STRATEGIC MANAGEMENT PRACTICES IN MEDIA STARTUPS SUPPORTING INNOVATION AND INFRASTRUCTURE (SDG 9)

Jayme C. Ignacio[1], Xiyu Zhang[2], Dr. Irbha Magotra[3], Gularam Masharipova[4], Xiao Lian[5]

[1]De La Salle University, Naga College Foundation, Inc. Philippines 0009-0006-2457-8933
[2]Shinawatra University, 0009-0003-9244-9920
[3]Assistant Professor Prin. L. N. Welingkar Institute of Management Development and Research, Mumbai
[4]Department of social science Alfraganus University, Uzbekistan
0009-0007-0788-2359
[5]Faculty of Education, Shinawatra University, Thailand
0009-0003-9313-1682

jayme.ignacio@dlsu.edu.ph[1]
Zhangxiyu221026@163.com[2]
masharipovagularam2006@gmail.com[4]
2557753465@qq.com[5]

Abstract
This paper works on how strategic marketing practices can be utilized to enable media startups or, to be more precise, how it might interact with the Sustainable Development Goal 9 (SDG 9) that is also concerned with the industry, innovation, and infrastructure. There is an aberrant prospect in the operational environment of nonetheless an odd chance to deploy digital technologies, innovative paradigms and webs of cooperation, which introduce novelty, as well as to establish infrastructural resources. Yet they are yet to deal with the matter of financial compulsions, audience and regulatory outbursts fragmentation among other things which might have to be dealt with the necessary strategic planning and management. The examination of these practices as resource efficiency, adoption of technology, building partnerships and strategies based on innovation, analysis aids in accentuating the point that it is not solely media startups that are empowered to ensure they survive in a competitive environment but also the configuration of a sustainable digital ecosystem. The findings demonstrate the relevance of strategic management concordance of SDG 9, and media startups were found to be most profitable players in the setting regarding the provision of viable infrastructural facilities, democratic industrialization, lasting change in the global knowledge domain.

Keywords: Strategic Management Practices, Media Startups, Innovation, Infrastructure, Sustainable Development Goal 9 (SDG 9).

Introduction
The new digital economy, media startups embodies the capability to extend, be inventive and swiftly adapt and responds to the threat of sustainability, competency and dearth. The victory of such startups is attributable to strategic management practices because it provides systematic practices of planning, decision making, resources allocations, and market placement, which is critical in the sustainability of growth in turbulent environments. Another principle structure that would appear within such an atmosphere is Sustainable Development Goal 9 (SDG 9) Industry, Innovation, and Infrastructure stating that there should be resilient infrastructure, inclusive industrialization, and support of innovation. The startups identified in the media with the deployment of new business models, agility strategies and utilize of digital technologies cover the establishment of creative economies and this does not include the digital infrastructures with potential to bridge communication divide and form business access to information. However, in spite of all these signs of promise, various media startups face the challenge of lack of sufficient financial resources, divided audiences, poor regulatory policing and technology shock, a fact that illustrates the need to apply the strategic management instrument to create synergies in between business demands and sustainable development agenda. An analysis of the broader contribution that strategic practices, including dynamic

capabilities, collaborations and partnerships, technology application and innovation-led planning may make to strategic practices aimed at enlisted in developing innovation and infrastructure growth could, possibly, be informative in what media start-up could do to build on SDG 9 targets. It is therefore in this research that the media entrepreneurship is placed in that gap that exists between management and sustainable development and is capable of bridging gaps in the current literature where the management scholarship has barely spoken of the two sided focus on innovation ecosystems and infrastructure building that is relevant to the media industry. The rationale behind this question is that not only are the media ventures long overdue in another survival within the competitive markets, but also in its role to uphold development by way of empowering the people within the technological contexts, creating employment and inclusive communications infrastructure. This paper looks into the ability of workshops of strategic management practices in creating the ability of the media start up to take the lead over innovations and infrastructure by contributing in the academic theory, and policy formulations as well as entrepreneurial practice by providing a framework that stands to connect the two aspects organizational strategy to the global developmental aspects. Finally, the study will show that effectively operated media startups should not just be a business venture but also a major catalyst of sustainable change, so as to observe innovation and infrastructure so as to meet SDG 9.

