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CRITICAL SUCCESS FACTORS (CSF) OF INDIAN SMALL AND MEDIUM MANUFACTURING ENTERPRISES

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Abstract

Small and medium-sized Manufacturing enterprises (SMEs) are core growth drivers for any economy and more so in the case of an emerging market like India. The Covid 19 pandemic has impacted the world economy and its impact was accentuated and severe in the case of SMEs, given the way they were structured, managed, operated, and funded. This disruption has resulted in creating a distressing situation on the back of the lockdown leading to

supply/demand and labor side challenges in the entity's operations. Hence, there is an urgent need to understand the relationships and impact of various factors critical for achieving Sustained Business performance and this paper makes a first towards covering this gap. The study focuses on Literature available on the subject matter, analysing available literature to identify CSF (Independent variables) for achieving Sustainable business performance (Dependent Variable) by Indian SMEs post-Covid 19. The paper concludes that four factors, Innovation (IN), Digital Transformation (DT), Entrepreneurial Action and approach (EAA), and Government Support/Intervention (GSI) are considered critical for achieving sustained business performance (SP) by SMEs in India. EAA additionally was considered a driver for IN and DT having an indirect impact on SP and GSI was considered as enabler for EAA having an indirect effect on SP. This study/knowledge seeks to help the stakeholders (both internal and external) in creating a stable business with sustained growth going ahead.

Key Words

Small and Medium Enterprises, Sustained Business Performance, COVID-19, Manufacturing, Critical Success Factors, Digital Transformation, Innovation

1. Introduction & Background

1.1. Introduction

The role of SMEs in the national economy cannot be underestimated. While they remain an important source of employment and a key driver of wealth creation among the wider population, they are also considered critical for the economic growth of a country. The importance of these enterprises gains further significance in the context of India, given the peculiar demography of Size and age coupled with the renewed focus of the policymakers on making India a manufacturing hub under the “Make in India” umbrella (Anuj et al., 2023).

Novel Coronavirus better known as COVID-19 resulted in a complete lockdown and closure of economies around the world. Since the first lockdown, the world has seen a further onslaught from various variants of the virus resulting in dilapidating pain and disruption to the ecosystem (Hossain et al., 2022; Panchal, 2021; Shamsudin et al., 2021).

The entities that have survived the contagion are focussed on recovery following strategies driven by innovation, and digitization supported by economic and fiscal policies of the government looking to better manage risk and survive the repetition of any such event in the future (Brodeur et al., 2022; Hoang et al., 2021).

An initial literature review has been conducted to understand factors (Independent Variables) considered critical for achieving Sustained Business performance (Dependent variable). Sustained business performance refers to the ability of a business or organization to consistently achieve desired outcomes and results over an extended period resulting in high and long-term profits generating employment opportunities and improving the income of individuals. Furthermore, the financial profitability of a firm will enhance the returns of its employees, have better production units, and bring products of higher quality for its customers (Taouab & Issor, 2019).

This work-in-progress study seeks to provide insight for stakeholders, decision-makers, and policymakers in understanding the changes in the topography on account of the contagion and help them be better prepared to handle such recurrence in the future while benefit from the renewed focus of the Indian policymakers on making India a world hub for manufacturing going ahead. Studying and understanding these factors that drive the business performance of SMEs (Small and Medium Enterprises) offer valuable insight into their growth, sustainability, and contribution to the economy. This study would work as a base point for development of best practices and risk mitigation strategies. It would provide a starting framework for the stakeholders in activities like innovation, adaptation, policy formulation, ecosystem enhancement and last but not the least contribute to the body of academic literature serving as a foundation to further detailed studies focussed on these enterprises.

1.2. Theoretical Framework

There are several theoretical frameworks that can be applied to Study SMEs in general. Some of the most popular ones are the Resource Based View (RBV) Theory, the Entrepreneurial Orientation (EO) theory, Technology Adoption Theory, and the Supply Change Management (SCM) theory. However, in these uncertain times post the contagion, a combination of multiple frameworks revolving around the concept of resilience and adaptability (Proactive and reactive capabilities) would help in providing a comprehensive and nuanced understanding of the emerging theoretical paradigm (Duchek, 2020). The crisis has caused behavioral changes across the board and has impacted entrepreneurship, particularly in case of SMEs, navigating the crisis through their creativity and innovation (Thukral, 2021). It is paramount that to ensure continuity, sustainability, and future success, SMEs are prepared with resilient strategies and entrepreneurial innovation in transformative activities to survive disruptive surprises moving ahead (Hossain et al., 2022). It is necessary that the leadership takes decisions based on mix of Resource Based View and Dynamic Capabilities Theory to survive and flourish in the long term (Rodrigues et al., 2021).

