positive/negative) as the circuit breaker event. Notably, negative circuit breakers had less impact on investors compared to positive ones, aligning with prospect theory.
Issue No.	2	
ISSN	1994-1609 2072-8018	
DOI	https://dx.doi.org/10.2139/ssrn.4976948	
URL/Link	https://kasbitoric.com/index.php/kbj/article/download/423/240	Research limitations/implications-This study aids in understanding the impact of circuit breakers on investor overreaction, contributing to better-informed market decisions. The research is limited to circuit breaker events; future studies may employ different methodologies, statistical tools, timeframes, and markets. Originality/value-This research advances the understanding of behavioral finance, particularly in the context of market signaling and information asymmetry. It addresses the gap in literature on behavioral finance's role in stock market signaling by examining the effects of circuit breaker events on investor overreaction.
6.	Author(s) Muhammad Rehan, Jahanzaib Alvi, Umair Lakhani	Purpose The primary purpose of this

Title	Comparative analysis of aggregate and sectoral time-varying market efficiency in the Russian stock market during the COVID-19 outbreak and the Russia–Ukraine conflict (RUC)	research is to identify and compare the multifractal behavior of different sectors during these crises and analyze their implications on market efficiency. Design/methodology/approach We used multifractal detrended fluctuation analysis (MF-DFA) to analyze stock returns from various sectors of the Moscow Stock Exchange (MOEX) in between two significant periods. The COVID-19 pandemic (January 1, 2020, to December 31, 2021) and the Russia–Ukraine conflict (RUC) (January 1, 2022, to June 30, 2023). This method witnesses multifractality in financial time series data and tests the persistency and efficiency levels of each sector to provide meaningful insights.
Journal Name	International Journal of Emerging Markets	Findings
College	College of Business Management	Results showcased persistent multifractal behavior across all sectors in between the COVID-19 pandemic and the RUC, spotting heightened arbitrage opportunities in the MOEX. The pandemic reported a greater speculative behavior, with the telecommunication and oil and gas sectors exhibiting reduced efficiency, recommending abnormal return potential. In contrast, financials and metals and mining sectors displayed increased efficiency, witnessing strong economic performance. Findings may enhance understanding of market dynamics during crises and provide strategic insights for the MOEX’s investors.
Department	Accounting & Finance	Practical implications
Keywords	Market efficiency, Multifractality, COVID-19 outbreak, Ukrain–Russia war, Crisis periods	Understanding the multifractal properties and efficiency of different sectors during crisis periods is of paramount importance for investors and policymakers. The identified arbitrage opportunities and efficiency variations can aid investors in optimizing their investment strategies during such critical market conditions. Policymakers can also leverage
HEC Category	W	
Pages	4575–4596	
Volume No.	20	
Issue No.	11	
ISSN	Online ISSN 1746-8817 Print ISSN 1746-8809	
DOI	https://doi.org/10.1108/IJOEM-07-2023-1195	
URL/Link	https://www.emerald.com/insight/content/doi/10.1108/ijoem-07-2023-1195/full/html	

			<p>these insights to implement measures that bolster economic stability and development during crisis periods.</p> <p>Originality/value</p> <p>This research contributes to the existing body of knowledge by providing a comprehensive analysis of multifractal properties and efficiency in the context of the MOEX during two major crises. The application of MF-DFA to sectoral stock returns during these events adds originality to the study. The findings offer valuable implications for practitioners, researchers and policymakers seeking to navigate financial markets during turbulent times and enhance overall market resilience.</p>
7.	Author(s)	Jahanzaib Alvi, Kehkashan Nizam, Saeb Muhammad Jafri, Muhammad Rehan, Muhammad Muzaffar Ali	<p>This paper investigates the efficacy of deep learning models such as Long-Short Term Memory (LSTM), Convolutional Neural Networks (CNN), and Gated Recurrent Units (GRU) for cryptocurrency price prediction, examining their short-term and long-term forecasting accuracy for investor guidance and advancing AI in financial analysis. The study uses time series analysis with LSTM, CNN, and GRU models on daily cryptocurrency prices from Investing.com, preprocessing data before testing on Bitcoin, Ethereum Classic, Ethereum, Litecoin, Monero, and the other 37 cryptocurrencies. RMSE, MAE, and accuracy rates measure performance. Findings revealed that only six cryptocurrencies were selected for final analysis, including Bitcoin, Ethereum Classic, Ethereum, Litecoin, and Monero. Results indicate that the deep learning models, particularly the LSTM and GRU, can predict cryptocurrency prices with high accuracy, especially for short-term forecasts within a 7-</p>
	Title	Cryptocurrency Predictive Analytics: A Comparative Study of LSTM, CNN, and GRU Models	
	Journal Name	PAKISTAN BUSINESS REVIEW	
	College	College of Business Management	
	Department	Accounting & Finance	
	Keywords	Cryptocurrency; Price prediction; deep learning; time series analysis; Financial forecasting	
	HEC Category	Not in HJRS	
	Pages	225-287	
	Volume No.	26	
	Issue No.	3	
ISSN	1561-8706 2521-005X		
DOI	https://doi.org/10.22555/pbr.v26i3.1236		

	URL/Link	https://www.researchgate.net/publication/389098916_PAKISTAN_BUSINESS_REVIEW_Research_Cryptocurrency_Predictive_Analytics_A_Comparative_Study_of_LSTM_CNN_and_GRU_Models	day window. The CNN model demonstrates significant predictive power, suggesting its utility for immediate trading decisions. Across the models, short-term precision was remarkably high, while long-term predictions maintained a moderate level of accuracy. This study presents a comparative analysis of LSTM, GRU, and CNN models for forecasting cryptocurrency prices, emphasizing LSTM and GRU's ability to navigate price volatility and suggesting their use for real-time trading analysis. The study's historical data reliance curtails forecasting unforeseen market shifts. Future studies should include new variables like social sentiment and blockchain analytics and test real-time adaptive models to enhance predictive strength. Model validation in actual market conditions is recommended for practical application.
8.	Author(s)	Kehkashan Nizam, Ismat Mohiuddin, Jahanzaib Alvi, Asim Mehboob, Muhammad Rehan	Purpose: This study aims to explore the psychological factors influencing herding behavior among investors in the Pakistan Stock Exchange (PSX).
	Title	Herding Behavior and Psychological Factors: Insights from the Pakistan Stock Exchange	Design/Methods/Approach: Data has been collected through questionnaire from 400 respondents, the study identifies information, national culture, market sentiments, experience, and overconfidence as independent variables affecting herding behavior as dependent variable.
	Journal Name	JISR management and social sciences & economics	
	College	College of Business Management	
	Department	Accounting & Finance	
	Keywords	Pakistan, SMEs, performance, Education, consumer behavior, economic growth, leadership, Pakistan, Job stress, Job Satisfaction, Foreign Direct Investment, KSE, Job Burnout, FDI, transformational leadership, Inflation, Co-Integration, CAPM, Karachi, terrorism	Findings: The study found that information, national culture, market sentiments, and experience positively influence herding behavior, while overconfidence has a significant and negative relationship with herding behavior. The model explains 55% of the variation in the behavior and has a Q ² value of 0.270 which strengthen the findings.
	HEC Category	Y	Originality/Value: This study contributes to knowledge in the field of behavioral finance, particularly in
	Pages	43-64	
	Volume No.	22	

	Issue No.	3	developing countries, and suggests future research can expand on psychological factors and investor types. Practical/Policy implication: The findings can assist investors in making more rational and optimal investment decisions and avoiding herding by conducting independent research, taking calculated risks, and expanding their knowledge of diverse cultures.
	ISSN	E-ISSN: 1998-4162 P-ISSN: 2616-7476	
	DOI	https://doi.org/10.31384/jisrmsse/2024.22.3.3	
	URL/Link	https://jisrmsse.szabist.edu.pk/index.php/szabist/article/view/671	
9.	Author(s)	Asiah Wati, Rahmawati Rahmawati, Malahayatie Malahayatie, Arum Fitri Lestari, Muhammad Rehan	BSI is a Sharia Commercial Bank as a result of the merger of three banks, BRIS, BNIS, and Mandiri Syariah. After the merger, BSI's assets became larger, but it is necessary to examine the things that affect customers to save at BSI, because of the merger, knowledge, services, and IT used by BSI. This study aims to determine the influence of knowledge, mergers, services, and IT on the interest of becoming a BSI customer. This study is a quantitative research using primary data. The population in this study is the entire academic community of UIN Raden Mas Said Surakarta with a sample of 113 respondents. The data collection technique uses questionnaires. The results of this study show that knowledge has no effect on interest in becoming a BSI customer. However, mergers, services, and IT have a significant impact on interest in becoming a BSI customer.
	Title	Financial Options Trends: Digging The Reasons Behind The Growth Of Customer Interest In Sharia Bank Indonesia	
	Journal Name	FINANSIA: Jurnal Akuntansi Dan Perbankan Syariah	
	College	College of Business Management	
	Department	Accounting & Finance	
	Keywords	Knowledge, Merger, Service, IT	
	HEC Category	Not in HJRS	
	Pages	88-102	
	Volume No.	7	
	Issue No.	1	
	ISSN	P-ISSN: 2621-4636 E-ISSN: 2621-4644	
	DOI	https://doi.org/10.32332/finansia.v7i1.8530	
URL/Link	https://e-journal.metrouniv.ac.id/FINANSIA/article/view/8530		
10.	Author(s)	Kiran Jameel & Dr Laeeq Razzak Janjua	The aim of this research study is to investigate the influence of artificial intelligence (AI) on digital financial inclusion (DFI). The involvement of

	Title	Harnessing Artificial Intelligence for Digital Financial Inclusion: Transforming Economies in the Era of Industry 4.0	economically disadvantaged individuals in the financial sector has emerged as a pivotal subject of discourse concerning approaches to enhance digital financial inclusion. The Financial Technology sector is employing artificial intelligence and its various tools to foster engagement and improve participation among low-income individuals, marginalized communities, women, youth, and small business owners in conventional financial activities. The methodological approach of the study involved a thorough examination of perceptual and research journals, an analysis of papers authored by co-researchers, and a review of other authoritative sources pertinent to the subject, aimed at assessing the impact of AI on digital financial inclusion. This study proved that artificial intelligence has a major impact on digital financial inclusion in several ways. It helps with risk assessment and mitigation, solves the problem of disorganized data, improves cyber security and fraud detection, and uses chatbots to help users with desktop tasks. The study argues that governments throughout the world, together with financial and non-financial organizations, should embrace AI on a massive scale.
	Journal Name	The Critical Review of Social Sciences Studies	
	College	College of Business Management	
	Department	Accounting & Finance	
	Keywords	Artificial Intelligence, Digital Financial Inclusion	
	HEC Category	Y	
	Pages	1436-1457	
	Volume No.	2	
	Issue No.	2	
	ISSN	Online ISSN: 3006-7170 Print ISSN: 3006-7162	
	DOI	https://doi.org/10.59075/c00w3s24	
	URL/Link	https://thecrsss.com/index.php/Journal/article/view/117	
11.	Author(s)	Kiran Jameel; Saima Tabassum; Atteeq Razzak,; Laeeq Janjua and Shaheer Bano	
	Title	Underlying the impact of information communication technology and renewable-non-renewable energy on environmental sustainability under the shadow of industrial waste management-a fresh insight from China.	
	Journal Name	International Journal of Energy Technology and Policy.	
	College	College of Business Management	
	Department	Accounting & Finance	
	Keywords	renewable energy consumption, environment	
			Due to rapid economic growth and a high population, China is the largest energy user and CO2 emitter. This research examines China's renewable energy (RE) use and its relationship to CO2 emissions, industrial waste (IW), NRE, and ICT consumption. ARDL estimation was used to determine the long-term co-integration of variables for the data from 2000 to 2022 of China. The study output shows that ICT and NRE have a significant negative relationship with REC, and a 1% increase in ICT and NRE will respond to a decrease of 1.18% and 1.005% in REC. Furthermore, CO2 has a positive relation with REC, and a 1% increase in CO2 will result in an upsurge of 2.98% in

	degradation, CO2 emission, industrial waste, information communication technology, non-renewable energy consumption, ARDL, China	REC. According to robustness check through FMOLS and DOLS estimators, empirical evidence shows there is a significant effect at a 5% level of significance of the variables NRE, IW, ICT CO2 on REC in China in the long-run.
HEC Category	Not in HJRS	
Pages	321-343	
Volume No.	19	
Issue No.	4	
ISSN	ISSN: 1472-8923 eISSN: 1741-508X	
DOI	https://doi.org/10.1504/IJETP.2024.141386	
URL/Link	https://www.inderscienceonline.com/doi/abs/10.1504/IJETP.2024.141386	
12.	Author(s) Farhan Ali Soomro, Hyder Ali, Iram Rani, Kiran Jameel	This study examines the impact of training and development (T&D) costs on corporate investment in Pakistani firms, with market competition considered as a moderating factor. Utilizing a panel regression model with fixed effects, we analyze data from 5,124 firm-year observations. The results reveal a significant positive relationship between T&D expenditures and corporate investment, with coefficients of 0.052 and 0.057 across the two regression models, indicating that a 1% increase in T&D costs leads to a 0.052% and 0.057% increase in corporate investment, respectively. Furthermore, the interaction term between T&D costs and the Sales-based Herfindahl-Hirschman Index (SHHI) is significant and positive (0.031), suggesting that the beneficial effects of T&D on investment are amplified in highly competitive markets. Our findings align with the human capital theory and resource-based view, which emphasize the strategic importance of investing in employee skills and knowledge. Control variables such as return on assets (ROA), leverage (LEVERG), and Tobin's Q (TOBQ) also demonstrate significant
	Title The Impact of Training and Development on Corporate Investment: The Moderating Role of Market Competition in Pakistani Firms.	
	Journal Name Remittances Review	
	College College of Business Management	
	Department Accounting & Finance	
	Keywords Artificial Intelligence, Digital Financial Inclusion	
	HEC Category X	
	Pages 778-793	
	Volume No. 2	
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	ISSN Online ISSN: 3006-7170 Print ISSN: 3006-7162	
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	URL/Link https://remittancesreview.com/menu-script/index.php/remittances/article/view/2144	

			relationships with corporate investment, consistent with existing literature. This study contributes to the literature by providing empirical evidence from a developing country context, highlighting the role of market competition in enhancing the positive effects of human capital investment on corporate growth, and validating key theoretical perspectives in the Pakistani corporate sector.
13.	Author(s)	Rabbia Manzoor , Hadi Khan , Manzoor Ali , Kashif Arif, Fatima Biltistani	By drawing on protection motivation, the study explored consumers' motivations to engage in adaptive behaviour from offline to online shopping during the pandemic. This study aims to find the impact of protection motivation, online trust, and perceived ease of use on online shopping attitudes in the post-pandemic period. A quantitative research design was employed, and data were collected from online shoppers using an online survey. The total number of respondents was 373, including both males and females. Additionally, the study used a convenience sampling method. Data were analysed through confirmatory factor analysis and PLS SEM. The findings of the study state that threat appraisal, online trust, and perceived ease-of-use positively impact adaptive behaviour by increasing online shopping attitudes. In contrast, Coping Appraisal has no direct effect on adaptive behaviour. This study provides a blueprint for designing marketing activities and strategies and assists managers in making decisions effectively during health crises and challenging events. The managers can formulate contingency strategies and plan to overcome the situation. The pandemic has been examined as an accelerator to adopting online shopping. Managers might adapt to the digital transformation in the market to recover or even grow sales further after the pandemic.
	Title	Unravelling the Effect of Pandemic on Online Shopping Attitude: Testing Protection Motivation Theory, TAM, Online Trust and Perceived Ease of Use	
	Journal Name	Journal of Social & Organizational Matters	
	College	College of Business Management	
	Department	Accounting & Finance	
	Keywords	Protection motivation theory (PMT), Perceived severity, Perceived vulnerability, Self-efficacy, Response efficacy, Online trust, Perceived ease of use (PEOU), Pandemic	
	HEC Category	Y	
	Pages	681-702	
	Volume No.	3	
	Issue No.	4	
	ISSN	E-ISSN (Online): 2788-9289 P-ISSN (Print): 2788-9270	
DOI	https://doi.org/10.56976/jsom.v3i4.229		
URL/Link	https://www.researchgate.net/publication/391677629_Unravelling_the_Effect_of_Pandemic_on_Online_Shopping_Attitude_Testing_Protection_Motivation_Theory_TAM_Online_Trust_and_Perceived_Ease_of_Use		

14.	Author(s)	Arslan Qayyum a, Aniq Arslan b, Arsalan Haneef Malik c, Sajjad Nawaz Khan d, Awais Ur Rehman e, Muhammad Asim f g, Sadique Ahmad g h, Mohamed A. ElAffendi g	This study compares the sustainability of financial innovation, development, and economic growth in India and China, considering macro-economic factors like globalization, inflation, and monetary policies. It addresses the impact of financial development on sustainable economic growth by analyzing these two major emerging economies. The ARDL co-integration approach is used to assess long-run and short-run relationships among variables, focusing on sustainability. The results show a long-term co-integration among financial innovation, development, and economic growth, revealing challenges to sustainable development. Both countries show a negative long-term relationship between financial innovation, development, and economic growth, with India's impact larger in magnitude than China's. In contrast, short-term results are positive and significant for both nations. The ECT term suggests India requires more short-run adjustments to reach equilibrium. Overall, financial initiatives in both countries, amid globalization and monetary challenges, do not support sustainable long-term GDP growth but have short-term positive effects. China performs better due to smaller negative coefficients and fewer adjustments needed. The findings align with economic theories such as the Solow growth model and the theory of endogenous growth, emphasizing efficient allocation of financial resources for growth. This research adds valuable insights to the literature on sustainable economic outcomes in India and China, providing policymakers with guidance for future strategies to achieve sustainable growth.
	Title	Financial Innovation can hamper the Sustainable Economic Growth: A Tale of Two Emerging Economies.	
	Journal Name	Journal of Open Innovation: Technology, Market, and Complexity	
	College	College of Business Management	
	Department	Accounting & Finance	
	Keywords	Financial development Financial innovation Economic growth Sustainable Article type: research article	
	HEC Category	Not in HJRS	
	Pages	100446	
	Volume No.	11	
	Issue No.	1	
	ISSN	2199-8531	
	DOI	https://doi.org/10.1016/j.joitmc.2024.100446	
URL/Link	https://www.sciencedirect.com/science/article/pii/S2199853124002403?via%3Dihub		
15.	Author(s)	Aniq Arslan, Arslan Qayyum, Tania Laghari	The current study presents an investigation of the utilization of agriculture credit by married women

	Title	Utilization of Agriculture Credit by Married Women: Does the Husband Matter?	in Pakistan. The purpose of this study is to investigate how husbands in Pakistan's Punjab and Sindh provinces assist their wives in obtaining and using agricultural finance. The current research used descriptive analysis, correlation analysis, and binary logistic regression analysis, among other statistical techniques, to examine the differences and similarities between the two provinces, utilizing primary data from the adopted and modified questionnaire of Tisdell et al. (2020). The findings indicate that men significantly influence the amount of agricultural funding that their wives can obtain. It turned out that husbands in Sindh province support their wives' savings and investments more than do husbands in Punjab province. The study found that the fact that some husbands in both regions exploit their wives' credit for personal benefit may reduce the benefits and empowerment of women in agriculture. Furthermore, the findings of the study identified several factors that affect women's capacity to get and use credit, including income, education, land ownership, household size, and societal norms.
	Journal Name	International Journal of Academic Research for Humanities	
	College	College of Business Management	
	Department	Accounting & Finance	
	Keywords	Agricultural, Finance, , Investment, , Ownership, , Investments.	
	HEC Category	Not in HJRS	
	Pages	167-179	
	Volume No.	4	
	Issue No.	2	
	ISSN	2663-192X	
	DOI	https://zenodo.org/records/12512347	
	URL/Link	https://jar.bwo-researches.com/index.php/jarh/article/view/444	
16.	Author(s)	Mubarik, M.S., Kashif, M., Shabbir, M., & Jalil, Q.	The objective of this study is to evaluate the effectiveness of Sustainable Management Practices (SMPs) in achieving Carbon Neutrality (CN) within the natural resource extraction sector, specifically in the context of the Ukraine-Russia war. The study also aims to investigate the moderating role of Policy Robustness (PR) in enhancing the impact of SMPs on CN. Data were collected from 702 employees across 234 firms in the steel, iron-ore, and aluminum sectors, from China and India. We employed SEM based methodology, combining confirmatory factor analysis and regression methodologies within Ordinary
	Title	Sustainable management in natural resources	
	Journal Name	Resources Policy	
	College	College of Business Management	
	Department	Accounting & Finance	
	Keywords	Carbon neutrality Policy robustness China India Sustainable Management Practices	

	HEC Category	Not in HJRS	<p>Least Squares framework to analyze the framework of the study. Key findings reveal that SMPs have a significant positive impact on CN in both India and China. Moreover, the robustness of policies plays a crucial role in reinforcing the effectiveness of SMPs in achieving CN. Interestingly, while the interaction between SMPs and PR significantly impacts CN in China, it is not as prominent in India. Additionally, the study finds that factors such as firm age and employee experience do not significantly influence CN, contrary to conventional expectations. One major contribution of this study is the identification of the synergetic effect of combining SMPs with robust policies (PR) to enhance CN, particularly in the face of geopolitical challenges like the Ukraine-Russia war.</p>
	Pages	105279	
	Volume No.	97	
	Issue No.	-	
	ISSN	0301-4207	
	DOI	https://doi.org/10.1016/j.resourpol.2024.105279	
	URL/Link	https://doi.org/10.1016/j.resourpol.2024.105279	
17.	Author(s)	Nayeem ul Hassan Ansari, Syed Sarmad Hasan, Bilal Ahmed Chishty	<p>Purpose The study focuses on the textile industry in Pakistan, which has encountered numerous post-pandemic challenges impeding its growth and sustainability. This research aims to identify and evaluate the challenges of the textile industry's operations, financial stability, creditworthiness, and strategic decision-making.</p> <p>Methods By applying the Analytic Hierarchy Procedure (AHP), the study developed a close-ended questionnaire to collect data from the industry professionals, data was collected and analyzed using AHP statistical tools.</p> <p>Results The findings reveal that the textile industry in Pakistan faces significant challenges in the form of operational risks, financial risks, credit risks, and strategic risks. These challenges stem from factors such as political instability, currency volatility, uncertainties in the letter of credit processes, low</p>
	Title	Unraveling the post covid 19 challenges: A comprehensive study of Pakistan's Textile Industry	
	Journal Name	GISRAS journal of management& Islamic Finance (GJMIF)	
	College	College of Business Management	
	Department	Accounting & Finance	
	Keywords	Textile Industry, Operational Risks, Financial Risks, Credit Risks, Strategic Risks, AHP	
	HEC Category	Y	
	Pages	17-37	
	Volume No.	4	
	Issue No.	2	
	ISSN	2710-5083 2710-5083	
DOI	https://doi.org/10.32350/jfar.71.04,		

URL/Link	https://gjmf.com/index.php/GJMIF/article/view/119	sales turnover, liquidity management issues, unclear government policies, and regulatory concerns. Importantly, the research identifies credit risks as the most prominent challenge faced by the textile industry, specifically highlighting higher borrowing costs and liquidity management as major factors affecting industry performance.
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1(b). Department of Entrepreneurship

1.	Author(s)	Bazla Mukhtar, Dr. Syeda Tayyaba Fasih & Dr. Omar Javaid	Diversity and inclusion are now two significant elements in today's organizational discourse, as they affect an organization's performance in addition to the well-being of society in general. This study article provides a comprehensive review of the literature on the topic of diversity, inclusion and organizational performance. Consequently, based on the collected data and thematic analysis of the findings from Pakistani MSMEs, this study attempted to increase the existing body of literature for businesses and in general. Primarily, it explored the constituent elements of Diversity and Inclusion and the impacts it engenders across individual, societal, and organizational levels, ultimately informing organizational outcomes. Secondly, the article also looked into the challenges and opportunities in the promotion of diversity and inclusion in corporations. Thirdly, the study suggested the need and criteria for the emergence of the inclusive business model as a strategy of development for social and economic change
	Title	Thematic Exploration of Diversity and Inclusion: Unleashing Organizational Success	
	Journal Name	Journal for Business Education and Management	
	College	College of Business Management	
	Department	Entrepreneurship	
	Keywords	Diversity, Inclusion, Organizational Performance, Inclusive Business Model, Thematic Analysis	
	HEC Category	Y	
	Pages	79-104	
	Volume No.	4	
	Issue No.	1	
	ISSN	Print ISSN: 2790-7848 Online ISSN: 2790-7856	
DOI	https://doi.org/10.56596/jbem.v4i1.116		
URL/Link	https://journals.csrpublisher.com/index.php/jbem/article/view/116		
2.	Author(s)	Dr. Omar Javaid	The paper attempts to build a case for the moral agency of individuals operating within organic