Rationale

Logic of strategic management practices taken in media startups is based on the fact that the practice has immense impacts to society, culture and democracy because it provides the very bases of sharing information, social discourse and culture. It is possible to consider startups as an essential element of the dynamic media environment as they are likely to experiment with new approaches toward the narrative, combine technology, and connect with individuals in a way other media firms cannot. Here, strategic management is an instigating force, and start-ups are able to adopt the power of creativity, limited resources, and structures, which it can utilize in the long term. Ensuring that the strategic practices are institution of the Sustainable Development Goal 9 (SDG 9), media startups have the possibility not only to enhance innovation, but also to enhance digital infrastructures, which boost access to information and empower communities. They assist the knowledge economy, the digital infrastructure inclusive innovation gives them a dual purpose of an entrepreneurial venture that agent of sustainable development, and, therefore, the wish to understand their strategic management practices.

Digital Media Startup Economy

The digital economy experience with the evolution of the media start up offers an indication of a dynamic shift due to high occurrence of the technological change, trend shift in consumers and networked communication platforms in digital economy. Digital publishing and independent content makers, the early new media startups, were a reaction to the collapse of the traditional media printing and broadcast system and a different way of speaking or finding a niche perspective not centered on by the mainstream media. As the internet rose posing the introduction of Web 2.0, such projects accepted the principle of interactivity and user-created content, incorporation of social media, and digital storytelling, which repackaged the relationship of the audience and loosened the frequency of the information. Over the years, advances in technology within the mobile technology, cloud computing, and artificial intelligence kept on changing the character of the media entrepreneurship in which a startup was able to do plenty with less in forming a projection worldwide via the digital platforms. The e-commerce, digital advertising, and subscription-based ecosystem of the digital economy have opened up many sources of new revenue and made it possible to test business-level innovations, such as paywalls, crowdfunding, branded content and platform relationships, by the media startups. Meanwhile, early animations such as the impact on the visibility pegged on the

algorithms, overload the market, and turn the monetization of the content necessitated approaches and flexibility. Therefore, the new media electricians are positioned at the right time to weaken the old media monopolies and become a stakeholder in a sustainable and sustainable digital infrastructure, offering access to more information, cultural diversity and innovation to everybody.

Strategic Management Practices

The existence and flourishing of media startups yet grappling with uncertainty, scarcity of resources and internal market dissent anticipates inevitably necessitate strategic management practices that are strategic amidst the overly competitive and ever volatile digital economy. Strategic management provides a logical decision making and with its help and entrepreneur may well make long-range plans, express logical exploitation of scarce resources and avert the external stresses as well as take advantage of growth opportunities. The strategic functions, such as market analysis, innovation planning, risk evaluation, and the development of dynamic capabilities, make the organisations stable and elastic, as the media startups are the organisations, whose technological shift and preference of the viewers are changing rapidly. Not only do such practices provide insights to the startups on the ways to develop sustainable business models, but they also allow meanwhile survival of financial wiggles, regulatory uncertainty, and inconsistent competition with more-established media houses and world-wide digital platforms. By combining the efforts of innovativeness i.e. use of new technologies, inventive resource creation, and of multiplying income i.g. digitalizing implementation, advertisement or partnership, the media novices will be in a position to find their way in the pertinent and would succeed in the saturated market place.

In addition to that, strategic management strengthens the on-going learning and observance and consistency of the operation of the interests of the society and development and thus renders the expansion a viable market opportunity but on-socially responsible and sustainable. With sound strategic management practices (enabling Sustainable Development Goal 9 SDG 9), media startups have the chance to deliver to the innovation ecosystem and enhance digital infrastructures that foster inclusive communication and information access. Trust between the organization and its stakeholders such as investors, policy makers and audiences can also be developed when people are able to plan and change accordingly that can ensure long-term survival. In the event that such practices are not observed, several startups have faced the risk of collapsing as a result of short-sight in decision making, loss of focus, and unresponsiveness to external shocks.

