Managerial Implications of Technological Innovation in the Path towards Industry 4.0 in Retail

Ms. Arpitha Patel S
4th Sem. MBA
PGDMS&RC
PESITM
Shivamogga, Karnataka State
Email-arpithapatels96@gmail.com

Dr (Hc) D M Arvind Mallik
Assistant Professor
PGDMS&RC
PESITM
Shivamogga, Karnataka State
Email-aravind.mallik@gmail.com

Abstract

Purpose-The purpose of the research report is to advance the understanding of degree of knowledge, the perceived relevance and the current practice of Industry 4.0 in spar retail environment

Research Design-The main objectives are to study the Managerial implications of technological innovation in the path towards Industry 4.0 in Retail. The present study is conducted for six weeks. Sample size is100 and followed by explanatory research design and a convenient sampling was used.

Findings -Digitization of product and service offerings; developing innovative digital business models; digitization and integration of supply chains; and adopting data and analytics as a core capability will lead higher driving forces toindustry4.0

Results-The results are of importance for retail companies in planning transformation processes towards digitalized processes and enhance employee awareness towards Industry 4.0 must be initiated from Management and HR Dept

Keywords- Industry 4.0, Banking 4.0, Maturity Model, Retail, Digital, Productivity

1. INTRODUCTION

Retail is the sale of goods and services from individuals or businesses to the end user. Retailers are part of an integrated system called the supply chain. A reseller buys goods or products in large quantities from manufacturers directly or through a wholesaler, then sells smaller quantities to the consumer for a profit. Retail can be done in fixed locations like stores or markets, door to door or by delivery. In the 2000s, retail trade was increasingly carried out through online websites, electronic payment, and then by courier or other services.

Retail trade includes subordinate services, such as delivery. The term "retailer" is also used for the service provider that meets the needs of a large number of people, for example for the public. Stores can be located on residential streets, streets with few or no houses, or in a shopping mall. The shopping streets can be reserved for pedestrians. Sometimes a partial or full roof shopping street to protect customers from the forecast. Online retail, a type of e-commerce used for business-to-business (B2C) and mail-order transactions, is a form of non-store retailing.

1.1 Indian Retail Sector – Overview

The Indian retail sector is over age and has undergone a major transformation in the past decade with a notable shift to organized retailing. At T Kearney, a global management consulting company based in the United States, ranked India as the fourth most attractive country for retail investments in 30 flourishing markets.

The retail market is expected to reach whooping cough. 47 lakh crore by 2018-2019, while increasing at a compound annual growth rate of 15%, in accordance with the "Yes Bank - Assocham" study.

The retail market (including organized and unorganized retail) was at Rs. 23 lakh crore in 2011-12. According to the study, organized retail, which represented only 7% of the overall retail market in 2011-12, is expected to grow at a CAGR of 24% and reach 10.2% of the total retail sector detail by 2018-2019.

1.2 Company Profile

The SPAR hypermarkets in India are the result of a strategic partnership between Max Hypermarkets in India Pvt, of the Landmark Group of Dubai. Ltd. and based in Amsterdam SPAR International. The business started with a store in 1932 and now includes more than 12,500 stores in 44 countries on 4 continents. SPAR's success story is based on a set of values that have guided the organization since its inception over 80 years ago. At the heart of these core values is the commitment of SPAR stores around the world to freshness, choice, value and service.

1.3 The variety of product range in SPAR Hypermarket:

By providing a wide variety of products; Fruits & Vegetables, Beverages, Grocery, Meat, Fish & Poultry, Dairy, Apparels, Plastics, Utensils, & Crockery, Home Furnishing etc.

- Farmer's Market
- FMCG Food
- Home Care
- Health & Beauty
- Kids
- Fashion
- Baby World

2. THEORETICAL BACKGROUND

The industrial revolution was the time when product manufacturing moved from small stores and homes to large manufacturing plants. This change had changes in culture when people moved from rustic areas to large urban communities to work. He also presented new advances, new modes of transport and an alternative way of life for some.