1.3. Role of SMEs in the Indian Economy

As per the SME Chambers of India, an industry body (www.smechamberofindia.com) involved in the development of SMEs in the manufacturing and service space since 1993, SMEs (Including Micro entities) account for nearly 45% of the total industrial production in India contributing very significantly to the GDP growth. These entities are the second largest creator and providers of livelihood after agriculture and are crucial for fostering innovation, entrepreneurship, and economic growth across Indian topography offering a wider and more accessible platform of job possibilities, revenue generation, and wealth distribution promoting inclusive growth and reducing poverty (Anuj et al., 2023).

1.4. Impact of Coronavirus on these Enterprises

Novel Coronavirus better known as COVID-19 resulted in a complete lockdown and closure of economies around the world. In the last 36 months since the first lockdown, the world has seen a further onslaught from various variants of the virus resulting in accentuating the pain and disruption to the ecosystem and extinction or crippling of many such enterprises on account of supply chain disruptions, Cash flow shortages/tight liquidity, or impact on profit margin because of reduced sale thereby impacting its capacity to provide employment (Hossain et al., 2022; Panchal, 2021; Sahoo & Ashwani, 2020; Shamsudin et al., 2021).

2. Research Question

The overall research question that arises based on the past literature review and understanding of the overall research problem is:

“What are the Critical Success Factors contributing to the sustained Business performance (BP) of Manufacturing SMEs in India post-Covid 19?”

More specifically, the research will focus on:

- 1) How important is the role of SMEs in the economic ecosystem of emerging markets like India?
- 2) What is the impact of the contagion on these SMEs?
- 3) What are the various critical success factors for Manufacturing SMEs in India that have helped these enterprises survive the contagion?
- 4) Which of these critical success factors significantly influence the sustained business performance of Manufacturing SMEs in India going ahead?

3. Research Objective

The objective of this study is to

- understand the importance/contribution of the SME sector to the Indian economy.
- Challenges encountered by the segment during the pandemic; and
- Identify Critical Success factors (Independent Variable) for SMEs to achieve Sustainable business performance (Dependent Variable) post-Covid 19.

4. Literature Review

The literature review helped in identifying Innovation (IN), Digital Transformation (DT), Entrepreneurial Actions/Approach (EAA), and Government Support/Intervention (GSI) as factors of Interest (Independent Variables) critical for achieving Sustainable Business performance (SP) (Dependent Variable). Each of the factors identified has been discussed hereunder in detail identifying the Sub variables driving these independent variables as well as understanding the relationships of these variables with SP and among themselves. Further, the review also helped in identifying the measure of outcomes for each of the independent variables and in developing a conceptual model of Success Factors, discussed separately hereunder, that are critical for achieving Sustainable Business Performance (SP) by Manufacturing SMEs in India.

4.1. Gap Identification/ Scope

A large part of the research available is focused on the Impact of the pandemic and the responses of the enterprises (Bai et al., 2021; Hoang et al., 2021; Shamsudin et al., 2021; Thukral, 2021) suggesting future studies focusing on developing frameworks to understand the relationships and impact of various factors including innovation (Steinerowska-Streb & Głód, 2022), digital transformation (Bai et al., 2021; Brodeur et al., 2022; Hoang et al., 2021; Sandu, 2019), Entrepreneurial action/approach (Mangifera et al., 2022; Sen et al., 2022) and Government support and intervention (Shamsudin et al., 2021; Thukral, 2021) on company's profitability and performance going ahead (Hossain et al., 2022).

