

Interdisciplinary Knowledge Series

Information Communication and Technology:

*Driving Business Performance in
Digital Era*

Information Communication and Technology:

*Driving Business Performance in
Digital Era*

- Edited by -

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An Editorial

In today's fast-evolving digital landscape, Information Communication and Technology (ICT) is not just a support function but also the backbone of business performance and competitiveness. From cloud computing to artificial intelligence, digital tools have revolutionized how businesses operate, communicate, and grow. ICT has become the key enabler of innovation, operational efficiency, and strategic decision-making across all sectors.

In the digital era, businesses that leverage ICT effectively gain a significant edge. Technologies such as big data analytics allow companies to understand consumer behavior, predict market trends, and make data-driven decisions. Cloud services have enabled seamless collaboration and flexibility, especially vital in an era where remote and hybrid work models have become the norm. Communication platforms, customer relationship management (CRM) systems, and integrated enterprise resource planning (ERP) tools are helping businesses stay agile and responsive.

Moreover, ICT fosters global connectivity. Startups can compete with industry giants by reaching international markets through e-commerce platforms and digital marketing. Financial transactions, supply chain logistics, and customer engagement now happen in real time, increasing speed and reducing costs. However, the digital transformation journey also demands robust cybersecurity, digital literacy, and continuous innovation. Companies must not only adopt technology but also build a culture that embraces change. Those who fail to adapt risk obsolescence in a marketplace where agility and connectivity are paramount. As we move deeper into the Fourth Industrial Revolution, ICT will continue to shape the future of business. The organizations that prioritize technology integration, data ethics, and digital inclusion will be the ones driving sustainable growth and meaningful change. The applications of ICT are no longer a luxury but encompasses a necessity for all. It is the engine propelling businesses forward, transforming challenges into opportunities and redefining success in the digital era.

In the rapidly evolving digital age, business performance is no longer defined solely by financial growth or market share. Instead, it is increasingly measured by adaptability, innovation, and the ability to harness digital technologies to create

value. The digital era is not merely an era of new tools but also it is a fundamental shift in how businesses operate, engage with customers, and compete in global markets. At the heart of this transformation is data. Companies that effectively leverage big data, artificial intelligence, and cloud computing are finding themselves not just surviving, but thriving. These technologies allow for real-time decision-making, enhanced customer experiences, and streamlined operations. From predictive analytics in supply chain management to personalized marketing driven by machine learning, the potential for digital to boost performance is vast.

Yet, digital transformation is not a one-size-fits-all journey. It demands a clear vision, strong leadership, and a culture that embraces change. Organizations must be willing to invest in upskilling their workforce and rethinking traditional business models. More importantly, they must foster a mindset of continuous innovation and agility. Legacy systems and resistance to change are the greatest threats to digital success. Cybersecurity and data privacy have also become non-negotiable pillars of performance in the digital age. As businesses become more connected, the risks multiply. A strong digital strategy must include robust measures to protect customer trust and company integrity. Furthermore, collaboration across departments, industries, and even with competitors (co-opetition) is becoming crucial. Digital ecosystems, where multiple players contribute to value creation, are reshaping industries from finance to healthcare.

Editors

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N. V. J. Rao Professor

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About the Interdisciplinary Knowledge Series, New Delhi Publishers, New Delhi, India

Interdisciplinary Knowledge Series (IKS) is an advanced book series under New Delhi Publishers, New Delhi, India incorporates different interdisciplinary areas for publications ranging from Interdisciplinary Social Science to Liberal Arts, Applied Sciences to Basic Sciences, Commerce and Management Sciences, Sciences and Technologies related to the Computing and Information.

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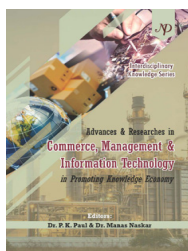
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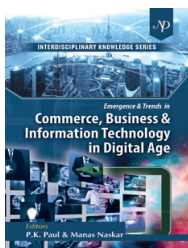


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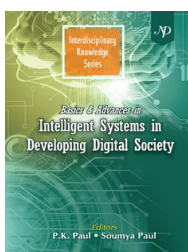


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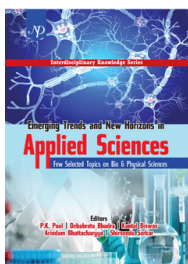


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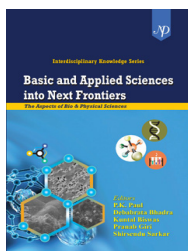


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Dr. Paul is actively engaged in the research and academic activities in the field of IST and Engineering Sciences related to Information Processing and Management. He is actively associated with Raiganj University, Raiganj, West Bengal in teaching and learning activities. He is also CEO and Vice President of IST Foundation. Virtually he is among the few Indian Information Science professionals who hold Post Graduate Qualification in all the dimensions of Information Sciences, ranging from Computer Science, Management Science, and Information Technology. He is specialized in emerging IT & Computing subjects that have social and business touch. He is mastermind for designing India's first interdisciplinary Masters (MSc) Program on Computing (MSc-Computer & Information Science) based on principles of interaction of information-technology with people. The first of its kind program has already been started in the Government University, RGU, India. He is credited with research policy paper on Cloud Computing Applications in Information Science, Systems, Information Centre, Green Computing or Green IT in Information Field/I-Schools Aspects/

Usability Engineering in Information Science and Services/HCI in Information Uses/Information Science Educational Aspects/ [IST]/Information Scientist/Geo-Information Science, Quantum Information Science and so on.