2.1 Current Status of Industry 4.0 in India:

Worldwide, I4.0 advertising is invoked to arrive at 13 90,647 INR crores by 2023.1 From countries, for example, the United States, China, Japan and European countries such as the United Kingdom, 'Ireland, Sweden and Austria have all started receiving I4.0. In India, the 6th largest manufacturing country, the manufacturing division defines an essential element of the country's elaborate vision, as shown by the solid crusade of the administration `` Desiring for advancement in India ''. The administration intends to increase the part of the manufacturing sector in the GDP to 25% compared to the current 17%, by 2022. Various activities and changes

of approach, for example, the execution of the GST (product tax) and services) and the facilitation of FDI agreements have been made by the legislature.

2.2 LITERTURE REVIEW

a) **SalahAlaloul (2019)** said that the pattern of digitization, automation and the accumulating use of Information and Communication Technologies (ICT) was imagined as the main idea of the Industrial Revolution (IR) 4.0 . Contrasting the movements between many companies, the development company hesitates to integrate these imaginative advances in its basic practices, despite the extraordinary improvements presented by the different companies.

b) **Alejandro Germán Frank (2019)** said that Industry 4.0 has been seen as another modern step as some progress under development unites to give computerized arrangements. However, there is no understanding of how organizations are updating this progress. Subsequently, we expect to understand the examples of appropriation of industry 4.0 innovations in assembly companies.

c) **Ashraful Islam (2019)** expressed that there is so much shouting in the current year on the subject Industry 4.0 which implies a fourth modern upheaval which is the name given to the ready mix of customary assembly and mechanical practices with the undeniably innovative world around us. The purpose of this video is so great given the fact that Bangladesh is currently a nation based on RMG imports. 85% of the total sum of its imports obtained from this RMG industry.

d) **Martin Prause (2019)** said that Industry 4.0 encourages careful control of internal and external complexity by shifting customary creative frameworks from organized organized control to decentralized control. Industry 4.0 activates the advancement of articles based on the use of clever sensors and entertainment frameworks to encourage the definition of delicate creative procedures and the development of procedures applied on ICT to coordinate forms of creation on the value chain, the rating system and the life cycle of the items.

e) **Lara Agostini (2019)** stated that, alluding to the mixture of physical items, human artists, passionate machines, creative lines and procedures across hierarchical boundaries, intended to shape a framework in which all of the procedures are incorporated and to share data, gradually sketch in addition, including an approach that reflects on the authoritative and administrative views that complement the reception of computerized progress; from a functional angle.

f) **SEAC (2018)** concludees that we are now supporters of Industry 4.0 - the era of artificial consciousness and the Internet of Things (IoT). Digitization is progressing at such a rapid rate that organizations must be put in place for the many advances that innovation presents. Our current reality is gradually proving unpredictable due to rapid changes, more and more doubtful with obscure results, more and more

complex with many interconnected parts, and more and more vague with a lack of lucidity. Today, HR people cannot rely solely on conventional methodology.

g) **Osman Bayraktar (2018)** stated that the web's chances of killing separation and the ability to move huge amounts of information quickly affect many everyday problems and have a profound influence on mechanical creation and procedures. The innovative assembly tasks feel these progresses before. It is inevitable that companies working with customary innovations are presented with this impact in correspondence with the difference in natural structure.

h) **Bernard Marr (2018)** expressed When PCs were released in Industry 3.0, it was generous gratitude for the expansion of a completely new innovation. At present and in the future as industry 4.0 deploys, PCs are associated and talk to each other to finally fix choices without human contribution. A mix of digital physical frameworks, the Internet of Things and the Internet of Industry 4.0 systems conceivable and the factory warns of a reality.

i) **Sattar Bawany (2018)** said that digitization affects all associations, including small and medium-sized enterprises (SMEs) across different segments or businesses. For each situation, the effect is alternative, making it fundamental for organizations to have a decent understanding and perspective of what they are facing and how digitalisation will influence their organization: what openings can be seized and what dangers must to be confronted? The effect of the computerized interruption must be closely monitored by the larger unstable, eccentric, mind-boggling, and vague (VUCA) work states of recent years.

j) **Michela Piccarozzi Barbara Aquilani Corrado Gatti (2018)** expressed this industrial revolution, generally known as "industry 4.0". Industry 4.0 is a wide field which includes: creation forms, efficiency, information for managers, relationship with buyers, seriousness and much more effective details of each of these commitments is still in difficulty in the writing of the board of directors.