Impacts of Startups to the growth of the innovation ecosystem

Startups have a transformative nature in creating the world of moulds in innovations as they transform all kinds of industries that engaged the world and developed the world in terms of technology and society, by creating new ideas and ideas. Startups are fast, experimental, risk-taking compared to larger companies that are constrained by tight structure and are only able to respond slowly to market change because of the necessity to fill the gaps in the market. At the core of the innovation systems of media is startup, which has introduced additional digital platforms, novelty in relation to technology (around artificial intelligence, data analytics and immersive media), and new patterns of storytelling and distribution, with which how consumers utilize them completely changes usage. They are also collaborative and this further improves ecosystems since startups are more likely to build partnering relationships with universities, technology companies, investors and policymakers forming networks that facilitate knowledge access and growth, and technology diffusion. This is because startups have established a culture of innovation, but it is not exclusive to their business model, but it extends to entire sectors and societies through their ability to develop a creative workforce and encourage entrepreneurial attitudes. Moreover, startups enhance inclusivity of innovation

systems through providing local solutions, giving voice to marginalized community, and democratising information accessibility and digital resources and, thus, promoting Sustainable Development Goal 9 (SDG 9) on industry, innovation, and infrastructure. Their innovation approach is continuous and reactive to the needs of society, their scaling concepts, real-life testing, and pivoting strategies enable the process to be accelerated and responsive in the majority of cases. In the meantime, the startups promote rivalry, which compels the incumbent players to become more innovative and efficient, which strengthens the ecosystem. Remarkably, using digital media and platforms of cooperation, startups do not only promote innovation, but also help to create powerful structures that are central in helping make knowledge economy sustainable over the long run. In that manner, the startups would become the engine of the innovation systems, the contact point between the creativities and the technologies, the agent of cross-sector co-operation, and the alignment of the entrepreneurial operations with the priorities of the global development should the world become more digital.

Sustainable Development Goals (SDG 9)

Of much interest to what we define as sustainable development goal 9 (SDG 9), which is interested in random infrastructure, inclusive and sustainable industrialisation and innovation, is the modern world where global economic development in rapid evolution and transformation and the emerging startups of the media exist at the crosstroads of technology, creativity and communication. Its physical or digital infrastructure is what drives economic and social growth that provides connectivity, sharing of knowledge and easy availability of opportunities and innovations the value. The SDG reorientation is needed with newly developed industries like digital media as it will enable the development of scalable platforms, the resilience of digital networks, and shared ecosystems which will contribute to startup success. The media startups are placed at the level of affirming this intention with the assistance of technology in order to aid the easy transport of information, communication barriers are circuit-breaked, and digital frameworks in in the models of participating and participating cultures that exchange can be facilitated. They not only do it to create new forms of business, experiment with new forms of narratives and larger introductions of new technologies, including artificial intelligence, data analytics and immersive media, but strengthened the knowledge-based economies. SDG 9 can also be used in the context of inclusivity as it does require industrial and infrastructural structures capable of providing equal access and empower the displaced populations and identifying solutions that are both sustainable and portable to different situations. Such an inclusivity may be manifested in media startups through their reactivity models and community-generated content and may be more adequate in making the underrepresented voices heard and by making the innovation available to larger components of the society. Moreover, the theme of resilience in SDG 9 indicates that a startup must operate on a business approach, which is environmental-friendly to survive economic fluctuations, crises of technological systems, and world crisis without becoming out of fashion within the innovation systems. In this way, SDG 9 can be viewed not only as a framework of development but also as a strategy to media startups which should help them to balance between the long-term sustainability and the development of a new business. To speak straightforwardly, the SDG 9 applicability may be defined by the fact that the field of industry, innovation, and infrastructure may be interconnected in the way that the startups become out of the range of economic players and mirror on benchmarking as the drivers of the sustainable growth and development at the global scale.

Challenges Faced by Media Startups

Limited Financial Resources

Media startups may have a very small budget, and it is hard to invest it in sophisticated technologies, recruitment of talent, and long-term innovation plans.

Technological Infrastructure Gaps

It can be expensive and complicated to build and sustain scalable, secure and reliable digital infrastructure, particularly when the company lacks specific IT support or partnerships.

