

Agile Marketing and Future of Indian Retail Industry – A Review

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ABSTRACT

Agile methodology is adapted now in many industries globally. The robust framework has converged to critical factors affecting the success of a project around people, processes, organization culture. Globally distributed teams collaborate using improved technology, and communication methods effectively. The involvement of senior management and key stakeholders has shifted to the program manager's level.

Certain businesses like retails, operations, and the manufacturing sector use agile and remain unmapped. Post-Covid -19 pandemic restrictions on travel, operating hours for shops, and free movement of people had a deep impact on the retail industry. Consumer behavior has seen a significant shift from typical operation hours to 24/7 online stores. Accessibility to the internet and the use of mobile phones have opened up new opportunities. Product availability in stores, at warehouses, and its logistics, have faced different challenges that we have never seen before.

The use of IoT smart sensors has become affordable. Retailers want to keep their consumers engaged and happier on shelves to enable them to be brand ambassadors. Online purchases have become the new normal. Consumers' experience has seen a shift over time due to the introduction of digital marketing and noticed a behavior change in the way consumers refer to, search, purchase, use the product and expect after-sales behavior in omnichannel and multi-brand stores.

This paper refers to using Agile methodology and IoT technology in the Retail industry. This case study based on a dipstick survey also shares pilot project findings, the feasibility of RFID-based inventory management, and its effectiveness while adopting Agile in the Retail Industry in developing countries like India.

Keywords: Consumer Behavior, Online shopping, IoT sensor-based technology for retail, consumer engagement, Digital marketing

Introduction

Over the last 25 years since the first meeting in California, the USA where the agile manifesto was established, agile software development has been well accepted by global software teams and service providers. Agile innovation methods have greatly increased its success rates in software development, improved quality, reduced time to market, and boosted the motivation and productivity of IT teams. Many industrial segments yet remained unexplored. The retail industry, Hospitality, tourism, travel, traditional purchase, sales, and marketing are few to quote.

The hospitality, travel, and tourism-related sector have been closed for some time due to lockdown. Being part of essential services, retail shops and grocery stores were made to think agile on a day-to-day basis. Those who refrain from inculcating this change due to conservative attitudes have faced many challenges. Online retail has seen positive movement, and some have preferred to make decisions based on internet-based purchasing and home delivery options. Traditionally the retail industry has its own rules and is known for its conservative approach, mainly governed by brick motor investors or real estate owners or developers. Brand-driven top-down communication and seasonal up stocking has been working fine till the beginning of the digital era and the Pandemic eruption. Traditional seasonal, festive sales and promos, clearance sales have been the norm for decades. Typical facelifts and refurbishments every 5 years have been standard practice in the industry. Monthly billing, performance review cycles, and trend tracking based on cultural and festive seasons have been established. However, everything has changed due to COVID -19 pandemic when restrictions on people's movement and lockdown announcements have made people purchase their products and accessories online.

Those who understood this change can survive the storm and others are trying to mitigate it through hard ways. Travel

restrictions and state border seals have created new challenges for Logistics, supply chain management, and inventory control. End customer in the retail industry has become the focal point and no more brick-and-mortar investor or a real estate owner who established brand stores in cities across the world.

Traditionally consumers were encouraged by the fresh stock of artifacts, and items displayed on shelves as per trends and seasons. Consumers were happy with their purchases and spent more than 70 % of their time at shelves in the store before making a purchase decision. (Gartner's Trends 2018) (PWC report 2015) Lockdown has posed difficult and complex scenarios for retailers and many of them have to migrate to a digital platform for search and online ordering of consumables. The use of smartphones, digital wallets, and digital marketing has become a new normal. Payment via digital currency instead of physical exchange of currency is preferred by consumers. More than 56 % of Indians have moved to digital payment (Forrester survey 2020), and even other developing countries have adopted digital wallets for transactions even below USD 1 amount. Gone are those days when billing was less than \$100 or 3000 Rs. aren't accepted and used to have an additional surcharge. Digital wallets such as Paytm, GPay, BHIM UPI, and several other mobile-based applications are now available. Digital payment is preferred, it has improved people shifting to digital payment over carrying and exchanging cash mainly due to convenience and safety as the physical exchange had a fear of spreading pandemic.