Title	The Significance of Moral Agency for Socioeconomic Justice and its Absence in Islamic Economics and Finance	social networks – in contrast to the impersonal nature of financial institutions – as a necessary medium for practicing Islamic economic principles, for the goal of achieving socioeconomic justice in society. Through comparative analysis, the paper argues that the modern institutional framework due to its impersonal nature, capitalist orientation, agency cost, and socially disintegrative nature is not a suitable medium for advancing the agenda of Islamic economics. A market environment where individuals exercise their moral agency to the fullest is perhaps necessary. To make this argument, the paper looks at the history of Muslim bazaars and the norms in Muslim business communities in the contemporary world to explore the significance of the personal agency of morally conscious and pious individuals. The individual traders or investors would operate within their organic social networks while exercising socioeconomic justice among their stakeholders. To achieve the desired socioeconomic goals sought through the implementation of Islamic economic principles, a culture of trust and mutual support needs to be cultivated (or preserved where it already exists) between individual traders and investors in any market. This is possible only when the traders or investors can fully exercise their moral agency, have concern for each other and voluntarily demonstrate trustworthiness. In absence of such a culture, the paper argues, it would be difficult to come close to the satisfactory implementation of the principles of Islamic economics in marketplaces, let alone the achievement of the desired socioeconomic goals.
Journal Name	Journal of King Abdulaziz University: Islamic Economics	
College	College of Business Management	
Department	Entrepreneurship	
Keywords	Islamic socioeconomics, political economy, moral agency, moral hazard, institutionalism, history of bazaars, informal economy, community-based entrepreneurship	
HEC Category	Y	
Pages	3-20	
Volume No.	37	
Issue No.	1	
ISSN	E- ISSN: 1658-4244 P-ISSN: 1018-7383	
DOI	https://doi.org/10.4197/Islec.37-1.1	
URL/Link	https://kauj.researchcommons.org/jie/vol37/iss1/1/	
3. Author(s)	Dr. Marium Mateen Khan, Dr. Amanat Ali Jalbani, Dr. Syed Irfan Hyder & Dr. Omar Javaid	It is often observed in the past that the consumers in developing countries are more emotional and use the affective mechanism when making purchase decisions. However, in recent times it has been observed that the consumers from the developing countries are becoming more logical buyers and use their cognitive mechanism to make purchase decisions. Hence, the research has aimed to analyze the shift in young consumers' decision making style from the use of emotions and emotional appeal (affective mechanism) to logical (cognitive mechanism) decision making style and its effects on their domestic consumption. The first goal was to empirically show that a shift in young consumers' purchase decision making has started to occur in emerging markets, second goal was to link moral foundation theory (MFT) and model of goal directed behavior (MGB) with consumers' affective and cognitive mechanisms of decision making, third goal was to test the hypotheses using two softwares (Smart PLS and AMOS) to
Title	Domestic (Local) Consumption in Young Pakistani Consumers – A Shift from Affective Mechanism to Cognitive Mechanism	
Journal Name	Sukkur IBA Journal of Management and Business	
College	College of Business Management	
Department	Entrepreneurship	
Keywords	Young consumers, consumer ethnocentrism, relative product quality, domestic consumption, local consumption, local products,	

	consumer xenophobia, affective mechanism, cognitive mechanism	establish that both softwares provide similar results for hypothesis testing and fourth goal was the operationalization of definition of domestic consumption in marketing literature. Research sample size was of 450 respondents. Validated scales were used for data collection. Hypothesized model was tested using Consistent Partial Least Square (PLS) using Smart PLS and structural equation modeling using AMOS. Consumer ethnocentrism showed a negative significant effect on domestic consumption while consumer xenophobia showed no significant effect on domestic consumer. Moreover, relative product quality came out as the most significant construct influencing domestic consumption in young consumers.	
HEC Category	Y		
Pages	26-52		
Volume No.	10		
Issue No.	1		
ISSN	E- ISSN:2313-1217 P-ISSN: 2410-1885		
DOI	https://doi.org/10.30537/sijmb.v10i1.1231		
URL/Link	https://www.researchgate.net/publication/373144448_Domestic_Local_Consumption_in_Young_Pakistani_Consumers_-_A_Shift_from_Affective_Mechanism_to_Cognitive_Mechanism		
4.	Author(s)	Dr. Omar Javaid	This study investigates the structure and socioeconomic roles of traditional entrepreneurial communities in the Muslim world by comparing them with modern cooperative models. Unlike Western cooperatives, which emerged to counter market-induced social disintegration, Muslim communities have sustained themselves through kinship networks, shared values, and voluntary socioeconomic justice. These communities exhibit key characteristics aligned with cooperative aims, including family-business integration, mutual financial support, job creation, and community well-being. However, contemporary research on these communities is limited and often outdated, in contrast to extensive studies on ethnic entrepreneurship in non-Muslim contexts. This study advocates for more exploratory research to understand how Muslim entrepreneurial communities maintain social integration, distributive justice, and Islamic values in their socioeconomic frameworks. It proposes research questions on community organization, economic contributions, welfare mechanisms, and modernization impacts, offering a roadmap for future research to inform policies and community development. By examining the resilience and adaptability of these communities, this study aims to enhance the understanding of Islamic socioeconomic models and their contemporary relevance. These findings highlight the distinctive features of these
	Title	The Natural Cooperatives in The Muslim World: Traditional Entrepreneurial Communities	
	Journal Name	INVEST Journal of Sharia & Economic Law	
	College	College of Business Management	
	Department	Entrepreneurship	
	Keywords	Cooperatives, entrepreneurial communities, ethnic entrepreneurship, kinship networks, social capital, Ottoman guilds.	
	HEC Category	Not in HJRS	
	Pages	211-232	
	Volume No.	4	
	Issue No.	3	
	ISSN	E- ISSN:2776-4354 P-ISSN: 2776-4982	
	DOI	DOI: 10.21154/invest.v4i2.8471	

	URL/Link	https://www.researchgate.net/publication/387519366_The_Natural_Cooperatives_in_The_Muslim_World_Traditional_Entrepreneurial_Communities	communities as naturally occurring cooperatives, reflecting their unique cultural, religious, and social contexts. This research advances theoretical discussions in Islamic economics, economic sociology, and cooperative studies, while offering insights into fostering economic inclusivity and social cohesion in diverse settings.
5.	Author(s)	Dr. Muhammad Azeem Qureshi, Dr. Junaid Ansari	Thus, the purpose of this study is to evaluate the influence of the different dimensions of Self-Determination Theory (SDT) on the economic empowerment of working women in Pakistan. It explores how psychological needs, operationalized by locus of control and moderated by cultural discrimination, affect women's economic empowerment. This study follows a quantitative research design and used cross-sectional data to test the hypothesized model. Using a non-probability snowball sampling technique, this study analyzed the data gathered from 317 working women from Pakistan through a self-administered questionnaire based on a 7-point Likert scale. The analysis was performed on Smart PLS using Partial Least Squares Structural Equation Modelling (PLS-SEM) to test the proposed model. The study's findings indicate that psychological need and the positive psychological capital play a significant role in determining women's empowerment in the economic domain. This study establishes that locus of control mediates these relationships, and cultural discrimination as a moderator reduces the positive influence of psychological needs/psychological capital on women's economic empowerment. This research offers more significant insights about women's economic empowerment through the lens of self-determination theory and with diverse cultural perspectives. It brings together psychological and cultural approaches to explore what empowers people economically and provides new perspectives on this process.
	Title	Unveiling Women's Economic Empowerment: The Role of Self-Determination Theory, Psychological Capital, and Cultural Barriers	
	Journal Name	Journal of Business and Management Research	
	College	College of Business Management	
	Department	Entrepreneurship	
	Keywords	Self-Determination Theory, Economic Empowerment, Working Women, Pakistan, Locus of Control, Cultural Discrimination, Psychological Needs.	
	HEC Category	Y	
	Pages	592-610	
	Volume No.	3	
	Issue No.	3	
	ISSN	ISSN Online: 2958-5074 ISSN Print: 2958-5066	
DOI	DOI: 10.21154/invest.v4i2.8471		
URL/Link	https://jbmrjournal.com/index.php/Journal/article/view/283		
6.	Author(s)	Hafiza Khizra Massab, Haya Surfaraz, Zeeshan	Purpose: The study aims to review the role of AI-driven decision intelligence in enhancing business sustainability and social impact using a mediated model review. AI plays an essential role in meeting the challenges of the workplace and facilitating leaders in decision-making to avoid risks and failure.
	Title	AI-Driven Decision Intelligence & Social Impact – A Moderated-Mediation Model	

Journal Name	Journal for Social Science Archives	<p>Method: The study has adopted a primary quantitative method where data has been collected from a set of 150 samples using a Google survey form online. The data has been converted into statistical facilitation and Excel analysis into tables and displays with the help of smart PLS software.</p> <p>Finding: The results show that AI has a positive and pragmatic impact on driving good decision-making to enhance business sustainability and have a positive impact on social aspects. All the hypotheses have been proved and mentioned a positive impact which shows that the aim of the study for AI-driven decision intelligence has been achieved to show a positive impact on social impact and business sustainability context.</p> <p>Recommendations: the study has positive implications for the managers and policymakers where they can explore good facilitation ideas using AI-driven decision-making to avoid risk and handle challenges in a business sustainability context with a positive social context.</p>	
College	College of Business Management		
Department	Entrepreneurship		
Keywords	AI Decision, Decision Making, Business, Business Sustainability, Social Impact		
HEC Category	Y		
Pages	2952-2970		
Volume No.	3		
Issue No.	2		
ISSN	Online ISSN: 3006-7170 Print ISSN: 3006-7162		
DOI	10.59075/jssa.v3i2.228 (https://doi.org/10.59075/jssa.v3i2.228)		
URL/Link	https://thecrsss.com/index.php/Journal/article/view/897		
7.	Author(s)	Hafiza Khizra Massab	<p>This article investigates the contribution of Islamic banks to enhancing access to financial services by looking at their unique method of offering Sharia-compliant goods and services. Islamic banking principles, the study claims, encourage profit-and-loss sharing and forbid riba (interest), which increases access to financial services, particularly for devout Muslims. In particular, this paper looks at how Islamic banks affect financial inclusion in Southeast Asia, the Middle East, and North Africa. This is accomplished by assessing academic literature, industry reports, and statistical data. It looks at potential substitutes, including mobile banking and microfinance, to reach those who need access to traditional banking services and delves into the difficulties Islamic banks have, such as a lack of knowledge about money and location. Data indicate that Islamic banks support economic development and stability by establishing trust via Sharia governance structures. In its last part, the report offers some suggestions on how governments may utilize Islamic banking to increase public</p>
	Title	The Role of Islamic Banks in Financial Inclusion across MENA & Southeast Asia	
	Journal Name	Financial Investments & Markets	
	College	College of Business Management	
	Department	Entrepreneurship	
	Keywords	Financial inclusions , Islamic banks , Financial services, Financial markets, Traditional banking	
	HEC Category	Y	
	Pages	165-193	
	Volume No.	9	
	Issue No.	1	
	ISSN	Online ISSN: 2521-9359 Print ISSN: 2520-4475	

		access to financial services and promote social change.
DOI	10.59075/jssa.v3i2.228 (https://doi.org/10.59075/jssa.v3i2.228)	
URL/Link	https://journals.iobm.edu.pk/index.php/ijelcs/article/view/1125	

1(c). Department of Industrial, Environment & Energy Management

1.	Author(s)	Shahid Amjad and Irfan Lal	This study highlights the importance of mangrove forests in the Indus Delta region of Pakistan, specifically within the administrative control of Port Qasim Authority (PQA). Mangroves are crucial for carbon sequestration and storage, and the degradation of mangrove ecosystems can threaten the livelihoods of coastal communities by destabilizing economic potential. The study found that the carbon biomass content of mangrove trees in PQA was estimated to be 33.79 tons/ha, and that there is a positive correlation between mangrove tree heights and carbon dioxide sequestration and tree diameter in well-established <i>Avicenna marina</i> trees. The study also found significant differences in tree heights observed at seven locations in PQA, highlighting the need for sustainable management and conservation efforts. The benefits of mangrove conservation include increased carbon sequestration, improved air and water quality, enhanced coastal protection, increased availability of ecosystem services, and improved land use decisions.
	Title	Climate Change and Mangroves: A Potential Source of Carbon Sequestration in the Indus Deltaic Region	
	Journal Name	Pakistan Journal of Zoology	
	College	College of Business Management	
	Department	Industrial, Environment & Energy Management	
	Keywords	Carbon sequestration, Indus, Delta, Mangrove ecosystem	
	HEC Category	X	
	Pages	In Process	
	Volume No.	In Process	
	Issue No.	In Process	
	ISSN	0030-9923	
	DOI	In Process	
URL/Link	https://www.researchgate.net/publication/379037339_Climate_Change_and_Mangroves_A_Potential_Source_of_Carbon_Sequestration_in_the_Indus_Deltaic_Region		
2.	Author(s)	Fahad Bin Abdullah, Muhammad Arsalan Aqeeq, Rizwan Iqbal, Maria Abdullah, Falak Shad Memon	Pakistan's power distribution utilities (DISCOs) face significant challenges, including outdated infrastructure, theft, and financial constraints, leading to

			<p>inefficiencies and higher costs. A new framework proposes a strategy for operational enhancement and sector reforms, focusing on modernizing management, increasing capacity, improving network reliability, and implementing advanced metering and automated solutions. It aims to bolster transactional accuracy, safety, and inventory management, recalibrate subsidies, and ensure rigorous IT oversight for loss reduction and maintenance optimization. The framework promotes sustained investment and professional development, striving for financial stability and accountability while empowering DISCOs with the autonomy to maintain efficiency and engage consumers more effectively.</p>
Title	Enhancing electricity distribution efficiency in Pakistan: A framework for progress and action		
Journal Name	Utilities Policy		
College	College of Business Management		
Department	Industrial, Environment & Energy Management		
Keywords	Distribution Utilities Losses Recoveries Framework Reliability		
HEC Category	W		
Pages	1-13		
Volume No.	88		
Issue No.	2024		
ISSN	0957-1787		
DOI	In Process		
URL/Link	https://www.sciencedirect.com/science/article/pii/S0957178724000390		
3.	Author(s)	Abdullah, F. B., Iqbal, R., Jawaid, M., & Ahmad, S.	<p>This study addresses the critical issue of Unaccounted-for-Gas (UFG) in Pakistan's gas sector, a significant challenge undermining operational efficiency and sustainability. With a comprehensive approach, the research introduces a tailored UFG Control strategy focused on "Network Visibility," "Network Rehabilitation," "Theft Control," and "Research & Development." These components aim to enhance the accuracy of gas metering and distribution, reduce losses through advanced technological interventions, and mitigate</p>
	Title	Addressing unaccounted-for-gas (UFG): Proactive techniques for optimal management and control.	
	Journal Name	Energy Strategy Reviews	
	College	College of Business Management	

	Department	Industrial, Environment & Energy Management	<p>theft via robust monitoring mechanisms. By analyzing the period from 2013 to 2019, findings reveal the effectiveness of the proposed strategy in significantly improving operational efficiencies across the sector. The study also identifies key indicators for each strategy component, facilitating ongoing performance evaluation and strategic adjustments. This localized approach to UFG management not only offers a pathway to reduce gas losses but also underscores the importance of integrating modern technologies with existing infrastructure to address the sector's unique challenges. The research contributes valuable insights into the adaptation of international methodologies for the Pakistani context, highlighting the potential for regional customization in addressing UFG issues. This study endeavors to furnish policymakers and industry stakeholders with practical strategies aimed at improving the management and sustainability of Pakistan's natural gas sector.</p>
	Keywords	Unaccounted-for-Gas Control strategy Network visibility Rehabilitation Theft control	
	HEC Category	W	
	Pages	1-12	
	Volume No.	53	
	Issue No.	2024	
	ISSN	2211-467X	
	DOI	https://doi.org/10.1016/j.esr.2024.101397	
	URL/Link	https://www.sciencedirect.com/science/article/pii/S2211467X24001044	
4.	Author(s)	Jamshaid Iqbal, Hussnain Javed, Muhammad Tahir Sajjad	<p>Presently, the provision of safe drinking water is becoming a big challenge all over the world. In developing countries like Pakistan, many technical, financial and policy-related issues are hindering clean drinking water supply to communities. This study evaluates the performance of the drinking water supply system in Islamabad, starting from the Khanpur Dam to the consumer end via the Sangjani water treatment plant (SG-WTP). For this purpose, different physicochemical and biological parameters of water quality were analyzed and compared at four different locations in the Islamabad water supply network (also called the Khanpur Dam water supply network) for a period of one year. Statistical analyses such as the t-test, principal component analysis (PCA) and cluster analysis (CA) were performed to observe the variations in water quality parameters at the four locations. The results illustrate that the water quality upstream of the SG-WTP is declining due to various anthropogenic activities adding a variety of organic and inorganic pollutants into the water channel coming from the Khanpur Dam to the</p>
	Title	An Assessment of the Drinking Water Supply System in Islamabad, Pakistan	
	Journal Name	Engineering Proceedings	
	College	College of Business Management	
	Department	Industrial, Environment & Energy Management	
	Keywords	Khanpur Dam; Sangjani water treatment plant; water quality; consumer end; statistical analysis	
	HEC Category	Not in HJRS	
	Pages	6	
	Volume No.	75	

	Issue No.	1	Sangjani plant. The water quality at the consumer end is deteriorating mainly due to algal growth and cracks in the water distribution network. As far as the performance of the SG-WTP is concerned, it is currently in good working condition and treating most of the water pollution coming from the Khanpur Dam water. Proper repair, maintenance and regular monitoring are necessary for sustainable operation of the Islamabad water supply system.
	ISSN	2673-4591	
	DOI	https://doi.org/10.3390/engproc2024075006	
	URL/Link	https://www.mdpi.com/2673-4591/75/1/6	
5.	Author(s)	Jamshaid Iqbal, Shahid Amjad, Hussnain Javed	The coal fired power plants have well recognized environmental and health concerns all over the world. This study determines the effect of stack height on ground level concentrations of nitrogen dioxide (NO ₂), sulphur dioxide (SO ₂), and particulate matter (PM) within the five-kilometer radius of a coal power plant. Pollutants dispersion was calculated using the air dispersion modelling at three stack heights (100, 150 and, 180- meters) of the power plant. Subsequently the health risk from SO ₂ and PM _{2.5} was determined within five km radius by calculating the hazard quotient (HQ). Results indicate that 24-hour average concentrations of SO ₂ at 100 m (159.75 µg/m ³) and 150 m (125.06 µg/m ³) and, NO ₂ at 100 m (87.26 µg/m ³) stack height exceeds the limits of National Environmental Quality Standards (NEQS). Similarly, the annual average concentrations of NO ₂ (45.23 µg/m ³) at 100 m and, PM _{2.5} at 100 m (28.86), 150 m (28.77 µg/m ³) and 180 m (28.74 µg/m ³) stack heights exceed the NEQS limit. At all stack heights the 24-hour average dispersion of PM _{2.5} and SO ₂ poses a potential health risk. Overall this study recommends a stack height of 180 m to minimize the environmental and health risks of the pollutants from coal power plant.
	Title	Environmental and Health Risk Assessment of a Coal Fired Power Plant-Effect of Stack Height	
	Journal Name	GMSARN International Journal	
	College	College of Business Management	
	Department	Industrial, Environment & Energy Management	
	Keywords	Coal fired power plant Sulphur dioxide Nitrogen dioxide Particulate matter Environmental risk Health risk Air dispersion modeling	
	HEC Category	Y	
	Pages	550 to 561	
	Volume No.	18	
	Issue No.	4	
		ISSN	
	DOI	https://doi.org/10.3390/engproc2024075006	
	URL/Link	https://gmsarnjournal.com/home/wp-content/uploads/2024/03/vol18no4-16.pdf	
6.	Author(s)	Shahid Amjad, Jamshaid Iqbal	From 2018 to 2022, a study was conducted in the navigational channel of Port Qasim to

Title	Biodiversity of Marine Benthic Invertebrates in Port Qasim: Impacts of External Disturbances and Mangroves	explore different taxonomic groups of marine benthic invertebrates (MBIs) across three different locations. The study focused on examining the distribution of nine common invertebrates. The highest average number of benthic organisms (7.8 per 10cm ³) was observed at location 3, including 9 groups. Location 2 demonstrated 5 benthic invertebrates per 10cm ³ , represented by 9 groups, whereas location 1 exhibited 3 individuals per 10cm ³ , comprising 7 groups. To evaluate observed differences analysis of variance (ANOVA) was applied, showing a significant difference ($p < 0.05$) among marine benthic invertebrate groups at various sampling locations. Additionally, the study investigated the correlation between Diversity (H') and Evenness (J) through linear regression analysis, revealing a weak correlation ($r^2 = 0.2598$). The variation in MBIs abundance and biodiversity across the selected locations is attributed to seasonal changes, external disturbances from port activities, and the presence of mangrove forests. Such disturbances cause alterations in duration of pollutant levels, and the flushing rates of seawater in the shipping channel, resulting in a disrupted benthic ecosystem. The long-term survival and health of marine benthic invertebrates require minimizing the impacts of external disturbances through combination of strategies such as integrated coastal zone management, reducing pollution and continuous monitoring and research.
Journal Name	Pakistan Journal of Zoology	
College	College of Business Management	
Department	Industrial, Environment & Energy Management	
Keywords	Marine benthic invertebrates, Port Qasim, Benthic ecosystem, Biodiversity, Pakistan, Karachi	
HEC Category	X	
Pages	1 to 10	
Volume No.	58	
Issue No.	1	
ISSN	0030-9923	
DOI	https://dx.doi.org/10.17582/journal.pjz/20240629073450	
URL/Link	https://researcherslinks.com/current-issues/Biodiversity-of-Marine-Benthic-Invertebrates/20/1/12107/html	
7.	Author(s)	Pakistan is facing chronic energy crises since many years. This paper aims to provide an overview of the current status of energy efficiency and conservation practices at organizational level in Pakistan. The first phase of this study evaluates the trends in electricity consumption in selected buildings over the last six years (2017-2022). Subsequently, a survey was conducted in selected buildings to assess employee morale and knowledge of energy efficiency and conservation. Results show an insignificant change in electricity consumption in selected buildings during the past six year's period indicating a poor culture of energy savings in the selected
	Title	
	Journal Name	
	College	

	Department	Industrial, Environment & Energy Management	organization. Despite a constant electricity consumption from 2017 to 2022, a significant fluctuation in average billing amounts was observed. This is possibly due to electricity tariff that has continuously been fluctuating since last few years in Pakistan including Karachi. Study reveals that more than 50% of the employees in selected organization were aware about the importance of energy efficiency and conservation however, they rarely practice the energy saving measures during their routine activities. This is perhaps due to the lack of sense of national stewardship among the employees. It was also found that most of the employees of the selected organization are aware and motivated towards the environmental and climate change concerns related to energy production and its efficient use. However, again a small number of employees were found practicing the energy conservation and efficiency measures. According to this study, companies should encourage staff members to save energy by offering frequent trainings and educational opportunities. Additionally, the organizations ought to think about switching to renewable energy sources.
	Keywords	Buildings--Energy conservation--Standards Energy consumption--Economic aspects Environmental protection--Economic aspects Climate change mitigation Pakistan--Karachi	
	HEC Category	Y	
	Pages	119 to 128	
	Volume No.	43	
	Issue No.	1	
	ISSN	2413-7219	
	DOI	https://doi.org/10.22581/muet1982.2401.2756	
	URL/Link	https://search.informit.org/doi/abs/10.3316/informit.T2024041200007891230089395	
8.	Author(s)	Minzah Shehzad, Amna Bano, Hasnain Kazmi, Jamshaid Iqbal	The demand for textile products has grown dramatically worldwide in recent years. However, particularly in under developed nations like Pakistan, the management of textile waste is one of the least addressed sectors. Inappropriate management of textile waste has results in numerous economic, social and environmental issues. The objective of this study is to evaluate the current state of textile waste management in Pakistan by providing insight into three different areas: awareness about the textile waste management among the educated audiences, evaluation of industry level fabric waste management system and a quantification of textile waste generated by people from various economic classes in Karachi. Site visits, structured and un-structured interviews and questionnaire-based surveys were used to collect the necessary data and information for this study. The findings show that approximately >40% of people do not even understand
	Title	Current State of Textile Waste Management in Pakistan-A Case of Karachi, Pakistan.	
	Journal Name	Pakistan Journal of Scientific & Industrial Research Series A: Physical Sciences	
	College	College of Business Management	
	Department	Industrial, Environment & Energy Management	
	Keywords	TEXTILE waste; WASTE management; DEVELOPED countries; TEXTILE industry; TEXTILES	

	HEC Category	Not in HJRS	the idea of textile waste management and about >70% are unaware about the concept of textile waste recycling. Survey results indicate that currently the majority of the textile industries are lacking adequate arrangements and research and development in textile waste management. Every year, in Pakistan about 270,125.34 metric tons of textile waste is generated including about 19,304.58 tons from Karachi. Among the Pakistan's economic classes, the highest amount textiles are discarded by the lower income class (class C), class A+ tends to trash about 195 Kg of clothing annually, whereas classes A and B demonstrate an annual discards of 150 and 105 Kg of textile waste respectively. Textile waste generation rate in the study areas is about 1.12 Kg/person/year. Currently, the major challenges to sustainable management of textile waste in Pakistan which is the inadequate technical and financial resources and a lack of awareness.
	Pages	164	
	Volume No.	67	
	Issue No.	2	
	ISSN	2221-6413	
	DOI	https://v3.pjsir.org/index.php/physical-sciences/article/view/581	
	URL/Link	https://openurl.ebsco.com/EPDB%3Agcd%3A3%3A13096291/detailv2?sid=ebsco%3Aplink%3A scholar&id=ebsco%3Agcd%3A179567493&crl=c&link_origin=scholar.google.com	
9.	Author(s)	Amna Bano, Minzah Shehzad, Saira Tariq, Zaira Tariq, Jamshaid Iqbal, Shehroze Ahmad, Ammad Ahmad	Present study evaluates the current and future climate and weather patterns in Pakistan through analysing the historic trends in temperature data spanning 20-year period from 2002 to 2021. Pakistan had an unstable and variable seasonal and monthly temperature pattern throughout the past two decades. Notably, whereas the winter season has showed an increasing temperature trend, the spring, summer, and autumn seasons have exhibited a declining tendency in temperature. Study predicts that average temperatures might increase by around 1% throughout the winter and summer seasons over the subsequent ten years (2022-2031). Monthly temperature fluctuations were in the range of 1.36%-7.33% from 2002-2021 whereas, a future temperature variation from 0.6%-5.29% is expected during next two decades. Currently Pakistan needs to improve its resilience and adaptation capacity to temperature fluctuations as identified by this study.
	Title	Local climate and weather changes in Pakistan-an assessment through historical temperature data	
	Journal Name	International Journal of Global Warming	
	College	College of Business Management	
	Department	Industrial, Environment & Energy Management	
	Keywords	climate change, weather, temperature, Pakistan, temperature variations	
	HEC Category	Y	
	Pages	235-249	
	Volume No.	33	
	Issue No.	3	

ISSN	2ISSN: 1758-2083 eISSN: 1758-2091
DOI	https://doi.org/10.1504/IJGW.2024.139274
URL/Link	https://www.inderscienceonline.com/doi/abs/10.1504/IJGW.2024.139274

1(d). Department of Management & HRM

1.	Author(s)	Muhammad Sufyan Ramish, Junaid Ansari, Ummi Naiemah Saraih, Julianawati Suanda, Shiraz Ahmed	Deceptive advertisement is a primary factor affecting customer loyalty because when people do not receive what they expect from badvertisements, they tend to avoid using those brands. Although past researches have addressed the perceived deception in advertisements and its impact on customer loyalty, there is a lack of studies focusing on the mediating role of corporate trust, corporate image, and perceived deception in relation to customer loyalty. Household consumers were chosen as the target population due to their exposure to advertisements. A sample of 250 individuals participated in this study. Smart PLS was used for data analysis. This study confirms that perceived deception, corporate trust and corporate image play a significant mediating role in establishing customer loyalty. The findings of this study can assist marketers in developing new designs and strategies that do not mislead customers. It will also help marketers to identify the factors that should be considered when designing advertisements
	Title	Linking Corporate Trust, Corporate Image, and Customer Loyalty: The Mediating Role of Perceived Deception	
	Journal Name	International Journal of Management Studies	
	College	College of Business Management	
	Department	Management & HRM	
	Keywords	Perceived deception, customer loyalty, corporate image, trust, brand recall	
	HEC Category	Y	
	Pages	469-498	
	Volume No.	31	
	Issue No.	2	
	ISSN	ISSN 2180-2467	
	DOI	https://doi.org/10.32890/ijms2024.31.2.4	
	URL/Link	https://repo.uum.edu.my/id/eprint/31211/	
2.	Author(s)	Muhammad Adnan Bashir, Ummi Naiemah Binti Saraih,	Social media is becoming a medium of choice

		Raghava Gundala, Junaid Ansari, Muhammad Azeem qureshi, Shiraz Ahmed	for businesses to interact with their potential and current customers to establish brand loyalty and grow customer trust in the digital age. This study investigates the complex relationship between social media marketing and its impact on consumer trust and loyalty to brands. A conceptual framework is developed based on the past literature to quantitatively measure the impact of social media marketing on brand trust and customer loyalty (cognitive, affective, conative, and action loyalty). Data was collected from 315 users of a fashion brand that they like and follow on social media. PLSSEM was used to assess the proposed relationships. The findings of the study reveal that social media marketing significantly impacts brand trust and brand loyalty and its dimensions such as cognitive, affective, conative, and action loyalty. The findings of this study offer insightful information for marketers looking to use the power of social media marketing to increase customer trust and loyalty. The results highlight the necessity for a comprehensive strategy that goes beyond simple promotional content and emphasizes developing deep connections with customers to build trust and shaping loyalty in the digital environment.
	Title	Digital Influence: Examining Social Media Marketing Dynamics and How They Affect Consumer Brand Loyalty	
	Journal Name	Transactions on Business and Economics	
	College	College of Business Management	
	Department	Management & HRM	
	Keywords	Social Media Marketing; Brand Trust; Cognitive Loyalty; Affective Loyalty; Conative Loyalty; Action Loyalty.	
	HEC Category	Y	
	Pages	1571-1583	
	Volume No.	21	
	Issue No.	2024	
	ISSN	E-ISSN: 2224-2899	
	DOI	10.37394/23207.2024.21.128	
	URL/Link	https://wseas.com/journals/bae/2024/c625107-2655.pdf	
3.	Author(s)	Maha Batool, Junaid Ansari, Mahlaka Faisal Dyer, Muhammad Adnan Bashir	Tourism is one of the fastest-growing industries in the world. However, in Pakistan, it is facing many problems. Pakistan has many natural and cultural resources that it can use to promote tourism. The country has the potential to attract visitors from all around the globe. Unfortunately, the government's lack of resources and dedication has led to the country's underutilization of tourism's potential. Given its importance, the study has examined the impact of traveler constraints, traveler anxiety, tourism distribution channels, and product offerings on travel intent. It also examined the moderating effect of the usefulness of advertising content on
	Title	Tourism in Pakistan is not Achieving Its Real Potential Due to a Lack of Infrastructure and Promotion	
	Journal Name	Market Forces	
	College	College of Business Management	

	Department	Management & HRM	<p>traveler intention. The study collected the sample data from travelers at Jinnah International Airport. The study found that traveler constraints and traveler anxiety negatively affect traveler intention. It also found that tourism distribution channels and product offerings positively affect travel intention. The study also supported the moderating effect of the usefulness of advertising content between product offering and travel intention. Social media and conventional news channels have distorted the country's image, and many travelers perceive it as not a safe place to visit. Tourism Bureau and the government must spend considerable resources to improve its image.</p>
	Keywords	Travel intention, travel constraints, travel anxiety, travel distribution, product offering, the usefulness of advertising content.	
	HEC Category	Y	
	Pages	178-200	
	Volume No.	19	
	Issue No.	1	
	ISSN	Online ISSN 2309-866X Print ISSN 1816-8434	
	DOI	https://doi.org/10.51153/mf.v19i1.656	
	URL/Link	https://marketforcesjournal.kiet.edu.pk/index.php/marketforces/article/view/656	
4.	Author(s)	Junaid Ansari, Syed Irfan Hyder	<p>Purpose This paper aims to understand the religio-spiritual insights of the consumers and investigate their relationship with the consumers' attitude towards advertising and its antecedents. Religious festivals, such as Ramadan, are celebrated with high religio-spiritual contemplations, which are often targeted by intensive marketing campaigns. During these religious festivals, consumers' attitude toward advertising is influenced when television commercials contain "unnecessary" entertainment, "inappropriate casting" of celebrities with less credibility, "cluttered" information, "phony claims" related to good for economy and "annoying content" increasing consumers' irritation.</p> <p>Design/methodology/approach This study developed a higher-order construct of religio-spiritual insights and used "Theory of Reasoned Action" for measuring the effect of religio-spiritual insights on consumers' attitude toward advertising. Exploratory sequential mixed methods research design was used to develop and validate the instrument. A total of 30 semi-structured interviews were conducted during i-depth analysis phase to generate themes and questionnaire. During instrument validation phase, 839 Muslim</p>
	Title	Instrument validation of the consumers' religio-spiritual insights in context of advertising during religious festivals	
	Journal Name	Journal of Islamic Marketing	
	College	College of Business Management	
	Department	Management & HRM	
	Keywords	Attitude toward advertising, Consumers' religio-spiritual insights, Covariance-based SEM, Muslims and Ramadan, Religious festivals	
	HEC Category	W	
	Pages	518-540	
	Volume No.	15	
	Issue No.	2	

	ISSN	Online ISSN 1759-0841 Print ISSN 1759-0833	<p>consumers were surveyed by using the questionnaire, and instrument was validated by using the co-variance-based structural equation modeling approach.</p> <p>Findings This study develops and validates the instrument of religio-spiritual insights and identifies its significant direct and mediating effects between the consumer's attitude toward advertising and its determinants.</p> <p>Originality/value The newly developed instrument of religio-spiritual insights is based on six dimensions, namely, "beliefs and practices," "association with higher power," "interconnectedness," "self-actualization," "heart and mind involvement," "knowledge and meanings." This instrument of religio-spiritual insights was validated and then tested by using a conceptual framework based on the several variables, such as attitude toward advertising, irritation, good for economy, entertainment, credibility and information.</p>
	DOI	https://doi.org/10.1108/JIMA-06-2022-0162	
	URL/Link	https://www.emerald.com/insight/content/doi/10.1108/JIMA-06-2022-0162/full/html	
5.	Author(s)	Bilqees Ghani, Muhammad Abdur Rahman Malik, Khalid Rasheed Memom	<p>Purpose Research on the underlying mechanisms that transfer the effects of performance appraisal (PA) on employees' behaviors and intentions remains scarce. The social exchange view of performance appraisal can be a source of deeper understanding about these underlying mechanisms. This study aims to investigate how psychological empowerment (PE) and organizational commitment (OC) explain the link between performance appraisal and three important distal outcomes: voice behavior (VB), organizational citizenship behavior (OCB), and turnover intentions (TOI).</p> <p>Design/methodology/approach The current study utilizes two wave – two source data from a sample of 250 employees and their supervisors from private organizations in Pakistan and tested the mediation model using SMART-PLS.</p> <p>Findings Results demonstrated that organizational commitment mediated the effects of performance appraisal on VB, OCB, and TOI, whereas psychological empowerment mediated the effects of performance appraisal on VB and OCB. These results have significant implications for theory and</p>
	Title	Effects of performance appraisal on employees' extra-role behaviors and turnover intentions – A parallel mediation model	
	Journal Name	Personnel Review	
	College	College of Business Management	
	Department	Management & HRM	
	Keywords	Performance appraisal, Organizational commitment, Psychological empowerment, Voice behavior, Citizenship behavior, Turnover intentions, Social exchange theory	

	HEC Category	W	<p>practice. Originality/value</p> <p>This study adopts the social exchange perspective to examine the mediation mechanisms linking PA with the three distal outcomes: VB, OCB and TOI. The paper identifies two novel mediators of PA – outcome relationship, i.e., psychological empowerment and organizational commitment.</p>
	Pages	2413–2441	
	Volume No.	53	
	Issue No.	9	
	ISSN	Online ISSN 1758-6933 Print ISSN 0048-3486	
	DOI	http://dx.doi.org/10.1108/PR-10-2022-0707	
	URL/Link	https://www.emerald.com/insight/content/doi/10.1108/PR-10-2022-0707/full/html	
6.	Author(s)	Anam Qamar., Abdur Rahman Aleemi, Muhammad Azeem Qureshi	<p>In recent times, increasing regulatory pressure and changes in investor preferences have led to an increase in the importance of sustainable investment at both academic and practitioner levels, with the field still occupying the formative stage. Therefore, the objectives of this study are to explore the intellectual underpinnings of and suggest future research avenues in the discipline of sustainable investment, as well as to conduct a systematic review and bibliometric analysis. In total 1,222 articles were selected from the Scopus database for the period 2013-2023. The study follows the SPAR-4-SLR protocol, involving performance analysis and science mapping using VOSviewer and the R-package. Network analysis revealed eight major clusters primarily focusing on firms’ financial performance, stock returns, contributions to climate change, economic growth, sustainable development goals, risk assessment, and corporate social responsibility. Additionally, the study developed a unified taxonomy model based on a causal framework that includes the foremost independent, mediating, moderating, and dependent variables, studied in the field of sustainable investment.</p>
	Title	Measuring The Pulse of Sustainable Investment: A Systematic Review & Bibliometric Perspective	
	Journal Name	ABAC Journal	
	College	College of Business Management	
	Department	Management & HRM	
	Keywords	-	
	HEC Category	X	
	Pages	1-27	
	Volume No.	44	
	Issue No.	4	
	ISSN	0858-0855	
	DOI	https://doi.org/10.59865/abacj.2024.49	

	URL/Link	https://www.researchgate.net/publication/385088073_Measuring_The_Pulse_of_Sustainable_Investment_A_Systematic_Review_Bibliometric_Perspective
7.	Author(s)	Syed Aamir Alam Rizvi, Muhammad Azeem Qureshi, Junaid Ansari
	Title	Exploring the role of women entrepreneurial startups in shaping a sustainable future
	Journal Name	ABAC Journal
	College	College of Business Management
	Department	Management & HRM
	Keywords	Challenges Entrepreneurship Opportunities Rules and regulations Sustainable development goals Service sector Startups
	HEC Category	Not in HJRS
	Pages	264
	Volume No.	5
	Issue No.	1
	ISSN	2662-9984
	DOI	https://doi.org/10.1007/s43621-024-00482-1
	URL/Link	https://link.springer.com/article/10.1007/s43621-024-00482-1
		Women-led entrepreneurial startups play a crucial role in fostering a sustainable future. These startups have the potential to provide innovative solutions. However, women entrepreneurs in Pakistan face socio-economic challenges like unemployment, gender inequality, and environmental deterioration. Even though women are underrepresented in the workforce, entrepreneurship is essential for developing sustainable practices. This research explores the contributions that women entrepreneurs can make to sustainability, the obstacles and possibilities that exist, as well as the requirements for changes in policies and regulations to accomplish sustainable development goals. This study utilizes a qualitative approach and focuses on conducting semi-structured interviews with 20 Pakistani women entrepreneurs in the service sector industry. Subsequently, thematic analysis was employed. The study provides recommendations for Pakistani policymakers and stakeholders to enhance the efficiency of entrepreneurship to promote sustainable development.

1(e). Department of Marketing

1.	Author(s)	Aamir Saeed, Asnma Rehman, Awais Alam, Shah Hussain Awan	This study investigates market segmentation approaches used by eight diverse corporations in Pakistan. Interviews were conducted with marketing professionals to explore their current methods and perceptions of alternative strategies. Findings reveal that most organizations still rely on traditional segmentation methods—demographics, psychographics, geographic, and behavioral factors. However, six of the eight companies expressed a desire for contemporary segmentation approaches focused on customer needs. Marketing professionals noted that need-based segmentation could enhance customer satisfaction and increase revenue. Although conventional methods have value, a gap exists in the Pakistani market for more personalized, needs-based segmentation that could drive better outcomes for both customers and companies. Keywords: Behavioral, Customer Needs, Demographics, Geographic, Psychographics, Market Segmentation.
	Title	Market Segmentation in Pakistan: A Mona Lisa Smile or a Big Fat Smile?	
	Journal Name	International Journal of Experiential Learning & case studied	
	College	College of Business Management	
	Department	Marketing	
	Keywords	Behavioral, Customer Needs, Demographics, Geographic, Psychographics, Market Segmentation	
	HEC Category	Y	
	Pages	119–131	
	Volume No.	5	
2.	Author(s)	Yinuo Jia (a b), Midhat Nadeem (c), Irfan Hameed (d), Idrees Waris (e), Umair Akram (f)	Global-scale energy use has contributed to worldwide environmental issues, including climate change, global warming, and air and haze pollution. Home appliances are commonly used products that consume a lot of energy. This study aims to empirically assess the factors that lead to pro-environmental consumer behavior in households under the influence of haze pollution. The relationship among the variables of the theory of planned behavior (TPB) (attitude, subjective norms, perceived behavioral control, purchase intention, and purchase behavior), the norm activation model (NAM) (ascription of responsibility, awareness of consequences, personal norms), and additional psychological variables such as green trust and environmental concern has been examined. In addition, the moderating role of herd mentality on consumer purchasing has also been assessed. A non-probability-based purposive sampling technique has been employed to gather data from 429 respondents. The results from
	Title	Towards sustainable consumption: Factors influencing energy-efficient appliance adoption in haze-affected environments	
	Journal Name	Energy Strategy Reviews	
	College	College of Business Management	
	Department	Marketing	
	Keywords	Norm activation model Theory of planned behavior Green trust Environmental concern Haze pollution Energy-efficient household appliances	

	HEC Category	W	PLS-SEM show that haze pollution stimulates the usage of energy-saving appliances. Environmental concern positively affects consumers' intentions to purchase energy-efficient household appliances, and green trust positively influences environmental concern. Subjective norms, attitudes, perceived consumer effectiveness, and environmental concern shape purchase intention. Personal norms are influenced by the awareness of consequences and the ascription of responsibility. The influence of these factors on consumers' pro-environmental behavior is evident in purchasing energy-efficient household appliances to minimize haze and mitigate associated environmental issues. This study proposes strategies to persuade individuals to purchase energy-efficient household equipment based on the empirical findings.
	Pages	101416	
	Volume No.	53	
	Issue No.	N/A	
	ISSN	2211-467X	
	DOI	https://doi.org/10.1016/j.esr.2024.101416	
	URL/Link	https://www.sciencedirect.com/science/article/pii/S2211467X24001238	
3.	Author(s)	Fahim, S. M., Butt, D. R. M., Khan, S. S., Ali, S. Z., & Lohana, M. K.	International Journal of Experiential Learning & Case Studies provides an innovative conceptual framework for consideration of industry managers, corporate sector strategists, and decision-makers and strives to be the basis for collaborative dialogue and discussions between industry and academia. The key objective of the journal is to contribute significantly to teaching and learning by using business management-related case studies and industry-specific research articles.
	Title	Riding the Wave: The Growing Preference for Public Transit System among Customers	
	Journal Name	International Journal of Experiential Learning & case studied	
	College	College of Business Management	
	Department	Marketing	
	Keywords	Public transportation, Green Line BRT, Service quality, Technological, advancements, Road infrastructure Sustainable urban mobility	
	HEC Category	Y	
	Pages	1-32	
	Volume No.	9	
	Issue No.	1	
	ISSN	ISSN 2521-9359 (Online) ISSN 2520-4475 (Print)	

	DOI	https://doi.org/10.22555/ijelcs.v9i1.1139	
	URL/Link	https://ijelcs.iobm.edu.pk/	
4.	Author(s)	Muzzammil Wasim Syed, Huaming Song, M Junaid	Organizations are embracing sustainable supply chain management practices (SSCMPs) and sustainable human resource management practices (SHRMPs) to achieve sustainable development goals (SDGs). However, little is known about how SSCMPs and SHRMPs influence knowledge sharing (KS) and relationship commitment (RC). It is also unknown how these factors influence sustainable supply chain performance (SSCP). To fill this void in the literature, this study has drawn a multidimensional framework based on the resource dependence theory (RDT) and natural resource-based view (NRBV) theory that provides a foundation for understanding the relationship between SSCMPs and SHRMPs on SSCP through KS and RC. Data from 490 respondents working in manufacturing firms in Pakistan were collected and employed to SPSS 25 and AMOS 24 for initial checks. Once cleaned, it is employed by SmartPLS to analyze using partial least squares structural equation modeling (PLS-SEM). The results reveal that SSCMPs and SHRMPs significantly enhance a firm's knowledge sharing and improve relationship commitment, which in turn enhances SSCP. The results also suggest that KS mediates the relationship between SSCMPs and SSCP, SHRMPs, and SSCP. On the other hand, RC does not mediate the relationships significantly. Furthermore, to check the robustness of the results, a fuzzy set qualitative comparative analysis (fsQCA) was performed, which signifies the robustness of the results and the model. The paper presents the significant implications for the managers and policymakers as the results lead toward a better sustainability position and help the firms achieve SDGs.
	Title	Impact of sustainable practices on knowledge sharing, relationship commitment, and sustainable performance	
	Journal Name	Environment, Development and Sustainability	
	College	College of Business Management	
	Department	Marketing	
	Keywords	Corporate Social Responsibility Knowledge Management Religion and Sustainability Supply Chain Management Sustainable Growth Sustainability	
	HEC Category	W	
	Pages	24927–24961	
	Volume No.	27	
	Issue No.	2024	
	ISSN	1573-2975	
DOI	https://doi.org/10.1007/s10668-024-04567-9		
URL/Link	https://link.springer.com/article/10.1007/s10668-024-04567-9		
5.	Author(s)	Muhammad Tabish, Syed Abdul Rehman Khan, Zhang Yu, Muhammad Tanveer	To develop a circular economy (CE) and protect the environment, waste recycling (WR) is crucial. This study examines WR research conducted over the past two decades to identify the most significant advancements and promising areas for future research. The following challenges were handled through text mining, content, and bibliometrics
	Title	A thorough overview of the literature on waste recycling in the circular economy: current practices and future perspectives	

Journal Name	Environmental Science and Pollution Research	analysis: How has CE influenced the evolution of WR research? What are the CE's most important WR research trends and themes? What directions could future research on WR take regarding the CE transition? Using 1118 articles from the Scopus database journal, bibliometric networks were made and analyzed. Hence, five critical CE-related problems needing further research were recognized: waste recycling is the first cluster, followed by technology, the CE transformation, plastic waste, and waste management (WM). Examining WM and inclusive waste reduction practices and their distinct highlight patterns may impact future research fields and serve as a transitional tool to CE (which aims to minimize waste generation). Forthcoming research targets contain waste reduction and incorporation of WR into the CE framework.
College	College of Business Management	
Department	Marketing	
Keywords	Supply chain management Technology Circular economy transformation Waste management Recycling Closed-loop supply chain Sustainability	
HEC Category	W	
Pages	61377–61396	
Volume No.	31	
Issue No.	N/A	
ISSN	1614-7499	
DOI	https://doi.org/10.1007/s11356-024-35329-9	
URL/Link	https://link.springer.com/article/10.1007/s11356-024-35329-9	
6.		The fundamental aim/objective of International Journal of Social Sciences Bulletin is to achieve broad dissemination and heightened visibility within the field of social sciences. The journal welcomes papers of the highest quality in the following domains, both established and emerging; Education Journalism Language & Literature Governance & Political Sciences History & Regional Studies Psychology & Sociology Business & Management Sciences Economics
Author(s)	Munawar, S., Khan, A.G., Fahim, S. M., Butt, R.M.	
Title	Barriers To Online Grocery Shopping: A Study of South Asian Economy	
Journal Name	International Journal of Social Sciences Bulletin	
College	College of Business Management	
Department	Marketing	
Keywords	-	
HEC Category	Not in HJRS	

	Pages	489-500	
	Volume No.	2	
	Issue No.	4	
	ISSN	ISSN (E) 3007-1917 ISSN (P) 3007-1909	
	DOI	10.51137/ijssb.2024.1.2.14	
	URL/Link	https://ijssbulletin.com/index.php/IJSSB	
7.	Author(s)	Ashraf, A., Khalid, N., Saleem, A., & Rafay, M. (2024)	<p>In the current era, the usage of environmentally sustainable products has risen significantly. Consumers are becoming more conscious of their selection and priorities by aligning their purchasing decisions towards a sustainable lifestyle. Hence, the importance of green advertising holds great value in developing awareness among consumers' choices. The main intent of this research study is to quantitatively analyze the impact of green advertising and brand authenticity on consumer purchase intentions in the beverage industry. The mediating role of consumer trust and the moderating role of product quality on the relation between green advertising and consumer purchase intentions were also observed. Data were gathered from 284 respondents through a close-ended questionnaire using, non-probability, purposive sampling. The responses were analyzed through SMART-PLS 4.0 software, employing Partial Least Square-Structural Equation Modeling (PLS-SEM). Despite indicating the non-significance results of mediating and moderating effects, this study reveals the considerable impact of green advertising on consumer purchase intentions in a developing country, Pakistan. It also highlighted the importance of an authentic brand image to obtain the attention of environmentally conscious consumers. In the end, the outcomes along with their explanations are given which can direct marketing managers to develop productive and successful sustainable advertising plans, along with the authentic brand image, in reshaping the consumer purchasing intentions toward their products and increase their products' sales and market share.</p>
	Title	Impact of Green Advertising on Consumer Purchase Intentions in the Beverage Industry: The Moderating Role of Product Quality	
	Journal Name	International Journal of Experiential Learning & case studied	
	College	College of Business Management	
	Department	Marketing	
	Keywords	Consumer Purchase Intentions Green Advertising Brand Authenticity Consumer Trust Product Quality	
	HEC Category	Y	
	Pages	327-351	
	Volume No.	10	
	Issue No.	2	
	ISSN	2520-4475 2521-9359	
	DOI	https://doi.org/10.22555/ijelcs.v9i2.1158	
	URL/Link	https://www.researchgate.net/publication/387499936_Impact_of_Green_Advertising_on_Consumer_Purchase_Intentions_in_the_Beverage_Industry_The_Moderating_Role_of_Product_Quality	

1(f). Department of Communication & Languages

1.	Author(s)	Mashooque Ali Mirjat ¹ , Sumaira Suleman Mahar ² and Amber Butt ³	The implementation of Information Communication Technology (ICT) has streamlined the result[1]oriented delivery of teaching and learning that has also facilitated the creation of engaging and interactive learning and enhanced the assessment. Although students currently benefit from enhanced access to diverse learning resources, peer collaboration, and self-directed learning due to technological advancements. The study is an attempt to analyze of impacts of ICT on academic and pedagogical effects on the learners of secondary school of Karachi. School learners' curiosity, ideas, and concept development matter for their future educational journey, and schools are unable to develop their competencies in the era of ICT which is a concern of all stakeholders. A survey has been used for the data collection from eight schools from all districts of Karachi. The sample has been collected randomly from the n-8 schools with N=1200 students from class 6th to 10thlevel. SPSS has been used for data analysis. The results reveal that ICT tools have not been used in teaching and learning management. Due to financial constraints, the utilization of ICT devices in classroom management is delayed or ignored. Nonetheless, inadequate electrical supply and poor internet connectivity in most of the areas significantly hinder the use of ICT devices in classrooms, compounded by the need for additional training for teachers from non-technical backgrounds. It is recommended that ICT tools should be used extensively for better learning outcomes at the school level.
	Title	Impact of Information Communication Technology Tools on Teaching and Learning of Secondary School Learners	
	Journal Name	Journal of Asian Development Studies	
	College	College of Business Management	
	Department	Communication & Languages	
	Keywords	ICT, Teaching, Learning, School Education, Learners	
	HEC Category	Y	
	Pages	1151-1159	
	Volume No.	13	
	Issue No.	3	
	ISSN	2788-452X 2304-375X	
DOI	https://doi.org/10.62345/jads.2024.13.3.93		
URL/Link	https://poverty.com.pk/index.php/Journal/article/view/802		
2.	Author(s)	Muhammad Ajmal, Mariyam Rehan, Atiqa Kanwal	The present research aims at conducting a comparative analysis to determine the role of Pakistani English fiction writers in promoting national identity and unity. With an insight into the collection of short stories In Other Rooms, Other Wonders by Daniyal Mueenuddin and the novel Home Boy by H.M. Naqvi, the research explores the underlying themes and narratives of the two aforementioned works to evaluate their contributions in the formation and
	Title	Exploring the Theme of National Identity and Unity in Home Boy and In Other Rooms, Other Wonders.	
	Journal Name	City University Research Journal of Literature and Linguistics	
	College	College of Business Management	

Department	Communication & Languages	<p>representation of a Pakistani national identity. The study adopts a qualitative approach whereby the researchers have employed a method of textual analysis to explore the literary techniques used in each work and how it reflects the Pakistani cultural and political contexts. The analysis has focused on the use of language, characterization, and imagery to show how Pakistani English literature reinforces or challenges stereotypes and prejudices related to Pakistan and Pakistani people. This research concludes that the role of Pakistani English literature in promoting national identity and unity is crucial.</p>
Keywords	-	
HEC Category	Y	
Pages	1-17	
Volume No.	7	
Issue No.	1	
ISSN	2706-9656 2706-9664	
DOI	https://doi.org/10.62345/jads.2024.13.3.93	
URL/Link	https://www.cusitjournals.com/index.php/CURJLL/article/view/961	

1(g).Department of Supply Chain & Logistics

1.	Author(s)	Ahras Rashid, Adeel Shah, Hafiza Noor Ul Ain, Sherbaz Khan, Afzal Adamjee	<p>The objective of the present study is to investigate the advantages of lean manufacturing in textile and apparel manufacturing facilities in Pakistan. This study examines the influence of lean manufacturing on the time-saving, process efficiency, and industry improvement. Modern organizations are employing lean manufacturing as a critical concept in their operations. There are numerous advantages to employing lean manufacturing; consequently, the textile industry is also transitioning to this methodology. The quantitative methodology employed in this investigation is employed to investigate the current subject matter. The study's data is gathered from the customers and employees of textile and apparel manufacturing units in Pakistan. In order to accumulate data from the respondents of the investigation, questionnaires were implemented. The study's findings suggest that lean manufacturing is significantly positively correlated with industry improvement, process efficiency, and time savings. These three factors are also essential for the success of an organization. This investigation also encompasses practical and managerial implications, future direction, and limitations.</p>
	Title	Benefits of Using Data-Driven Lean Manufacturing in Textile and Apparel Manufacturing Units in Pakistan	
	Journal Name	The Asian Bulletin of Big Data Management	
	College	College of Business Management	
	Department	Supply Chain & Logistics	
	Keywords	Lean Manufacturing Industry Improvement Process Efficiency Time Saving	
	HEC Category	Y	
	Pages	115-132	
	Volume No.	4	
	Issue No.	2	
	ISSN	P-ISSN: 2959-0795 E-ISSN: 2959-0809	

	DOI	https://doi.org/10.62019/abbdm.v4i02.64	
	URL/Link	https://abbdm.com/index.php/Journal/article/view/64	
2.	Author(s)	Asif Khan, Ahras Rashid, Sherbaz Khan, Adeel Shah, Hafiza Noor ul Ain	<p>The main focus of the current study is to investigate the impact of advanced manufacturing technology (AMT), supplier responsiveness, logistic responsiveness, and resilience on sustainability. Sustainability not only depends upon the raw materials there are multiple other factors in an apparel firm, so we choose some of the factors in order to explore whether these contribute in or not. Sustainability is an important concept in contemporary business and organizations are now more concerned about sustainability because it provides them with multiple benefits. This research also generates focus towards these factors of an apparel firm. The current research study includes a mixed-method design. Data was being collected from the respondents of apparel units through questionnaires and interviews. This study concludes that advanced manufacturing technology (AMT), supplier responsiveness, logistic responsiveness, and resilience are significant contributions to sustainability. This research would be carried out using primary data as mentioned in the literature review as well as primary data that we would be collecting from a local brand's practicing EM. Where we will conduct interviews and questionnaires by handing them out to the consumers of the brand. This questionnaire would objectively probe questions that would draw a difference between the sales from traditional and sales from experiential marketing. This research study also includes discussion, practical/managerial implications, limitations, and direction for future research. Relationships of these variables are analyzed by using the Regression analysis. All the hypotheses resulted in support. Hence, we proved that Advanced Manufacturing Technology, Supplier responsiveness, Logistic responsiveness and resilience has a significant impact on Sustainability.</p>
	Title	Integrating Apparel Mill Sustainability into Primary Education: The Role of Intangible Resources and Capabilities	
	Journal Name	International Journal of Social Science & Entrepreneurship	
	College	College of Business Management	
	Department	Supply Chain & Logistics	
	Keywords	Advanced manufacturing technology (AMT), supplier responsiveness, logistic responsiveness, resilience, Sustainability	
	HEC Category	Not in HJRS	
	Pages	448-468	
	Volume No.	4	
	Issue No.	2	
	ISSN	ISSN(Print): 2790-7716 ISSN(Online): 2790-7724	
	DOI	https://doi.org/10.58661/ijssse.v4i2.297	
	URL/Link	https://ijssse.salmaedusociety.com/index.php/ijssse/article/view/297	
3.	Author(s)	Ahras Rashid, Sherbaz Khan, Adeel Shah, Saheer Ali	<p>This paper seeks to explore in great depth the green construction procurement influence to green logistic services, creative activities as</p>

	Title	Interplay of Green Construction Procurement and Logistic Service Innovation: Advancing Sustainable Economic Growth and Sustainable Development Goals	well as their general contribution towards economic sustainable growth. Quantitative methodology was used in this study where data collection was through survey to the engineers and project managers under construction projects. The study, hence, critically tempts to examine towards environmentally responsible procurement enhanced services towards transportation as well as the developments of new and sustainable solutions in detail. The major findings indicated towards a high significant correlation between green procurement practices and enhancement of green logistic services particularly in sustainable material handling and transportation. Moreover, green purchasing is shown to considerably boost sustainability-related product and process innovation. The research points out the need for green logistic services in contributing to Sustainable Development Goals (SDGs) through the green construction procurement and emphasis on management and innovation of the services effectively. The study identifies that self-administered surveys limit inclusion while focus within a specific demographic creates further limitation, thus suggesting necessity for further research to understand the long-term effects of green procurement and logistics over SDGs.
	Journal Name	International Journal of Social Science & Entrepreneurship	
	College	College of Business Management	
	Department	Supply Chain & Logistics	
	Keywords	Green practices, construction procurement, sustainable economic growth, green logistic services, innovative practices, Sustainable Development Goals	
	HEC Category	Not in HJRS	
	Pages	1 to 21	
	Volume No.	4	
	Issue No.	1	
	ISSN	ISSN(Print): 2790-7716 ISSN(Online): 2790-7724	
	DOI	https://doi.org/10.58661/ijssse.v4i1.232	
	URL/Link	https://ijssse.salmaedusociety.com/index.php/ijssse/article/view/232	
4.	Author(s)	Ahras Rashid, Adeel Shah, Hafiza Noor Ul Ain, Afzal Adamjee, Sherbaz Khan	This study investigates the impact of Total Quality Management (TQM) and Agile Manufacturing (AM) on the performance of apparel mills, while also exploring the moderating role of Higher Management Commitment (HMC). The goal is to assess whether TQM and AM enhance mill performance and whether HMC amplifies these effects. The research adopts a quantitative approach using data from 104 respondents across various apparel mills in Karachi, Pakistan. A structured questionnaire was employed, measuring TQM, AM, Operational Safety (OS), Training, and HMC using a 5-point Likert scale. Regression and correlation analyses were conducted to evaluate relationships between the variables.
	Title	Impact of Total Quality Management and Agile Manufacturing on Performance in the Apparel Industry: A Moderating Role of Higher Management Commitment	
	Journal Name	The Asian Bulletin of Big Data Management	
	College	College of Business Management	
	Department	Supply Chain & Logistics	

	Keywords	TQM Agile Manufacturing Operational Safety Training H1 H2 H3 H4 H5 H6 H7 H8 Apparel Mill Performance Higher Management Commitment	The results indicate that both TQM and AM have significant positive effects on apparel mill performance, with training also showing a strong correlation. However, OS did not demonstrate a significant impact. Furthermore, HMC significantly moderates the relationship between TQM and training on mill performance but does not moderate the relationship between AM and OS. The findings suggest that managers in the apparel industry should focus on implementing TQM and AM to enhance performance, while also fostering strong managerial commitment to maximize these benefits. This study contributes to the existing literature by integrating TQM, AM, and HMC, providing a comprehensive understanding of their effects on apparel mill performance.
	HEC Category	Y	
	Pages	154-172	
	Volume No.	4	
	Issue No.	3	
	ISSN	P-ISSN: 2959-0795 E-ISSN: 2959-0809	
	DOI	https://doi.org/10.62019/abbdm.v4i3.211	
	URL/Link	https://abbdm.com/index.php/Journal/article/view/211	
5.	Author(s)	Ahras Rashid, Adeel Shah, Hafiza Noor Ul Ain, Sherbaz Khan	This research tends to discover the influence of innovation and training & development on the operational performance of an organization. Performance is an integral function of the success of any organization. Therefore, this research tends to discover the influence of innovation and training & development on the operational performance of an organization. Green lean six sigma is also an important concept that emerged in the last few years. The motive of this research is to explore the mediation of green lean six sigma among innovation, training & development, and operational performance. The current study uses a quantitative method to explore this current topic. The data utilized in this study was obtained from both customers and employees of textile and apparel manufacturing facilities located in Pakistan. Questionnaires were used to collect data from the respondents of the research. Results of the study indicate innovation and training & development are significantly associated with an organization's operational performance. Green lean six sigma also mediated the association between innovation, training & development, and operational performance. This study also includes limitations, future direction, and practical and
	Title	Impact Of Innovation and Training & Development on Operational Performance: Mediation of Green Lean Six Sigma	
	Journal Name	THE ASIAN BULLETIN OF GREEN MANAGEMENT AND CIRCULAR ECONOMY	
	College	College of Business Management	
	Department	Supply Chain & Logistics	
	Keywords	Innovation, training & development, green lean six sigma, and operational performance.	
	HEC Category	Not in HJRS	
	Pages	59-78	
	Volume No.	4	
	Issue No.	2	
	ISSN	2959-0027(P) 2959-0035(E)	

	DOI	https://doi.org/10.62019/abgmce.v4i2.112	managerial implications.
	URL/Link	https://www.researchgate.net/publication/383931245_Impact_Of_Innovation_and_Training_Development_on_Operational_Performance_Mediation_of_Green_Lean_Six_Sigma	
6.	Author(s)	Ahras Rashid, Adeel Shah, Sherbaz Khan, Mr Afzal Adamjee, Atif Shahab	The rising trend of sustainability worldwide has significantly influenced various industries, transformed not only retail but also reshaped the luxury sector. One notable shift is the increasing focus on vegan leather, with cactus leather emerging as a promising alternative. This study explores the potential of cactus leather in Pakistan, particularly how it can contribute to sustainability in the country's leather industry. By introducing cactus leather, the research aims to raise awareness about sustainable practices and offer a viable alternative to traditional animal leather. The methodology employed in this study is qualitative, based on interviews with leather manufacturers, and the data was analyzed using a thematic analysis framework. The key findings highlight the potential of cactus leather as a sustainable substitute for animal leather, emphasizing its durability, aesthetic appeal, and environmental benefits. Cactus leather not only provides a cruelty-free option but also addresses issues related to pollution and water usage in leather production. The research aims to introduce cactus leather to the Pakistani market, particularly in regions like Thar and Kharan in Sindh and Baluchistan, where cactus farming could thrive and benefit local communities. Cactus leather eliminates the need for animal-based materials, allowing consumers to wear leather products without the associated guilt of animal cruelty. Additionally, the production process of cactus leather is less water-intensive and requires fewer toxic chemicals than traditional leather processing, further reducing its environmental impact. This study underscores the potential for cactus leather to revolutionize the leather industry in Pakistan, aligning with global sustainability trends and offering a practical solution to environmental and ethical concerns.
	Title	Potential of Cactus Leather in Pakistan's Leather Industry: A Qualitative Analysis.	
	Journal Name	International Journal of Social Science & Entrepreneurship	
	College	College of Business Management	
	Department	Supply Chain & Logistics	
	Keywords	Vegan leather, sustainability, cactus leather, leather industry	
	HEC Category	Not in HJRS	
	Pages	1 to 16	
	Volume No.	4	
	Issue No.	3	
	ISSN	ISSN(Print): 2790-7716 ISSN(Online): 2790-7724	
DOI	https://doi.org/10.58661/ijssse.v4i3.298		
URL/Link	https://ijssse.salmaedusociety.com/index.php/ijssse/article/view/298		

7.	Author(s)	Khan, M.M., Mubarik, M.S., Ahmed, S.S., & Islam, T.	The advent of digital technologies (DTs) has transformed traditional supply chains into agile, efficient, and sustainable networks, known as Supply Chain 4.0. Digital supply chain management (DSCM) is crucial in enhancing supply chain (SC) sustainability by integrating digital tools to improve efficiency, transparency, and environmental stewardship. This study aims to examine the impact of DSCM on SC sustainability, assess the role of a firm's intellectual capital (IC) in adopting DSCM, and explore the mediating role of supply chain mapping between DSCM and SC sustainability. Focusing on Pakistan's textile sector, we employed a mixed-method approach, starting with a quantitative analysis using Partial Least Squares Structural Equation Modelling (PLS-SEM), followed by a qualitative case study of two textile companies. Our findings reveal a significant positive relationship between IC and DSCM adoption, underscoring the importance of knowledge resources in leveraging DTs for SC improvement. However, the direct impact of DSCM on SC sustainability was not supported, indicating the need for intermediary processes or factors to enhance the sustainability outcomes of DSCM
	Title	Unlocking the potential of digital technologies for sustainable supply chain management strategies	
	Journal Name	Supply Chain Forum	
	College	College of Business Management	
	Department	Supply Chain & Logistics	
	Keywords	Digital supply chain management; SC sustainability; intellectual capital; SC mapping; business strategy	
	HEC Category	X	
	Pages	01-021	
	Volume No.	26	
	Issue No.	3	
	ISSN	ISSN(Print): 2790-7716 ISSN(Online): 2790-7724	
DOI	https://doi.org/10.1080/16258312.2024.2371282		
URL/Link	https://doi.org/10.1080/16258312.2024.2371282		
8.	Author(s)	Khan, M., Mubarik, M. S., Ahmed, S. S., & Jaboo, A. S	<p>Purpose The purpose of this study is to ascertain the role of servant leadership in promoting employees' engagement in learning activities. Additionally, the study is intended to explicate the mediating role of employees' promotion focus relating servant leadership to employees' engagement in learning activities.</p> <p>Design/methodology/approach Data was collected from 401 manager-subordinate dyads employed in the Pakistani software industry located in Karachi in two phases which were conducted two months apart. The data analysis was done through hierarchical regression.</p> <p>Findings The study found that servant leadership was related to promotion focus and employees' learning engagement. The study also found promotion focus was related to employees'</p>
	Title	Learning facilitation is service indeed: examining how servant leadership leads to employee engagement in learning	
	Journal Name	Global Knowledge, Memory and Communication	
	College	College of Business Management	
	Department	Supply Chain & Logistics	
	Keywords	Servant leadership, Promotion focus, Employees' engagement in learning activities	
	HEC Category	W	

	Pages	NA	<p>learning engagement. Finally, the results revealed promotion focus mediates the relationship between servant leadership and employees' learning engagement.</p> <p>Originality/value</p> <p>The study unearthed the previously unexplored role of servant leadership in affecting employees' engagement in learning activities. Additionally, the study explicated how servant leadership affects employees' promotion focus to motivate employees' learning engagement.</p>
	Volume No.	NA	
	Issue No.	NA	
	ISSN	Online ISSN 2514-9350 Print ISSN 2514-9342	
	DOI	https://doi.org/10.1108/GKMC-11-2023-0446	
	URL/Link	https://www.emerald.com/gkmc/article-abstract/doi/10.1108/GKMC-11-2023-0446/1259384/Learning-facilitation-is-service-indeed-examining?redirectedFrom=fulltext	
9.	Author(s)	Muhammad Mumtaz Khan, Muhammad Shujaat Mubarik, Syed Saad Ahmed, Tahir Islam	<p>Purpose - The purpose of this study is to understand how servant leadership affects employees' community citizenship behavior by transforming their servant identity. Additionally, the study explicated whether the relationship between servant leadership and employees' servant identity is contingent on leader-follower value congruence.</p> <p>Design/methodology/approach - For this study data was collected from 468 employees working in the service industry in three waves which were undertaken with a lag of one month. The collected data was analyzed through structural equation modeling.</p> <p>Findings - The results revealed that servant leadership is related to employees' servant identity. The findings also substantiated the relationship between employees' servant identity and their community citizenship behavior. The mediating role of servant identity linking servant leadership to employees' community citizenship behavior was confirmed. Finally, leader-follower value congruence was found to moderate the relationship between servant leadership and employees' servant identity.</p> <p>Originality/value - The study is the first to ascertain the mediating role of servant identity linking servant leadership to employees' community citizenship behavior. It is also the first study to ascertain that the effect of servant leadership on employees' servant identity is contingent upon leader-follower value</p>
	Title	Expanding service beyond the organizational boundaries: moderated mediated model of servant leadership to affect employees' community citizenship behavior	
	Journal Name	Evidence-based HRM: A Global Forum for Empirical Scholarship	
	College	College of Business Management	
	Department	Supply Chain & Logistics	
	Keywords	Servant leadership, Servant identity, Leader follower value congruence, Community citizenship behavior	
	HEC Category	W	
	Pages	141-156	
	Volume No.	13	
	Issue No.	1	
	ISSN	Online ISSN 2049-3991 Print ISSN 2049-3983	
	DOI	10.1108/EBHRM-12-2022-0311	
URL/Link	https://www.emerald.com/ebhrm/article-		

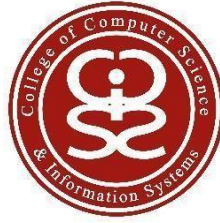
		abstract/13/1/141/1241380/Expanding-service-beyond-the-organizational?redirectedFrom=fulltext	congruence.
10.	Author(s)	Najam Akber Anjum; Zubair Ali Shahid, Muhammad Shujaat Mubarik; Ummad Mazhar	<p>Purpose Purpose of this study is to explore the nature of relationship between internationalization of firms, sustainability of their supply chains, and the extent of their green innovations. Understanding of the relationship between these constructs is important because of the ever increasing sustainability awareness of consumers in the leading economies of the world. This awareness is now compelling importers of goods from cheap-labor countries to ensure that their suppliers comply with sustainability regulations. This compliance becomes very challenging because of the lack of control on second-tier and third-tier suppliers in a supply chain. First-tier suppliers in this case may drive this effort but need to be motivated enough to do so. In case of environmental sustainability, green innovation (GI) may provide a gradual, and thus more affordable and practical, move toward more eco-friendly ways. As far as the motivation to commit to sustainability and GI is concerned, internationalization and export business expansion may act as one of the most effective motivators for these suppliers. However, the nature of relationship between these three constructs, i.e. internationalization of firms, sustainability of their supply chains and the extent of their GI requires a better understanding.</p> <p>Design/methodology/approach The work uses a novel data set collected from 146 medium and large textile firms operating in Pakistan. The partial least square-structural equation modeling approach is used for data analysis.</p> <p>Findings All three constructs of internationalization, GI and sustainable supply chain management (SSCM) are significantly associated and thus complement each other.</p> <p>Originality/value This work uses a novel agency theory perspective to analyze the relationship between internationalization, GI and SSCM. In that sense, the findings indicate that internationalization could be one of the incentives that can be used by the principals to deal with agents' goal conflict and</p>
	Title	Role of green innovation and sustainable supply chain management in firm internationalization	
	Journal Name	Review of International Business and Strategy	
	College	College of Business Management	
	Department	Supply Chain & Logistics	
	Keywords	Internationalization, Green innovation, Sustainable supply chain management, Agency theory, Sustainability	
	HEC Category	W	
	Pages	292–310	
	Volume No.	34	
	Issue No.	2	
	ISSN	Online ISSN 2059-6022 Print ISSN 2059-6014	
DOI	https://doi.org/10.1108/RIBS-06-2023-0056		
URL/Link	https://www.emerald.com/ribs/article-abstract/34/2/292/1232053/Role-of-green-innovation-and-sustainable-supply?redirectedFrom=fulltext		

			information asymmetry.
11.	Author(s)	Muhammad Mumtaz Khan , Muhammad Shujaat Mubarik; Syed Saad Ahmed; Tahir Islam, Shafiq Ur Rehman	<p>Purpose Based on social exchange and social learning theories, this study explicates the mediating role of individual-level human capital, structural capital and relational capital in linking servant leadership with the innovative work behavior (IWB) of employees.</p> <p>Design/methodology/approach Data were collected from 256 manager–employee dyads from the IT sector of Pakistan in three phases through a survey conducted two months apart.</p> <p>Findings Results showed that two dimensions of individual-level intellectual capital, namely, individual-level human capital and individual-level relational capital, mediated the relationship between servant leadership and IWB, whereas individual-level structural capital did not mediate the relationship between the two variables.</p> <p>Originality/value This study confirms the relationship between servant leadership and IWB and tests the mediating role of the three facets of individual-level intellectual capital in linking servant leadership with the IWB of employees.</p>
	Title	Utilizing every grain of intellect: exploring the role of individual-level intellectual capital in linking servant leadership with innovative work behavior	
	Journal Name	Journal of Intellectual Capital	
	College	College of Business Management	
	Department	Supply Chain & Logistics	
	Keywords	Servant leadership, Individual-level human capital, Individual-level relational capital, Individual-level structural capital, Innovative work behavior	
	HEC Category	W	
	Pages	23-37	
	Volume No.	25	
	Issue No.	1	
	ISSN	Online ISSN 1758-7468 Print ISSN 1469-1930	
DOI	https://doi.org/10.1108/JIC-11-2021-0307		
URL/Link	https://www.emerald.com/jic/article-abstract/25/1/23/1226615/Utilizing-every-grain-of-intellect-exploring-the?redirectedFrom=fulltext		
12.	Author(s)	Adegboyega Oyedijo, Simonov Kusi-Sarpong; Muhammad Shujaat Mubarik; Sharfuddin Ahmed Khan; Kome Utulu	<p>Purpose Implementing sustainable practices in multi-tier supply chains (MTSCs) is a difficult task. This study aims to investigate why such endeavours fail and how MTSC partners can address them.</p> <p>Design/methodology/approach A single-case study of a global food retail company was used in this study. Semi-</p>
	Title	Multi-tier sustainable supply chain management: a case study of a global food retailer	

	Journal Name	Supply Chain Management: An International Journal	<p>structured interviews with the case firm and its first- and second-tier suppliers were used to collect data, which were then qualitatively analysed using thematic analysis.</p> <p>Findings</p> <p>Major barriers impeding the implementation of sustainability in multi-tier food supply chains were revealed such as the cost of sustainability, knowledge gap, lack of infrastructure and supply chain complexity. Furthermore, the findings reveal five possible solutions such as multi-tier collaboration and partnership, diffusion of innovation along the chain, supply chain mapping, sustainability performance measurement and capacity building, all of which can aid in the improvement of sustainability practices.</p> <p>Research limitations/implications</p> <p>Future research should investigate how specific barriers and drivers affect specific aspects of sustainability, pointing practitioners to specific links between the variables that can aid in tailoring sustainability oriented investment.</p> <p>Practical implications</p> <p>This research supports managerial comprehension of MTSC sustainability, pointing out ways to improve sustainability performance despite the complex multi-tier system of food supply chains.</p> <p>Originality/value</p> <p>The research on MTSC sustainability is still growing, and this research contributes to the debate about how MTSCs can become more sustainable from the perspective of the triple bottom line, particularly food supply chains which face significant sustainability challenges.</p>
	College	College of Business Management	
	Department	Supply Chain & Logistics	
	Keywords	Multi-tier, Supply chain management, Sustainability, Food supply chain, Collaboration	
	HEC Category	W	
	Pages	68-97	
	Volume No.	29	
	Issue No.	1	
	ISSN	Online ISSN 1758-6852 Print ISSN 1359-8546	
	DOI	https://doi.org/10.1108/SCM-05-2022-0205	
	URL/Link	https://www.emerald.com/scm/article-abstract/29/1/68/1230901/Multi-tier-sustainable-supply-chain-management-a?redirectedFrom=fulltext	
13.	Author(s)	Bilqees Ghani, Muhammad Shujaat Mubarik , Khalid Rasheed Memon	<p>Pakistan's manufacturing industry is under a lot of pressure to deal with environmental issues such as carbon monoxide emissions, poisonous compounds, and manufacturing waste. Green HR practices are considered to be fundamental pillars and are considered to be crucial in the development and optimization of environmentally sustainable initiatives. Hence, the objective of this research is to analyze the effects of green HR practices implemented in the manufacturing sector of Pakistan on employees' proactivity with regard to environmental issues. The data was acquired through the distribution of a survey questionnaire to manufacturing firms.</p>
	Title	The impact of green HR practices on employee proactive behaviour	
	Journal Name	The International Journal of Human Resource Management	
	College	College of Business Management	
	Department	Supply Chain & Logistics	
	Keywords	Green HR practices proactive behavior organizational identification	

	proactive personality environmental sustainability	The data was analyzed using SMART-PLS. The findings demonstrated that green HR practices have a substantial effect on the proactive behavior of employees. Additionally, the results indicated that organizational identification acts as a complementary mediator between green HR practices and the proactive behavior of employees in reducing environmental effects. Furthermore, it was discovered that proactive personality acted as a catalyst to enhance the impact of GHRM on the proactive behavior of employees with regard to environmental initiatives. Future research directions and managerial implications were also discussed.
HEC Category	W	
Pages	1403-1448	
Volume No.	35	
Issue No.	8	
ISSN	Online ISSN 1758-6852 Print ISSN 1359-8546	
DOI	https://doi.org/10.1080/09585192.2023.2294073	
URL/Link	https://www.tandfonline.com/doi/full/10.1080/09585192.2023.2294073	
14.	Author(s) ALI, Md Ramjan, KHAN, Sharfuddin, KAYIKCI, Yasanur, MUBARAIK, Muhammad	<p>Purpose: Blockchain technology is one of the major contributors to supply chain sustainability because of its inherent features. However, its adoption rate is relatively low due to reasons such as the diverse barriers impeding blockchain adoption. The purpose of this study is to identify blockchain adoption barriers in sustainable supply chain and uncovers their interrelationships.</p> <p>Design/methodology/approach: A three-phase framework that combines machine learning (ML) classifiers, BORUTA feature selection algorithm, and Grey-DEMATEL method. From the literature review, 26 potential barriers were identified and evaluated through the performance of ML models with accuracy and f-score.</p> <p>Findings: The findings reveal that feature selection algorithm detected 15 prominent barriers, and random forest (RF) classifier performed with the highest accuracy and f-score. Moreover, the performance of the RF increased by 2.38% accuracy and 2.19% f-score after removing irrelevant barriers, confirming the validity of feature selection algorithm. An RF classifier ranked the prominent barriers and according to ranking, financial constraints, immaturity, security, knowledge and expertise, and cultural differences resided at the top of the list. Furthermore, a Grey-DEMATEL method is employed to expose interrelationships between prominent barriers, and to provide an overview of the cause-and-effect group.</p> <p>Practical implications:</p>
	Title A Three-Phase Framework for Mapping Barriers to Blockchain Adoption in Sustainable Supply Chain	
	Journal Name Industrial management & Data Systems	
	College College of Business Management	
	Department Supply Chain & Logistics	
	Keywords Blockchain technology adoption; sustainable supply chain; barriers; BORUTA; machine learning; Grey-DEMATEL; 0803 Computer Software; 0806 Information Systems; Business & Management; 3503 Business systems in context; 4609 Information systems	
	HEC Category W	
	Pages 585-599	
	Volume No. NA	
	Issue No. NA	
	ISSN 0263-5577	
	DOI https://www.emerald.com/insight/content/doi/10.1108/IMDS-03-2024-0257/full/html	

	<p>URL/Link</p>	<p>https://shura.shu.ac.uk/34298/</p>	<p>The outcome of this study can help industry practitioners develop new strategies and plans for blockchain adoption in sustainable supply chains.</p> <p>Originality/value:</p> <p>The research on the adoption of blockchain technology in sustainable supply chains is still evolving. This study contributes to the ongoing debate by exploring how practitioners and decision-makers adopt blockchain technology, developing strategies and plans in the process.</p>
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2. College of Computer Science and Information System (CCSIS)

S. No.	Faculty	Department	No. of paper published by Faculty Members
2	Faculty of College of Computer Science and Information Systems	a. Computer Science & MIS	14
		b. Mathematics & Statistics	2
		Total	18

2(a) Department of Computer Science & MIS

1.	Author(s)	Muhammad Imran Majid, Faheem Yar Khuhawar, Karrar Muhammad, Kamlesh Rathore, Aarif Ali, Muhammad Ali, Babu Mal, Umme Habiba, Shabana Muhammad, Faisal Karim Shaikh, Tariq Rahim Soomro	Software defined networks (SDN) and wireless cognitive radio networks (CRN) are examined within the context of dynamic spectrum management. The features include control and data plane separation, centralized control, adopting open-source standards, programmability, quality of service (QoS) management, and security. The transformative impact of network function virtualization (NFV) is explored with a perspective on its architecture and applications in SDN, internet of things (IoT), cloud computing, and blockchain. The security aspect of SDN with specific focus on mitigating denial-of-service (DoS) attacks and vulnerabilities associated with open flow protocol is also addressed. The cognitive-inspired security mechanisms adapt to evolving threats integrating machine learning (ML) and artificial intelligence (AI) based algorithms for dynamic threat detection and mitigation exemplified through case studies. Adoption of software-defined perimeter, zero trust, blockchain, and quantum-safe cryptography in future are discussed. Finally, SDN applications for IoT networks are discussed.
	Title	NFV and Secure Cognitive SDN for Educational Backbone Network Deployment: Cognitive-Enabled Routing in SDN	
	Journal Name	IGI Global	
	College	Computer Science and Information System	
	Department	Computer Science & MIS	
	Keywords	-	
	HEC Category	Not in HJRS	
	Pages	22	
	Volume No.	-	
Issue No.	2024		

	ISSN	eISBN: 9798369328934	
	DOI	10.4018/979-8-3693-2893-4.ch010	
	URL/Link	https://www.igi-global.com/chapter/nfv-and-secure-cognitive-sdn-for-educational-backbone-network-deployment/353251	
2.	Author(s)	Sarfaraz Natha, Umme Laila, Ibrahim Ahmed Gashim, Khalid Mahboob, Muhammad Noman Saeed, and Khaled Mohammed Noaman	Brain tumors (BT) represent a severe and potentially life-threatening cancer. Failing to promptly diagnose these tumors can significantly shorten a person's life. Therefore, early and accurate detection of brain tumors is essential, allowing for appropriate treatment and improving the chances of a patient's survival. Due to the different characteristics and data limitations of brain tumors is challenging problems to classify the three different types of brain tumors. A convolutional neural networks (CNNs) learning algorithm integrated with data augmentation techniques was used to improve the model performance. CNNs have been extensively utilized in identifying brain tumors through the analysis of Magnetic Resonance Imaging (MRI) images. The primary aim of this research is to propose a novel method that achieves exceptionally high accuracy in classifying the three distinct types of brain tumors. This paper proposed a novel Stack Ensemble Transfer Learning model called "SETL_BMRI", which can recognize brain tumors in MRI images with elevated accuracy. The SETL_BMRI model incorporates two pre-trained models, AlexNet and VGG19, to improve its ability to generalize. Stacking combined outputs from these models significantly improved the accuracy of brain tumor detection as compared to individual models. The model's effectiveness is evaluated using a public brain MRI dataset available on Kaggle, containing images of three types of brain tumors (meningioma, glioma, and pituitary). The experimental findings showcase the robustness of the SETL_BMRI model, achieving an overall classification accuracy of 98.70%. Additionally, it delivers an average precision, recall, and F1-score of 98.75%, 98.6%, and 98.75%, respectively. The evaluation metric values of the proposed solution indicate that it effectively
	Title	Automated Brain Tumor Identification in Biomedical Radiology Images: A Multi-Model Ensemble Deep Learning Approach	
	Journal Name	Applied Sciences	
	College	Computer Science and Information System	
	Department	Computer Science & MIS	
	Keywords	brain tumor 1; MRI 2; CNN; AlexNet; ensemble model; transfer learning; data augmentation; biomedical imaging; deep learning	
	HEC Category	W	
	Pages	1 to 19	
	Volume No.	14	
	Issue No.	5	
	ISSN	2076-3417	
	DOI	10.3390/app14052210	
URL/Link	https://www.researchgate.net/publication/378784641_Automated_Brain_Tumor_Identification_in_Biomedical_Radiology_Images_A_Multi-Model_Ensemble_Deep_Learning_Approach		

			contributed to previous research in terms of achieving high detection accuracy.
3.	Author(s)	Khalid Mahboob, Umm e Laila, Sana Alam, Muhammad Abbas, Muhammad Asghar Khan, Sidra Fatima	The process of interpreting sentences based on the movements of a speaker's lips is referred to as lip reading. Traditionally, this task has been approached in two stages using conventional methods: first, by generating or learning audiovisual features, and second, by making predictions. While contemporary deep lip reading techniques benefit from end-to-end trainable datasets, much of the existing research on these models tends to concentrate solely on word classification rather than predicting sequences at the sentence level. Long sentences may be lipread by humans, as studies have shown. This study emphasizes the value of temporal considerations by highlighting the components that are important for capturing temporal context in instances when communication channels are unclear. In the paper, a lipreading system for viseme prediction is shown. The system uses a Convolutional Neural Network (CNN) with a recurrent network, spatiotemporal convolutions, and the connectionist temporal classification loss. A variable-length series of video frames is efficiently mapped to text using an end-to-end training procedure. Both visual and auditory qualities are evaluated using the CNN architecture. The CNN model outperforms trained human lip readers and achieves accuracies of 72.8% CER and 80.8% WER (unseen speakers with audio), whereas 46.2% CER and 56.6% WER (unseen speakers without audio), which are reasonable accuracies on the GRID corpus by splitting test at the level of the sentences.
	Title	Automated Lip Reading to Predict Visemes using Multimodal Convolutional Neural Network with Audio-Visual Features	
	Journal Name	Journal of Information & Communication Technology	
	College	Computer Science and Information System	
	Department	Computer Science & MIS	
	Keywords	Lip, reading, model, visemes, accuracy, convolutional neural network	
	HEC Category	Y	
	Pages	38 to 50	
	Volume No.	17	
	Issue No.	2	
	ISSN	Electronic ISSN: 2075-7239 Print ISSN: 2415-0169	
DOI	-		
URL/Link	https://www.researchgate.net/publication/379300820_Automated_Lip_Reading_to_Predict_Visemes_using_Multimodal_Convolutional_Neural_Network_with_Audio-Visual_Features		
4.	Author(s)	Khalid Mahboob, Raheela Asif, Najmi Ghani Haider	It is essential for students to plan their careers because selecting the right career path shapes a person's life. In such disciplines as computer science, information technology, and software engineering, assisting students toward appropriate employment is even more helpful. Thus, throughout the student's education, they must evaluate their strengths to determine which professional sector corresponds to their abilities. It is for this reason that this research introduces an
	Title	Career planning matters: Intelligence-based career path predictions using data mining models? A longitudinal study	
	Journal Name	Mehran University Research Journal of Engineering and Technology	

College	Computer Science and Information System	intelligencebased career recommendation system that will incorporate the analysis of such factors as the student's academic performance, economic status, and demographic features to use data mining models in determining the best prospective career path to offer the student amore transparent and more informed vision and course to set on in the future. Three key aspects were addressed:first, one or another model and classifier for assessing the impact of pre-university education on the choice of a profession and, consequently, the selection of technologies were used. Second, these models accurately forecast students' careers using core courses, CGPA, and FYP data. Third, socioeconomic or demographic data wasincorporated into the prediction to make it more accurate. Regarding the method of class distribution balancing, the Synthetic Minority Oversampling Technique (SMOTE) approach was used. The study reveals that variables specifying preuniversity education directly impact students' career choices and that, employing data mining techniques, career choices could be forecasted considering academic performance and other related factors.
Department	Computer Science & MIS	
Keywords	Career Path, Data Mining, Education, Models, SMOTE	
HEC Category	Y	
Pages	192-213	
Volume No.	43	
Issue No.	4	
ISSN	2413-7219	
DOI	10.22581/muet1982.3343	
URL/Link	https://www.researchgate.net/publication/384864622_Career_planning_matters_Intelligence-based_career_path_predictions_using_data_mining_models_A_longitudinal_study	
5.		The rapid growth of Pakistan's mobile resale market, based on frequent gadget upgrades, requires smartphone valuations to be precise. This study introduces a mobile resale calculator that uses machine learning algorithms to provide predictions. Our technology analyzes the key parameters, which include storage capacity, facial recognition, PTA clearance, battery health, screen quality, warranty coverage, packaging, and device condition, to give accurate forecasts. The proposed approach allows for the making of informed decisions and maximization of returns on investment. Interestingly, our experiment shows that the Random Forest algorithm yields an accuracy of 0.97, which justifies our methodology.
Author(s)	Umm-e-Laila, Khalid Mahboob, Samar Raza Talpur, haliq Ahmed	
Title	Machine Learning-Based Mobile Device Resale Price Estimator: A Predictive Analytics Approach	
Journal Name	Journal of Independent Studies and Research Computing Journal of Engineering and Technology	
College	Computer Science and Information System	
Department	Computer Science & MIS	
Keywords	-	
HEC Category	Y	
Pages	-	
Volume No.	22	

	Issue No.	2	
	ISSN	1997-1583 (Online) 1997-1575 (Print)	
	DOI	10.31645/JISRC.24.22.2.11	
	URL/Link	https://www.researchgate.net/publication/387252946_Machine_Learning-Based_Mobile_Device_Resale_Price_Estimator_A_Predictive_Analytics_Approach	
6.	Author(s)	Urooj Yousuf Khan, Tariq Rahim Soomro	<p>The concept of zero-touch networking involves creating networks that are fully autonomous and require minimal human intervention. This approach is increasingly relevant due to the rapid growth of current cloud architectures, which are beginning to reach their limits due to continuous expansion demands from users and within the network core itself. In response, Fog computing, acting as a smart, localized data center closer to network nodes, emerges as a practical solution to the challenges of expansion and upgrading in existing architectures. Fog computing complements cloud technology. However, the realization of zero-touch networks is still in its early stages, and numerous challenges hinder its implementation. One significant challenge is the NP-hard problem related to resource management. This paper introduces an optimal resource management algorithm based on Federated Learning. The effectiveness of this algorithm is evaluated using the iFogSim simulator within the existing cloud-fog architecture. The results demonstrate that the proposed architecture outperforms the current infrastructure in several key aspects of resource management, including system latency, number of resources processed, energy consumption, and bandwidth utilization.</p>
	Title	Design of a Federated learning-based Resource Management Algorithm in Fog Computing for Zero-touch Networks	
	Journal Name	International Journal of Advanced & Applied Sciences	
	College	Computer Science and Information System	
	Department	Computer Science & MIS	
	Keywords	Zero-touch network, Fog computing, Resource management, NP-hard problem	
	HEC Category	X	
	Pages	195-205	
	Volume No.	11	
	Issue No.	2	
	ISSN	EISSN: 2313-3724 Print ISSN: 2313-626X	
	DOI	https://doi.org/10.21833/ijaas.2024.02.020	
	URL/Link	https://www.science-gate.com/IJAAS/2024/V11I2/1021833ijaas202402020.html	
7.	Author(s)	Faheem Khan, Rahat Ullah, Umm-e-Laila	<p>Mobile computing has become a prevalent and powerful technology that has altered the way it conducts business. There is a great</p>

Title	Ubiquitous Computing Entity-aware Data Management on Mobile Devices	<p>deal of data management in mobile computing, and it is important to understand some of its functions. Mobile computing has created new challenges for data management. Users have been shifting their computer activities to mobile devices and creating more data than ever before. Companies need to know how to manage and protect the growing volume of all types of data on today's tablets and smartphones. Data management is a key factor in maintaining the health of mobile computing devices. Today, data is essential for working efficiently and effectively. With the ease of accessibility, information can be transferred from one device to another with minimal effort. However, with mobility comes potential hazard through security breaches and loss of data due to deletion or formatting errors. Entity-aware Data Management on Mobile Devices (EDMD) is a new research direction that aims to enable intelligent, efficient, and scalable solutions for managing data on mobile devices. With the introduction of entity-aware data management on mobile devices, we are on the verge of new possibilities. Historically, data management has been restricted to structured data due to its tendency to fit in fixed categories and the need for predefined systems of organization and processing. With the advent of entity-aware data management for unstructured data, a whole new world opens up for problems that were previously too demanding or impossible to solve with traditional approaches to computation. With the ever-increasing popularity of mobile devices, it is likely that data management capabilities will need to be enhanced through Entity-aware Data Management on Mobile Devices. Mobile devices have enabled a new generation of computing applications, ranging from social networking to real-time information delivery. To take advantage of this revolution, there is an urgent need to develop entity-aware data management solutions that enable ubiquitous computing on mobile devices. Such solutions are still lacking due to their heavy reliance on the traditional client-server paradigm and limitations in scalability. In this special issue, we will bring together researchers working in this area by focusing on intelligent entity-aware data management algorithms for large-scale mobile devices. The proposed research</p>
Journal Name	Mobile Networks and Applications	
College	Computer Science and Information System	
Department	Computer Science & MIS	
Keywords	-	
HEC Category	W	
Pages	298-400	
Volume No.	29	
Issue No.	2024	
ISSN	Electronic ISSN 1572-8153 Print ISSN 1383-469X	
DOI	https://link.springer.com/article/10.1007/s11036-024-02407-8	
URL/Link	https://doi.org/10.1007/s11036-024-02407-8	

			areas include social networks, location-based services, and sensor data collection.
8.	Author(s)	Hira Farman, ,Samar Raza Talpur, Usman Amjad, Govari shan, kar, Umm-e-Laila	Customer attrition is especially an issue in industries such as retail, banking, and telecommunications where customer acquisition costs are significantly higher than the costs of retaining repeat customers. The customer lack of interest is now predictable through machine learning models, and deep learning has become instrumental in early intervention for retention. In order to assess the quality of churn prediction, the study tests six basic machine learning techniques: random forest, logistic regression, and the k-nearest neighbors method, as well as four deep learning techniques: long short term memory (LSTM), bidirectional LSTM, convolutional neural networks (CNN), and artificial neural networks (ANN). The performance of the model is then assessed via the evaluation matrices, including the accuracy, precision, recall, and F1-score from the customer's behavioral data after feature extraction from large datasets. The study reveals that DL models offer improved handling of the churn and non-churn customer classification and Random Forest as well as other ML models comparable accuracy. This research can conclude that LSTM and ANN models outshine in actual-world churn prediction circumstances, especially when long-term consumer behavior evaluation is required. To enhance the current outcomes of a given prediction model, this research focuses on data preprocessing and the utilization of bootstrapping, feature extraction, and the combination of multiple models. The implications of the study provide specific practical recommendations for firms to effectively manage customer churn and increase customer retention by employing data-dealing techniques.
	Title	Leveraging Machine Learning And Deep Learning Models for Proactive Churn Customer Retention	
	Journal Name	VFAST Transactions on Software Engineering	
	College	Computer Science and Information System	
	Department	Computer Science & MIS	
	Keywords	-	
	HEC Category	Y	
	Pages	70-86	
	Volume No.	12	
	Issue No.	4	
	ISSN	2309-3978	
DOI	https://vfast.org/journals/index.php/VTSE/article/view/1928		
URL/Link	https://doi.org/10.21015/vtse.v12i4.1928		
9.	Author(s)	Muhammad Shafiq, Samar Raza Talpur, Fareed Jafri, M. Kamran Joyo, Umme Laila	Single robots are not enough for multi-objective tasks especially where the task variate and we need complex computations for desired results. Therefore, multiple ground robot coordination is widely used in various domains such as warehouse operations, precision agriculture, surveillance, mapping, and healthcare, etc. The coordination of multiple robots in a complex
	Title	Implementing Ant Colony Optimization for Multi-Robot Coordination in Unmanned Ground Robots	

	Journal Name	Sir Syed University Research Journal of Engineering & Technology	<p>environment can be made easy with the use of suitable optimization algorithms such as Ant Colony Optimization. However, in this research, multiple ground robot formations using Master-Slave coordination have been presented for shortest path selection. Three identical toy car robots (one master and two slave robots) equipped with sensors are designed and allowed to operate in three different paths to find the optimal (shortest) path. The selection of paths and coordination for master robots with slave robots is made through the GUI Android app. Master robots initially follow all the paths one by one instructed by the operator through the app and find the optimal one by calculating the fitness cost. Ant colony optimization algorithm also verifies the optimal path found by the master robot. The path planning simulations are also performed in MATLAB. A comparative analysis of the proposed algorithm with the Greedy algorithm is also presented for validation of the proposed algorithm in this scenario. In the future, the number of robots can be extended, or the combinatorial optimization algorithms can be implemented to precise optimal solutions.</p>
	College	Computer Science and Information System	
	Department	Computer Science & MIS	
	Keywords	Ant Colony Optimization (ACO); Path Planning; Mobile robot; Guidance Factor.	
	HEC Category	Y	
	Pages	108-113	
	Volume No.	14	
	Issue No.	2	
	ISSN	E-ISSN: 2415-2048 P-ISSN: 1997-0641	
	DOI	https://sirsyeduniversity.edu.pk/ssurj/rj/index.php/ssurj/article/view/659	
	URL/Link	https://doi.org/10.33317/ssurj.659	
10.	Author(s)	Umme Laila, Zain Ali Shah, Poshan Yu, James Mulli, Muhammad Khurram, Muzammil Ahmed	<p>The rapidly evolving landscape of higher education is causing significant changes in the educational system. The needs of the digital world cannot be satisfied by conventional teaching and learning approaches. To improve educational quality, fostering global collaboration and knowledge sharing has become imperative for preparing students for a connected world. Therefore, technological integration in the classroom has become essential. Generative artificial intelligence (AI) has emerged as a powerful tool in this endeavour. In addition to examining the possible advantages and difficulties of incorporating technology in higher education, this study also assesses the extent of technology integration in teaching, referred to as innovative teaching methodologies (ITM). This chapter explores how generative AI can be leveraged to enhance teaching methods.</p>
	Title	Innovative Teaching Methodology in Higher Education With Generative AI- Engineering Education in Developing Countries(Book Chapter)	
	Journal Name	Facilitating Global Collaboration and Knowledge Sharing in Higher Education With Generative AI (Book) Publisher: IGI Global	
	College	Computer Science and Information System	
	Department	Computer Science & MIS	
	Keywords	Ant Colony Optimization (ACO); Path Planning; Mobile robot; Guidance Factor.	
	HEC Category	Not in HJRS	
	Pages	287-315	
	Volume No.	-	

	Issue No.	-	
	ISSN	Book ISBN (Hardcover): 979-8-3693-0487-7 Book ISBN (E-Book): 979-8-3693-0489-1	
	DOI	10.4018/979-8-3693-0487-7.ch012	
	URL/Link	https://www.igi-global.com/chapter/innovative-teaching-methodology-in-higher-education-with-generative-ai--engineering-education-in-developing-countries/336041	
11.	Author(s)	Ali, Wazir, Jay Kumar, Saifullah Tumani, Redhwan Nour, Adeeb Nour, and Zenglin Xu.	Sindhi word segmentation is a challenging task due to space omission and insertion issues. The Sindhi language itself adds to this complexity. It's cursive and consists of characters with inherent joining and non-joining properties, independent of word boundaries. Existing Sindhi word segmentation methods rely on designing and combining hand-crafted features. However, these methods have limitations, such as difficulty handling out-of-vocabulary words, limited robustness for other languages, and inefficiency with large amounts of noisy or raw text. Neural network-based models, in contrast, can automatically capture word boundary information without requiring prior knowledge. In this paper, we propose a Subword-Guided Neural Word Segmenter (SGNWS) that addresses word segmentation as a sequence labeling task. The SGNWS model incorporates subword representation learning through a bidirectional long short-term memory encoder, position-aware self-attention, and a conditional random field. Our empirical results demonstrate that the SGNWS model achieves state-of-the-art performance in Sindhi word segmentation on six datasets.
	Title	Enhancing Sindhi Word Segmentation using Subword Representation Learning and Position-aware Self-attention.	
	Journal Name	IEEE Access	
	College	Computer Science and Information System	
	Department	Computer Science & MIS	
	Keywords	?	
	HEC Category	W	
	Pages	183133 - 183142	
	Volume No.	12	
	Issue No.	2024	
	ISSN	2169-3536	
	DOI	10.1109/ACCESS.2024.3507382	
	URL/Link	https://ieeexplore.ieee.org/abstract/document/10769409	
12.	Author(s)	Naseem, Muhammad Moosa Bin, Sana Alam, Muhammad Abbas, Asghar Khan, Asim Ifthikhar, Wazir Ali, and Qurrat-ul-Ain Naiyar.	One of the major aspects in today's digital world is to ensure network security. Traditional Intrusion Detection Systems (IDS) mainly focus on the identification and categorization of active attacks, often leaving

	Title	Artificial Intelligence based Intrusion Detection System	networks vulnerable to passive and emerging threats. This article presents an advanced IDS that uses deep learning, specifically stacked Long Short-Term Memory (LSTM) and the CatBoost algorithm, to detect anomalies in network traffic. The proposed system is designed to flag suspicious IP addresses in a proactive manner to detect potential passive attacks before escalation. We train the IDS on LUFlow's 2021 dataset using the LSTM neural network with the agility of CatBoost. The proposed model yields an Area Under the Curve (AUC) score of 87%, which shows its performance in detecting normal and anomalous traffic. The proposed IDS has the capability to monitor and detect the cyber threats in real-time.
	Journal Name	Journal of Information and Communication Technology	
	College	Computer Science and Information System	
	Department	Computer Science & MIS	
	Keywords	Intrusion Detection Systems, Artificial Intelligence, Catboost, LSTM-AutoEncoder, Classification, Anomaly Detection	
	HEC Category	Y	
	Pages	45915	
	Volume No.	18	
	Issue No.	2	
	ISSN	E-ISSN: 2075-7239 P-ISSN: 2415-0169	
	DOI	?	
	URL/Link	https://jict.ilmauniversity.edu.pk/ar/Vol18/i2p2	
13.	Author(s)	Sana Alam, Shehnila Zardari, Umme Laila, Muhammad Abbas, Kausar Shaheen, Sidra Fatima, Syed Affan Ahmed	In our research study spanning 2015-2021, we analyzed Software Engineering (SE) across 15 Knowledge Areas (KAs) outlined by SWEBoK. Using Web of Science (WoS) database, we examined 32,232 articles (2015-2017), 31,459 articles (2018-2020), and 6,919 articles (2021). Collaborative and co-word networks were generated using VOS Viewer. Our findings reveal SE's influence in 81 research areas. English dominated, but Spanish and Portuguese were notable. Europe led in publications, with USA and China prominent. Stronger collaboration networks, especially in the USA and China, correlated with increased research output. Asian countries' rise was evident from 2018-2021. Top 10 highly cited papers and co-word analysis were included, aiding researchers and educators. SE's impact crossed domains, enabling cross-disciplinary research and informing educators' course designs. Institutional and country productivity influenced partnerships and academia-industry collaborations. Multinational companies gauged research potential through active countries. Analyzing co-words depicted trends, and highly cited papers set industry standards. Bibliometric analysis
	Title	SWEBoK-based Bibliometric Analysis of Software Engineering	
	Journal Name	Journal of Independent Studies and Research Computing	
	College	Computer Science and Information System	
	Department	Computer Science & MIS	
	Keywords	Software Engineering, Knowledge Areas, Bibliometric, SWEBoK	
	HEC Category	Y	
	Pages	45681	
	Volume No.	22	
	Issue No.	1	
	ISSN	?	
	DOI	https://doi.org/10.31645/JISRC.24.22.1.1	
	URL/Link	https://jisrc.szabist.edu.pk/ojs/index.php/jisrc/article/view/174	

			offered qualitative and quantitative research evaluation.
14.	Author(s)	Sana Alam, Muhammad Abbas, Asghar Khan, Abdul Khaliq	Digital agriculture is becoming more and more in demand as a result of the quick advancement of information technology. Crop yield has always garnered a lot of interest as a significant problem in agricultural production. At the moment, machine learning and artificial intelligence in general are the most popular methods for predicting agricultural productivity. Consequently, one of the main problems in digital agriculture is creating a machine learning technique that can reliably forecast crop yield. Crop yield prediction has a strong time correlation, in contrast to conventional regression prediction problems. For instance, there are significant temporal correlations in the weather data for every county. Furthermore, crop yield is somewhat impacted by geographic data from various places. For instance, a county is likely to have large yields if its neighbouring countries have a strong harvest. We used models like random forest, decision tree classifier, support vector machine, KNN, and logic regression in this study. With an accuracy score of 99.77%, random forest produced the greatest results out of all of them.
	Title	Optimizing Agricultural Outcomes: Machine Learning in Crop Yield Prediction	
	Journal Name	The Asian Bulletin of Big Data Management 4	
	College	Computer Science and Information System	
	Department	Computer Science & MIS	
	Keywords	Quantum Machine Learning (QML), Quantum Algorithms, Variational Quantum Circuits (VQCs	
	HEC Category	Y	
	Pages	44-54	
	Volume No.	4	
	Issue No.	4	
	ISSN	E-ISSN: 2959-0795 P-ISSN: 2959-0809	
DOI	https://doi.org/		
URL/Link	https://jisrc.szabist.edu.pk/ojs/index.php/jisrc/article/view/174		

2(b) Department of Mathematics & Statistics

1.	Author(s)	Sakina K., Talpur M G H, Chand N K, Liaquat Ali Zardari L A, Shaikh A W, Kamboh S A	The patients' crowding in the hospitals is an international phenomenon that demands much attention to avoid harm to the lives of patients. The quantitative based models have been successfully investigated to predict the crowding of patients. Thus, the main objective of this study is to probe a statistically feasible forecasting model capable of estimating the crowding of patients (patients' inflow and patients' admission specifically). As a case study, the Liaquat University of Medical and Health Sciences (LUMHS) Hospital Jamshoro was chosen. The patients' secondary data was collected
	Title	Time Series Modeling and Forecasting of the Patients 'Inflow and Admission in the Hospitals	
	Journal Name	VFAST Transactions on Mathematics	
	College	Computer Science and Information System	

	Department	Mathematics & Statistics	<p>form hospital and commercial computational software MATLAB was used to carry out all the calculations and manipulations by writing a concise user defined program (code). The Autoregressive Integrated Moving Average (ARIMA) modeling approach is adopted to investigate the best forecasting model. It is found that among the various six combinations of ARIMA (p,d,q) the ARIMA (1,0,1) are the best fit models for the patients' inflow and the patients' admission respectively; having the lowest AIC, BIC and p-values. Since the forecast accuracy contains minimal errors thus forecast trends show very good results. The presented procedure can be helpful to manage the patients' volume in the hospitals and can also predict the future trend of patients' inflow and patients' admission with good accuracy.</p>
	Keywords	?	
	HEC Category	Y	
	Pages	311-322	
	Volume No.	12	
	Issue No.	1	
	ISSN	2309-0022 (Online) 2411-6343 (Print)	
	DOI	https://doi.org/10.21015/vtm.v12i1.1840	
	URL/Link	https://vfast.org/journals/index.php/VTM/article/view/1840	
2.	Author(s)	Emilian Bulgariu, Ionel Dumitrel Ghiba, Hassam Khan, Patrizio Neff	<p>In this paper, we show that a general method introduced by Fu and Mielke allows to give a complete answer on the existence and uniqueness of a subsonic solution describing the propagation of surface waves in an isotropic half space modelled with the linear theory of isotropic elastic materials with micro-voids. Our result is valid for the entire class of materials admitting real wave propagation which include auxetic materials (negative Poisson's ratio) and composite materials with negative-stiffness inclusions (negative Young's modulus). Moreover, the used method allows to formulate a simple and complete numerical strategy for the computation of the solution.</p>
	Title	Rayleigh waves in isotropic elastic material with micro void	
	Journal Name	International Journal of Solid and Structure	
	College	Computer Science and Information System	
	Department	Mathematics & Statistics	
	Keywords	?	
	HEC Category	W	
	Pages	112661	
	Volume No.	290	
	Issue No.		
	ISSN	?	
	DOI	https://doi.org/10.1016/j.ijsolstr.2024.112661	
	URL/Link	https://www.sciencedirect.com/science/article/abs/pii/S0020768324000180	



3. College of Engineering and Sciences (CES)

S. No.	Faculty	Department	No. of paper published by Faculty Members
3	Faculty of College of Engineering and Science	a Electrical Engineering & Engineering Management	20
		Total	20

3(a) Department of Electrical Engineering & Engineering Management

1.	Author(s)	Chou-Yi Hsu, Ayman A. Ghfar, B. Nageswara Rao, Manoj Kumar Agrawal, Sayed Fayaz Ahmad, Bhanu Pratap Pulla, Nehad Ali Shah, Xiaomin Gao	The importance of geothermal energy in the urban energy supply is derived from its renewable nature, power generation capabilities, and potential for lowering air pollutants. The utilization of combined arrangements utilizing geothermal energy represents an outstanding alternative option. Hence, present investigation proposes a novel and environmentally friendly multigeneration framework for a geothermal energy resource, incorporating combined cooling, heating, power (CCHP), and desalination systems. Furthermore, the entire system includes a liquefied natural gas regasification unit. The present study simulates the system utilizing the Aspen HYSYS software, wherein a comprehensive analysis is conducted on considerations of energy, exergy, economics, and environment. The study also includes a comprehensive parametric study. According to the study's findings, the system can generate 863.8 kg/s of hot water, 22.01 kg/s of chilled water, and 59.67 kg/s of fresh water, along with a power output potential of 120,185 kW. Besides, this process yields energy, thermal, and electrical efficiencies at 25.08 %, 10.25 %, and 14.12 %, correspondingly. The exergy analysis findings demonstrate that the system's
	Title	An environmentally friendly process design of an innovative CCHP-desalination system combined with a geothermal cycle and LNG regasification unit	
	Journal Name	Desalination	
	College	College of Engineering and Sciences	
	Department	Electrical Engineering & Engineering Management	
	Keywords	-	
	HEC Category	W	
	Pages	1-14	
	Volume No.	574	
Issue No.	6		

	ISSN	Online: 1873-4464 Print: 0011-9164	efficiency for power generation and multigeneration modes is 45.17 % and 47.79 %, respectively. From the economic aspect, the total unit cost of products is found at 2.91 \$/GJ and the cost of energy at 0.0962 \$/kWh.
	DOI	https://doi.org/10.1016/j.desal.2023.117237	
	URL/Link	https://www.sciencedirect.com/science/article/abs/pii/S001191642300869X	
2.	Author(s)	Yiyu Zhan, Sayed Fayaz Ahmad, Muhammad Irshad, Muna Al-Razgan, Emad Marous Awwad, Yasser A. Ali, Ahmad Y.A. Bani Ahmad Ayassrah	Information technology is one of the most rapidly growing technologies globally. Over the last decade, its usage in healthcare has been remarkable. Over the last decade, its usage in healthcare has been remarkable. The study examines the impact of various factors as barriers to adopting the information system in healthcare. These factors are categorized into three major types: external attacks, which include phishing attacks and ransomware; employee factors, including lack of skills and the issue of information misuse; and technological factors, including complexity and vulnerability. The findings show that external attacks and technological factors are the main barriers to adopting information systems, while employee factors have no significant impact on the adoption of information systems in the healthcare industry of Pakistan. The study provides implications for healthcare policy makers, professionals and organizations regarding the successful adoption of health information system.
	Title	Investigating the role of Cybersecurity's perceived threats in the adoption of health information systems	
	Journal Name	Heliyon	
	College	College of Engineering and Sciences	
	Department	Electrical Engineering & Engineering Management	
	Keywords	Cyber security threats, Phishing attacks, Ransomware, Lack of skills, Information misuse, Complexity, Vulnerability Health information system	
	HEC Category	W	
	Pages	1-16	
	Volume No.	10	
	Issue No.	22945	
	ISSN	2405-8440	
	DOI	https://doi.org/10.1016/j.heliyon.2023.e22947	
URL/Link	https://www.sciencedirect.com/science/article/pii/S2405844023101551		
3.	Author(s)	Tirumala Uday Kumar Nutakki, Manoj Kumar Agrawal, Sohaib Tahir Chaudhary, Sayed Fayaz Ahmad, Mohamed Ayadi, Elmonser Hedi, Taseer Muhammad, Fuxin Xiao	The sustainable heat integration method proves to be a highly effective approach in reducing energy consumption and addressing greenhouse gas emissions while optimizing overall system performance. This study introduces a novel integrated system that combines cooling, heating, power generation, and desalination and is specifically designed for a biomass-based gas turbine cycle. This system consists of a biomass combustion unit, a gas turbine cycle, an organic Rankine
	Title	Thermo-economic-environmental analysis of a sustainable heat integration design for biomass-fueled power plant using integration of CCHP	

		and sweater desalination application	<p>cycle, an absorption chiller, and a multi-effect desalination unit. This model, which is proposed for the first time and embraces an innovative thermal matching process, is simulated by the Aspen HYSYS software. Subsequently, a comprehensive evaluation employing a thorough multi-criteria analysis is conducted, examining the process from multiple perspectives, including energy, exergy, environment, and economics under different operational scenarios. The results indicate that the overall procedure can produce power output of 20,150 kW, chilled water at a rate of 188 kg/s, hot water at a rate of 27.87 kg/s, steam at a rate of 4.28 kg/s, and fresh water at a rate of 0.07 kg/s. From a thermodynamic perspective, considering the entire system, the current process yielded energy and exergy efficiencies of 54.26 % and 29.14 %, respectively. In addition, the environmental assessment exhibits that the determined carbon dioxide emission for the developed system amounts to 0.6544 kgCO₂/kWh. In the context of the entire operational mode, it is observed that the total unit exergy cost amounted to 10.28 \$/GJ. This outcome illustrates a significant reduction of 33.46 % compared to the single-generation mode.</p>
Journal Name		Desalination	
College		College of Engineering and Sciences	
Department		Electrical Engineering & Engineering Management	
Keywords		-	
HEC Category		W	
Pages		117404	
Volume No.		577	
Issue No.		2024	
ISSN		0011-9164	
DOI		https://doi.org/10.1016/j.desal.2024.117404	
URL/Link		https://www.sciencedirect.com/science/article/abs/pii/S0011916424001152	
4.	Author(s)	Yan Feng, Sayed Fayaz Ahmad, Weixing Chen, Muna Al-Razgan, Emad Marous Awwad, Ahmad YA Bani Ahmad Ayassrah, Fangfei Chi	<p>This paper presents a novel integrated solution for harnessing energy from biomass alongside liquefied natural gas cooling. The process is investigated and evaluated in various scenarios. This integrated system yields electricity, hydrogen, cold water, hot water, and fresh water. Thermodynamic analysis of the process is conducted under different scenarios. Moreover, the overall environmental damage effectiveness factor is calculated using exergo-environmental evaluation, revealing that heat exchanger E-103 exhibits the highest effectiveness factor of environmental damage, with an exergy efficiency of 37.3 %. Simulation results indicate an overall energy efficiency and overall exergy efficiency of 58.24 % and 31.97 %, respectively. Energy efficiencies of the process are found to be 32.15 %, 34.85 %, 36.71 %, and 58.24 % in single generation, combined heat and power, combined cooling, heating, and power, and multi-generation scenarios, respectively. The</p>
	Title	Design, analysis, and environmental assessment of an innovative municipal solid waste-based multigeneration system integrating LNG cold utilization and seawater desalination	
	Journal Name	Desalination	
	College	College of Engineering and Sciences	
	Department	Electrical Engineering & Engineering Management	
	Keywords	-	
	HEC Category	W	

	Pages	117848	study evaluates the simultaneous effects of pressure and flow rate variations of liquefied natural gas fluid, input flow rate variations of municipal solid waste biomass, and cyclohexane working fluid pressure variations in the organic Rankine cycle on other variables. Finally, an economic evaluation of the new process outlines its annual cost and the levelized energy cost parameter under base design conditions, which amount to 9,383,042 \$ and 0.092 \$/kWh, respectively.
	Volume No.	586	
	Issue No.	2024	
	ISSN	Print ISSN: 0011-9164 Online/E-ISSN: 1873-4464	
	DOI	https://doi.org/10.1016/j.desal.2024.117848	
	URL/Link	https://www.sciencedirect.com/science/article/abs/pii/S0011916424005599	
5.	Author(s)	Lei Zhang, Sayed Fayaz Ahmad, Tirumala Uday Kumar Nutakki, Manoj Kumar Agrawal, Ayman A Ghfar, Sohaib Tahir Chauhdary, Hossein Mehdizadeh Youshanlouei	This study utilizes Computational Fluid Dynamics (CFD) to investigate the influence of inclination angles and Multi-Walled Carbon Nanotube (MWCNT) concentration on the charging time of an inclined enclosure filled with a Nano-enhanced Phase Change Material (NPCM) and charged using solar radiation for thermal energy storage (TES). The research considers the time-dependent nature of solar heat flux and incorporates the effects of environmental wind. The main objective is to gain insights into how varying the inclination angles and MWCNT concentration impact the charging time, a crucial parameter for assessing TES efficiency. By employing CFD simulations, the study examines temperature distribution, heat transfer characteristics, and overall thermal performance within the inclined enclosure under time-varying solar heat flux and heat loss due to environmental wind conditions. The findings offer valuable information on the optimal configurations of inclination angles and MWCNT concentration that minimize charging time and enhance TES efficiency. The results demonstrate that the addition of a 3 % MWCNT volume fraction increases the average liquid phase from 74.9 % to 85.4 %. Additionally, inclining the chamber from 0 to 90° increases the average liquid phase from 43.4 % to 74.9 %.
	Title	Charging an inclined PCM storage exposed to time-varying solar radiation: Latent heat thermal energy storage	
	Journal Name	Journal of Energy Storage	
	College	College of Engineering and Sciences	
	Department	Electrical Engineering & Engineering Management	
	Keywords	PCM storage Solar energy CFD Latent heat thermal energy storage	
	HEC Category	W	
	Pages	111911	
	Volume No.	90	
	Issue No.	Part A	
	ISSN	2352-152X (Print) 2352-1538 (Online)	
	DOI	https://doi.org/10.1016/j.est.2024.111911	
URL/Link	https://www.sciencedirect.com/science/article/pii/S2352152X24014968		
6.	Author(s)	Peng Duan, Azher M Abed, Rishabh Chaturvedi, Sayed Fayaz Ahmad, Tolib Absalamov, Mahidzal Dahari, Yasser Fouad	Researchers are exploring innovative solutions for thermal energy storage to address the challenges posed by intermittent renewable sources, enhance energy efficiency, and contribute to the global shift

Title	Heat absorption/release efficiency betterment of phase change material inside a shell-and-tube latent heat storage system under six different conditions of tube and fins	<p>towards cleaner and more sustainable energy practices. In the pursuit of an optimal system to improve the heat release/absorption efficiency of phase change materials (PCMs), a unique shell and tube latent heat storage system with four rectangular fins was designed. The melting and solidification behaviors of the material in this device were examined by manipulating the tube's position within the shell and fins around the tube. Six different cases were considered such as case <i>A</i> (tube in the center of the shell), case <i>B</i> (tube at the top of the shell), case <i>C</i> (tube at the bottom of the shell), case <i>D</i> (tube in the center of the shell with fins on its sides), case <i>E</i> (tube at the top of the shell with fins located in its bottom section), and case <i>F</i> (tube at the bottom of the shell with fins located in its top section). Cases <i>D</i> and <i>E</i> were the best options for absorbing and releasing heat in the shortest time. However, it should be noted that case <i>F</i> was faster during the melting process and dropped behind in the final stages. The authors proposed that if achieving a balanced result without incurring additional costs is essential, case <i>D</i> is a suitable option since it offers reasonable performance in melting and solidification processes. However, suppose researchers and developers of energy storage systems are seeking higher performances where heat absorption and release occur much more rapidly. In that case, it is suggested to construct one of the cases, <i>E</i> or <i>F</i>, and implement a rotational mechanism to enable access to the other case. Based on the outcomes, cases <i>D</i> and <i>F</i> needed 6235 s and 7552 s, respectively, to fully melt. While all cases even required more than 3 h to solidify 80 % of the PCM. The complete melting speed of Case <i>F</i> is 21.12 % faster than that of Case <i>D</i>. Additionally, the time required for 50 % solidification is 14.79 % faster for Case <i>E</i> compared to Case <i>D</i>. During 3 h, this system could absorb 1172 kJ of energy (cases <i>D</i> and <i>F</i>) and release 893 kJ of energy (cases <i>D</i> and <i>E</i>).</p>
Journal Name	Journal of Energy Storage	
College	College of Engineering and Sciences	
Department	Electrical Engineering & Engineering Management	
Keywords	Clean energy Energy storage Latent heat storage Solidification performance Melting process Heat absorption efficiency	
HEC Category	W	
Pages	111880	
Volume No.	90	
Issue No.	Part A	
ISSN	2352-152X (Print) 2352-1538 (Online)	
DOI	https://doi.org/10.1016/j.est.2024.111880	
URL/Link	https://www.sciencedirect.com/science/article/pii/S2352152X24014658	
7.	Author(s) Jie Wu, Sayed Fayaz Ahmad, Yasser A Ali, Muna Al-Razgan, Emad Mahrous Awwad, Ahmad YA Bani Ahmad Ayassrah	As the planet faces the challenge of global warming, every individual and organization must adopt green practices to protect nature. The automobile industry is one of the

	Title	Investigating the Role of Green Behavior and Perceived Benefits in Shaping Green Car Buying Behavior with Environmental Awareness as a Moderator	<p>primary industries which can contribute significantly towards sustainability. This study aims to examine the impact of green behavior and green perceived benefits on the green buying behaviors of automobiles. The research also explores the moderating influence of environmental awareness on the mechanism. The research is based on a quantitative method for which primary data was gathered from 406 respondents across Pakistan, China and Saudi Arabia via Quota-based purposive sampling. The gathered data was analyzed via SmartPLS. The results show that green behavior and perceived benefits positively and significantly influence green buying behavior. The findings also show the moderating role of environmental awareness on green behavior towards green buying and show no impact on the perceived benefits towards buying behavior. The study has practical and theoretical implications for managers, researchers, policymakers and institutions in the context of green automobile development and businesses. The study also contributes to the attainment of sustainable development goals.</p>
	Journal Name	Heliyon	
	College	College of Engineering and Sciences	
	Department	Electrical Engineering & Engineering Management	
	Keywords	Environmental awareness Green behavior Perceived green benefits Green buying behavior	
	HEC Category	W	
	Pages	111880	
	Volume No.	10	
	Issue No.	9	
	ISSN	2405-8440	
	DOI	DOI: 10.1016/j.heliyon.2024.e30098	
	URL/Link	https://www.cell.com/heliyon/fulltext/S2405-8440(24)06129-2	
8.	Author(s)	Yineng Xiao, Sayed Fayaz Ahmad, Muhammad Irshad, Han Guo, Haitham A Mahmoud, Emad Mahrous Awwad, Yasser Khan	<p>This article examines the mediating role of ethical issues and healthcare on the relationship between the Metaverse and mental health. It also investigates the impact of the Metaverse on ethical issues and healthcare. It is based on quantitative methodology. Using a purposive sampling technique, a close-ended questionnaire was used to collect data from 392 nurses and doctors across Pakistan, China, and Saudi Arabia. The Partial Least Squares Structural Equation Modelling technique was used for the analysis. The findings show a significant mediating role of ethical issues between the Metaverse and mental health. The results do not support the mediating role of healthcare between the Metaverse and mental health. In addition, the findings also show a positive relationship between the Metaverse and ethical issues and between ethical issues and mental health. Similarly, the findings also support the relationship between the Metaverse and healthcare. The results do not support the relationship between healthcare and mental health. The study has many</p>
	Title	Investigating the mediating role of ethical issues and healthcare between the metaverse and mental health in Pakistan, China, and Saudi Arabia	
	Journal Name	Humanities and Social Sciences Communications	
	College	College of Engineering and Sciences	
	Department	Electrical Engineering & Engineering Management	
	Keywords	-	
	HEC Category	W	
	Pages	1-14	
	Volume No.	11	
	Issue No.	1	

	ISSN	2662-9992 (online)	implications for technology developers, scientists, policymakers, and healthcare providers.
	DOI	https://doi.org/10.1057/s41599-024-02643-z	
	URL/Link	https://www.nature.com/articles/s41599-024-02643-z	
9.	Author(s)	Tengfei Zhao, Sayed Fayaz Ahmad, Manoj Kumar Agrawal, Ahmad Yahiya Ahmad Bani Ahmad, Ayman A Ghfar, Prajoona Valsalan, Nehad Ali Shah, Xiaomin Gao	Designing and studying processes with reduced thermodynamic irreversibility and environmental impact is imperative to improve the global applicability of the stand-alone gas turbine cycles. Hence, the present study introduces a novel cascade heat integration tool for a gas turbine cycle combined with a liquefied natural gas cold energy utilization and regasification process. A saltwater desalination subsystem, an absorption chiller, and an organic Rankine cycle are also included in the integrated system. Therefore, the developed system demonstrates an environmentally friendly combined cooling, heating, power, and freshwater production framework, improving the performance of the system in comparison to previous research. This configuration is simulated within the Aspen HYSYS software for comprehensive energy, exergy, environmental, and economic assessments. The findings demonstrate that the whole configuration yields energy and exergy efficiencies of 92.92% and 63.5%, respectively. In comparison, these efficiencies in the single-generation mode are found to be 45.92% and 43.72%, correspondingly. The environmental analysis reveals that the carbon dioxide footprint equals 0.1792 kg/kWh when operating in the multigeneration mode and 0.4591 kg/kWh in the single-generation mode. Furthermore, the economic evaluation exhibits that the cost of energy equals 67.2 \$/MWh and 135.92 \$/MWh for the multigeneration and single-generation operational modes, respectively.
	Title	Design and thermo-enviro-economic analyses of a novel thermal design process for a CCHP-desalination application using LNG regasification integrated with a gas turbine power plant	
	Journal Name	Energy	
	College	College of Engineering and Sciences	
	Department	Electrical Engineering & Engineering Management	
	Keywords	-	
	HEC Category	Not in HJRS	
	Pages	131003	
	Volume No.	295	
	Issue No.	2024	
	ISSN	2662-9992 (online)	
	DOI	https://doi.org/10.1016/j.energy.2024.131003	
	URL/Link	https://www.sciencedirect.com/science/article/pii/S0360544224007758	
10.	Author(s)	Hongjun Tian, Xiaowei Chen, Sayed Fayaz Ahmad, Manoj Kumar Agrawal, Asiful H Seikh, Nehad Ali Shah, Qiaolin Su	The present study aims to develop and assess a novel integrated system for combined cooling, heating, and power (CCHP) generation utilizing the combustion of biogas and hot oil (Therminol-VP1) for heat recovery. The primary objective is to minimize thermodynamic irreversibility and production costs by implementing an innovative heat recovery process. The proposed system comprises
	Title	Modeling and 4E analysis of a new combined cooling, heating, and power energy system based on biogas combustion and hot oil for heat supply	

		a biogas combustion unit, organic Rankine cycles, heat recovery exchangers for heat generation, and an ammonia-water absorption chiller. The Aspen Hysys software is employed to simulate the system and conduct energy, exergy, economic, and environmental evaluations of the overall structure. Additionally, a parametric examination is conducted in response to changes in crucial parameters, including combustion air flow rate, oil temperature, and hot water production temperature. According to thermodynamic analysis, the overall energy and exergy efficiencies are determined to be 61 % and 30.44 %, respectively. Also, the biogas burner subsystem exhibits the highest level of irreversibility within the system, contributing to 87.4 % of the total exergy destruction ratio. The CO ₂ emission intensity is measured at a value of 0.293 kg/kWh from an environmental standpoint. Finally, the economic analysis demonstrates a specific unit cost of products of 0.017 \$/kWh and a payback period of 6.11 years.
Journal Name	Process Safety and Environmental Protection	
College	College of Engineering and Sciences	
Department	Electrical Engineering & Engineering Management	
Keywords	-	
HEC Category	W	
Pages	1484-1501	
Volume No.	184	
Issue No.	2024	
ISSN	0957-5820 (Print) 1744-3598 (Online)	
DOI	https://doi.org/10.1016/j.psep.2024.02.074	
URL/Link	https://www.sciencedirect.com/science/article/abs/pii/S0957582024002076	
11.	Author(s)	Peiran Liang, Yulu Guo, Sohaib Tahir Chaudhary, Manoj Kumar Agrawal, Sayed Fayaz Ahmad, Ahmad Yahiya Ahmad Bani Ahmad, Ahmad A Ifseisi, Tiancheng Ji
	Title	Sustainable development and multi-aspect analysis of a novel polygeneration system using biogas upgrading and LNG regasification processes, producing power, heating, fresh water and liquid CO ₂
	Journal Name	Process Safety and Environmental Protection
	College	College of Engineering and Sciences
	Department	Electrical Engineering & Engineering Management
		Considering biogas upgrading to feed energy systems and its significant impact on the biogas energy density, a novel polygeneration system utilizing biogas from landfill waste is designed, simulated, and studied in this paper. The primary innovation is to design a biogas upgrading technology for a novel multigeneration system using a thermal matching approach. This system is capable of simultaneously generating power, providing heating, producing fresh water, and extracting liquid carbon dioxide in an environmentally sustainable manner, thus resulting in reduced environmental impacts. For this purpose, a cryogenic separation system based on liquefied natural gas cold utilization is employed for biogas upgrading and biomethane separation. The proposed process also consists of a Kalina cycle, an organic Rankine cycle, a multi-effect desalination technology, and a heating provider unit. This system is simulated

	Keywords	-	<p>within the Aspen HYSYS software and is undergone a comprehensive analysis from the viewpoints of energy, exergy, environmental, and economic. The results indicate that the proposed structure achieves energy and exergy efficiencies of 80.91% and 43.76%, respectively. Environmental assessment reveals that the emission intensity is 90.43% lower in polygeneration mode compared to power generation mode, and the system's net emission is equal to 23,041.51 kg/h. The economic evaluation demonstrates that the total unit cost of products is minimized in polygeneration operation (1.84 \$/GJ), while it is highest in power generation condition (7.564 \$/GJ). The investigations show that when a system is modified from a single generation to polygeneration, all thermodynamic, economic, and environmental indicators face an improvement.</p>
	HEC Category	W	
	Pages	417-436	
	Volume No.	183	
	Issue No.	2024	
	ISSN	0957-5820 (Print) 1744-3598 (Online)	
	DOI	https://doi.org/10.1016/j.psep.2024.01.003	
	URL/Link	https://www.sciencedirect.com/science/article/abs/pii/S0957582024000041	
12.	Author(s)	Caibo Liu, Chou-Yi Hsu, Manoj Kumar Agrawal, Jinxin Zhang, Sayed Fayaz Ahmad, Asiful H Seikh, V Mohanavel, Sohaib Tahir Chauhdary, Fangfei Chi	<p>The utilization of biomass feedstock in the energy system for sustainable production is essential due to its renewable nature and high energy density. However, the primary challenge lies in designing environmentally friendly biomass-use structures. This research introduces a novel trigeneration system that integrates power, cooling, and heat production through biomass combustion to address this issue. As another novelty in system development, the proposed system includes a carbon dioxide capture unit, further enhancing the system. The proposed framework consists of several subsystems: an organic Rankine cycle, an absorption chiller, a carbon dioxide capture cycle utilizing monoethanolamine solvent, a liquefied natural gas regasification unit, and a low-pressure steam production boiler. The newly developed system is modeled using the Aspen HYSYS software and is assessed from thermodynamic, economic, and environmental perspectives. Also, a parametric analysis is conducted to examine the impact of key design parameters on the system's performance. Based on the study's findings, it can be observed that the energy and exergy efficiencies amount to 58.4 % and 17.09 %, respectively. In addition, the suggested procedure exhibits a total exergy destruction of 53,636 kW. The findings of</p>
	Title	Design and thermo-enviro-economic analyses of an innovative environmentally friendly trigeneration process fueled by biomass feedstock integrated with a post-combustion CO ₂ capture unit	
	Journal Name	Journal of Cleaner Production	
	College	College of Engineering and Sciences	
	Department	Electrical Engineering & Engineering Management	
	Keywords	-	
	HEC Category	W	
	Pages	141137	
	Volume No.	443	
	Issue No.	2024	
ISSN	0959-6526		

	DOI	https://doi.org/10.1016/j.jclepro.2024.141137	the environmental impact assessment indicate that the shift from power generation to trigeneration scenario results in a substantial decrease in carbon dioxide emissions. Specifically, the emission reduction potential ranges from 0.24 to 0.041 kg/kWh. Furthermore, the economic evaluation shows that the system reaches a cost per unit exergy of 0.249 \$/kWh. This variable denotes a substantial decrease of 81.42 % compared to the power generation operational mode.
	URL/Link	https://www.sciencedirect.com/science/article/abs/pii/S0959652624005845	
13.	Author(s)	Lei Zhang, Sayed Fayaz Ahmad, Zhenti Cui, Muna Al Razgan, Emad Marous Awwad, Ahmad YA Bani Ahmad Ayassrah, Kwanho Shi	The current work proposes a novel CCHP system based on geothermal energy, which can generate hot water, chilled water, and power. Kalina is considered for power generation, double-effect absorption chiller cycle for cooling production, and LNG regasification cycle for thermal integration of absorption chiller and electric power generation. The hot water is generated using the heat recovery exchanger. Energy, exergy, economic, and environmental assessments are made on the proposed system to see how it can improve energy and exergy efficiency compared to the single state. Also, an environmental assessment is carried out to analyze the reduction of CO2 emission rate compared to other studies that used biomass and fossil energy sources. The findings were confirmed considering the outcomes of the previous works, and the proposed system showed remarkable performance in terms of exergy and energy efficiency, which were 85.22 % and 52.79 %, respectively. Also, the highest irreversibility exists in the LNG Regasification sector, with a ratio of 81 %. The economic estimation determined that the two parameters, total cost rate and cost per exergy, are 186.74 \$/h and 8.3 \$/GJ, respectively. Therefore, the innovation of the work lies in the heart of heating, cooling, and power products compared to the previous works.
	Title	Energy, exergy, thermoeconomic analysis of a novel multi-generation system based on geothermal, kalina, double effect absorption chiller, and LNG regasification	
	Journal Name	Desalination	
	College	College of Engineering and Sciences	
	Department	Electrical Engineering & Engineering Management	
	Keywords	-	
	HEC Category	W	
	Pages	117830	
	Volume No.	586	
	Issue No.	2024	
	ISSN	0011-9164 (print) 1873-4472 (online)	
	DOI	https://doi.org/10.1016/j.desal.2024.117830	
URL/Link	https://www.sciencedirect.com/science/article/abs/pii/S0011916424005411		

14.	Author(s)	Luning Cao, Sayed Fayaz Ahmad, B Nageswara Rao, Ayman A Ghfar, Ahmed Bilal Awan, Mohamad Abou Houran, Ahmad Yahiya Ahmad Bani Ahmad, Kwanho Shi	The significance of devoting attention to environmental pollution control strategies is widely recognized as an effective means of mitigating the harmful environmental effects caused by fossil fuels in industrial and power plant sectors. Carbon dioxide (CO ₂) capture and recovery technologies have opened up the possibility of utilizing this pollutant gas. Hence, the current study suggests a methodology for the CO ₂ hydrogenation of the flue gas leaving a power plant. This approach facilitates methane generation via a methanation reactor, subsequently is utilized as fuel for a power plant. For this purpose, a cryogenic method using liquefied natural gas cold energy facilitates CO ₂ recovery. Moreover, the whole system utilizes geothermal energy to launch a power plant for power generation and supply the power demands of a hydrogen production unit, relying on a water electrolysis process. The hydrogen generated is employed for CO ₂ hydrogenation, while the oxygen produced is utilized for the combustion reaction. Heating provider units and an absorption chiller are also included in the design. The system is modeled utilizing Aspen HYSYS software. This study incorporates a sensitivity analysis alongside energy, exergy, environmental, and economic assessments. The energy and exergy efficiencies, as determined by the thermodynamic analysis, are 30.87% and 48.61%, respectively. Additionally, according to the economic study, the levelized energy cost amounts to 16.65 \$/MWh, demonstrating a substantial reduction of 87.6% compared to the power generation mode. One notable merit of the suggested system lies in its zero CO ₂ footprint framework, showing a noteworthy supremacy when compared with previous studies.
	Title	Design, multi-aspect investigation and economic advantages of an innovative CCHP system using geothermal energy, CO ₂ recovery using a cryogenic process, and methanation process with zero CO ₂ footprint	
	Journal Name	Journal of Environmental Chemical Engineering	
	College	College of Engineering and Sciences	
	Department	Electrical Engineering & Engineering Management	
	Keywords	-	
	HEC Category	W	
	Pages	114570	
	Volume No.	12	
	Issue No.	6	
	ISSN	ISSN: 2213-3437 ISSN-L: 2213-2929	
DOI	https://doi.org/10.1016/j.jece.2024.114570		
URL/Link	https://www.sciencedirect.com/science/article/abs/pii/S2213343724027015		
15.	Author(s)	Xiao Zhou, Chunliang Ding, Azher M Abed, Sherzod Abdullaev, Sayed Fayaz Ahmad, Yasser Fouad, Mahidzal Dahari, Ibrahim Mahariq	To ensure the health of vulnerable coastal ecosystems, a transition to sustainable energy solutions is essential. Environmentally friendly systems powered by renewable sources offer not only a reduction in pollution but also the adaptability needed for a flexible and resilient energy future. This study proposes and comprehensively evaluates an integrated solar-based system designed to meet the
	Title	Techno-Economic Assessment and Transient Modeling of a Solar-Based Multi-Generation System for Sustainable/Clean	

		Coastal Urban Development	<p>daily needs of coastal cities. The proposed system incorporates key components such as dual-loop power cycles, parabolic trough solar collectors, liquefied natural gas (LNG) regasification, reverse osmosis, and proton exchange membrane electrolysis. To optimize energy utilization, the inclusion of a thermoelectric generator (TEG) is considered, harnessing the thermal gradient among the LNG stream and the power cycle fluid. We conduct transient modeling, incorporating comprehensive scenarios that account for both thermal and economic aspects. The performance evaluation of the system focuses specifically on coastal regions, with San Francisco serving as a case study. The dynamic simulation results demonstrate the capability of the integrated system in fulfilling the urban needs for one year, delivering 1,134,207 cubic meters of potable water and generating 11,306 MWh of electricity. Financial analysis reveals that the solar unit accounts for over 46 % of the total cost, with an hourly cost rate of \$69.61. The levelized cost of electricity is predicted at 4.61 cents/kWh, while the levelized cost of water is calculated at 30.54 cents/m³. These findings provide valuable insights into the cost-effectiveness and competitive advantage of the system in terms of energy and water production.</p>
Journal Name		Renewable Energy	
College		College of Engineering and Sciences	
Department		Electrical Engineering & Engineering Management	
Keywords		-	
HEC Category		W	
Pages		121119	
Volume No.		233	
Issue No.		2024	
ISSN		Online ISSN: 1879-0682. Print ISSN: 0960-1481	
DOI		https://doi.org/10.1016/j.renene.2024.121119	
URL/Link		https://www.sciencedirect.com/science/article/abs/pii/S096014812401187X	
16.	Author(s)	Ji Luo, Sayed Fayaz Ahmad, Asma Alyaemeni, Yuhan Ou, Muhammad Irshad, Randah Alyafi-Alzahri, Ghadeer Alsanie, Syeda Taj Unnisa	<p>Adoption of a health information system is always a challenge for hospitals. It is because most of the medical staff do not have enough skills to use the new technology and due to the sensitivity of medical data. These factors pose a challenge for the successful adoption of health information system in hospitals. The aim of this research is to find out the factors which influence the adoption of information systems in hospitals. The study investigated the impact of the Financial status of the Hospital; Perceived Usefulness and Perceived Ease of Use on the adoption of health information systems through a questionnaire survey. Data was collected from 602 healthcare workers from 20 hospitals through close-ended questionnaire in Pakistan, where the adoption of health information systems is very slow. PLS-SEM was used for the analysis. The findings show that the Financial status of the Hospital;</p>
	Title	Role of perceived ease of use, usefulness, and financial strength on the adoption of health information systems: the moderating role of hospital size	
	Journal Name	Humanities and Social Sciences Communications	
	College	College of Engineering and Sciences	
	Department	Electrical Engineering & Engineering Management	
	Keywords	-	

	HEC Category	W	Perceived Usefulness and Perceived Ease of Use have positive and significant role in the adoption of Health Information Systems. The finding also shows that hospital size moderates the relationship of Perceived ease of use and the adoption of health information systems and interestingly it does not moderate the relationship among perceived usefulness and financial strength toward the adoption of health information systems. The study concludes that perceived ease of use, perceived usefulness and financial strength are the main factors, necessary for the adoption of health information systems. The findings of the study have useful implications for policy makers, medical professionals to successfully adopt health information systems in hospitals. It also provides new avenues for researchers to explore other factors and test this framework in other countries.
	Pages	1-12	
	Volume No.	11	
	Issue No.	1	
	ISSN	2662-9992 (online)	
	DOI	https://doi.org/10.1057/s41599-024-02976-9	
	URL/Link	https://www.nature.com/articles/s41599-024-02976-9	
17.	Author(s)	Likun Ni, Sayed Fayaz Ahmad, Ghadeer Alsanie, Na Lan, Muhammad Irshad, Rima H Bin Saeed, Ahmad Bani Ahmad, Yasser Khan	<p>Purpose This study aims to find out the role of green curriculum (GC) in making a green generation (GG) and ensuring sustainability. The study considers the green curriculum a key factor for understanding environmental values orientation (EVO) and adopting pro-environmental behaviors (Pr-EnB) for social, economic, human and environmental sustainability.</p> <p>Design/methodology/approach The study is quantitative and cross-sectional. Partial least square-structural equation modeling was used to test the research model and data which was collected through a questionnaire survey from university faculty and students in Pakistan, Saudi Arabia and China.</p> <p>Findings The findings show that the GC has significant positive effects on EVO and pro-environmental behavior. However, it has no significant effect on social sustainability. There is a positive significant effect of pro-environmental behavior on economic, environmental, human and social sustainability. Whereas, environmental orientation has no significant effect on economic sustainability but significantly influences environmental, human and social sustainability. GC has no significant effect on economic, environmental and human</p>
	Title	Investigating the role of green curriculum in shaping pro-environmental behaviors and environmental values orientation for sustainability	
	Journal Name	International Journal of Sustainability in Higher Education	
	College	College of Engineering and Sciences	
	Department	Electrical Engineering & Engineering Management	
	Keywords	Education, Green curriculum, Green generation, Environmental value orientation, Pro-environmental behavior, Sustainability, Social sustainability, Economic sustainability, Human sustainability, Environmental sustainability	
	HEC Category	W	

	Pages	1537–1557	<p>sustainability. However, when considering the combined effects of GC and environmental values orientation or pro-environmental behavior, significant positive effects were found on economic, environmental, human and social sustainability.</p> <p>Research limitations/implications The result suggests that implementing a GC positively influences environmental orientation, pro-environmental behavior and various dimensions of sustainability.</p> <p>Practical implications These results have implications for educational institutions and policymakers aiming to promote sustainability through green curriculum and help in the attainment of sustainable development goals.</p> <p>Originality/value The study fulfills an essential need to obtain sustainability and sustainable development goals through education.</p>
	Volume No.	25	
	Issue No.	8	
	ISSN	Online 1758-6739 Print 1467-6370	
	DOI	doi/10.1108/ijsh-05-2023-0207	
	URL/Link	https://www.emerald.com/insight/content/doi/10.1108/ijsh-05-2023-0207/full/html	
18.	Author(s)	Adeel Ansari, Seema Ansari, Sara Syed Prasla, Abeera Naveed	<p>This research investigates image classification techniques applied to two distinct datasets related to cats. The primary focus is on addressing the problem of accurately classifying cat breeds and cat behavior. This research focuses on the comparative analysis of both deep learning and machine learning techniques. The techniques are categorized as use of Transfer learning on deep learning models, Transfer learning on machine learning algorithms, and Teachable machine pre-trained model. Transfer learning has gained popularity as one of the employed techniques, in inception V3 for classifying images. It requires re-utilizing an existing model, for a new model by applying a small-scale dataset to pace up training and enhance overall performance. Five different methodologies are explored: Convolutional Neural Networks using Google Inception-V3 model, Convolutional Neural Networks on top of Google Inception-V3 model with K-fold cross-validation, Random Forest on Inception V3 features, Support Vector Machine on Inception V3 features, and Teachable Machine model. The study aims to compare the performance of these methodologies in terms of accuracy, F1 score, and ROC-AUC score. The research</p>
	Title	Comparative Analysis of Image Classification Methods on Cat Breeds and Behavior using Machine Learning Techniques	
	Journal Name	Pakistan Journal of Engineering, Technology & Science	
	College	College of Engineering and Sciences	
	Department	Electrical Engineering & Engineering Management	
	Keywords	Convolutional Neural Networks, F1 Score, Inception V3, K-fold cross validation, Random Forest, ROC-AUC Score Support Vector Machine, Transfer Learning	
	HEC Category	Y	
	Pages	91-103	
	Volume No.	12	
	Issue No.	1	