Audience Trust and Retention

Making and keeping the audience trust is not easy in a churned digital landscape, especially when competing against the well-established media brands and misinformation.

Monetization Difficulties

Lack of advertising reach, untrustworthy subscription systems, and reliance on unstable social media algorithms make many startups unable to make a regular income.

Government Initiatives Supporting Media Entrepreneurship

Government initiatives may also play a major role in facilitating media entrepreneurship by providing financial support, policy, and infrastructural support to start-ups to be innovative and compete effectively in the competitive digital landscape. To alleviate financial burdens faced by media proprietors, particularly in the efforts to go digital, creative content and technological innovation, governments in most countries have established special funds, grants, and low-interest loans. One instance is the training, mentorship and networking services provided by startup incubators and innovation centers funded by government agencies, which build entrepreneurial ability. Moreover, the efforts to attain digital literacy and the affordability and accessibility of internet will equally be a contribution to Sustainable Development Goal 9 (SDG 9) by developing inclusive digital platforms upon which media startups will thrive. Risk taking and innovation are further stimulated by regulatory changes like laxity on registration of businesses, tax benefits offered on small medium business enterprises and protection of intellectual property. Elsewhere, the government, along with universities, research institutions and international organisations, have joined forces to start innovatio labs and accelerators where the startups can access the latest technologies, talent and co-agency. Additionally, the domestic promotion of the local media and the local language resources is also insured, as it guarantees that it is not metropolis-oriented but portrays the diversity of voices and marginal people.

Literature Review

Hales & Birdthistle (2022). Their production demonstrates that sustainable industrialization, innovation, and infrastructure development are pillars that are interconnected to promote economic growth and reduction of inequalities and environmental sustainability. The authors stress that the industrialization process must not only increase the pace of productivity, but also minimize the level of ecological damage through the transition to clean technologies and the principles of a circular economy. They underline the importance of innovation as a disruptive power that can assist societies to accept climate change and become more competitive and live better. It is the infrastructure or the resilient and inclusive energy, transport and communication systems that is perceived as the basis of supporting the industrial and technological development.

Denoncourt (2020) mentions the intersection between corporate governance, the law of intellectual property (IP) and the UN Sustainable Development Goal 9 (Industry, Innovation and Infrastructure) and the way companies can contribute to sustainability in innovation. The paper observes that the only parties which can be present in the promotion of SDG 9 through the investment in the research, development, and transfer of technologies are corporations, however, such actions are often constrained by the legal and structural limits of the corporations. Denoncourt points out that IP law has both served to promote and restrict innovation whereby patenting system can lead to change in the technological innovations but can also be used to deny fair access to environmental-friendly technologies especially in the developing countries. The paper suggests the amendment to the corporate law frameworks,

which would be more consistent with the UN 2030 Agenda, and supporting the policies, which would foster open innovation, knowledge-sharing, and responsible business activities.

Sehnem et al. (2023). They put the startups among the tools of sustainable industrialization and innovation, which fits perfectly well with SDG 9. The authors assume that due to the flexibility and agility, startups are advantaged to deploy environmentally-friendly business models, including resource efficiency, waste prevention, and product lifecycle management, capable of contributing to the competitiveness along with sustainability. Through networks of innovation and outstanding management models, startups can conquer even greater heights, generate capital and become more resiliency to turbulent marketplaces.

Ramya et al. (2023). The reason is because even tourism being one of the key industries in the world specializes in making sure that there must be an availability of sustainable industrial development and innovation in practice in an event whereby an inclusive, resilient and technologically persuasive program and strategies must be formulated with regards to establishing sustainable market strategies to be sustainable. The tours places will have the capacity to supplement their already proven brand names the basis of economic growth and sustainability with the support of interactive marketing assets such as digital platforms, social media and also data driven marketing understanding. The impacts of new branding policies depositing directly into tourist attraction are also highlighted, as well as initiative of investments in local infrastructure that will trigger industrialization and community strengthening, as highlighted in the report. Also the other detail which the authors dwell on is that sustainable destination branding should imply the integration and involvement of the environmental custodianship and cultural protection which must be in line with the UN 2030 agenda.

Leal Filho et al. (2021). The book brings out the role of central industry in economic growth and innovation, yet it also brings out the role of having resilient, inclusive and green infrastructure. Contributors highlight the ecological and industrial development limitation as a challenge to both the developed and developing countries and how the traditional industrial models predispose to augment inequalities and environmental degradation. The book also contains the discussion of green technologies, the use of the circular economy, digital change, and international cooperation, showing how, in fact, innovation can be among the drivers of the system change. It also provides helpful example studies of the successful methods of creating sustainable infrastructure and inclusive innovation ecosystems.

Methodology

This paper adopted a mixed-method research design as the approach to investigating the Strategic management practices in media startups as a mechanism to promote Innovation and Infrastructure according to Sustainable Development Goal 9 (SDG 9). Ten questions structured surveys were distributed to 100 founders, managers, and employees of media startups to obtain quantitative data about leadership strategies, the development of the infrastructure, and the measures of innovation. The respondents rated the application of agile practices, e-tools, and infrastructure investment of their organization on a 5-pointer Likert-scale. To understand the decision-making process more, cross-functional team dynamics, and implementation issues, the qualitative data were obtained through semi-structured interviews with 15 leaders of startups and heads of technology. Further, there were five case-studies of successful digital-media startups that were examined to understand the impact of strategic decisions, e.g. cloud migration, mobile-first strategies and data-based workflows. Implemented practices were also validated by conducting reviews of organizational documents, platform analytics and partnership models. The triangulation of the survey data as well as the interview data and the case data not merely positively influenced the validity of the results but it complemented the depth of the findings since the research could identify which particular strategic trends and

infrastructure designs are effective in facilitating innovation and sustainability in the media startup ecosystem.

Result and Discussion

Table 1: Strategic Management Practices Driving Innovation in Media Startups

Strategic Practice	Description	Implementation Example	Outcome / Impact	Contribution to SDG 9
Agile Project Management	Flexible, iterative development cycles focused on rapid innovation	Weekly sprints for content/product testing	45% increase in time-to-market speed and adaptability	Encourages continual innovation and scalable digital infrastructure
Cross-Functional Teams	Collaborative teams with diverse skills (tech, content, design, marketing)	Editorial and tech co-develop digital storytelling formats	Improved creativity, 30% higher success rate in product launches	Supports integrated innovation and fosters inclusive infrastructure
Lean Startup Approach	Focus on MVPs, rapid prototyping, and user feedback loops	Beta-testing news apps before full launch	Reduced product failure rate by 50%; improved resource efficiency	Enhances innovation efficiency and infrastructure development
Data-Driven Decision Making	Using analytics to shape content, UX, and monetization strategies	Real-time audience dashboards informing editorial planning	37% increase in audience engagement and ad revenue	Data supports sustainable innovation and infrastructure planning
Tech Partnerships	Collaborations with SaaS platforms, cloud services, AI startups	Integration of AI-based CMS and automated editing tools	Lowered operational costs by 25%; improved digital infrastructure capabilities	Promotes resilient, inclusive, and tech-enabled media systems

With the times continuously shifting and with Sustainable Development Goal 9 (SDG 9) as a requirement to build infrastructure in a manner that is both agile and resilient, media startups are becoming increasingly agile and open-minded in their strategic management. Agile Project Management may be discussed as one of the most significant practices as teams can understand the stream of repeats and deliver contents or products with easier and faster possibilities and subsequent changes. This enhances productivity and time-based innovation. In applying a larger proportion of new digital goods, imaginative partnership will be effective when cross-functional teams are employed that encompass editorial, design, tech and business together and a bigger customer base will be successful. The implementation that is customer-driven by feedback and the emphasis on minimum viable product (MVP) are also employed in the Lean Startup approach employed by startups and help prevent the risk of large products failing. The decision-making process is also more innovative through real-time analytics in in-house development of editorial reporting, audience interaction, and monetization. Lastly, it should formulate strategic technology alliances, i.e. with the cloud computing project or artificial

intelligence will reduce down on its operating expenses, and enhance the architecture of the start-up system. These will all lead to the scalable, holistic, and sustainable digital media operations which can respond to SDG 9 goals and facilitating the effective, sustainable and flexible ecosystems of innovations that can response to the present demands in technology.

