Understanding the dichotomy between Artificial Intelligence and Human Intelligence in Retail marketing with special reference to Centennials Shopping Experience.

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Abstract:

Retail Marketing has changed the way shoppers shop today. The modern multiformat retailing has proved to be successful in providing an easy, accessible, convenient and unique shopping experience to its customers. Above all, the much talked about topic is the Artificial Intelligence. Artificial Intelligence is transforming the way businesses are build. Artificial Intelligence has the potential to make the difference between a dystopian future and a livable one. The question is whether Artificial Intelligence has an ability to replace itself with Human Intelligence. This paper focuses on analyzing the factors that helps retailers in offering Unique shopping experience to the Centennials by adoption of Artificial Intelligence and /or Human Intelligence. The research study tends to determine which among the either (Artificial Intelligence or Human Intelligence), has the potential to understand the needs of its customers and provide unique shopping experience. The study is conducted by incorporating Qualitative research methodology and using descriptive research design. Primary data is collected from the respondents by using Questionnaire method.

Keywords:

Artificial Intelligence (AI), Human Intelligence (HI), Retailing, Shopping Experience, Centennials.

I Introduction:

Retailing has come a long way. From the old age barter exchange, to street hawkers and peddlers to Kirana store. And now the gigantic, sophisticated and digitalized physical and virtual stores. Over the years there has been tremendous advancement in the field of retailing. From economic perspective the Global retail market was accounted to \$25.038 trillion during the year 2019. The Global retail sector is estimated to reach a value of nearly \$27987.15 billion by 2020. The retail market is significantly growing at a Compound Annual Growth Rate of 7.6 % during the forecast period. According to the latest research report by Boston Consulting Group in Collaboration with Retailers Association of India, the retail market is estimated to cross the trillion dollar mark. It is also revealed that India's consumption is likely to outperform that of developed nations with respect to Compound Annual Growth Rate, which is 3.6 % in United States and 4.5 % in United Kingdom. The retail market of Indian Economy is growing at a Compound Annual Growth Rate of 9 to 11 %. The major drivers for the phenomenal Indian retail growth has been the multiple structural formats, changing socio-demographic profile of Indian consumers, increasing purchasing power and changing lifestyle and preference of Indian Consumers.

Artificial Intelligence has kept no stone unturned, be it Manufacturing, Automobile, Health care, Construction, Aviation or Retailing. Retailers are adopting Artificial Intelligence in various aspects of business activities, including back-end to front-end

activities. With respect to back-end activities Artificial Intelligence helps in managing and optimizing the entire supply chain, building and managing Inventory and automating processes for boosting efficiency and reducing cost. Inclusion of Artificial Intelligence in Front-end operations helps retailers in developing predictive analysis of its customer data. With the help of this data retailers can easily identify the requirements of its customers and accordingly provide personalized shopping experience.

We live in the world where every single day a new technology is developed to either solve the problems or improve and make lives of the people easy. And who makes technology, the Humans. We cannot deny the fact that Humans are the creators of Artificial Intelligence. Humans are developing machines and robotic applications that can serve the very purpose of solving problems and enabling faster and precise decisions. As Picasso once said, "Computers are useless; they can only give you answers." It is only humans who have the intellect and ability to analyze and understand the entire working of business processes, systems and functions. No doubt that machine can very well solve the problems, but it is only humans who have the ability and intellect to identify the problems and accordingly program the machines to solve it.

Millennial are the most talked about generation in the corporate fraternity. From Paints, to Estate, to Insurance, to Laptops, to Holiday packages: everything is been targeted to the most mouthwatering segment of the decade i.e the Millennial. Hiring employees, to appointing corporate executives and targeting customers for selling products, every company seems keen on getting them in. Millennial have become the core target segment of the business firms, as they represent the most savvy and technologically advanced generation with high purchasing power. Presently the world is seeing a revolution with respect to demographic shift. Centennials, popularly known as Generation Z is the new Cohort group that has come into limelight. Centennial is becoming the world's largest demographic segment that has never known the world with Internet. They grew up with a Smartphone and social networking as the way of life. They communicate through real time applications and emoticons. Centennials are loosely connected with the Physical world but have very strong connectivity with social and virtual communities. Centennials are well informed, appreciate and welcome change and demand data with authenticity.

This research is conducted to understand the mindset of Centennials with respect to their shopping behavior and experience.

I. Review of Literature:

AI needs vast amount of data to learn anything, with a success rate comparable to that of human beings with far less experience than the AI machines. AI requires self-learning and experiences in order to gain inferences, extract hidden features, to formulate strategies and concepts and to make strategic decisions. It has been observed that AI has difficulties in determining the spatial relationship between areas of a picture or image and recognizing intentions beyond the training set. The major element that puts HI superior to AI is the ability of human brains to perceive things, whereas AI first has to learn things in order to perceive. In conclusion AI has ability to support analytical chemist, but cannot replace them with HI. (Gauglitz 2019).