3. RESEARCH METHODOLOGY:

3.1 Statement of the Problem: Considering the overall developmental phase of Industry 4.0, this study needs to fill in an absence of data and dynamic, attempting to respond to an inquiry concerning the degree of planning of Retailing Industry with respect to the execution of the new innovation. The fundamental reason for this article is to distinguish the assessments and view of Retailing Industry administrators in India on the drivers and obstructions of executing Industry 4.0 innovation for business improvement.

3.2 Need of the investigation: This study will give knowledge and data to retail about the sorted out retail the executives and its significance in retail business. And furthermore it assists with

understanding their Customers just as their workers. The aftereffect of this investigation and the study will likewise support chiefs and heads characterize systems for development. Expert in the retail will profit by understanding the status of their relationship with end Customers, and become mindful of shortcomings and quality of the Customers.

3.3 Objectives of the study

1. To study the impact of Industry 4.0 Role of HR
2. To study the barriers of opportunities for using Industry 4.0 Technologies.

3.4 Research Methodology:

1. **Research Design:** Exploratory research.

2. **Sampling method**: Non probability sampling method

3**. Sampling Population**- SPAR Employees

4. Sampling Technique: Convenience technique

5. Sample Size: 120 sample sizes across all 7 dept based forum finite population 91 we have taken approximate 100. (*5% Margin Error, 95% Confidence Level and 50% Response distribution)*

3.5 *Tools for data collection:* Structured Questionnaires were the tools for data collection. The Questionnaire was neatly designed and constructed for the purpose in line with the objective of the study.

3.6 Sources of data collection

➢ **Primary Data**

Primary data has been used by me in the form of Questionnaire & Observation, which are the two basic methods of collecting primary data, which suffices all research objectives.

➢ **Secondary data**

Secondary data sources like catalogue of the company, product range book of the company, various internet sites and Literature Reviews have been used.

3.7 Limitations of the study

• The present study is limited to know about the Employee perception regarding Industry 4.0 in SPAR Hyper Market, Shivamogga

- For the purpose of survey 100 respondents are taken as sample size

- Lack of time and other resources as it was not possible to conduct survey at large level

- While collection of the data many Respondents were unwilling to fill the questionnaire.

- Respondents were having a feeling of wastage of time for them

4. DATA ANALYSIS

1) Analysis and Interpretation:

4.1 Respondents Profiles

	Respondents	**Percentage**
Gender	Male	60
	Female	40
Marital Status	Married	31
	Unmarried	69
Age Group	Below 20 Years	10
	Between 20 - 30 Years	76
	Above 30	14
Educational Qualification	SSLC	8
	PUC / Diploma	45
	Graduate	40
	Post Graduate	7
Work Experience	Up to 2 Years	64
	2 to 6 Years	28
	6 - 10 Years	1
	Above 10 Years	7
Satisfied with organization	Yes	98
	No	1
	Somewhat	1

Analysis& Interpretation

60% of the Respondents are Male and 40% of the respondents are Female. 31% of the respondents are Married & 69% of the respondents are unmarried. 10% of the Respondents are belong to the age group of below 20 years, 76% of the Respondents are belong to the age group of between 20 – 30 years, and 14% of the Respondents are belong to the age group of above 30 years. 8% of the respondents are belongs to SSLC, 45% of the respondents are belong to PUC/ Diploma, 40% of the respondents are Graduates and 7% of the Respondents are Post Graduates. 64% of the Respondents are having Work Experience Up to 2 years, 28% of the Respondents are having Work Experience of 2 to 6 years, and 1% of the Respondents are having Work

Experience above 10 years in the present company, 98% of the respondents are satisfied with organization, 1% of the respondents are No, and 1% of the respondents are somewhat.