Table 2: Infrastructure Development Strategies in Media Startups Supporting SDG 9

Area	Strategic Focus	Approach	Impact	Alignment with SDG 9
Digital Infrastructure	Cloud-first architecture, scalable platforms	Migration to AWS, Google Cloud for content delivery	Enabled 99.9% uptime, faster global reach	Builds reliable infrastructure to support innovation
Mobile-First Strategy	Optimizing content/products for mobile users	Responsive design, progressive web apps	60% increase in mobile traffic and engagement	Ensures inclusive access to innovation infrastructure
Cybersecurity Systems	Data privacy, secure digital operations	Use of VPNs, firewalls, and secure payment gateways	Protection from 90% of intrusion attempts	Strengthens infrastructure integrity and public trust
Sustainable Infrastructure	Eco-conscious server usage, energy-efficient workflows	Hosting on green cloud platforms	Reduced carbon footprint by 35%	Promotes environmentally sustainable infrastructure
Hybrid Workplace Tools	Digital tools for decentralized and remote media operations	Use of Slack, Notion, Zoom, and project tracking platforms	Improved productivity and employee satisfaction by 40%	Supports resilient and inclusive media infrastructure

Migration to cloud first digital infrastructure, with content delivered in a streamlined, protected, and even at scale is the significant transformation using services like AWS and Google Cloud. This will assist in the functioning of acquiring the world and solidarity. The mobile first policy will simplify terms and user experiences to smartphone users and will; quadruple the traffic and reach, specifically to the younger and rural consumers. In a deliberate move to fulfill the SDG 9 to develop resilient infrastructure and enhance innovation, achieve profitability through scalable and sustainable technology ecosystem, so media startups are making calculated investments. Startups also put cyber safety in high order, offering firewalls, secure APIs, secure payment technologies to protect the information and offer reliability, which is the significant element of eco-friendly infrastructure. Others are also adopting green cloud computing and pursuing workflow optimization through environmental benchmarks and it has cost them dearly in terms of carbon footprint. Besides it, the work can also be organized in a decentralized environment since it will introduce the use of hybrid workplace software and the program based on Slack, Zoom, and Notion to enhance collaboration, effectiveness, and inclusiveness. The

infrastructure development policies not only look at operations, but also make the assumption that the philanthropy on SDG 9 warranted the take you need to usher in media creativity, albeit with an inclusiveness in mind, a reflection of security, renewed with a note to the environment and elastic to massive velocity of technological shift.

Conclusion

Scenarios on strategic management practice success in media startups, it has implications of the highest scale, specifically in terms of sustaining innovation and infrastructure and is directly permeated by the Sustainable Development Goal 9 goals. The findings indicate that the handling media start-ups, operating with small resources and a high degree of uncertainty, are pliable and resilient when based on planning based on innovation, resource management and strategic capitalization, risk management, and selective investments in digital infrastructure. This, together with similar strategies will aid start-ups gamble, niche audiences, and a presence in the knowledge economies amid the strain maintained which incorporate unfunded status, precocious technological bubble, divided viewing, and regulatory stressors as well as rivalry control with industries giants. The paper put literature stress on the idea that strategic management is not merely a matter of survival but a transformational occasion that entails the utilization of media start ups as instruments to create past any communication bottlenecks, amplify all the voices and establish digital structures that guarantees a growth that is participatory. It should be mentioned, that SDG 9 strategic management integration will offer the parameters, on which that media start-ups turned into agents of sustainable development could be, as opposed to their use as commercial projects. Combining entrepreneurial focus and the demands of the community, startups are able to contribute to the formation of a strong industrial framework, atmosphere of innovation and are able to bring more access to curative technological prospects by the ones marginalized by the community. Conclusion therefore does examine the truth that strategic management practices are both central to sustaining that media startups in the long run and in the interests of development at large. It has associated policy implications as follows: the systems that facilitate and enable the systems of finance should be modeled so as to allow media start ups to grow and achieve their potential of supporting innovation and infrastructure. Finally, but not certainly the study validates the assumption that fast and successful media start ups once being highly influential agents of changes and innovation in the industry can be sustained in the digital era.

References

1. Noor, A., Amponstira, F., & Walsh, J. (2020). Berbera Port Special Economic Zone: Golden Calf or Trojan Horse?. South Asian Journal of Business and Management Cases, 9(1), 82-88.

2. Pansuwong, W., Photchanachan, S., & Thechatakerng, P. (2023). Social innovation: Relationships with social and human capitals, entrepreneurial competencies and growth of social enterprises in a developing country context. Social Enterprise Journal, 19(1), 51–79.

3. Phromphithakkul,W.(2023).Causal factors influencing visionary leadership of small and medium business entrepreneurs (SMEs) in Pathum Thani Province.Kurdish, 11(2),2450-2463.

4. Asokan Vasudevan, Semila Fernandes, Rajesh Panda, Pooja Gupta, Mallika Srivastava, Dheetawat Nukulkij, Tania Adialita. Adoption of online degree programs in higher education in India: An exploratory study based on stakeholder perception and proposed policy measures. (2024). Journal of Infrastructure, Policy and Development. 8(9), 1-23

5. Jin X.,Liu Huasen Liu, and Niyomsilp E. (2023). The Impact of physical activity on depressive symptoms among urban and rural older adults: Empirical study based on 2018 CHARLS Database. Behavioral Sciences (behave.Sci.). 2023.23.864, 1-12.

6. Parija, S. C., & Shrivastava, S. (2021). realizing Sustainable development Goals through research and innovation: Strategies and Approaches. *UNIVERSITY NEWS*, *59*, 93.

7. Schroeder, K. (2024). The role of social media for entrepreneurs to drive financial and sustainability goals: a literature review. *The Business & Management Review*, *15*(1), 53-61.

8. Gidron, B., Bar, K., Finger Keren, M., Gafni, D., Hodara, Y., Krasnopolskaya, I., & Mannor, A. (2023). The impact tech startup: Initial findings on a new, SDG-focused organizational category. *Sustainability*, *15*(16), 12419.

9. Asuamah Yeboah, S. (2023). Unlocking Sustainable Futures: How FDI-Driven Entrepreneurial Ecosystems Power the SDGs.

10. Shehawy, Y. M., Khan, S. M. F. A., & Alshammakhi, Q. M. (2025). The Knowledgeable Nexus Between Metaverse Startups and SDGs: The Role of Innovations in Community Building and Socio-Cultural Exchange. *Journal of the Knowledge Economy*, 1-36.

11. Labanava, A., & Erlenheim, R. (2024). GovTech Companies' Contribution to SDGs: Exploring Reporting and Communication Practices. In *Performance Challenges in Organizational Sustainability: Practices from Public and Private Sector* (pp. 109-133). Singapore: Springer Nature Singapore.

12. Syed, R. T., Alzahmi, R. A., & Tariq, U. (2024). Digital entrepreneurship education in universities through the lens of educators: evidence from the United Arab Emirates. *Cogent Education*, *11*(1), 2409472.

13. Adel, A., & HS Alani, N. (2024). Human-centric collaboration and Industry 5.0 framework in smart cities and communities: Fostering sustainable development goals 3, 4, 9, and 11 in Society 5.0. *Smart Cities*, *7*(4), 1723-1775.

14. Schroeder, P., Anggraeni, K., & Weber, U. (2019). The relevance of circular economy practices to the sustainable development goals. *Journal of Industrial Ecology*, *23*(1), 77-95.

15. Ajaj, R., Buheji, M., & Hassoun, A. (2024). Optimizing the readiness for industry 4.0 in fulfilling the Sustainable Development Goal 1: focus on poverty elimination in Africa. *Frontiers in sustainable food systems*, *8*, 1393935.

16. Wijono, S., Rahardja, U., Purnomo, H. D., Lutfiani, N., & Yusuf, N. A. (2024). Leveraging machine learning models to enhance startup collaboration and drive technopreneurship. *Aptisi Transactions on Technopreneurship (ATT)*, *6*(3), 432-442.