Adoption of AI in retail marketing has lowered the operating cost by bringing in automation efficiencies. 50% of the retailers who were surveyed have experienced

reduction in operating cost after adoption of AI technologies. While 43% of retailers have seen increase in revenue and 44% of the retailers have seen increased in productivity. Retailers are trying to bring AI in every aspect of its business activities, but are facing shortage of Human resource skills. More than 55% of retailers reveal the fact that there is deficiency of in-house capabilities to implement and manage AI system. Hence it can be concluded that in order to equip and manage AI system, businesses will have to invest in recruiting and training skilled employees to support and operate AI technology (Infosys 2017).

The researcher argues that language learning is closely associated with HI, human neural networks and no computers or software can claim to replace the functions carried out by human brains. The study concludes that despite of the advancement in technology and AI, there remain areas of human brain and HI where AI cannot enter. The findings also concluded that AI can create simulated experiences but they cannot ever replace the wonder and the joy that human feels in the real human experiences in language learning, whether as a child or as an adult.(Mohammed Abdul Malik).

The Global survey data revealed that consumers have confused feelings towards AI. One-third of the Consumers are of the opinion that they are very comfortable with AI adopted by business firms, while just under one-third say they aren't. There exists another one-third who says they just don't know what exactly AI is. Many consumers are excited to embrace the advantage of AI and see a promising future. On the other hand there are some consumers who have deep-rooted fear about AI and still prefer to experience and acknowledge human touch over a faceless machine. There is another group of consumers who feel AI has not lived up to the expectations.

II. Research Objectives:

- 1. To determine how Artificial Intelligence and Human Intelligence help retailers offer unique shopping experience to Centennial.
- 2. To understand the dichotomy between Artificial Intelligence and Human Intelligence and which among the either does Centennial gives utmost importance when it comes to Shopping Experience and Satisfaction.

III. Research Hypotheses:

- 1. Artificial Intelligence lack ability to outpace/replace Human Intelligence with respect to offering unique shopping experience.
- 2. Centennial prefer interacting and engaging with Human Intelligence over Artificial Intelligence during their shopping/buying journey.

IV. Research Methodology:

Empirical research study has been carried out, wherein empirical evidence is collected and analyzed by conducting Quantitative research method. The population of the study was determined based on random sampling system. The Sample size drawn for the study was 50 respondents within the age group of 18 years to 21 years. The data was gathered during the period from 1st April 2020 to 30th April 2020, by circulating online Google forms. Primary data was collected from Centennials through questionnaire method and secondary data was collected by analyzing various literature studies from books, research publications, websites, blogs and research reports published by market research firms. The questionnaire developed was based on descriptive method well as five-item likert scale. Responses were given to each statement using a five-point likert scale, for which

1= Strongly disagree, to 5= Strongly agree. The responses were summed up to produce a score for the measures.

V. <u>Understanding Centennials and their Shopping behavior.</u>

Who are Centennials?

Centennials are the most talked about generation in the corporate world. Centennials are the people born between (1997-2010) and popularly known as Generation Z. Centennial are characterized as being self-educated, loyal, creative, and favors financial security. They are well informed and updated and seek advice and opinion before taking any decision. They are the first mobile natives and acknowledge companies that provide seamless buying experiences. Centennials embrace technology and social networking and spend several of hours surfing internet. Most of the Centennials prefer engaging with peers and relatives through social media platforms like Facebook, Snap Chat, Whatsapp, Twitter and Instagram, but at the same time intent to keep their online lives private. Centennials are much aware of ecological environment and value the concept of ecofriendly and healthy living. During the buying decision journey Centennials do not hurry in buying things or spending money, rather they do research through the various physical and virtual sources, and then make a considered purchase decision. Before making buying decisions Centennials go through the reviews from the company website in order to validate their product choice. The average Centennial has an attention span of eight seconds. The research study found out that though Centennials do their shopping research online, but when it comes to an actual buying of products they prefer shopping in-store over online stores.

VI. Research Findings and Conclusions:

Research study was organized to understand the dichotomy between Artificial Intelligence and Human Intelligence. The study focused on determining which among the either does Centennial give utmost importance when it comes to Shopping Experience and Satisfaction. Questionnaire was developed using Google forms and responses were collected by circulating it to the respondents. The sample size for the study was 78 respondents. The results were analyzed using charts and pie diagram. The study has had come across the following findings.

The research study was initiated by simply understanding whether Centennials are aware of the Artificial Technology.