2. Drivers for using Industry 4.0 technology:

Table No: 1 Drivers for using Industry 4.0 technology:

Sl No	Variables	SA	A	NA	DA	SDA	Mean	SD
1	Customer requirement	33	64	3	0	0	4.3	0.519
2	Conscious strategy on Industry 4.0	32	62	6	0	0	4.26	0.558
3	To reduce costs	24	71	5	0	0	4.19	0.503
4	To improve time-to-market	32	50	16	2	0	4.12	0.711
5	Work initiated based on requests from consultants	12	75	11	2	0	3.97	0.556
6	Have seen/read about what and how others have done	7	72	16	5	0	3.81	0.496
7	Due to legal requirements/changed legislation	2	35	61	1	1	3.36	0.644
8	Work initiated with input from the public advisor	6	32	36	24	1	3.15	0.952
9	Lack of qualified workforce	6	43	46	5	0	3.5	0.685

Source (Primary Data)

From the above table no 1 we can analyze that Customer requirement variables got rated of (4.30 ± 0.519) Conscious strategy on Industry 4.0 got rated of (4.26 ± 0.558), Reduce costs variable got rated of (4.19 ± 0.503) , Improve time to Market variables got rated of(4.12 ± 0.711) , Work initiated based on requests from consultants variables got rated of (3.97 ± 0.556) , Have seen/read about what and how others have done variable got rated of(3.81 ± 0.496), Due to legal requirements(3.36 ± 0.644),Work initiated input from the public advisor system(3.15 ± 0.952), Lack of qualified workforce(3.5 ± 0.685)

3. Studying various factors effecting of industry 4.0 using Maturity model

Table No: 2. Strategy & leadership (5- Highest: 1- Lowest)

Sl No	Variables	SA	A	NA	DA	SDA	Mean	SDA
1	The organization has a digital vision to transform because of the new market needs?	26	71	3	0	0	4.23	0.49

2	There is a business area prioritized for digital investments?	25	65	10	0	0	4.15	0.4
3	There is a team dedicated to the organization's digital transformation and change?	24	66	10	0	0	4.14	0.81
4	Leadership has made an effort to translate the digital vision down to all levels of the organization?	29	65	5	0	0	4.2	0.67
5	There is a separate budget allocated for adopting digital technologies?	15	71	14	0	0	4.01	0.54

Source :(Primary data)

The above table showing it can analyzed towards Strategy & Leadership in that The organization has a digital vision to transform because of the new market needs factor got rated of (4.23 ± 0.486), There is a business area prioritized for digital investments factor got rated of (4.15 ± 0.402), There is a team dedicated to the organization's digital transformation and change factor got rated of (4.14 ± 0.805), Leadership has made an effort to translate the digital vision down to all levels of the organization factor got rated of (4.2 ± 0.678) and There is a separate budget allocated for adopting digital technologies factor got rated of (4.01 ± 0.538). It can have interpreted that The organization has a digital vision to transform got highest rated 4.23

The research work presented here aimed for the development of a maturity model and a related tool for assessing the Industry 4.0. In contrast to other approaches the major contribution of this research effort is the inclusion of various organizational aspects resulting in a more comprehensive model.

a. Customer Experience

Table No: 3 Customer Experience (5 – Highest: 1- Lowest)

Sl No	Variables	SA	A	NA	DA	SDA	Mean	SD
1	The organization experiments with multiple digital channels to engage the customers?	43	51	6	0	0	4.37	0.594
2	The organization understands how customer demands are changing in the market?	36	60	3	1	0	4.31	0.577
3	Digital technology is used to stay in touch with the customers and to solve their challenges?	28	63	9	0	0	4.19	0.577
4	Data inputs from customer usage are used continuously for improving solutions and services	20	72	7	1	0	4.11	0.545
5	The organization is able to offer customized solutions to capture higher share of the market segment	17	73	10	0	0	4.07	1.557

Source (Primary Data)

The above table no 3 showing Customer Experience Factors in that The organization experiments with multiple digital channels to engage the customers factor got rated of(4.37± 0.594) , The organization understands how customer demands are changing in the market factor got rated of (4.31± 0.577), Digital technology is used to stay in touch with the customers and to solve their challenges factor got rated of (4.19± 0.5778), Data inputs from customer usage are used continuously for improving solutions and services got rated of(4.11± 0.545) and The organization is able to offer customized solutions to capture higher share of the market segment got rated of (4.07± 1.557) respectively. Its interpreted that The organization experiments with multiple digital channels to engage the customers got highest rated and The organization is able to offer customized solutions to capture higher share of the market segment got least rated

The researcher work presented here aimed for the development of a Customer Experience. The changes have been fueled by technological advancements, which have expanded the range of services available to customers, and simultaneously led to escalating customer expectations. The result is that there are now more services and products available than at any time in the past, yet customer satisfaction are on a downward slide. Customer Experience Management can help reverse that slide by providing efficient business tools that make the interactions between companies and customers more rewarding for both parties. In Customer Experience we taken overall mean is 4.21 it means the people will not satisfy the customer experience so it considered disagree.

b. Operations

Table No: 4 Operation (5 – Highest: 1- Lowest)

Sl No	Variable	SA	A	NA	DA	SDA	Mean	SD
1	There is one integrated platform which provides complete visibility and can be accessed by multiple users?	37	55	8	0	0	4.29	0.6
2	All production equipment is connected and real time data is available for decision making?	23	68	10	0	0	4.17	0.38
3	It is possible to access all production information remotely?	10	85	5	0	0	4.05	0.38
4	KPIs are well defined across functions and get updated automatically?	9	30	54	7	0	3.41	0.93
5	Departments are able to collaborate easily through digital channels?	8	25	22	28	12	2.74	1.31

Source: (Primary Data)

From the above table no 4 showing the Operation factors in Industry 4.0. in that There is one integrated platform which provides complete visibility and can be accessed by multiple users factor got rated of (4.29± 0.604), All production equipment is connected and real time data is available for decision making factor got rated of (4.17± 0.375), It is possible to access all production information remotely factor got rated of (4.05± 0.384), KPIs are well defined across functions and get updated automatically factor got rated of (3.41 ± 0.928) and Departments are able to collaborate easily through digital channels factor got rated of (2.74 ± 1.308)respectively. Its interpreted that There is one integrated platform which provides complete visibility and can be accessed by multiple users got highest ratings and Departments are able to collaborate easily through digital channels factor got lowest rating growth expectations, as the current IT infrastructure enables the industry to adopt it quickly and efficiently

its interpreted that The frequencies reported in each of the categories analyzed do not correspond to the total of studied Industry 4.0 cases. This is a consequence of the fact that many cases incorporate more than one area of operations management and use several technologies simultaneously. In this way, it is emphasized that the breadth of Industry 4.0 implementation in organizations goes beyond a specific application of a certain types of technology, extending to a holistic and integrated approach to technologies that meet all the needs of a digital production system.

c. Product and Innovation

Table No-5 Product and Innovation **(5 – Highest: 1- Lowest)**

Sl No	Variable	SA	A	NA	DA	SDA	Mean	SD
1	The organization leverages on digital technology for new product innovations?	23	71	6	0	0	4.17	0.511
2	The organization is able to innovate rapidly as per the changing market requirements?	21	75	4	0	0	4.17	0.47
3	New service models, enabled by digital technology, have been introduced?	15	76	9	0	0	4.06	1.586
4	It is possible to analyze product usage information based on real time data streaming?	13	47	36	4	0	3.69	0.744
5	Governance and risk strategy is in plan for Connected Products environment?	7	25	58	10	0	3.29	0.738

Source (Primary Data)

From the above table no 5 showing the Products and Innovation factors in Industry 4.0. in that The organization is able to innovate rapidly as per the changing market requirements factor got

rated of (4.17±0.510), The organization leverages on digital technology for new product innovations factor got rated of (4.17±0.470), New service models, enabled by digital technology, have been introduced factor got rated of (4.06± 1.586), It is possible to analyze product usage information based on real time data streaming factor got rated of (3.69± 0.744) and Governance and risk strategy is in plan for Connected Products environment factor got rated of (3.29± 0.7388). its interpreted that The organization is able to innovate rapidly as per the changing market requirements got highest ratings and Governance and risk strategy is in plan for Connected Products environment got lowest ratings.