	ISSN	Online 2224-2333 Print 2222-9930	results show that each approach has levels of effectiveness with various algorithms and models showing accuracy and F1 scores in classifying both cat breeds and behaviors. These findings offer information, on image classification, in datasets related to cats helping to improve the precision of identifying cat breeds and behaviors.
	DOI	https://doi.org/10.22555/pjets.v12i1.1100	
	URL/Link	https://journals.iobm.edu.pk/index.php/pjets/article/view/1100	
19.	Author(s)	Seema Ansari, Adeel Ansari, Tadiwa Elisha Nyamasvisva	The fifth generation (5G) is yet to be implemented globally, researchers have been impelled to envision 6G to provide evolving services and applications with high-class execution. The sixth-generation network technology is expected to support huge number of Internet of Things (IoT) devices needed to sustain higher data rates applications. Compared to the IoT provisions deployed in 5G, 6G IoT uses high density diverse gadgets with huge bandwidth, robust architecture and smart algorithms built on artificial intelligence (AI). It will enable novel applications with the help of AI and big data technologies. The existing 6GHz band is at present packed by data traffic. The lower transmission band cannot withstand higher data traffic transmission. Communication technology based on the Millimeter Wave (mmWave) is capable of supporting higher data rate transmission but at the cost of consuming high power and high hardware cost, thus violating the low-cost design norm of IoT devices. In this paper, we aim to provide 6G vision of IoT, the Key technologies and challenges involved. Various approaches such as Radio over Fiber technologies, wireless beam modulation (WBM) technique for transmitting mmWave, Satellite communication system is anticipated to perform a major role in IoT and applications in 6G vision and green communication for super performance in terms of energy efficiency are addressed to meet the high requirements of a 6G IoT system. Techniques such as convergence of 6G IoT with RoF will provide benefits of both wireless and optical technology, generating more challenges and prospects in the future. A comprehensive survey of current developments in 5G and 6G and future trends is presented in this survey article.
	Title	6G Vision, IoT Technologies, Challenges and Emerging Technology Solutions—A Survey	
	Journal Name	Journal of Independent Studies and Research Computing	
	College	College of Engineering and Sciences	
	Department	Electrical Engineering & Engineering Management	
	Keywords	Augmented reality, Big Data analysis, international telecommunication union, Internet of Things, mmWave, Sixth-generation network	
	HEC Category	Y	
	Pages	54-61	
	Volume No.	22	
	Issue No.	1	
	ISSN	(P):2412-0448 (E):1998-4154	
	DOI	https://doi.org/10.31645/JISRC.24.22.1.5	
URL/Link	https://jisrc.szabist.edu.pk/ojs/index.php/jisrc/article/view/188		

20.	Author(s)	Shahtaj Nazmeen, Aresha Amer, Rashid Qutub	While Pakistan is trying to improve its level of financial inclusion, there still remains a big gap in the female population which is unbanked. In order to bridge it, the State Bank of Pakistan is drafting policies which would lead to increased financial inclusion by promoting an equal number of male and female financial agents and encouraging the use of technology. However, there is no construct available which measures financial inclusion specifically for Pakistan. This study is aimed to design a construct that can be used to measure financial inclusion through 16 qualitative interviews and 250 quantitative questionnaires. After compiling the data and analyzing it, this study gives a measurement tool which can be used by policymakers and future researchers. This study has validated themes of Awareness (financial literacy), Barriers, Use of technology, Investments and Savings, Loans, and Comprehension (of processes and services).
	Title	Designing a Construct to measure financial Inclusion in Pakistan: Insights from Qualitative and Quantitative Analysis	
	Journal Name	Journal of Business and Management Research	
	College	College of Engineering and Sciences	
	Department	Electrical Engineering & Engineering Management	
	Keywords	Financial Inclusion, Financial Literacy, Financial Services, regulations, accessibility, knowledge, barriers	
	HEC Category	Y	
	Pages	884-917	
	Volume No.	3	
	Issue No.	3(2024)	
	ISSN	Online: 2958-5074 Print: 2958-5066	
	DOI	10.1109/GCWOT63882.2024.10805626	
URL/Link	https://jbmr.com.pk/index.php/Journal/article/view/326		



4. College of Economics and Social Development (CESD)

S. No.	Faculty	Department	No. of paper published by Faculty Members	
4	Faculty of College of Economics and Social Development	a	Economics	6
		b	Education	3
		c	Business Psychology	2
		d	Center for Policy & Area Studies	1
			Total	12

4(a) Department of Economics

1.	Author(s)	Kashif Imran, Nazia Nazeer, Kamran Mehfooz	The current study unveils Pakistan's dates palm fruit sector and explores new export avenues beyond India. Using panel data of 17 trading partners of Pakistan, spanning 1998 to 2021, to uncover key drivers of Pakistan's dates palm fruit exports, the current study applied the Gravity model. Findings underscore the pivotal roles of Pakistan's GDP, partner country GDP and population, distance, and exchange rates in shaping export dynamics. Interestingly, the study highlights untapped opportunities in global markets, showing more substantial export potential for dates palm fruit in Non-Asian regions compared to Asia and neighboring countries. Promising destinations include Germany, Hong Kong, the United Kingdom, and the USA, suggesting a pathway for significant market expansion.
	Title	Unlocking Pakistan's Dates Palm Fruit Export Potential: A Gravity Model Comparison Between Asian And Non-Asian Markets	
	Journal Name	LMA Journal of Social Sciences & Economics	
	College	College of Economics and Social Development	
	Department	Economics	
	Keywords	Dates palm fruit, Export, Gravity model, Asian vs. Non-Asian countries, Pakistan	
	HEC Category	Y	
	Pages	1-14	
Volume No.	5		

	Issue No.	1	
	ISSN	E-ISSN: 2790-5896 P-ISSN: 2709-2232	
	DOI	-	
	URL/Link	https://ijsse.ilmauniversity.edu.p k/arc/Vol5/pdf/v1/1.pdf	
2.	Author(s)	Aqil Khan, Naveed Ali, Lala Rukh, Zia Ullah	This paper investigated the causal directions of disaggregated energy consumption (renewable & non-renewable energy consumption) with economic growth by employing the new state of art technique called as maximum entropy bootstrap method (meboost) for Pakistan during 1975-2021. Since such technique is robust in the sense that unlike the existing methodologies, this approach has no reliance on the conventional assumptions of asymptotic theory enabling meboost to robust inferences with small size. The method is also independent of specification issues, lag length selection, and can be applied even in the presence of any kind of structural gap and non-stationarity of dataset without manipulation of dataset for stationarity. The observed results supported the growth-hypothesis for renewable energy model and concluded conservation hypothesis for non-renewable energy consumption model. In lights of obtained results, it is recommended that Pakistan's government should proactively develop conservation policies for non-renewable energy consumption and implementation policies for renewable energy consumption through different sources including domestic energy resources, hydropower resources and solar energy.
	Title	Nexus Between Renewable & Non-Renewable Energy Consumption And Economic Growth In Pakistan: A Revisit Using Maximum Entropy Bootstrap Analysis	
	Journal Name	International Journal of Contemporary Issues in Social Sciences	
	College	College of Economics and Social Development	
	Department	Economics	
	Keywords	Renewable & Non-Renewable Energy, Causality, Economic Growth, Maximum Entropy Bootstrapping Method	
	HEC Category	Y	
	Pages	1801-1818	
	Volume No.	3	
	Issue No.	1	
	ISSN	ISSN (E) 2959-2461 ISSN (P) 2959-3808	
	DOI	-	
	URL/Link	https://ijciss.org/index.php/ijciss/ article/view/525	
3.	Author(s)	Muhammad Zubair, Lubna Naz, Shyamkumar Sriram	<p>Background</p> <p>The increased socioeconomic inequality in catastrophic health expenditure (CHE) disproportionately affects disadvantaged populations, subjecting them to financial hardships, limiting their access to healthcare, and exacerbating their vulnerability to morbidity.</p> <p>Objectives</p> <p>This study examines changes in socioeconomic inequality related to CHE and analyzes the contributing factors</p>
	Title	Decomposing socioeconomic inequality in household out of pocket health expenditures in Pakistan (2010-11–2018-19)	
	Journal Name	BMC Health Service Research	
	College	College of Economics and Social Development	

Department	Economics	<p>responsible for these changes in Pakistan between 2010-11 and 2018-19.</p> <p>Methods</p> <p>This paper extracted the data on out-of-pocket health expenditures from the National Health Accounts for 2009-10 and 2017-18. Sociodemographic information was gathered from the Household Integrated Economic Surveys of 2010-11 and 2018-19. CHE was calculated using budget share and the ability-to-pay approaches. To assess socioeconomic inequality in CHE in 2010-11 and 2018-19, both generalized and standard concentration indices were used, and Wagstaff inequality decomposition analysis was employed to explore the causes of socioeconomic inequality in each year. Further, an Oaxaca-type decomposition was applied to assess changes in socioeconomic inequality in CHE over time.</p> <p>Results</p> <p>The concentration index reveals that socioeconomic inequality in CHE decreased in 2018-19 compared to 2010-11 in Pakistan. Despite the reduction in inequality, CHE was concentrated among the poor in Pakistan in 2010-11 and 2018-19. The inequality decomposition analysis revealed that wealth status was the main cause of inequality in CHE over time. The upper wealth quantiles indicated a positive contribution, whereas lower quantiles showed a negative contribution to inequality in CHE. Furthermore, urban residence contributed to pro-rich inequality, whereas employed household heads, private healthcare provider, and inpatient healthcare utilization contributed to pro-poor inequality. A noticeable decline in socioeconomic inequality in CHE was observed between 2010 and 2018. However, inequality remained predominantly concentrated among the lower socio-economic strata.</p> <p>Conclusion</p> <p>These results underscore the need to improve the outreach of subsidized healthcare and expand social safety nets.</p>
Keywords	Socioeconomic inequality Catastrophic health expenditure Concentration index Oaxaca-Blinder decomposition	
HEC Category	W	
Pages	-	
Volume No.	24	
Issue No.	article number 837	
ISSN	1472-6963	
DOI	https://doi.org/10.1186/s12913-024-11203-9	
URL/Link	https://link.springer.com/article/10.1186/s12913-024-11203-9	
4.	Author(s)	Muhammad Zubair, Mirza Aqeel Baig
		This study aims to examines the socio-economic inequality in Catastrophic Health

	Title	Socioeconomic Inequalities in Catastrophic Health Expenditure in Sindh Province of Pakistan	Expenditure(CHE) by using the data from the Household Integrated Economic Surveys. Catastrophic Health Expenditure(CHE) was computed using the ability-to-pay-approach. To assess socioeconomic inequality in CHE for the years 2018, both generalized and standard concentration Indices were used. The results of concentration index revealed that Catastrophic Health Expenditure(CHE) concentrated among the poor in Sindh. The inequality decomposition analysis reveals that wealth status was the main cause of the inequality. The upper wealth quantiles had larger contribution, while the lower quantiles showed smaller contribution to inequality in CHE. Further, employed head of the household, Educated head of household, private provision of healthcare, and inpatient access of healthcare were negative contributors to CHE inequality in Sindh.
	Journal Name	Pakistan Journal of Humanities and Social Sciences	
	College	College of Economics and Social Development	
	Department	Economics	
	Keywords	Out of pocket Health care Expenditure Catastrophic Health Care Expenditure Concentration Index Socioeconomic Inequality	
	HEC Category	Not in HJRS	
	Pages	1050–1056	
	Volume No.	12	
	Issue No.	2	
	ISSN	2415-007X	
	DOI	https://doi.org/10.1186/s12913-024-11203-9	
	URL/Link	https://www.researchgate.net/publication/380892678_Socioeconomic_Inequalities_in_Catastrophic_Health_Expenditure_in_Sindh_Province_of_Pakistan	
5.	Author(s)	Sobia Amin, Mirza Aqeel Baig, Irfan Lal	The relationship between exports and growth has extensively been discussed in the literature. We have plenty of theoretical as well as empirical literature highlighting this relationship. This study, however, has been conducted in an attempt to explore the impact of the macroeconomic policies of two major South Asian economies on exports and growth. To see the impact of these policies, a policy index has been constructed incorporating the fiscal, monetary, and trade policies by using their proxy variables: budget balance, inflation, and trade openness respectively. Johansen Cointegration technique under VAR has been employed on annual data from 1980–2021. The result suggests that macroeconomic policies have no role in promoting either exports or growth in Pakistan. However, there was evidence that sound macroeconomic policies have promoted exports and growth in India.
	Title	Assessing the Role of Macroeconomic Policies on Export and Growth Relationship-A Case of India and Pakistan	
	Journal Name	Journal of Finance & Economics Research	
	College	College of Economics and Social Development	
	Department	Economics	
	Keywords	?	
	HEC Category	Y	
	Pages	45668	
	Volume No.	9	
	Issue No.	2	
	ISSN	?	
	DOI	10.20547/jfer2409201	

	URL/Link	https://journals.iqra.edu.pk/ojs/index.php/jfer/article/view/115	
6.	Author(s)	Aamir Hussain Siddiqui, Nazish Kiran, Mirza Aqeel Baig	This study explore the factors which influencing the firms to file Anti-Dumping cases in Pakistan with the special focus on Import Substitution elasticity as major factor. The study employs Probit regression approach to estimate the potential factors which induce the firms to approach the authority to impose the anti-dumping measures to counter the unfair trade practice and shelter the domestic industry. The potential factors are, Elasticity of substitution, Real Effective Exchange Rate, Industry competitiveness, Trade liberalization, quality legal system, GDP and total domestic production of commodities against which anti-dumping duty is imposed. The estimation result shows that higher level of elasticity of substitution, Industrial competitiveness level, real effective exchange rate and trade openness would increase the probability of imposing anti-dumping duty. While quality of Legal system, GDP and Higher production level would induce a lesser probability of imposition of anti-dumping duty. This study help to understand the behavior of the local business entities asking for shelter against the import competing products and unfair trade practice like dumping etc. There are very limited studies on the relationship between import substitution elasticity and anti-dumping measure. For developing countries, like Pakistan, this is kind of pioneer study which result are contrary to Developed countries.
	Title	Import Substitution Elasticity in Antidumping Measures: A Case Study of Pakistani Firms Behaviour.	
	Journal Name	International Journal of Experiential Learning & case studied	
	College	College of Economics and Social Development	
	Department	Economics	
	Keywords	Antidumping, Import Substitution Elasticity, Firms behaviour, Imports, Unfair Trade Practices	
	HEC Category	Y	
	Pages	462-481	
	Volume No.	9	
	Issue No.	2	
	ISSN	2521-9359 (Online) 2520-4475 (Print)	
DOI	https://doi.org/10.22555/ijelcs.v9i2.1230		
URL/Link	https://journals.iobm.edu.pk/index.php/ijelcs/article/view/1230		

4(b) Department of Education

1.	Author(s)	Diana Ambrose, Kamal Ahmed Soomro	A well-adjusted work and family life is connected with a strong work-life balance however, many factors contribute to this balance. Among many factors that contribute to women's success or failure in work-life balance communication technology (ICT) is also one of them. The pandemic circumstances highlighted the benefits of using modern technology to ensure that work keeps going and does not stop. This study aimed to explore the impact of ICT on the work-life equilibrium of a worker and
	Title	The Impact of Technology on the Successful Work-life Balance of Working Women in Academia	
	Journal Name	Journal of Contemporary Trends and Issues in Education (JCTIE)	
	College	College of Economics and Social Development	

	Department	Education	the use of technology. This could have had both positive and negative effects. However, this research was skewed toward the positive effects of ICT. Purposive sampling was adopted for this study. There were in all ten participants, all working women leaders in academia. Almost all, except one participant, acknowledged that the support of ICT allowed them to balance their work and family life. These women were referring to the use of mobiles, which carry data from one place to another, and the internet. According to this study, ICT has a pivotal role to play in balancing work life for these working women in academia. The awareness concerning ICT and work-life balance is still being enhanced by this research, which should be uninterruptedly continued.
	Keywords	Info-Communication Technology, Working Women, Work-life Balance	
	HEC Category	Not in HJRS	
	Pages	105-125	
	Volume No.	3	
	Issue No.	1	
	ISSN	2790-6752	
	DOI	https://doi.org/10.55628/jctie.v3i2.142	
	URL/Link	https://jctie.tread.com.pk/index.php/JCTIE/article/view/142/55	
2.	Author(s)	Diana Ambrose ¹ and Kamal Ahmed Soomro ²	This research study explores the growth of career patterns in women and the factors affecting their career decisions. For women to participate in society, the male-dominated culture was challenged when women decided to have a strong footing in leadership positions and at the same time balance work and life. Therefore, it was necessary to investigate what made these women career-oriented, while simultaneously managing their homes. This qualitative research using the narrative technique examined the causes that led women leaders to work toward their career development. It also investigated as to how this decision affected their lives. Through purposive sampling, eight department heads from different universities in Karachi were selected and interviewed. Through thematic analysis, the data was analyzed. This study implies that women are aware of the effects of their decisions still they pursue their careers because their cause is more important to them. In conclusion, this study contributes to understanding the factors influencing women's career decisions and the impact of these decisions on their lives.
	Title	Balancing Work-Life: Examining the Career Decisions of Women Educational Leaders	
	Journal Name	UMT Education Review (UER)	
	College	College of Economics and Social Development	
	Department	Education	
	Keywords	career, cause, educational leaders, effect, women leaders, work-life balance	
	HEC Category	Y	
	Pages	118-142	
	Volume No.	7	
	Issue No.	1	
	ISSN	ISSN (E): 2616-9746 ISSN (P): 2616-9738	
DOI	https://doi.org/10.32350/uer		
URL/Link	https://journals.umt.edu.pk/index.php/uer/article/view/4533		
3.	Author(s)	Dr. Kiran Hashmi	Action Research, despite its prominence in the B.Ed. curriculum, is still underutilized in Pakistan's academic sector to a great extent. Action research is exclusive to B.Ed. programs, even if undergraduate courses in teacher
	Title	Action Research Supervision in the B.Ed. Programme: Perspectives, Realities and Challenges: Evidence from Pakistan	

Journal Name	Harf-o-Sukhan	<p>education programs cover various research methodologies. But the outcomes of these kinds of projects are frequently not rigorous, which pose a problem for supervisors in academic settings of all stripes. The study examines the marginalization of action research in B.Ed. programs which also highlights the difficulties supervisors encounter in advising students, coordinating research objectives with instructional settings, and bridging theory and practice. Despite these obstacles, there are ways to make improvements, such as through specialized professional development programs, cooperative platforms that allow supervisors to share best practices, and the promotion of a continuing learning culture. Teachers can improve their ability to deal with difficulties and see the possibilities of action research in Pakistani teacher education programs. The study also shows how creative and empirical teaching approaches can be inspired by action research.</p>
College	College of Economics and Social Development	
Department	Education	
Keywords	Action Research, Supervision, B.Ed. Programme, Pakistan	
HEC Category	Y	
Pages	1233-1247	
Volume No.	8	
Issue No.	2	
ISSN	ISSN (E): 2709-4030 ISSN (P): 2709-4022	
DOI	https://www.researchgate.net/publication/384202204_Action_Research_Supervision_in_the_BEd_Programme_Perspectives_Realities_and_Challenges_Evidence_from_Pakistan	
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4(c) Department of Business Psychology

1.	Author(s)	Maria Wahid & Nadia Ayub	<p>This Edition of the Journal comprises nine papers, of which six are concerned with strategic issues and /or the role and education of the academic teaching staff. The papers continue to reflect a varied range of participant countries both in terms of the authors, but perhaps more importantly the study sites (Europe, Czech Republic, Ghana, Kosovo, Malaysia, Mexico, Pakistan, Turkey, Ukraine, and Vietnam). Universities from both the state and private sector are represented, either through individual case studies or via large multi-site studies in subject areas, departments, or institutions. What we see in this edition is the extent to which transitions towards</p>
	Title	Predictive role of psychological capital and perceived organizational support on innovative work behavior among higher education teachers of Pakistan	
	Journal Name	Tuning Journal for Higher Education	
	College	College of Economics and Social Development	
	Department	Business Psychology	

	Keywords	Staff development; on-line education; higher education strategies; competence; competitiveness.	<p>competence-based education, pace of technology adoption, staff preparedness, and student experience and perceptions impact upon students and teachers. This edition also provides some rich accounts of small-scale qualitative studies, included for their detailed outline of their respective methodologies. So, while the findings may not be generalisable with small samples, the methods used can be replicated to enable other institutions or similar contexts to engage in local based studies. We also need to recognise that not all degree programmes have large student populations, so finding strategies to evaluate and generate ideas for improvement is critical. Some papers have offered detailed reviews of the current evidence in the field related to the topic of interest. In contrast, larger studies demonstrate what can be achieved when transnational studies are examined for the underlying processes that can cross boundaries and provide exemplar models of good practice.</p>
	HEC Category	Not in HJRS	
	Pages	191-219	
	Volume No.	11	
	Issue No.	2	
	ISSN	ISSN (Print)2340-8170 ISSN (Online)2386-3137	
	DOI	https://doi.org/10.18543/tjhe1122024	
	URL/Link	https://doi.org/10.18543/tjhe1122024	
2.	Author(s)	Khozaei, F., Qamar UI Islam., T Ramayah., Ayub, N., Claus Christian Carbon	<p>This study aims to explore the factors contributing mental health of Afghan migrants residing in Iran during the COVID-19 pandemic. With a deep understanding of the unique challenges encountered by migrants, especially during times of crisis, this research delves into the influential factors of experienced anxiety, social cohesion, and stress and their significant contribution to the development of depression among Afghan migrants. The study included a sample of 469 individuals from the Afghan migrant community, aged 15 to 80 years. Data collection took place from December to March 2022 in Iran. The study revealed that anxiety and the burden of the COVID-19 pandemic significantly influenced the occurrence of depression among Afghan migrants. Furthermore, the relationship between these factors and depression was mediated by the experience of stress. Conversely, higher levels of perceived social cohesion in the host country were linked to reduced stress and depression among the migrants. As Afghan migrants in Iran face a heightened risk of developing depression, the importance of social support</p>
	Title	Factors contributing to the mental health of Afghan Migrants in Iran during the COVID-19 Pandemic	
	Journal Name	Journal of Migration and Health	
	College	College of Economics and Social Development	
	Department	Business Psychology	
	Keywords	Mental health Mental wellbeing Migration Stress Depression Social cohesion	
	HEC Category	W	
	Pages	45300	
	Volume No.	9	

Issue No.	2024	and integration is underscored by the association between higher levels of perceived social cohesion in the host country and reduced levels of stress and depression. Recognizing the vulnerabilities of this population, it becomes evident that fostering social support networks and promoting integration can play a crucial role in mitigating the negative impact of migration-related stressors and enhancing mental wellbeing among this population.
ISSN	2666-6235	
DOI	https://doi.org/10.1016/j.jmh.2024.100211	
URL/Link	https://doi.org/10.1016/j.jmh.2024.100211	

4(d) Center for Policy & Area Studies

1.	Author(s)	Asad Shahzad and Irfan Muhammad	The current study is written in the context of the civilizational dialogue between the West and the Muslim world with reference to Jürgen Habermas and Muhammad Iqbal's political views. It explores the congruence and contrasts between Habermas's discourse theory of democracy or deliberative democracy and Iqbal's theory of spiritual democracy. This research strives to find out the extent to which the core values of Habermas's theory and that of Iqbal's are compatible. For Habermas, the core values of social order are liberty and equality, whereas Iqbal upholds liberty, equality, and solidarity. It has been investigated whether they both mean the same phenomena by the same terms or not. For Habermas and Iqbal, democracy is the best form of government but neither one is satisfied with the existing democratic practices. In principle, they accept democracy as the best political system. The research paper also sheds light on the historical and cultural influences that have shaped the political ideologies of both Habermas and Iqbal, considering the impact of Western Enlightenment ideals on Habermas and the role of Islamic jurisprudence and spirituality in shaping Iqbal's democratic theory. Through critical analysis, this study aims to deepen the understanding of complexities inherent in the dialogue between Western and Muslim civilizations and offers insights into potential avenues for collaboration in political theory and practice.
	Title	Iqbal's Spiritual Democracy and Habermas's Deliberative Democracy: A Comparative Analysis	
	Journal Name	Journal of Islamic Thought and Civilization	
	College	College of Economics and Social Development	
	Department	Center for Policy & Area Studies	
	Keywords	civilizational dialogue, deliberative democracy, Habermas, Iqbal, non-western democracy	
	HEC Category	Y	
	Pages	138-152	
	Volume No.	14	
	Issue No.	1	
	ISSN	ISSN(P): 2075-0943 ISSN(E): 2520-0313	
	DOI	https://doi.org/10.32350/jitc.141.09	
	URL/Link	https://journals.umt.edu.pk/index.php/JITC/article/view/5444/2452	