Dr. Paul holds 250+ Authored Indexed, Refereed Papers, Articles, and 100+ Book Chapters to his credit and about 30 National and International Authored and Edited Books. He is Chief Editor of IJASE and IJISC, New Delhi, IRAJMSS of IRA Academy Research, India. As the Chief Editor of IJAEML of Srinivas Publications, Mangalore, India, he is dedicated to research promotions. He is also involved as Editorial Board Member and Reviewer of more than 100 National and International Journals in diverse fields ranging from Computer Science, Informatics, Management, Engineering Science to Education, Social Science, Health Science, Pharmacy, Journal of Organizational and End User Computing, International Journal of E-Adoption, International Journal of Web Services Research, International Journal of E-Health and Medical Communications, International Journal of Healthcare Information Systems and Informatics, JECO, IJIRR, IJHCITP, IJOSSP, IJMDEM, IJTHI, IJDET, IJITPM, IJISSCM, IJISSS, IJBDCN, IWJP published from United States, Dubai, India, Nigeria, South Africa and so on. He has conducted about 250+ international conferences spread over 50+ countries and events as a committee member, chair, TPC, reviewer, etc. He holds the credit of organizing about 20 Conferences (with Indian and International Institutions) just in 2021 as a Director, Program Chair, Co-Chair, General Secretary, Convener etc. and among them the important are ICRICC-2021, ISFARAC-2021, ICONAIIS-2021, IMCISMRS-21, ICARI-2021, ICONECBIT-2021, ICEAS-2021. He also served in various events as visiting, invited and guest speaker, a few important ones are ICRDSTHM-17, iCon-MESSH'19, ICCISD-2023, AMRIT-2023, NSETRAR-17, ICIRHT-17, etc.

Dr. Paul has delivered several invited talks in leading and reputed academic and industrial establishments like SRM University, Sikkim University, VIT University, Srinivas University, Mangalore University, Assam Central University, Chaitanya Deemed to be University, TCG Digital, and CloudNet India, including MMTTC of Government of India. He has received many Awards such as Best Researcher Award in Information Sciences (from IARA, Trichy), David Clark Blair Young Scientist Award in Computer & Information Science (from BSS, India), International Young Scientist Award (from ISROSET) for the contribution in Health Informatics, Citation Award (from SSCET/Sri Sai University), International Social Science and Digital Society Think Tank Award-2020, International Outstanding Research & Scientific Events Organizer-2021, Dr. Agustin Yoh International Postdoctoral Fellow Award and Fellow of Azteca University (FAU) in 2021, etc.



Dr. Saumendra Das, *Ph.D., M.B.A., L.L.M*

Head of the Department

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Dr. Saumendra Das is an accomplished academic and administrator currently serving as the Head of the School of Management Studies at GIET University in Gunupur, Odisha. With over two decades of experience in academia and industry, he has made significant contributions to the fields of marketing, advertising, and management education. Dr. Das holds a Ph.D., an MBA, and an LLM, reflecting a diverse and interdisciplinary academic foundation. Prior to joining GIET University in 2022, he was an Associate Professor at the Aditya Institute of Technology and Management from 2007 to 2022. His extensive experience encompasses teaching, research, and industry engagements, totaling more than 21 years in the field.

A prolific researcher, Dr. Das has authored over 107 publications, including journal articles, conference papers, and book chapters. His research interests lie in advertising, branding, marketing, tele-advertising, and tourism. Notably, he has co-authored a review on customer segmentation using data mining techniques and conducted an impact study on COVID-19 and tourism sustainability. He has also authored a book on advertising effectiveness and recently published a textbook titled “Banking and Insurance” tailored for B. Com and BBA students under the NEP 2020 framework. As the Head of the School of Management Studies at GIET University, Dr. Das plays a pivotal role in shaping the academic curriculum and fostering a research-oriented environment. He is actively involved in mentoring students and guiding research projects, contributing to the academic growth of the institution. Dr. Das has participated and presented many papers in seminars, conferences, and workshops in India and abroad. He has organized many international and national conferences, FDPs and workshops in his career. He is an active member of various professional bodies such as ICA, ISTE and RFI. In the year 2023, he has been awarded as the best teacher by Research Foundation India.

Dr. Das is actively engaged in mentoring Ph.D. scholars, guiding research in areas like the Marketing, Advertising Management, Consumer Behaviour, Digital Media, Human Resource Management and Performance Appraisal System. He has also been involved in patenting innovative methodologies, including a socio-psychometric analysis of government unemployment insurance perceptions among youth. Dr. Das is actively engaged in curricula design for various management courses such as MBA, BBA and PhD in management. He is an active management scientist dedicated his career in advancement management education with numerous transformative measures.



Dr. N. V. Jagannadha Rao

Registrar

GIET University, Gunupur, Odisha, India

Dr. N. V. Jagannadha Rao is a seasoned academic leader and administrator, currently serving as the Registrar and Professor of Management at GIET University, Gunupur, Odisha. With over 34 years of experience in the education sector, he has been an integral part of the university since its inception in 1997. Dr. Rao holds an MBA and a Ph.D. in Management. His extensive administrative experience spans various areas, including training and development, employee engagement, and policy implementation. He is known for his strong moral character and integrity in handling university policies, which has been imperative for effective supervision.

Beyond his administrative roles, Dr. Rao is deeply involved in student development, both academically and non-academically. He actively counsels students to help them become market-ready professionals, thereby contributing to the university's mission of holistic education. Dr. Rao has made significant contributions to management research. His scholarly work includes publications on topics such as stock price prediction using hybrid CNN-LSTM models, the impact of COVID-19 on tourism and entertainment industries, and student perceptions towards educational institutions. In addition to his academic and administrative responsibilities, Dr. Rao serves as the Placement Advisor at GIET University, playing a pivotal role in bridging the gap between academia and industry. He is also active on social media platforms like LinkedIn and Twitter, where he shares insights and updates related to the university and higher education. Dr. N. V. Jagannadha Rao's multifaceted contributions have been instrumental in shaping GIET University into a center of excellence in Eastern India.



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Dr. Ricardo Saavedra Hidalgo is CNC, B.Sc. M.Ed. M.Sc. PhD, FISROSET holding the position of Director & Chair International Programs at Azteca University (Universidad Azteca), Mexico. He is also an International Speaker, Master Coach Trainer, Business Consultant and Entrepreneur. Director and Legal representative of “Azteca Inter-University Programs” and “Universidad Azteca International Network System”, Founder and General Director of “Pro-Innovation Solutions SC”, a Consulting firm that provides service to transnational corporations, universities, governments and organizations in different countries and regions, North America, European Union, Asia, Middle East, Africa, and Latin America.

- General Director of the International Council of Coaching Accreditation, i.e. ICCA.
- Master Coach Trainer and President for Mexico for the International Association of Coaching Institutes (ICI), Germany
- ISO 9001:2015 and ISO 29990:2010 Lead Auditor from UK and Germany
- Authorized Representative and International Advisory Board Member for Accreditation Service for International Colleges, ASIC

He has more than 25 years of experience as Business Consultant, with several executive positions worldwide. He has implemented successful operation in national/international companies and organizations. He has implemented educational technology, successful administrative design, application of acceleration models and innovation, setting out diagnosis and design of organizational structure. He has also created maps of leadership and integration of effective corporate team work. Dr. Ricardo Saavedra Hidalgo played a leading role in expansión of Azteca University’s International Operations and extensión of the network. Under his leading term many activities have been started viz. BITHM

College of Professionals, Chittagong, Bangladesh; he American Christian Liberal Arts University & Medical School in Congo, Republic of the Congo; MiMBER Institute of Management Studies, Yangon, Republic of the Union of Myanmar; Kingston Institute of Management & Technology (KIMT), Dhaka 1213, Bangladesh; Global education trust PVT LTD (Gets Campus), Addalaichenai-05 Sri Lanka; University of Entrepreneurship and Technology (UET), Oyo State, Nigeria.; Confederation of International Accreditation Commission (CIAC); Gujarat, India; Vocational Training Institute, Mauritius Elite International College, Selangor, Malaysia.

He also maintain liaison for Azteca University, Mexico for the European Programs at its Austria and Germany Campuses strongly. Apart from this he is also playing a leading part in building of African Campuses and affiliation of Azteca University viz. Rwanda and Nigeria. Further under his able administration and assistance there are ten campuses of Azteca doing well from education, training to research and development. He actively engaged in innovative program development, collaboration for the university, internal management. He is also doing well in research and development in diverse fields viz. Management, Education, Psychological Studies, Physical Education & Sports etc. He won different awards, medals, honors in his long term academic and administrative carrier. In recent past he also been selected as a Fellow in one of the leading Scientific Organization called International Scientific Research Organization for Science, Engineering and Technology (ISROSET), India. He is a Consultant Member for United Nations for more than 19 years; also collaborating with UNESCO and DPI NGO Section at United Nations.

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