Overall from the data analysis which has been carried out from the above table 4.12, I can conclude that the relationship of those products & Innovation in the Industrial revolution possess of positive impact of industry 4.0 readiness and the use of its technologies. The retailer of the future has a great deal to consumer. its interpreted that As Industry 4.0 unfolds into the rise of smart, many industries will be forever changed by new technologies that help to further optimize business operations. When we think of retail and fast fashion, images of shopping, trendy styles, and social media influencers may come to mind. But behind the scenes, Retailing Industries are putting together product collections that designers create using materials sourced from a global network of suppliers, within increasingly tight deadlines and evolving consumer preferences. Complex as it may currently seem, several emerging technologies are poised to have a significant impact on the retail industry and the way that products are designed and developed. **Q**

d. People

Table No: 6 People (5 – Highest: 1- Lowest)

Sl No	Variables	SA	A	NA	DA	SDA	Mean	SD
1	A team of digital experts has been deployed to drive digital adoption across the organization?	29	66	5	0	0	4.25	0.444
2	Employees are able to leverage on digital tools for collaboration and remote connectivity?	23	68	6	3	0	4.11	0.63
3	Ideas of digital transformation by employees are encouraged?	22	67	11	0	0	4.11	0.426
4	Digital tools are used for knowledge management and skill enhancement?	23	51	17	8	1	3.87	1.217

Source (Primary Data)

From the above table no 6 showing the People factors in Industry 4.0. in that A team of digital experts has been deployed to drive digital adoption across the organization variables got rated (4.25 ± 0.444), Employees are able to leverage on digital tools for collaboration and remote

connectivity & Ideas of digital transformation by employees are encouraged variables got rated of (4.11 ± 0.630) respectively and Digital tools are used for knowledge management and skill enhancement variable got rated of (3.87 ± 1.217) . its interpreted that A team of digital experts has been deployed to drive digital adoption across the organization factor got highest rating and Digital tools are used for knowledge management and skill enhancement factor got lowest ratings.

One of these must-have capabilities for retail organizations includes the partnership or collaborative mindset - To keep up with the rapid pace of technological change, all participants will have to develop a culture of collaboration and pursue intra and extra-industry partnerships, rather than just rely on building their own capabilities. Hence, increasingly we have seen companies moving away from competitive business models to cooperative ones, and in the process extract an incremental value from the networked retail ecosystem.

4. Role of HR and its effect on industry 4.0

Table no: 7 Impact of Industry 4.0 Role of HR: (5 – Highest: 1- Lowest)

Sl No	Variables	SA	A	NA	DA	SDA	Mean	SD
1	Our employees are aware but do not trust Industry 4.0 technologies which will have deep impact now?	12	84	4	0	0	4.08	0.39
2	With Industry 4.0 around the corner , do you consider HR has to play a more strategic role in that and must have knowledge of business operations	7	47	43	3	0	3.96	0.53
3	For us, implementing Industry 4.0 is not reasonable. as we need to expect management to involve?	8	64	27	1	0	3.79	0.59
4	With Implement Industry 4.0 According to you which department is largely impact	7	47	43	3	0	3.58	0.85
5	Our employees fear dependence on Industry 4.0 technologies at minimal stage ?	11	29	60	0	0	3.51	0.69

Source (Primary Data)

From the above table no 7 we can have analyzed that there are major five Role of HR variables impact on Industry 4.0. in that employees are aware but do not trust Industry 4.0 technologies variable got rated (4.08 ± 0.3919), With Industry 4.0 around the corner, do you consider HR has to play a more strategic role in that and must have knowledge of business operations variable got rated (3.96 ± 0.527), For us, implementing Industry 4.0 is not reasonable. as we need to expect management to involve variable got rated of (3.79 ± 0.588), With Implement Industry 4.0

According to you which department is largely impact variable got rated of (3.58 ± 0.8544) and Our employees fear dependence on Industry 4.0 technologies at minimal stage variable got rated of(3.51± 0.685). it is interpreting that Our employees are aware but do not trust Industry 4.0 technologies which will have deep impact now variable got highest rating and Our employees fear dependence on Industry 4.0 technologies at minimal stage variable got lowest rating.

Overall from the data analysis which has been carried out from the above table 5.0, I can conclude that the relationship of the HR Role in the fourth Industry revolution possess impact on industry 4.0 readiness and the use of its technologies. The HR must know the future has a great deal to offer to employee fear dependence of industry 4.0 technologies at minimal stage. Industry 4.0 exerts its greatest impact on production, and that the companies surveyed have also developed varied methods and procedures. These can be termed first category when sensors are built into a machine, and sensors are incorporated into the process of monitoring a production process and indicating deviations from it.