Table 1: *Gap Variable Table*

S. No	Authors (Year), Topic of the Article, Name of the Journal. Vol. No. Issue No. (Year & Citation)	Gap/Future Scope From the literature	Gap Variable (Independent Variable)
1	<p>STEINEROWSKA-STREB, I., & GŁÓD, G. (2022). INNOVATION OF SMALL AND MEDIUM ENTERPRISES IN TIMES OF COVID-19. SCIENTIFIC PAPERS OF SILESIA UNIVERSITY OF TECHNOLOGY. ORGANIZATION AND MANAGEMENT SERIES, 2022(158), 549–561. HTTPS://DOI.ORG/10.29119/1641-3466.2022.158.36</p>	<p>In the future, the long-term results of the innovations introduced by SMEs during the pandemic could also be determined. Additionally, separate analyses can be conducted to implement product and process innovations.</p>	<p>Innovation</p>
2	<p>THUKRAL, E. (2021). COVID-19: SMALL AND MEDIUM ENTERPRISES CHALLENGES AND RESPONSES WITH CREATIVITY, INNOVATION, AND ENTREPRENEURSHIP. <i>STRATEGIC CHANGE</i>, 30(2), 153-158.</p>	<p>The narrative showcases that entrepreneurship is not a one-shoe-fits-all approach but rather an iterative and integrative process dependent on entrepreneurs' characteristics, resilience, and external enablers. The present article includes four research propositions that need to be tested through empirical work by taking a comparative or a cross-sectional study between countries and the impact of specific policy responses on SMEs' resilience and entrepreneurial capability</p>	<p>Entrepreneurial Action and Approach</p>