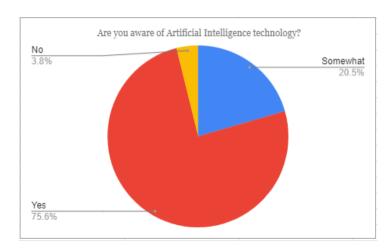


Figure: 1

More than 75% of the Centennials are aware of the concept of AI. 20.5 % of the Centennials do not have entire knowledge about this technology. However the study reveals that there is this 3.8% of the population which is not at all aware of AI. Looking at the findings it can be concluded that majority of Centennial population has a high level of awareness and also have a knowledge about the benefits and limitation of AI.

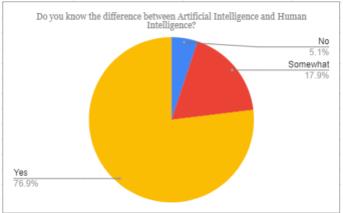


Figure: 2

As majority of the Centennial had high awareness level about the AI technology, it was important to find out whether they have an idea about the difference between AI and HI. From the study it was revealed that more that 76% of the Centennials are familiar with the differences between AI and HI. There is this 17.9 % of the Centennials who are somewhat aware of the differences between the two and there is 5.1% of population who are not at all aware of the differences between AI and HI. This comparison was necessary to understand which of the option Centennials prefer during their buying journey.

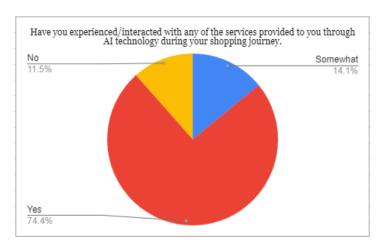
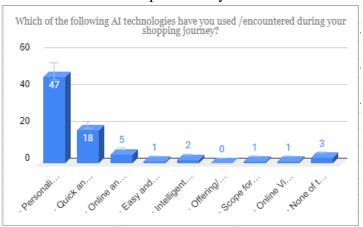


Figure: 3

While going through the shopping / buying journey every Centennial go through various experiences with regards to collecting information about the product and brand, taking advice from peers and relatives about the product benefits and offers , checking the reviews , comparing products of different companies, and visiting the store either physically or online for buying products. During the buying journey what form of AI do they interact with or experience was important to understand. Hence the study revealed that more than 74% of the Centennials have experienced and interacted with the services offered through the AI. 14.1% of the Centennials has somewhat come across certain services offered by the AI. There is this 11.5% Centennials who have not at all interacted with the AI technology.

Hence it can be concluded that majority of Centennial have experienced and interacted with some or the other form of services provided by the AI.



Fiaure: 4

During the shopping/buying journey Centennials are offered various services by the retailers. There are certain services that are offered through AI and there are certain provided through people. The retailers across markets are adopting AI technology in order to provide unique and seamless shopping experience to the customers. Centennials were asked as to which are the services that they have experienced, were offered by AI during their shopping journey. 47 respondents have experienced Personalized

Promotional Messages through emails/facebooks, as the services delivered through AI.18 respondents have used AI services in the form of Quick and Easy order placement and order delivery. 5 respondents have experienced AI services while checking out Online and personalized shopping recommendation. 2 respondents have encountered AI in the form of Intelligent Chatbots: Resolving online consumer query and consumer buying problem. Easy and quick payment /delivery system, Offering/Developing products /services matching customers' needs, Scope for product/brands comparison for easy and quick buying decision and Online Virtual Assistant are the services that very few respondents have experienced.

Hence it can be concluded that AI in retail business is still at the nascent stage. Maximum Centennials have not encountered many services

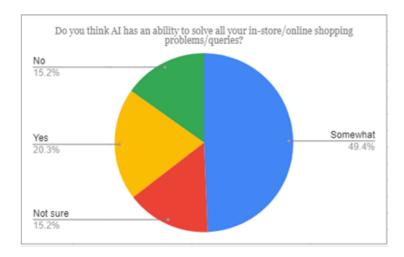


Figure: 5

49.5 % of centennials believe that AI does not have an ability to solve all their in store/online shopping problems/queries. 20.3% of the centennials are of the opinion that AI has an ability to solve all their in-store/online shopping problems. There are 15.2 % of the Centennials who believe that AI does not have an ability to tackle and solve their in-store/online shopping problems.

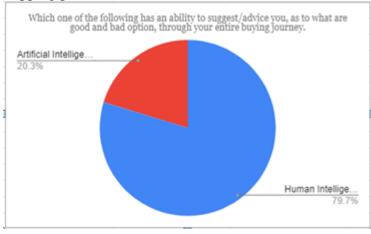


Figure :6

79.7% Centennials strongly believe that HI has an ability to suggest/advice them as to what are good and bad buying options during their buying journey over AI. While only 20.3 % Centennials believe AI has the ability to suggest/advice them as to what are good and bad buying options during their buying journey. This shows that centennials still choose people over machine while making buying decisions.