5. HR Role in Industry 4.0

Table no: 8 HR Role in Industry 4.0 (5 – Highest: 1- Lowest)

Sl No	Variables	SA	A	NA	DA	SDA	Mean	SD
1	with Industry 4.0 Administrative expert role deals with management of firm infrastructure and HR professionals are required to designed and deliver efficient HR processes	10	78	11	1	0	3.97	0.601
2	As an HR we have too little standardization to implement Industry 4.0 in retail as of now but we are aware of its impact	11	72	16	1	0	3.93	0.548
3	Our HR is playing a strategic business partner role because HR controls the direct lab our cost	8	35	55	1	0	3.47	0.741

Source :(Primary Data)

From the above table no 8 we can have analyzed that there are major five Role of HR variables impact on Industry 4.0. in that with Industry 4.0 Administrative expert role deals with management of firm infrastructure and HR professionals are required to designed and deliver efficient HR processes variable got rated of (3.97± 0.615) , As an HR we have too little standardization to implement Industry 4.0 in retail as of now but we are aware of its impact variable got rated of (3.93± 0.548) and Our HR is playing a strategic business partner role

because HR controls the direct lab our cost, which firms quite a significant amount in total cost structure got rated of (3.47 ± 0.741)

Retail 4.0 relies on a vast array of device types and platforms to function. In order to provide a coherent experience, businesses need to monitor and secure all of the devices that go into fueling Retail 4.0. With so many devices being deployed for all team members, from managers to (POS) point-of-sale checkout clerks, any miscommunication between devices could be costly.

The HR function has a key role to play in helping organizations to understand their sources of value (strategic style) and in blending the work environment, employee competencies and the lead HR systems which support the organization. The analysis and professional skills required to identify and develop value in this area are very much a part of the development of the role of HR as strategic Partner to a business. For HR professionals the challenge is not so much how quickly they can embrace and deploy these value drivers but more whether they can retain ownership of them before other disciplines claim them for their own.

6. Barriers for using Industry 4.0 Technologies

Table No: 9 Barriers for using Industry 4.0 Technologies (5 – Highest: 1- Lowest)

Sl No	Variables	SA	A	NA	DA	SDA	Mean	SD
1	Industry 4.0 allows us to create new business models.	21	71	8	0	0	4.13	0.522
2	Industry 4.0 allows us to create leading solutions	21	70	8	1	1	4.11	0.563
3	Requires continued education of employees	19	54	22	4	1	3.86	0.800
4	More focus on option at the expense of developing the company	10	54	17	19	0	3.55	0.909
5	Industry 4.0 allows us to generate solutions that are hard to imitate.	5	27	67	1	0	3.36	0.591
6	Lack of understanding of the strategic importance of Industry 4.0	11	20	62	7	1	3.35	0.764
7	Lack of understanding the interplay between technology and human	7	20	66	7	0	3.27	0.690
8	Lack of knowledge about Industry 4.0	7	21	63	9	0	3.26	0.715
9	Too few financial resources	2	15	48	35	0	3.19	1.247
10	Too few human resources (man power)	3	19	61	17	0	3.08	0.750
11	Lack of standards	7	16	40	37	0	3.3	1.224
12	Uncertainty about data security	8	10	48	34	0	2.92	0.868
13	Lack of employee readiness		21	22	50	1	2.81	0.976

		6						
14	Lack of data protection (cyber security)	9	13	23	55	0	2.76	0.991

Source: Primary Data

From the above table no 9 showing the Barriers for using Industry 4.0 technologies in that we can analyzed that Industry 4.0 allows us to create new business models variable got rated of(4.13± 0.522),Industry 4.0 allows us to create leading solutions for our customers with visible service variable got rated of (4.11 ±0.563),Requires continued education of employees factor got rated of (3.86± 0.800) , More focus on option at the expense of developing the company variable got rated of(3.55±0.909), Industry 4.0 allows us to generate solutions that are hard to imitate factor got rated of (3.36±0.5919), Lack of understanding of the strategic importance of Industry 4.0 variable got rated of (3.35±0.764), Lack of understanding the interplay between technology and human rated of (3.27±0.690), Lack of knowledge about Industry 4.0 variable got rated of (3.26±0.715), Too few financial resources variable got rated of (3.19± 1.247), Too few human resources (man power) variable got rated of (3.08±0.750), Lack of standards variable got rated of (3.3±1.224), Uncertainty about data security variable got rated of (2.92±0.976), Lack of employee readiness variable got rated of (2.81± 0.9766) Lack of data protection (cyber security) variable got rated of (2.76±0.991) It is interpreted that Industry 4.0 allows us to create new business models got highest rated barriers in Industry 4.0

5. SUGGESTIONS

1. Retailer need creative HR practice to manage a huge workforce in a competitive environment enhances the competency and retention of their employees.

