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Impact of AI on Retail Operation and Profitability Moderated by Employee Motivation and Upskilling

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Abstract: *This article provides a comprehensive overview of the digital transformation of the retail industry and describes the influences on employee motivation, upskilling, employee productivityand innovations that it offers in retail store performance. Artificial intelligence (AI) allows human work to be shifted toward technological systems that are currently not fully capable. Incorporating AI tools in employee training will have an profound impacts on profitability in a business which will result in sustainability of the business. AI imparts companies a host of ways to better understand, predict, and engage customers. Furthermore AI tools has positive impact on employee motivation and upskilling. The objective if the research is to study the Impact of AI onemployee training and upskilling which impact on the profitability in the retail business and enhances the sustainability in market. The methodology used was qualitative and includedin-depth literature review and synthesizing observations and results made in field studies. Researchers have found direct links to various academic conversations surrounding this area of research. Using this framework retailer can have a better insight over the disruptive tools and their impact on employee motivation and upskilling. The findings showed that incorporation of disruptive tools in employee training has a significant impact on customer choices, preferences which enhances business sustainability.*

Key Words: *Disruptive Tools, Employee Motivation, Artificial Intelligence, Machine learning, Business, Sustainability.*

1. INTRODUCTION:

Artificial intelligence (AI) is having a significant impact on the retail industry, transforming the way retailers operate and interact with customers. Artificial intelligence (AI) is increasingly being adopted in the retail sector, resulting in a significant impact on both retail operations and profitability. (Taguimdje et al., 2022) AI covers a wide range of technologies, including machine translation, chatbots, and self-learning algorithms, all of which can allow individuals to better understand their environment and act accordingly. (Deo & Khedkar 2018), provides an overview of personalized product recommendation techniques in e-commerce, including the use of collaborative filtering, content-based filtering, and hybrid methods. However, these effects can be motivated through employee motivation and training. In retail, AI can streamline processes, automate tasks, and free up employees to focus on more value-adding activities. For example, AI-supported chatbots, handle customer inquiries and enable employees to provide more personalized customer service. Similarly, AI-powered supply chain management can improve inventory management, reduce the need for manual intervention, and reduce the risk of out-of-stock. Regarding profitability, AI can help retailers better understand customer preferences and behaviors, allowing them to personalize marketing efforts and increase sales. Additionally, AI-powered pricing algorithms help retailers dynamically set prices based on real-time supply and demand data, improving profitability. However, the impact of AI on retail operations and profitability can be improved by motivating and upskilling employees.

If employees are unmotivated to use new technology, they may resist implementing it, resulting in reduced efficiency and productivity. (Maity, S. (2019)) Training needs are becoming more personalized. Micro-learning and byte-sized training modules, easily accessible to employees, as and when required, are some of the major organizational needs. Training and development programs should be designed keeping in mind factors of employee engagement, involvement, and extent of training transfer. Additionally, if an employee is not trained to operate an AI system, the employee may struggle to use it effectively, resulting in poor performance and diminished profits. Therefore, to maximize the benefits of AI in retail, it is essential to motivate employees and provide them with the necessary training to enable them to use new technologies effectively. This includes regular training, clear communication, and a supportive work environment that encourages innovation and continuous learning.

1.1 AI in the retail operation:

Artificial intelligence (AI) is playing a significant role in transforming the way retail operations are managed and improving their overall efficiency. AI can help retailers optimize inventory levels, reduce stock outs and overstocking, and improve supply chain efficiency. AI-powered chatbots can handle customer inquiries and support, freeing up employees to provide more personalized customer service. Predictive Analytics can help retailers make informed decisions by analyzing data on customer behavior, market trends, and sales data. AI-powered visual search technologies can help customers find the products they are looking for by allowing them to search using images or videos. Fraud Detection can help retailers detect fraudulent activity in real time, reducing losses and improving security. AI-powered algorithms can analyze customer data to create highly personalized experiences and marketing campaigns, increasing customer engagement and loyalty. (Krishnan et al., 2022) technology-based (AI), where human constraints can be nullified. With this knowledge, they were able to expand their productivity. AI-powered pricing algorithms can dynamically set prices based on real-time demand and supply data, improving profitability. AI is enabling retailers to streamline their operations, reduce costs, and improve the customer experience. However, it's important to note that while AI has the potential to greatly benefit retail operations, it must be used ethically and responsibly to avoid potential negative consequences such as job loss or privacy violations.

1.2. Impact of AI on Employee Motivation and Upskilling:

The impact of artificial intelligence (AI) on employee motivation and upskilling is a complex and nuanced issue. On one hand, AI can automate repetitive and mundane tasks, freeing up employees to focus on higher-level, more fulfilling work. This can lead to increased motivation and job satisfaction. It's important for businesses to proactively invest in upskilling their employees to acquire new skills and remain relevant in the age of AI. This can include training programs in areas such as data analysis, software development, and digital marketing. Additionally, companies can take steps to foster a culture of continuous learning and professional development, encouraging employees to continuously develop their skills and stay up-to-date with new technologies. This can help employees feel more confident and secure in their jobs, leading to increased motivation and job satisfaction. Overall, while AI has the potential to greatly impact employee motivation and upskilling, businesses need to approach its integration into the workplace thoughtfully and proactively, taking steps to minimize potential negative impacts and support employee development.

2. LITERATURE REVIEW:

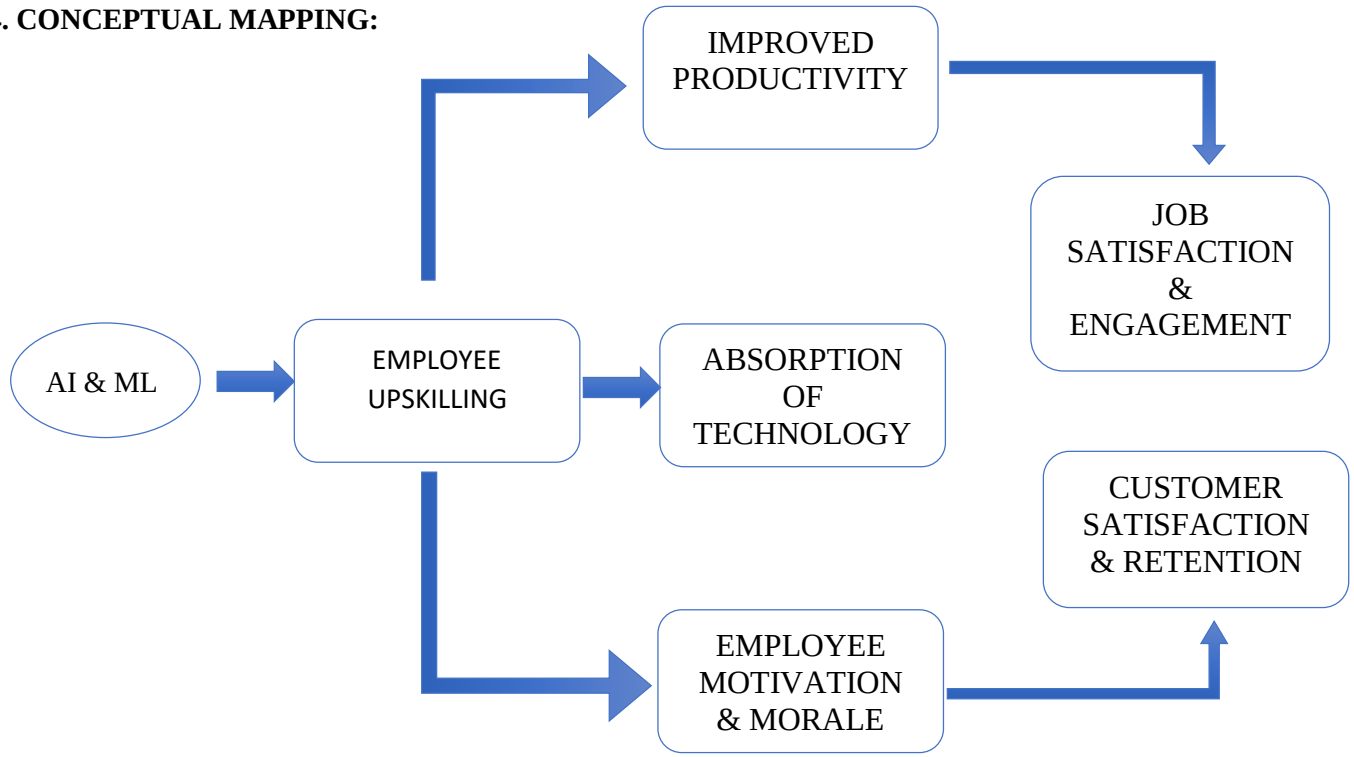
The retail sector is characterized in many countries by oligopoly markets with intense competition among incumbent retailers and increasing competition between traditional and new 'pure' digital players (Schutte, 2017). This increased competition has led to the need for caution to distinguish between facility types (Meffert et al., 2015), increased costs, and overall price awareness (Daurer et al., 2012), This has led to the impact of the company's price image on Selected retail chains. Therefore, companies must remain competitive. (Krishnan et al., 2022) Organizations are heavily investing in AI and ML tools and reaping the benefits, securing a competitive advantage. Emerging technologies are replacing human effort in information processing with considerably faster and more precise technologies, allowing corporate leaders to make faster and more consistent judgments. Complex analysis and decisions in price management can be performed with intelligent, self-learning solutions. Dynamic pricing (Kephart et al., 2000) is a new development in pricing strategies in which companies adjust the price of their products and services to current market demand in real-time. AI is used as an automatic algorithm to calculate prices. Human decisions cannot keep up with the speed required and the amount of data to consider (Jaekel, 2017). AI is also used to customize store layouts to maximize customer satisfaction and sales opportunities (Newcomb, 2018). (Poorni Sakrabani, Ai Ping Teoh, Azlan Amran 2019) Retail 4.0 will enable retailers to create transformative shopping experiences, better inventory management, increased operational efficiency, and more informed real-time decision making We are now able to overcome these problems. (Youngkeun Choi, 2020) AI-based technology strengthens the relationship between users' ability and willingness to accept AI technology. (Loske, et al, 2021) AI systems have proven to be the most efficient. Therefore, AI capabilities enable systems to achieve specific goals (Haenlein & Kaplan, 2019). Specifically, this ability refers to the ability to simulate human intelligence, especially those involving cognition such as learning and problem-solving, in ever-changing environments based on continuous data collection (Humerick, 2018). (Sohn et al., 2020). Artificial Intelligence (AI) has emerged as one of the biggest disruptors in the consumer market (Hackl & Wolfe, 2017). Unbeknownst to consumers, it is widely applied to various services and products (Krogue et al., 2017). Fashion-conscious and insightful about fashion trends (Bakewell & Mitchell, 2003); (Valaei & Nikhashemi, 2017). Increased knowledge of product features, novelty, and differentiation has been shown to have a positive impact on consumer purchasing behavior (Tanner & Wolfing Kast, 2003). New technological advances and frequent and rapid changes in corporate organizational structures force us to take a new perspective on human capital management based on

knowledge and collected data. The first step in this direction begins with the introduction of employee monitoring systems in many companies. Monitoring is any system or process used to collect, store and analyze data from multiple sources and report on employee activity and performance (Ball et al., 2010). Use real-time face-to-face communication. HR professionals typically evaluate employee performance on an annual, semi-annual, or perhaps quarterly basis, but this adoption will allow these evaluations to be conducted more regularly, increasing efficiency (Nishad 2019). In the context of consumer use of AI tools, motivation is defined as the behavioral factors that guide a consumer to use her AI (Jin & Kim, 2003). Chatbots, voice assistants, and augmented reality are the most common AI tools consumers use to make purchasing decisions (Turban et al., 2017). Interaction-based technologies are easy to use, help provide information quickly, and reduce human effort (Brandtzaeg & Følstad, 2017). It also helps improve the user experience (Chen & Tsai, 2012). User experience is enhanced by evoking emotions, which positively influence behavioral intentions such as product purchase intentions (Lecointre-Erickson et al., 2018).

3. OBJECTIVES:

- To study the Impact of Artificial Intelligence on Retail stores
- To analyze the Impact of Artificial Intelligence on Retail store profitability
- To study the Impact of employee upskilling through Artificial Intelligence

4. CONCEPTUAL MAPPING:



5. RESEARCH METHODOLOGY:

The qualitative methodology used included an in-depth literature review and synthesizing observations and results made in field studies. Researchers have found direct links to various academic conversations surrounding this area of research. We did a study on the top 5 retail stores using AI in their retail operations. This study was conducted in Chennai, India.

6. DATA COLLECTED:

CRITERIA / COMPANY	Implemented tool	Revenue (Current year)	No of Stores	No of Employee
Future Group	MoEngage Inc's	$4.6 billion	1.500+	50,000+
Pantaloons	Algonomy	26 billion	344+	25,000+
Bata	Agrex.ai	8.2975 billion	1,375+	30,000+

Arvind Fashions	Nucleus Vision LLC	12.0128 billion	1,300+	25,620+
Reliance	hyperlocal	676.34 billion	14,412+	1,00,000+
Lenskart	Tango Eye	64.374 billion	1,100+	5,000+

Sources: Fashion network, financial express, pantaloons, business standards

6.1 INTERPRETATION:

From the above collected data we have studied and analyzed the sales, revenue and number of outlets. This helped us get a deeper knowledge about the stores and helped us with the research.

7. STATEMENT OF PROBLEM:

The application of artificial intelligence (AI) in retail operations has the potential to significantly impact profitability. With the rise of e-commerce and online shopping, traditional brick-and-mortar stores face intense competition. Retail stores have to find ways to differentiate themselves and provide unique customer experiences to remain relevant. Consumer shopping habits are constantly evolving, and retailers need to adapt to keep pace. This may involve investing in new technology like AI, revamping store layouts, or adjusting product offerings, these can be made effective using the AI tools available. The retail industry is undergoing a digital transformation, and retailers need to keep up with the latest technology and trends to remain competitive. This includes implementing Omni channel strategies, incorporating artificial intelligence, and improving data analytics. Ensuring a consistent and reliable supply of products can be a challenge for retailers, especially when dealing with unexpected spikes in demand or supply chain disruptions. Retail stores have to balance the need to invest in new technologies and initiatives with the need to keep costs under control and maintain profitability. Overall, the implementation of AI in retail operations and profitability is moderated by the motivation and upskilling of employees. Retailers need to address these challenges to fully leverage the potential of AI to improve their operations and increase their profitability.

8. LIMITATION:

- The quality and availability of data may be limited, making it difficult to accurately measure the impact of AI on retail operations and profitability. For example, data on employee motivation and upskilling may be difficult to obtain, or may not be available in a usable format.
- The implementation of AI technology in retail operations may be a slow process, and it may take time to fully realize the benefits of the technology. This means that a study of the impact of AI may need to be conducted over an extended period to accurately capture the benefits of the technology.
- The impact of AI on retail operations and profitability may be complex and may be influenced by several factors, including employee motivation, upskilling, organizational culture, and market conditions. This makes it difficult to isolate and measure the impact of AI.
- Despite the potential benefits of AI, there may be resistance to the adoption of the technology among employees, customers, and other stakeholders. This resistance may limit the success of the technology, and make it difficult to accurately measure its impact.

9. FUTURE STUDY:

Further research is needed to understand the impact of AI on employee motivation and job satisfaction, and to identify strategies to mitigate any negative impacts and enhance positive outcomes study could be made to examine the effectiveness of different employee upskilling programs and the factors that contribute to their success or failure. Studies could be conducted to better understand the impact of AI on retail operations and profitability, and to identify best practices for leveraging AI to improve performance. Future studies could explore the most effective ways to integrate AI with existing retail systems, including the challenges that need to be overcome and the benefits that can be realized. Further research is needed to examine the ethical implications of AI in retail, including the potential for biases and discrimination, and to identify best practices for ensuring that AI is used responsibly and ethically. Studies could be conducted to understand the impact of AI on the retail supply chain, including the effects on inventory management, procurement, and logistics.

10. MANAGERIAL IMPLICATIONS:

The implementation of artificial intelligence (AI) in retail operations and profitability is moderated by employee motivation and upskilling. To ensure a successful implementation, retailers need to consider Employee engagement in which Retail managers need to actively engage with employees to understand their concerns and address any fears they

may have about the implementation of AI. This can be done through open and honest communication, as well as by providing opportunities for employees to learn about AI and its potential benefits. Employee upskilling is the main criterion which Retail managers need to ensure that their employees have the skills and knowledge needed to effectively use and manage AI. This can be done through employee training programs, workshops, and other upskilling initiatives. Integration of existing systems in Retail managers need to ensure that AI is integrated with existing systems seamlessly and effectively. This requires careful planning and consideration of compatibility and data integration. Monitoring performance of employees, Retail managers need to monitor the performance of AI to ensure that it is having the desired impact on retail operations and profitability. Ethical considerations need to be implicated in AI and ensure that it is used responsibly and ethically. This includes avoiding biases and discrimination and ensuring that AI models are transparent and accountable. Retail managers need to continuously evaluate and improve the implementation of AI in their operations. This requires ongoing monitoring and evaluation, as well as regular updates to AI algorithms to ensure that they are up-to-date and effective. By considering these managerial implications, retail managers can optimize the implementation of AI and ensure that it has a positive impact on retail operations and profitability, while also addressing employee motivation and upskilling.

11. FINDINGS:

AI will have a positive impact on retail operations. AI can improve efficiency and productivity in retail operations, leading to cost savings, better inventory management, and improved customer experience. The use of AI in retail can lead to improved margins and increased profits, as the technology can help retailers to better understand customer needs and preferences, and optimize pricing and promotions. Employee motivation and upskilling can play a critical role in the impact of AI on retail operations and profitability. For example, motivated employees who are trained in the use of AI technology are more likely to adopt and effectively use the technology, leading to improved results. A supportive organizational culture can help to mitigate resistance to AI adoption and promote employee motivation and upskilling. This can include clear communication about the benefits of the technology, opportunities for employee training and development, and support for employees as they learn to use the technology.

12. CONCLUSION:

AI has the potential to have a significant positive impact on retail operations and profitability, providing retailers with the tools they need to improve efficiency, increase sales, and better understand customer needs and preferences. Employee motivation and upskilling play a critical role in the successful adoption and implementation of AI in retail. Retailers who prioritize employee training and development, and who create a supportive organizational culture that encourages the adoption of new technology, are more likely to see positive results from their investment in AI. To fully realize the potential benefits of AI in retail, it will be important for retailers to invest in the technology, as well as in employee training and development programs that will support its successful adoption and implementation.

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