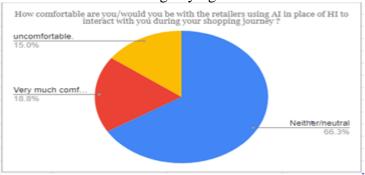


Figure: 7

66.3 % Centennials shows neutral attitude when asked about their comfort level while interacting with the AI. 18.8 % were very mush comfortable while 15 % Centennials were uncomfortable interacting with AI.

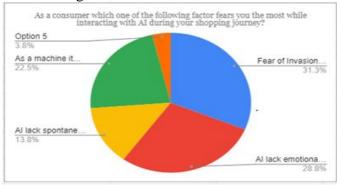


Figure: 8

The researcher was keen to discover the fact as to what fears centennials a lot while interacting with the Machines/AI. Maximum (31.1%) centennials feared about the privacy invasion while transacting through AI. 28.8 % Centennials believe that AI lack emotional trait which will have an adverse effect on our shopping experience. 22.5 % are of the opinion that As a machine it will never understand or identify our real buying needs the way HI will. 13.8% of the centennials feel AI lack spontaneity while solving consumer buying problems/ Query.

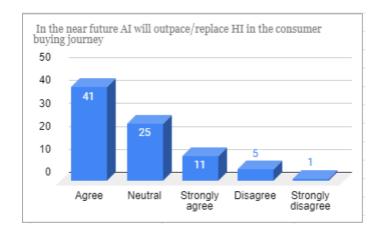


Figure: 9

Almost 49 % of the Centennials that AI will easily outpace/ replace HI, whereas 30% are neutral and only 13 % believe that AI has the capacity to outpace/ replace HI in the consumer buying journey.

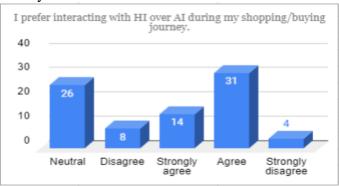


Figure: 10

37 % of the Centennials agree that they prefer to interact with HI over AI during their shopping journey. While 31 % where neutral and 17 % of the centennials strongly agree that they prefer/would prefer to interact with HI over AI during their shopping journey.



Figure: 11

46 % of the centennials agree that they feel frustrated with retailers that only provide automated communication with no options for human Interactions. 15% strongly agree whereas 26 % disagree.

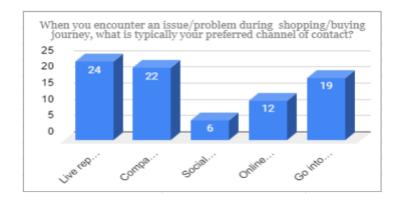


Figure: 12

28% of the centennials prefer approaching live representative on the phone while facing a issue/problem during shopping/buying journey. 26 % centennials approach company website while 22 % Centennials prefer visiting the store and getting their problem solved

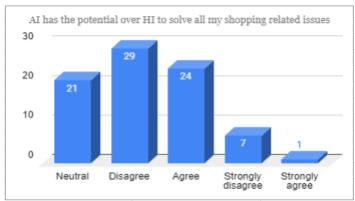


Figure: 13

35 % of the Centennials Disagree that AI has the potential over HI to solve their shopping related issues.30 % of the Centennials agree that AI has the potential over HI, whereas 25 % are neutral. From the above figure it is clear that maximum centennials do not agree that AI has the potential to solve all their shopping needs.

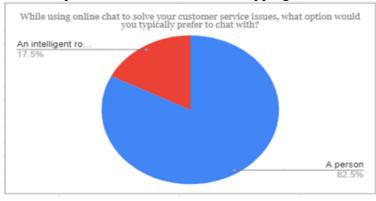


Figure: 14

Another question that was raised to the Centennial was which option do they prefer or would like to prefer while having online chat –whether An Artificial Intelligent Robot or

A Person. 82.5 % of the Centennials preferred to have online conversation with a person rather than the AI Robot. While only 17.5 % Centennials chose to chat with AI Robot over a person.

VII. Conclusion

There is no doubt that technology has paved a new wave of modernization, mass production, customization and personalization of products, services, processes and operations. AI has become the need of the hour with the growing concern for innovation, excellence and performance. But at the same time it should be noted that AI has been created and build by Human Intelligence, wherein HI has the ability to alter, twist and turn AI according to the need and demand of the market. From the research study that has been conducted to understand the buying behavior of Centennials towards AI and HI, it can be concluded that AI can never rule over or outpace HI. Centennials believe that along with AI they need interactions and engagement with HI. Hence HI plays a critical role in analyzing and understanding the needs and buying preferences of the customers and building customer relationships.