2. Human resource is an asset for any organization. From the point of retail market is concerned highly labor turnover is going through in recent years. This indicates proper HR practices not be done.

3. New industry 4.0 aware for the more participant digital eco system like between employees and developing industry.

4. Perception is mind set it view set by the any person particular aspects. Here in spar market employees are also set by their views in terms of losing their job after introduce robot. here spar management should give proper information is none of employees can retrenched even it is robot introduced and spar should convey their employees, where robot can have used in retail sector. Hence employees can feel secured their job and use these employees efficiently and effectively.

5. Industry 4.0 in retail sector is a new trend set concept. Basically this concept is very effective in manufacturing process industry and it has been successful. In retail sector which is effective or not is based on comprehensive and concrete study. From the point of spar market comprehensive and concrete study not been done. Hence spar market should in detail about the adoption of technology and its effectiveness.

6. In Spar hypermarket emotion are appeared communication is very important hence spar hypermarket must improve employee.

6. CONCLUSION

The smart technology, customer behavior, retail marketing and retail management and empirically verifies current understanding of the applicability of customer dynamics in gaining knowledge of customer behavior. Building a favorable customer experience has drawn the attention of marketing, management authors and retailers, but there is limited academic research on this area. More specifically, it provides practitioners with a better understanding of consumers' behavior within the new retail settings enriched with smart technologies. Thus, the findings of this study are significant for decision-makers. This study also seeks to provide an insight into changes in consumer dynamics, concerning for instance searching, comparing, evaluating, and purchasing behavior within the new technologies-mediated environment.

Factors affecting spar hypermarket should consider Strategy & leadership, customer experience, operation

Barriers for industry should consider lack of knowledge about industry 4.0, lack of standards, Create new business model.

HR role is very important in based company until unless HR department understand by impact of industry 4.0 on their organization it will be a very big challenges organization and hence I conclude that to implement Industry 4.0 is evident and to reach which impact to all employee HR Role will pay within days to goes shows.

REFERENCES

Agostini, L. and Filippini, R.(2019)Organizational and managerial challenges in the path towards industry 4.0

Alejandro Germán Frank, Lucas Santos Dalenogar (2019) Industry 4.0 technologies: implementation patterns in manufacturing companies, International.

Almas Sultana (2014) Human Resource Management in Organized Retail Industry in India.ISSN 0975-6477 Volume 6, pp. 491-496.

Andreas Schumachera (2016) A maturity model for assessing Industry 4.0 readiness and maturity of manufacturing enterprises

ASAKURA Takayoshi (2016) NEC Technical Journal／Vol.11 No.1／Special Issue on AI & Social Value Creation.

David M. Gligor and Mary C. Holcomb,(2012) "Understanding the role of logistics capabilities in achieving supply chain agility: a systematic literature review," Supp Chain Mnagmnt, vol. 17, no. 4, pp. 438–453.

David Prepletaný(2013) The Impact of Digital Technologies on Innovations in Retail Business Models (No Date).

Ercan Oztemel, Samet Gursev(2018)Literature review of Industry4.0 and related

Jen Ling Gan (2019) Industrial Revolution 4.0: The Human Resource Practices International Journal (IJRTE) ISSN: 2277-3878, Volume-8, Issue-3S2.

Katarzyna Nosalska (2019) Marketing principles for Industry 4.0 — a conceptual framework / Vol.11/ Issue No 2

Martin Prause(2019)Challenges of Industry 4.0 Technology Adoption for SMEs: The Case of Japan, doi:10.3390 Published 19 October.

Michela Piccarozzi, Barbara Aquilani (2018) Industry 4.0 in Management Studies: A Systematic Literature Review doi: 10.3390/su10103821.

Musa Pinar (2014) University brand equity: An empirical investigation of its dimensions, International Journal Technologies, Published 24 June, 2019