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Understanding factors influencing technical inertia in family-run SMEs : A study on technology adoption challenges

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Abstract

The study aims to develop theoretical understanding regarding the factors impacting technical inertia in family-run businesses by studying the literature available. The factors impacting are similar in some ways to technology adoption in other businesses but family businesses bring along their own set of challenges to the mix. The study relies on a qualitative research design to identify the factors impacting the technology adoption. Drawing on the secondary data with an in-depth literature review, this study explores how family-run businesses approaches technology adoption. The analysis shows that family-run businesses may face multiple obstacles in the process of acquisition and adoption of technology. The factors like fear of change, lack of skills and conservative leadership being the prime ones. The paper contributes to a better understanding of how family businesses can leverage the adoption of new innovation. The technology adoption such as the use of Artificial Intelligence, ChatGPT and social media will help the business to grow and have the existence not only local but global as well. The use of technology will impact the business in decision making. This will further helps in grown and profitability in business with better utilisation of resources. This will also impact the evolution in the business. The paper suggests the future course of action which can be taken by these businesses. The paper offers insights into the very relevant field of technology adoption by the family businesses in India.

Subject Classification: *00A99.*

Keywords: *Technology, Inertia, Adoption, Family business, Conservative leadership.*

Introduction

Technical inertia has been understood as the tendency of established firms with past proficiency in one generation of technology to continue development of that generation. They usually do not efficiently advance and commercialize products created on a new generation of technology (Tripsas, 2016). Technology adoption has been considered as a key to growth and success in today’s era (Pandey, Kumar, Pujari, & Arora, 2023). There are many new technologies like Robotics, artificial intelligence, Clod computing, E-commerce which have contributed to SMEs growth in India (Monika, Apoorva., & Kumar Anuj, 2022). Adoption of such technologies have brought many advantages to these industries in terms of overall efficiency, customer management improvement and cost reduction (Juniarti & Omar, 2021). These latest technologies can reduce the monotonous work done by humans and bring enhanced efficiency with the benefits of reduced errors and overall growth (Bhalerao, Kumar, & Pujari, 2022). The marketing reach and efficiency can also be improved with the aid of these new technologies (Chatterjee & Kar, 2020). For e.g., the acquisition of technologies like social media helps the firms to have better and quicker response to their customer demands and thus, improve overall customer engagement experience (Kumar & Ayedee, 2018). They also contribute in enhancing the competitiveness of businesses. Many established businesses fail to understand the benefits accruing from the technology adoption. Common barriers to technology adoption have been identified as perceived difficulty, costs, PU and PEOU along with low management support and lack of skilled employees etc (Bhalerao, Kumar, & Pujari, 2022).

These barriers become more enhanced when the firm in the question is family business. There are multiple definitions of Family business across the world. Family businesses in India has been understood as any business in which two or more family members are involved and majority of the ownership and control lies within that family. It is a commercial organisation in which decision making is influenced by multiple generations of a family, related either by blood or marriage. Most of the family businesses in India have three to four generations which have played an active role in conducting the business. This brings the benefit of years of expertise to the business. The huge supplier network and goodwill which is usually created across generations is one more added advantage. The presence of people from older generations though having multiple benefits sometimes also gives rise to some challenges. The delay in decision-making, interference by inexperienced members, impact of personal conflict among family members are few of them. One major challenge many a times arises due to technical inertia which is present in the business.

Technology helps the business to grow and better as competing to its competitors. The right use of technology will help in better decision making and expansion.

Factors Impacting Technical Inertia in a Family Business

1. Lack of Skills- Most of the family businesses have a traditional set-up and style of working. Many employees are a part of that business for years together. These people most of the times consider their lack of skills as an obstacle to adopt a new technology (Kandel & Hota, 2016). The lack of knowledge and awareness regarding various technology also becomes a hindrance in many cases (Niehm, Tyner, Shelley, & Fitzgerald, 2010).
2. Fear of Change- Most of the family business have been in existence for more than fifty years or so. This long span makes them comfortable

in the working style and processes which have been continuing for years together. The employee who has been working there usually fear the change in the technology. Their lack of expertise and perceived level of difficulty results in technical inertia.

3. Ease of Use-The views regarding the ease of use of any technology plays an important role in its adoption, especially in a family business. The perceived benefits which arise from the adoption and the comfort with which the new technology can be acquired plays an important role in the decision regarding adoption. (Niehm, Tyner, Shelley, & Fitzgerald, 2010).
4. Conservative Leadership- The leaders play a very significant role in the decision-making in any family businesses (Huang, 2009). If the top leaders in any family business have a conservative or old-fashioned view regarding the technology adoption. It may create an obstacle in the adoption of any technology. The businesses who take prospective approach are considered to have more flexibility compared to a conservative approach (Mihotić, 2023). The strategic intent regarding new innovations plays a key role here (Chaudhuri, Chatterjee, Kraus, & Vrontis, 2023).
5. Lack of Professionalisation- The level of professionalisation also impacts technology adoption in any organization (Bruque & Moyano, 2007). Professionalisation has been considered as a process through which a firm brings integrity and competence into the system.