Loss of business due to non-availability of goods, and responding to rapid changes in consumer requirements have pushed retailers to survive in the COVID_19 Pandemic. Flexibility at a manufacturing facility based on demand in the market at a different location connected through the cloud has become a norm.

LITERATURE REVIEW AND DATA COLLECTION

A literature survey of consumer behavior pre and post covid timelines was conducted by several researchers.

In the global scenario, technology-driven companies such as Amazon (Amazon drives growth 09 May 2018), have used agile for market research and collaboration of project tools, project management trackers, and process automation as well. The organization's culture of growth has been imbibed at the employee level to drive growth and move agile way. The ability to capture accurate and faster, iterate quickly, in time delivery were unique factors for AWS's success. Flip cart and Snapdeal have also seen a similar surge as per PWC research 2015.

Technology has evolved and now globally industries are preparing themselves for Industry 4.0

— 5.0. RFID and Bar code technology have been around for more than 15 years. Traditional labeling, price tagging, and manual updating have been time-consuming and rigid processes practiced in the retail industry.

High consumer expectations, advancements in technology, and omnichannel e-commerce are strong trends. (Mc Kinsey, 2018) (Deloitte, 2020) Fundamental areas of store operation, supply chain, and procurement need fresh thinking. Consumers know what their needs are, and how they are going to get them with restrictions around them. Hybrid modes of online and physical shopping have emerged. Consumers are now laser-focused and know exactly what they want and have also been able to prioritize their needs. "83 % of customers say they want their shopping experience to be personalized in some way" and McKinsey research suggests effective personalization can increase store revenues by 20 to 30 percent. (Mc Kinsey, 2018)

Instore shopping experience does matter, and any cross-sale or an up-sale opportunity missed is going to impact in a long way. RIFD technology investments in sensors are needed to map consumer journeys, new processes and nearly '82 % of consumers preferred shopping online in 2021 compared to 40 % in 2016'. (Mc Kinsey 2018) (Mc Kinsey, 2020) (Wal Mart, 2012) Only big MNC such as Decathlon, Walmart can make those changes in their systems to manage inventory and supply chain based on consumer locations and preferences. (IBM Press, 2016) (Wal-Mart 2012) (Bob Violino, 2016)

Another way to reduce direct and indirect costs and improve economics is by automating processes, streamlining a few routine activities. The supply chains need to respond to the changing market requirements, to reduce inventory and increase sales. "Same day delivery has become the norm in few segments however convenience of internet purchase over safety in venturing outdoors during pandemic has scored more points in meeting consumer expectations." (Mc Kinsey 2018) The gap between supply and demand can be drastically reduced using technology.

Deloitte survey mentions about maturity level in four key segments in the USA "drug store, consumer electronic store, DIY & Grocery shops". (Deloitte, 2017) Consumer behavior or readiness to transform, execution willingness to invest, and organizing resources to plan definitive actions' perspective were evaluated. Some industries suggested implementing pilot projects and fine-tuning based on the outcome for measuring success. Deloitte also recommended a future-ready model for Europe, the USA, and other developed countries. (Deloitte, 2017)

BCG – (Boston Consulting Group) has concentrated on five principles that influenced the most and further developed eight elements that support the operating model. Customer is still the top priority and end-user experience has been the main focus. BCG has recommended taking on the "lighthouse project" and verifying the outcomes on "visibility, business impact, readiness,

and relevance basis, adopt the learnings and then scale it up across the retail chain". BCG has recommended forming a cross-functional team (Agile team) empowered to deliver a measurable outcome in a shorter time, on a lighthouse project which is more "visible to the stakeholders and experienced by highest end-users to provide feedback on their journeys". (BCG, 2018) Christoph Fuchs and Thomas Hess from Munich Germany, in their research papers, refer to agile transformation in Retailers in European countries. It covers the qualitative research and two case studies, and the outcome is a useful guideline for agile project managers. The article is focused on "co-relation between large scale digital transformation using agile principals and its scalability while implementing the strategy across the chain of stores at different locations". Proposed categorization under six categories was examined. The socio-technical approach was studied at the sub-system level. It was observed that the research was conducted phase-wise and observations during the phase and between the phases were noted by interviews and questionnaires. (Christoph Fuchs & Thomas Hess, 2018)

An initial empirical basis for research on large-scale agile transformations exists. A qualitative research approach was followed. However, more research is required to extend the understanding of the process and the inherent interplay of challenges and actions of such a transformation, specifically in the novel context of the digital transformation. such as the Scaled Agile Framework (SAFe) (Scaled Agile Inc., 2017), Large Scale Scrum (LeSS) (Vodde and Larman 2014), and Disciplined Agile Delivery (DAD), (Ambler and Lines 2012) The paper also stated "limitations for the firm, to go for agile transformation and need to overcome the social and technical barriers in implementing the findings challenges in six categories – "Method, Technology, Ability, Organization, Culture and motivation of employees and team members". (Pantano, 2014)

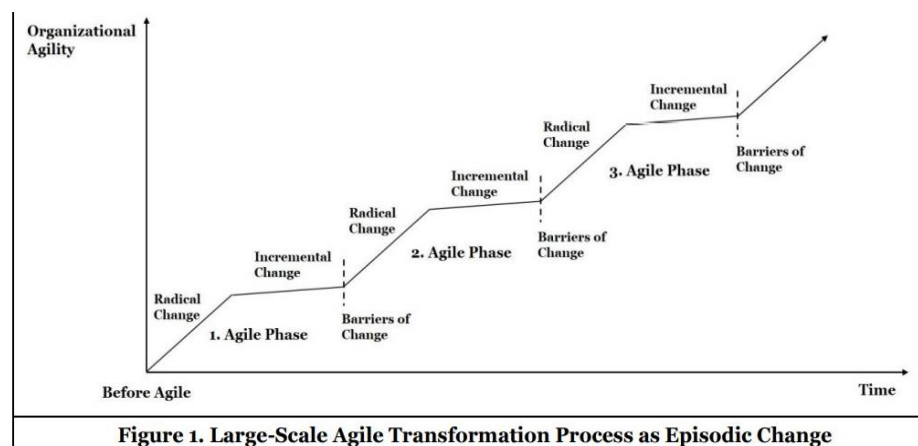


Figure 1. Large-Scale Agile Transformation Process as Episodic Change

Figure 1. Source: (Christopher, Thomas Hess 2018)

Here multiple-case study research approach enabled, cross-case analysis and is less vulnerable to critique concerning the generalizability of results (Yin, 2013). Christopher (2018) purposefully chose firms in a two-step process following Pantano (2014). First, "a criterion sampling logic" was selected. Secondly, Christopher (2018) used "theoretical replication logic" to generate contrasting results by choosing heterogeneous cases of firms outside the IT and software industry that undergo a large-scale agile transformation as part of their digital transformation.

A white paper published by ECN on E-commerce network (2021) mentions Scrum methodology, which allows retailers to configure and make corrections to pricing and strategy to drive sales. However, quality inputs and accurate information about the competition are always a challenge. The outcome of Analysis of impact on pricing sales was conducted. Matrix of pricing, Turnover, and margin is formulated to synthesize data. As a norm of the scrum framework - Daily planning, standing meetings, sprint review was conducted. Self-corrective measures were taken at each sprint to establish the relation between pricing correction and sales drivers.

Darrell Rigby and Jeff Sutherland (2016), mentions about "innovation is what agile practices, uses scrum, and emphasizes cross-functional teams to drive innovation". Preference was given to "find smaller problems in a big project and then forming smaller teams to find solutions by focusing on the problem" and not so much on the people, speeding transitions and destroying barriers to agile behavior. Having one boss for one decision was also recommended.

Papirfly's (2021) white paper on successful implementation of agile, raises three points to decide Agile strategy. First, adapt marketing in real-time in response to changing environment, second bring in-store and online collateral in-house to go quicker, and third to integrate PIM and ERP with marketing software.

The white paper also mentions that "implementation will help to recover the investments faster; it will reach the market and go ahead of competition faster". The availability of digital catalogs online is helping consumers to make decisions about online

purchases. However, the in-store consumer experience will be connecting physical journeys of exclusive collections.

The success of agile will depend on 4 major factors – customer-centric approach, distinct teams in the organization, decision-making autonomy based on brand guidelines, commitment to test and learn the methodology, and collaboration & partnerships across business and technology experts. (Lee 2004) (Li Y, Liu. L., 2012)

Agile Supply Chain (ASC) has been identified as one of the most important issues of contemporary supply chain management (Lee, 2004), (Li Y, Liu. L., 2012). While adopting agile in Supply chains strategy, it was observed that, to improve their ability to respond rapidly and cost-effectively to unpredictable changes in markets and increasing levels of environmental turbulence, both in terms of volume and variety. Supply chains need to have an agile approach to deal with all these changes. The agile approach is responsible for quick reaction to demand variations, generating an important competitive advantage. Along with many other strategies, sharing of information among their supply chain entities is the major strategy for achieving ASC (Azevedo et al., 2008; Stevens & Johnson, 2016) (Lee 2004). Results of the study provide evidence that adopting an Information sharing strategy and following Agility in supply chain operations will improve the performance of the supply chain, hypotheses testing confirm the relationship between Information sharing strategy and Agile supply chain and its impact on supply chain performance. This is also consistent with the results of Li et al. (2007) and García-Alcaraz et al. (2017).

The survival and the profitability of the business have a positive relationship with marketing. (Deloitte, 2017) (Deloitte, 2019) (Deloitte, 2020). It is recommended to have cross-functional collaboration, shared goals, and empowered teams to implement agile marketing. Responsiveness of members to changes in marketing plans, democratic leadership style, planning stages at regular intervals is of prime importance. The retail market is under pressure. The retail landscape is evolving. Success at the shelf is no longer about the depth and breadth of inventory, but rather creating engaging experiences for customers. Change is the new paradigm. Retailers need to adapt to current trends to keep a seat at the table. Technologies, Customers, Workforce, and Market are the four main drivers of the retail market. Deloitte (2020) New operating model is proposed for four different categories of stores depending upon the maturity level of each sector.

According to Harvard business review (2019), Agile is meant for a few areas' product development, marketing, strategic planning activities supply chain, resource allocations and works not so well in other departments such as sales cold calls, accounting, purchase sales, plant maintenance. Forming a team of experts building team who are motivated and building a supportive environment around them to deliver are key areas to focus on. "Starting small is always the safer way and showing results-oriented deliverable in a limited period is key to scale up project across the organization at a later stage". Scrum is the preferred method as per Harvard business review (2019) and sprints make them more result-oriented during several iterations before the final phase. It is the behavior of executives. Those who learn to lead agile's extension into a broader range of business activities will accelerate profitable growth.

Even though focusing on in-store experience is irreplaceable, organizing a budget in real-time has been a real challenge. It has been minimal, drastically reduced to 5% to invest in the in-store experience, managing digital campaigns on the fly, global consistency and agility are critical factors.

	Harvard business review	Deloitte	BCG	Amazon	PWC	Forrester /papirfly	Mc Kinsey	Quorso	Gitika gera askh misra	Demirkan	ECN	Pantano
Majority online shopping	Yes	Yes	Yes	60%	70 %	Yes	82%	Yes	Yes	Yes	Yes	Yes
Shop domains	CPG – grocery brand	Consumer, DIY, Drug Grocery	Grocery brand	Consumer product	Drug, grocery brand	CPG, drug, grocery	Consumer, DIY, Drug Grocery	Brand, retail chains	Retails drug, retail chains	Retail multi brand	Brand retail chains	Retail chains, grocery
Process							scrum				scrum	
Supply chain	Yes	Yes	Yes	Yes	Yes		Yes	Yes	Yes	Yes	Yes	
Process automation	Yes	Yes	Yes				Yes			Yes	Yes	Yes
Agile marketing	Yes	Yes	User exp	Agile Market research	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Insist on pilot project	Yes	Yes	yes		NO	YES	Yes		Single category	NO	NO	NO
Agile factors	Product dev, mktg, planning, supply chain	Technology	People- workforce and customers, training, upskilling Research – market, user experience, Org structure – commitment, funding, Info systems / Processes- supply chain- warehouses, logistics, inventory. Technology - checkouts, digital marketing, Self checkout, IoT experience								Pricing, supply chain,	
Technology	Digital - exp, payment, AI, ML	User exp, digital, checkouts	Digital exp, self check outs	Digital, IOT	Automation, smart shelf, check outs	AI, ML, Scan and go, quick vision,	Internet AI, ML	Internet, Automate	Digital, check out	IOT check out	Internet, mobile apps, smart shelves	IOT, Kiosks, checkout
Omni channel	Social sites- WA, Insta, Face book, Pinterest, Social digital Social sites, social, physical, and digital experience - Mobile exp, Instore display, social presence,											

Figure 2. Matrix of literature review

INDIA AS AN EMERGING AGILE MARKET

Almost 85% of Kirana shops in India have “ready to pick parcels facilities” available to shorten the queues outside their store to minimize covid exposure. (Deloitte 2019), (Deloitte 2020) Door delivery or main gate drops for gated communities, societies main entrance deliveries have become new norms. Vegetable small trucks delivered in private premises on weekly basis have given a safe experience to vegetable vendors and consumers. Even in the case of “internet purchase over 36 % consumers have canceled purchase due to long delivery time and 46 % have abandoned shopping cart on the internet in the USA”. (Mc Kinsey, 2020)

Today, consumers do not distinguish between online and offline shopping any longer. Shopping for them includes online searching for various options using mobiles & laptops, social sites, friends’ recommendations too besides window shopping and hanging out at the mall. Today consumers no longer rely on salespeople to advise them. They are now quite knowledgeable and cautious than ever and make thorough research beforehand. It makes it necessary for retailers to introspect and invent the online shopping experience in a more personalized and engaging manner to associate the consumers with a brand.

With increased mobile usage and access to internet shopping, 24-7 is possible for the retail industry and consumers as well. Few pilot trials by multinational companies such as Xiaomi, Amazon Flip- cart as resulted in million dollars sales without even visiting the brand store. This has been tested even before covid time, where flash sales tactics were used by companies to sell limited edition mobile phones back in 2015-16, in India.

AS per PWC research (2015), India retail market size is 350 billion USD, which has led to an increase in staff size of 5 folds and growth of revenue from 10 to 30 times, e-commerce site, social media, and word of mouth has contributed to this growth.

APPROACH AND METHODOLOGY

Customers are using multiple channels for making decisions. Retail industry facing challenges in providing an improved seamless consumer experience in an omnichannel strategy.

Four of the seven pillars from the original agile manifesto are considered by several researchers while adopting agile in the retail industry. These factors are omnichannel strategy, - people – resources, organizational structure, information systems. Front, Mid, and Back-end integration of supply chain, inventory management, system integration for tracking, orderings, and checking availability were also tested.

A case study approach was followed, for a pilot project of a new branch of the retail store chain, and the use of the agile methodology in the pilot project was evaluated based on common criteria discovered in the literature survey.

CASE STUDY

A pilot project at the new outlet in Mumbai was planned. Key stakeholders have been identified. A quick team of domain

	Physical instore experience	Social media presence	Omni channel marketing	Interaction & information display	Inventory management system	Check out system
Brand out let and physical channel	YES	YES	YES	YES	UHF / Bar code	Credit debit cards
Shopping mall retail shop	YES	YES	YES	YES	UHF/ Bar code	Credit debit cards
Departmental stores	YES	YES	YES	YES	UHF/ Bar code	Credit debit cards
Kirana shops	NO	NO	NO	NO	Bar code	Digital wallets
Glossary shops	NO	NO	NO	NO	MRP / Cash	Digital wallets

India retail industry - Consumer touch point that drive decisions

experts with internal and external consultants was established. Duration and sales target was agreed with a specific timeline at 2 stages approach before the inauguration of the new retail shop at the highest sales forecast area.

Figure 3: India retail industry- Consumer touchpoint that drives decisions.

Scrum was used for project management and software development while deciding dashboard and content Display. Inventory control system integration with the existing system was conducted with an IoT system integrator. Daily stand-up meetings were replaced with 5 minutes WA(Whats-App) calls to summarize and for progress tracking. A Dashboard of the pilot run was shared with other locations to get consumer feedback and key stakeholder feedback as well.

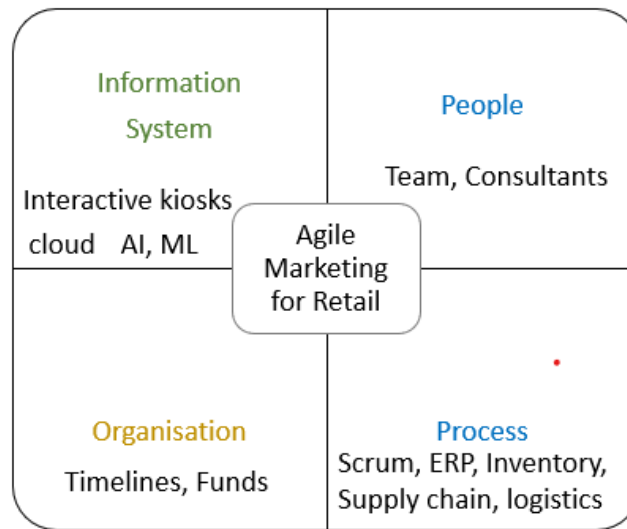


Figure 4. Retail agile Marketing Framework

The project was split into three levels. Front-end, mid-end, and back-end integration. Omnichannel marketing was used. Internet, Facebook, and Instagram pages were daily updated with winning stories to push the brand in the digital world. Instore inventory of most consumed items was supplied using data analytics from retail stores 50 miles away. An interactive kiosk has shown a significant rise in sale figures on monthly basis.

Team formation - Marketing & branding team, external consultant, Manufacturing team, and directors (owner) representatives, IoT integrator, Interior designer firm, smart shop fittings teams were identified and shortlisted.

Deliverables were defined for each stage and 3 stage approach was finalized. Implementation at three ends front, mid and back end were decided, including the scope for each sprint.

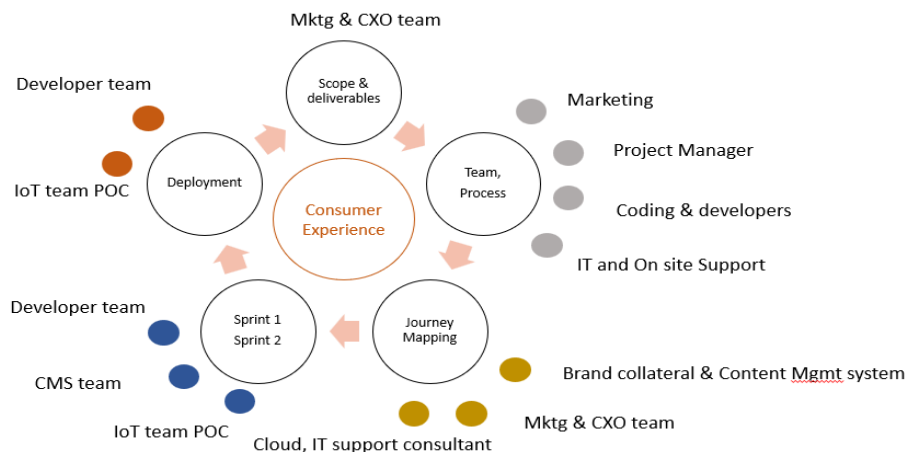


Figure 5 Literature Review Findings

Front End – Interactive kiosks, IoT Based solutions through mesh networking cloud technology were used. Digital brochures videos, animations, and other Contents are centrally controlled as per company strategy. Contents were refreshed through the internet and connected IP addresses. RFID tags were used for inventory control and used to share automated interactive information about products and their technical details including nutrient values and recipes using companies' products.

Mid End – Mid end comprises RFID tags and Semi knockdown unit (SKU) related to products. The product lineup is done using the packaging sizes, flavors, and date of packaging. Daily reports of customer interactions and sales value were updated and available in form of a simple dashboard to key stakeholders to make provision for sales forecast and planning accordingly at the manufacturing site.

Back End- Shopfitting accessories supplier, contributed by providing efficient solutions and energy saving. Inventory control and supply chain management were linked to real-time data of consumed article numbers. Items in high demand were automatically identified on the dashboard along with their location. This has helped the manufacturing site to plan the production.

This streamlining helped the company to boost the business by 30 % during the festive season and in the future will be implemented in 10 stores across India and abroad in MEA (Middle East Asia)

The top 10 SKUs are identified with their sale pattern, size, and location. Higher sales figures were observed due to interaction at the kiosk and error-free accurate information sharing of each transaction helped salesperson to focus on consumers' needs and other aspects. Often most of the time was spent previously in searching for items in the rack system.

Interactive kiosks provided the freedom to the end-user in making choices and self-check-out helped them to save time. