

Guest editorial: Artificial intelligence and family business

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Artificial intelligence is a way family businesses can compete more effectively by improving customer engagement. The technology surrounding artificial intelligence has rapidly advanced in recent years, making it a practical necessity for most businesses. It is a powerful technology that opens up many new market opportunities. There are various ways to define artificial intelligence, but generally it refers to machines acting like humans in terms of performing different tasks. This can include utilising data to predict future behaviour as well as using computing processing for planning tasks. It can help businesses in decision-making and by making business practices more efficient.

There are numerous technologies utilised in artificial intelligence including audio processing and natural language models. This means artificial intelligence can be pre-trained to perform tasks or customised to suit specific business needs. Most family businesses are utilising narrow artificial intelligence as it is low-technology-based and used to perform normally repetitive tasks. It is the most common form of artificial intelligence, as it enables pattern-based tasks to be completed. Generally, artificial intelligence is also used in family businesses, but it is not as common as it requires large levels of computing power. In the future, super artificial intelligence will increasingly be utilised as a way to facilitate more complex interactions. Within the broad umbrella of artificial intelligence is machine learning that enables systems to learn based on prior information and perform tasks. More specialised machine learning is deep learning that processes data through neural network models.

Artificial intelligence is increasingly used in customer service where there is a high number of repetitive tasks. This means machine learning and other forms of artificial intelligence can be integrated to facilitate a family business's customer service. It can be used then to enhance customer interaction and in forecasting demand. This enables family businesses to save time and be able to focus on other tasks. Artificial intelligence language capability technology such as chatbots and digital assistants is used to facilitate human-computer interaction. This empowers the family business to manage information flows to increase user experiences. The text-to-speech features of this type of artificial intelligence can be utilised to increase functionalities.

This special issue comprises this editorial as well as eight articles on the topic of artificial intelligence and family business, thereby providing one of the first special issues on this novel and emerging topic area. The first article by Deniz Tuncalp focuses on the future of family business by providing a new perspective about how artificial intelligence can be incorporated within family business structures. This is a useful way to think about how new technological innovations will transform existing practices within family businesses. The second article by Deepak Kumar talks about blockchain technology in family businesses and offers a thought-provoking discussion about the shifting nature of family businesses. This incorporates the view of traditionalism within family businesses to technological superiority. The third article by María Atienza-Barba, José Álvarez-García, Ángel Meseguer Martínez and Virginia Barba-Sánchez focuses on family business in the digital era. This is an important way to consider digitalisation in family businesses through the integration of artificial intelligence. The fourth article by Esraa Esam Alharasis talks about improving accounting information quality in Jordanian family businesses. This makes a contribution to the discussion on how to incorporate different types of artificial intelligence in family businesses. The fifth article by Pedro Mota Veiga focuses on sustainability in family businesses through green innovation. It takes a machine learning perspective to understand the integration of artificial intelligence in family business. The sixth article by Deepak Kumar and Vanessa Ratten analyses the existing



literature on artificial intelligence and family business, thereby taking stock of what has been written on the topic and suggesting new research directions. The seventh article by Jose Luis Ossa-Cardona focuses on decision-making in family businesses through artificial intelligence. This is a novel perspective that integrates the succession literature with emerging artificial intelligence perspectives. The eighth article by Stewart Selase Hevi, Clemence Dupey Agbenorxevi, Innocent Senyo Kwasi Acquah, Ebenezer Malcalm and Francisca Abena Akomaso Nyamful focuses on job crafting and entrepreneurial innovativeness. This highlights the need to consider initiated artificial intelligence in family business.

Overall, this special issue of the *Journal of Family Business Management* focuses on the linkage between artificial intelligence and family business, which is a novel area of inquiry. Most research focuses on business in general and does not differentiate based on family business adoption and use of artificial intelligence. This means it is important to highlight the unique attributes that a family business has and how this might influence the rate, type and speed of artificial intelligence integration, thereby contributing to our understanding of this interesting area of research and practice, which is essential, particularly in terms of the role family businesses play in the adoption of artificial intelligence.

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