Future

The future of family business in India is quite challenging, there are several factors that can be shifted in future. The involvement of family members in the business may be positive, negative or no impact in financial performance (Chahal & Sharma, 2020). In Indian scenario it is interrelated with the family run business and the decision taken by the business organisation. The factors are as under:

1. Changing Business Landscape: The landscape is based on the rapidly increase in business dimension in India (Ahlstrom et al, 2020). Because of competition, globalisation and preferences are pressuring the family business to adapt the changes and modernize as per need of business. To stay competitive, it will adopt the new technology in their businesses (Marquis & Raynard, 2015).

2. Digital Transformation: The use of digital transformation is reshaping across industry and reshaping business practices (Sullivan & Kern, 2021). Emerging technology such as cloud computing, data analytics AI and automation and becoming increasing important for business success, it is leveraging technology to improve the operations and customer experience (Kraus et al, 2021) (Bhatia, et al., 2022)
3. Next-generation Leadership: The young generation rein the family business and want to setup and enhance it forward with a fresh perspective and greater inclination towards technology adoption (Kandade et al, 2021). The new generation is tech savvy and come up with a technological digital solution. They are influence and decision making will be based on better decision and control for the betterment of family businesses (Poza, 2013).
4. Government Initiatives: The Indian government has been actively promoting digitalization and technology adoption through various initiatives such as Digital India and Make in India. There are various schemes that are launched (Jayaram, Dixit & Motwani, 2014). All these programs are aim to create a conducive environment for businesses with the leverage technology and drive economic growth. The government's support and incentives can encourage family businesses to overcome inertia and embrace technology (Anggadwita et al, 2022; Budhiraja and Pathak, 2018).
5. External Support and Expertise: Family businesses are more seeking to external support from consultants, technology experts, and industry associations to understand the benefits of technology adoption and overcome implementation challenges (Ray, Mondal and Ramachandran, 2018). Access to expert guidance and resources can help family businesses navigate the process of modernization (Lumpkin, Steier & Wright, 2011).

In the future, the family may want to consider the board composition to add needed market and business expertise. There are many reasons where the families seek to bring in external leadership

Reasons	Details	References
Industry promotes innovation	The innovation in business is at very faster pace. Family-run businesses can become insular and entrenched in their ways. There is a need of an external executive who can help them and ensures the updation of innovative practices time to time.	(Goel, 2017).
Industry is rapidly changing	There is a lack of initative for cultivate management innovation in family run business. As the industry is changing, They also have to bring external management to the organisation for this purpose.	(Johannisson & Huse, 2000).
Competitor is gaining transaction	The new set up industry has changed drastically over the years. The change has taken place in technology transformation in banking, consulting, software, food, mobile and retail. The organisation has to set up the things as per the need and requirements.	(Goel, 2017).
Globalization	The globalisation mobility is the one where the organisations are moving forward with a high speed. The company should look for external guidance to set up the globalize operations. As an international mindset, it requires to think across boundaries, policies, disciplines and global cultures. The companies must invest on education, experience and evolved HR models, and hire people. The company helps in create networks and become more flexible and inclusive.	(sundaramurthy, & Dean, 2008).
Increased complexity of operations	Family businesses are often compared to startups, since they typically are founded by close friends and have loose hierarchies and decision-making practices. Both value loyalty and the ability to take on multiple/ diverse responsibilities, and one of the biggest problems is scaling up too quickly.	(Mendy, 2022)
Attracting talent	The family-run businesses tend to be fairly insular, where retaining a talent is challenging, because of which the limited opportunities for external hires. The capable and deserving leaders leave the organisation when they don't find the enough opportunity.	(Silva, 2017).

Contd...

Succession issues	An external professional ensures there are options for succession down the road that helps a way forward of succession plan	(Rothwell & Prescott, 2022).
Lack of adequate leaders	In family business, there is sometimes required a talent to manage the company such as lack of global experience. Sometimes they seek a external talented person for a smart move in business.	(Byham, Smith, & Paese, 2002)

Based on the need of market, the family business has to address these issues and has to strengthen their leadership vision to succeed. They should be ready for partnership and collaborations and ready to implement the relevant technology.