3	<p>BRODEUR, JONATHAN & PELLERIN, ROBERT & DESCHAMPS, ISABELLE. (2022). OPERATIONALIZATION OF CRITICAL SUCCESS FACTORS TO MANAGE THE INDUSTRY 4.0 TRANSFORMATION OF MANUFACTURING SMES.</p>	<p>Future research could present a complete and generic model to manage the industry 4.0 transformation of manufacturing SMEs by adding, sequencing, and linking these actions with different deliverables and</p>	<p>Digital Transformation</p>

	SUSTAINABILITY. 14. 10.3390/SU14148954.	actions meant to execute and manage Industry4.0 projects. Finally, future research could also validate and enhance this methodology by testing it within manufacturing SMEs	
4	SANDIPAN SEN, KATRINA SAVITSKIE, RAJ V. MAHTO, SAMPATH KUMAR, DMITRY KHANINE, IF IT AIN'T BROKE, DON'T FIX IT? INDIAN MANUFACTURING SMES' QUEST FOR STRATEGIC FLEXIBILITY, JOURNAL OF BUSINESS RESEARCH, VOLUME 143, 2022, PAGES 27-35, ISSN 0148-2963, HTTPS://DOI.ORG/10.1016/J.JBUSRES.2022.01.048 .	We encourage scholars to examine additional variables, such as managerial capability, owner characteristics, and cultural influences , in investigating SF. This could provide more depth to the empirical underpinning of future research endeavors.	Entrepreneurial Action and Approach
5	SHAMSUDIN, A., AHMAD, K., PAUZI, N. F. M., ROSLAN, N., & KARIM, M. S. (2021). THE IMPACT OF COVID-19 PANDEMIC ON SMALL BUSINESS'S SURVIVABILITY. <i>INTERNATIONAL JOURNAL OF ACCOUNTING, FINANCE AND BUSINESS (IJAFB)</i> , 6(33), 224-232.	Future research may examine the impact of government assistance in terms of business sustainability to these small business owners during the recovery period	Government Support and Intervention

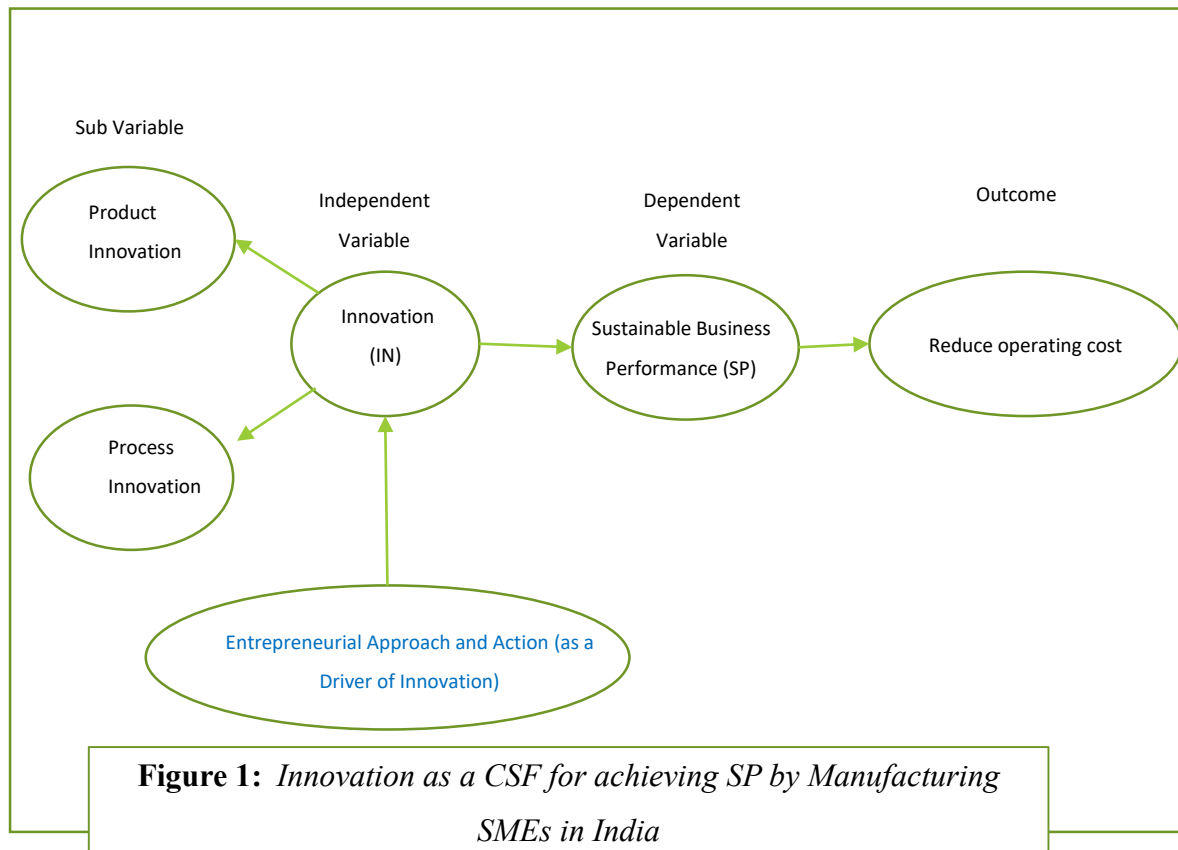
(Source: Google Scholar/Research Gate/Science Direct)

4.2. Findings and Discussions

4.2.1 Innovation (IN)

Innovations have been identified as critical internal factors for SMEs in navigating through the crisis (Thukral, 2021). Innovation driven by Improvement of existing products has a positive effect of on firm performance (Le et al., 2023). Adoption of Innovation (especially in Product and process) was identified as a key driver for SMEs to keep business running smoothly during and after the contagion resulting in reduced operating costs (Bai et al., 2021; Steinerowska-Streb & Głód, 2022). Product innovation among other variables was identified as having a significant effect on business sustainability (Andriyani et al., 2021). The usage of Process Innovation in the form of Accounting Information System (AIS) implementation

supported a business sustainable model from an organizational viewpoint (Lutfi et al., 2022). Further, across literature identifying innovation as a key driver, entrepreneurial leadership was identified as a key enabler in addition to government Support in some cases, driven by the entrepreneur's resilience to continue with creative and innovative ideas (Lutfi et al., 2022; Mangifera et al., 2022; Naushad, 2022; Thukral, 2021). Reduction in operating cost was identified as measure of outcome of Sustained business performance driven by innovation as a key factor (Steinerowska-Streb & Głód, 2022).

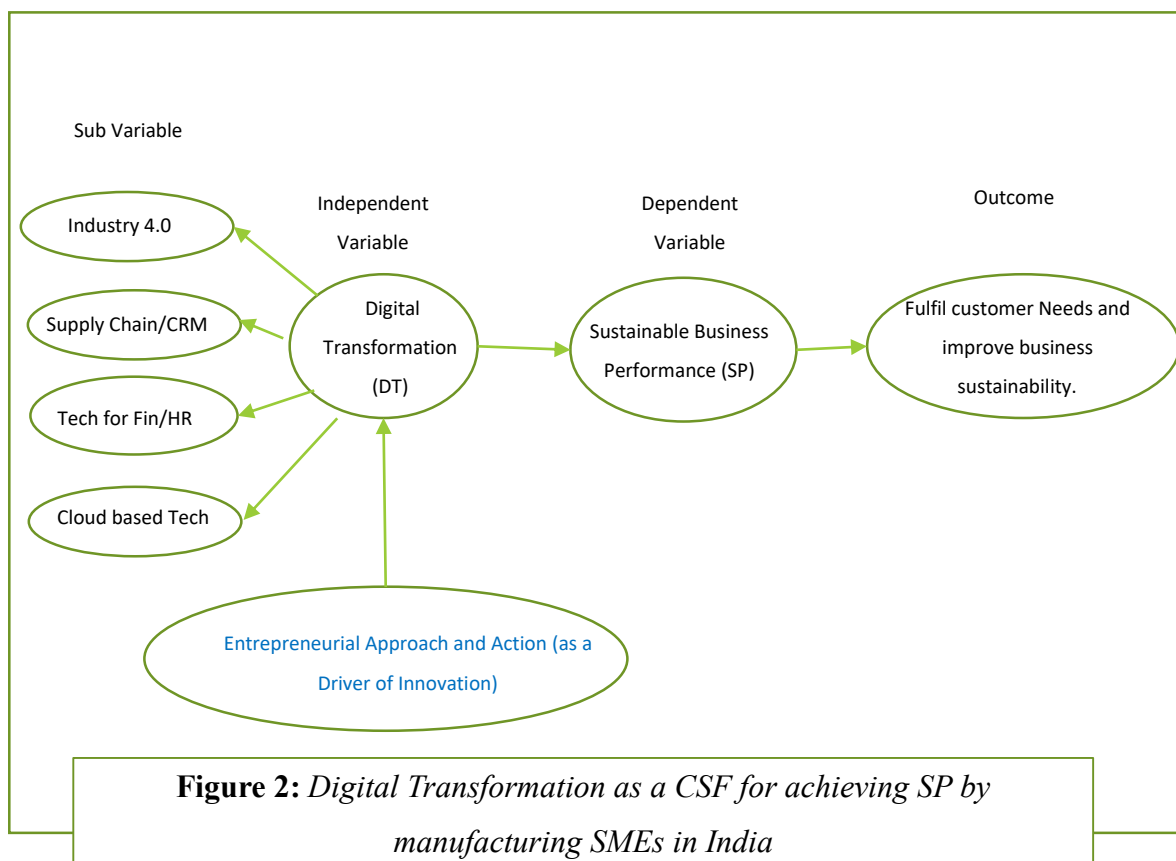


(Source: Authors Own Illustration)

4.2.2. Digital Transformation (DT)

Digital Transformation has been identified as a core factor of survival during the contagion and recovery post the event across the length and breadth of the literature reviewed (Bai et al., 2021; Brodeur et al., 2022; Deshmukh & Haleem, 2020; Hoang et al., 2021; Kumar & Ayedee, 2021; Sandu, 2019; Sen et al., 2022; Sudarmo, 2021; Suwarni & Handayani, 2021). Among other things, adoption of industry 4.0 or smart manufacturing to uplift productivity and bring transparency into the manufacturing was highlighted as a key factor ring the Crisis (Brodeur et al., 2022; Deshmukh & Haleem, 2020; Shukla & Shankar, 2022). Usage of digital transformation for managing strategic flexibility in terms of Supply side activities in terms of

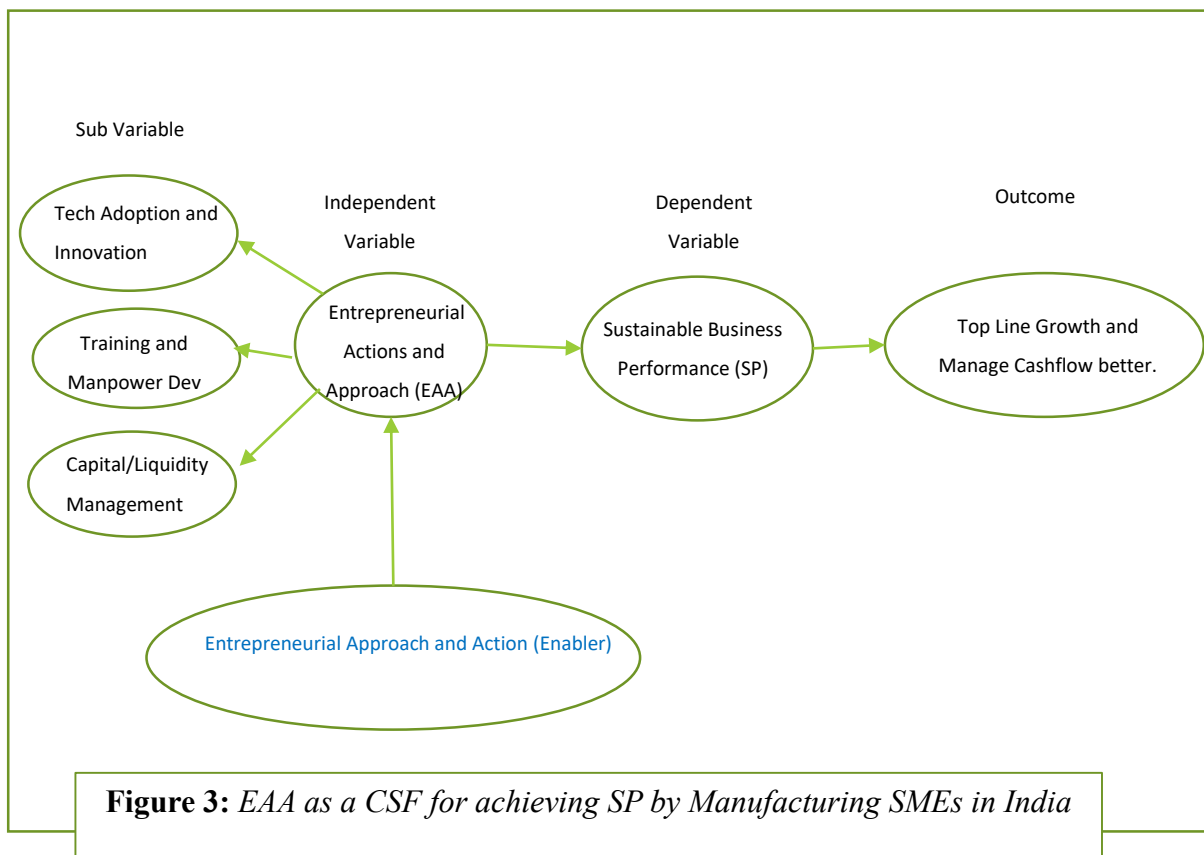
Supply chain integration (Sen et al., 2022) to build a resilient and sustainable system (Bai et al., 2021) and Customer side activities like usage of Ecommerce and Social Media (Hoang et al., 2021). Adoption of technology for activities like management of working capital (Baker et al., 2019) and risk associated with cash flow disruption (Hossain et al., 2022) were also highlighted as important sub variables of Digital Transformation. One of the research papers highlighted the importance of cloud computing as an important tool of digital transformation (Sandu, 2019). The paper, among others, further highlighted the importance of role played by the Entrepreneurial leadership as a key driver of Digital Transformation (Hoang et al., 2021; Kumar & Ayedee, 2021). Improved customer Satisfaction and Business stability was also identified as a measure of outcome of Sustained business performance driven by digital transformation (Mangifera et al., 2022).