In todays technological advancement and evolution plays an important impact on small and medium enterprises (SMEs) including family run businesses (Classen et al,2014). One of the cutting technology that has gain the importance over the time is Artificial Intelligence which will further involve machine learning, deep learning, natural language processing and predictive analytics. ChatGPT, a language of generative AI which has a potential to transform SMEs integrating with customer and managing their online presence in social media platforms. Social media has become an integral part of business strategy and connecting the target audience, brand awareness and customer engagement (Van and Harker, 2003). The management of social media will take lots of time of SMEs but the generative AI is offering the automation and assisting in managing the social media communication (Carvalho and Ivanov, 2023). ChatGPT utilises the generate content and have the meaningful communication with the consumers. This will be creating the relevant content and making the customer engage and informing and establishing the brand loyalty (George and George, 2023). AI-driven tools such as ChatGPT can assist the SMEs in analysing social media trends and market dynamics. The customer sentiments are also important for any business to grow (Carvalho and Ivanov, 2023).The data will be helpful to take decision in business. ChatGPT helps in summarizing the customer reviews, feedback and comments, this will help to provide the insights to enhance product and services.

Family run SMEs also use the AI driven tool ChatGPT to maintain the personalisation and maintaining relationships. This tool will help to handle the query of customer queries, offer product recommendations and assist the purchase process. It also helpful in improving customer satisfaction and retention. There are many times it could be an oversight by human. AI is always there to complement the human not to replace them. AI driven ChatGPT helps the family members to focus on strategic decision making and relationship building whereas AI helps to manage the repetitive task efficiently. There are potential challenges in using AI adoption. This includes data privacy and ensuring ethical use of AI in family business SMEs.

The positive effects AI, ChatGPT and social media for Family-run SMEs. The use of technology brings the positive impact in business (Carvalho and Ivanov, 2023). The positive effects are as under:

1. Enhance customer engagement and enhancement: This will respond to inquiry, provide the recommendation and engage in meaningful conversation (Kumar & Ayedee, 2018). This will foster the stronger relationship with customer that leads to increase customer satisfaction and loyalty.
2. Cost efficient marketing and content correction for social media: The online presence can be maintained and consistently without much time and involvement. The cost-effective content is beneficial for SMEs with limited resources and enabling to compete with large enterprises in a digital space.
3. Data driven decision making AI technology: It enables the large amount of data used for analysis and generating the pattern for customer behaviour, preferences and market trends. This will help in valuable in business decision (Wamba-Taguimdje et al, 2020). This insights will be helpful in taking decisions and optimising product prices, tailoring marketing strategy and product offering
4. Improved product efficiency: with automation the several repetitive task are carried through AI driven ChatGPT. The more valuable time of the employees can be utilised in innovation, strategy development, and relationship building(George and George, 2023). Thus the efficiency and product productivity can be enhanced and leading to a better utilisation of resources.
5. Global market expansion: Socialmedia coupled with AI powered tools fosters the expansion of family business to reach to global market (Shrivastava, 2023). This will also be helpful in translating the content according to the demographic and languages. Thus this

provides the broader market audience . new market exposure that drives to business growth and opportunity

6. Fostering Innovation and Adaptability: AI encourages the culture of innovation and this will also exposed to problem solving and customer engagement (Kumar et al, 2023). The use of future technological advancement will be an ease for business (Wamba-Taguimdje et al, 2020)
7. Competitive advantage: Family business can effectively use AI and social media into their operations gains the competitive advantage. Use of technology will leads to superior the customer experience, optimising processes and demonstrate a forward thinking approach and outperforming competitors (Yu et al, 2023).

Conclusion

The family businesses in India have to recognised the strength of their family and adopt technological initiatives to maintain and remain competitive and achieve sustainable growth. The impact of technical inertia on family business is significantly affecting the competitiveness, its efficiency and customer satisfaction. The leader has to be proactive, look forward for strategic partnership and change management. The use of AI tool specially ChatGPT, social media can significantly benefit family-run SMEs. They cam manage social media communication, generating the content and analyse the trends. The successful integration of AI in social media strategies can give you a path for sustainable growth and long-term success for family run SMEs. The integration of ChatGPT, AI and social media is an transformation for family-run SMEs. These technologies not only enhance the customer engagement and operational efficiency but also facilitate in decision making, cost effectiveness, business expansion. Using this technology in family business will be better positioned and success in a digital age.

The future scope should be address on sustainable growth and evolution of family business. The strategies and areas for future approach is to have the a) technological literacy program for owners and employees. b) Incentivizing Technological Adoption for implementing government incentives and policies that encourage the members to implement technology. c) Focussed on consultancy and advisory services they provide implementation plan and personalised implementation. d) Entrepreneurial ecosystem to bring together investor, startup and family business to foster innovation and technology adoption.

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