4.2.3. Entrepreneurial Actions and Approach (Decision-making)

Given the way SMEs are structured, operated and funded, Entrepreneurial Approach and Actions become critical for its survival and recovery (Hossain et al., 2022; Rodrigues et al., 2021). Creativity and innovation in Entrepreneurial actions became more relevant during the pandemic as a tool for survival and recovery (Steinerowska-Streb & Głód, 2022; Thukral,

2021) driven by Management support as a key enabler in the exercise (Bai et al., 2021; Hoang et al., 2021; Kumar & Ayedee, 2021). Management intervention in terms of Financing (Baker et al., 2019), manpower development and investment in Human resources were also identified as a factor having impact on organisational performance (Al-Tit et al., 2019; Okoye, 2022). Further, Government support and interventions in forms of policies driving liquidity, manpower training and Digital transformation were identified as a key enabler for Entrepreneurial action and approach (Al-Tit et al., 2019; Baker et al., 2019; Rodrigues et al., 2021). Top line growth and better cash flows were identified as measure of outcome for Sustained business performance driven by Entrepreneurial actions and approach (Oosthuizen et al., 2020).

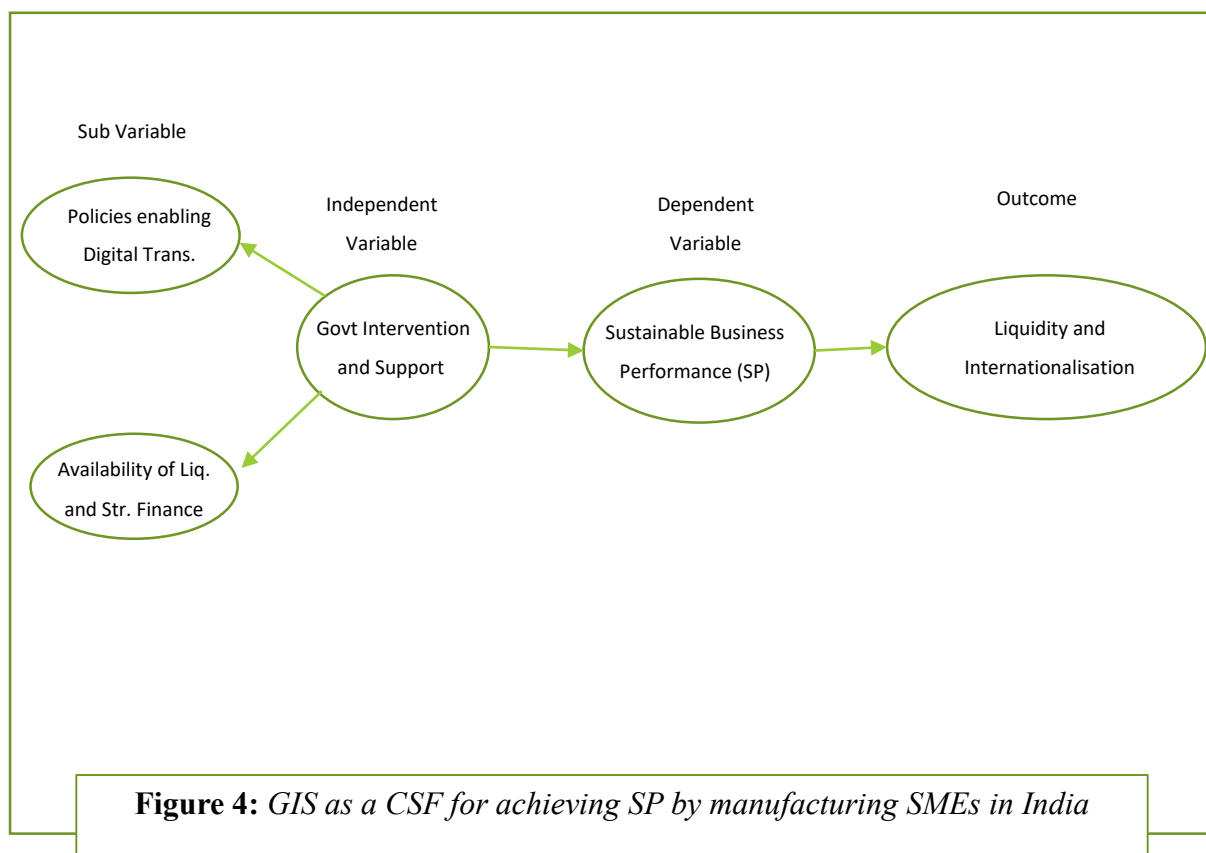


(Source: Authors Own Illustration)

4.2.4 Government Support and Intervention (GIS)

Most of the studies identified the importance of Government intervention by the Government and other agencies as a tool for survival and recovery during Covid (Adam & Alarifi, 2021; Panchal, 2021; Sahoo & Ashwani, 2020; Thukral, 2021). Some of the articles highlighted the importance of government support in terms of policies focussed on making funding available to the SMEs (Sudarmo, 2021), ensuring liquidity in the system (Panchal,

2021) and government sponsored financing schemes in form of loan guarantees, grants and subsidises (Hossain et al., 2022). Importance of training of the entrepreneurs to acquire management related skills in form of Human capital support too was considered critical (Al-Tit et al., 2019). In one of the papers prior to the contagion, role of Government for implementation of the public cloud model to push for adoption of Cloud Based Technologies among Indian SMEs mentioning assistance related to this provided to the entrepreneurs may inspire the SMEs to be more planned and organised in this context (Sandu, 2019). Cash flow/Liquidity Management and internationalisation of markets was identified as measure of outcome of Sustained business performance driven by Government Support and Intervention (Hossain et al., 2022).

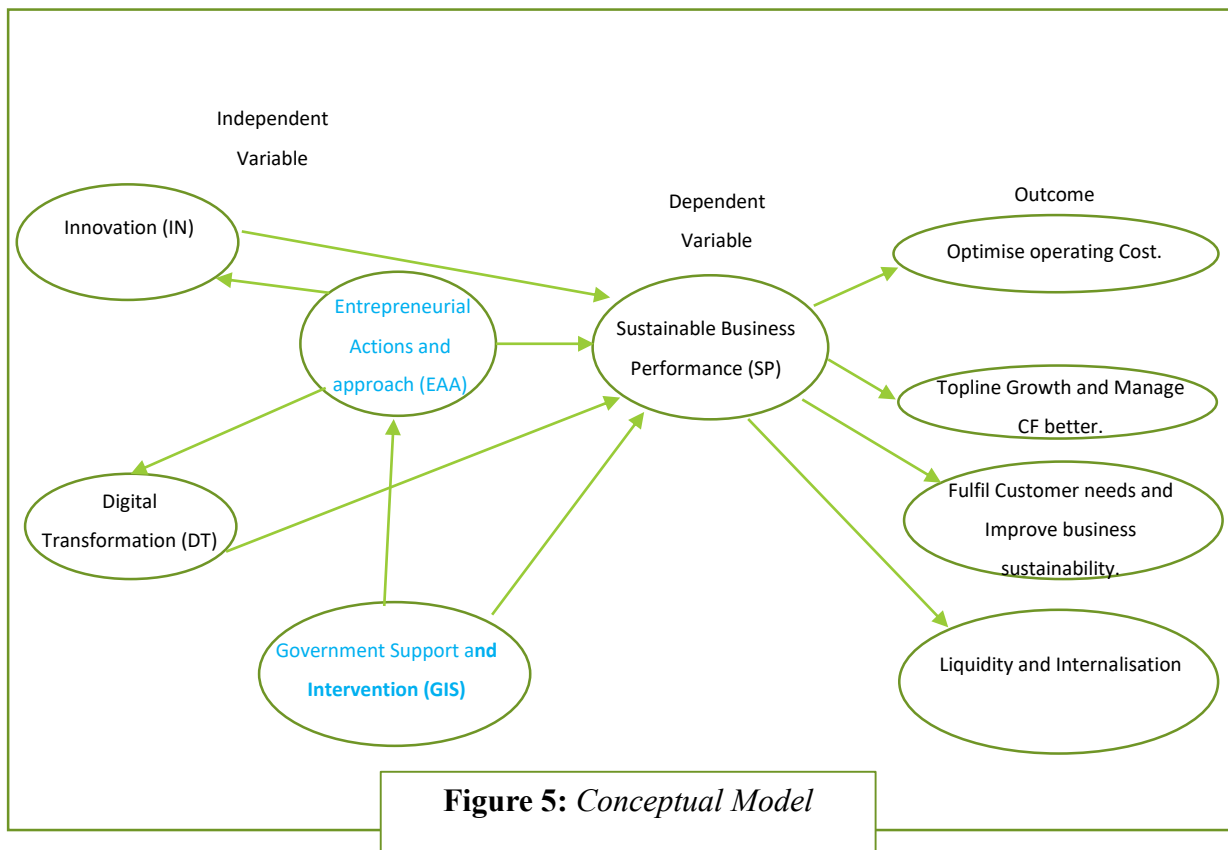


(Source: Authors Own Illustration)

4.2.5. Summary of key Findings and Conceptual Model

The paper concludes that all the four factors reviewed, “Innovation (IN)”, “Digital Transformation (DT)”, “Entrepreneurial Action and approach (EAA)” and “Government Support and Intervention (GSI)” were considered critical and significant for achieving sustained business performance (SP) by manufacturing SMEs in India. EAA in addition to being a driver for IN and DT also has indirect impact in SP. Similarly, GSI is considered an

enabler for EAA having indirect effect on SP. All the four factors are critical to achieve Sustained business performance measured in terms of reduced operating cost driven by innovation, Top line growth/Better Cash flow management because of Entrepreneurial action and approach, Higher customer satisfaction and improved business stability because of digital transformation and last but not the least better Cash flow/Liquidity Management and internationalisation of markets driven by Government support and intervention.



(Source: Authors Own Illustration)

5. Way Forward: Research Design, Approach, Data Collection and Validation

In the next phase of this study, a Quantitative approach will be employed, consisting of an Experimental and Survey strategy with cross-sectional data collection at a point in time as the broad guiding design. A broad questionnaire would be used as a guiding tool for conducting a pilot study among a sample of around 40 stakeholders (including Business owners, technocrats, and experts from the industry in focus). Once the pilot study is completed, 400 respondents are expected to undertake the survey the instrument. The postulated

hypotheses, measurement model, and structural model will be tested using ADANCO 2.1.1 to provide convincing and valid solutions to the research questions.

6. Conclusion

Innovation (IN), Digital Transformation (DT), Entrepreneurial Actions/Approach (EAA), and Government Support/Intervention (GSI) were identified as factors of Interest (Independent Variables) critical for achieving Sustainable Business performance (SP) (dependent variable) which is in line with conclusions of literature reviewed (Brodeur et al., 2022; Khurana et al., 2022; Mangifera et al., 2022; Naushad, 2022; Steinerowska-Streb & Głód, 2022). The review helped in developing better insight and understanding into the relationships of these independent Variables with Sustainable Business Performance and among themselves. Finally, we were able to develop a conceptual model of Success Factors that are considered critical for achieving Sustainable Business Performance (SP) by Manufacturing SMEs in India.

7. Limitations and Future Scope

This study is entirely restricted to the manufacturing SME business in India. The factors that are considered to significantly influence SP as per this research study may be true for India and specifically for manufacturing but may not be applicable to other contexts and geographies. Further, secondary data was purely based on the published articles considered from the perspective of the factors leading to the sustained growth of SMEs and influencing their SP. The focus was primarily on finding the gaps in the existing literature, i.e., the research limitations and scope for further studies. This is another limitation, as some of the relevant articles might have been excluded from the literature survey. There is a scope to conduct the studies testing these factors using quantitative approach consisting of an experimental and Survey strategy with cross-sectional data collection at a point in time as the broad guiding design for statistical testing and Validation of the findings of the literature review.

8. Any Ethical Considerations Involved or Considered.

The study ensures adherence to the code of ethical practices as laid out by the SP Jain School of Global Management and the Australian Education Board.

9. Disclosures of Interest

This is a work in progress paper, part of the Doctorate thesis being undertaken by Vinay Kumar Gairola (1st Author).

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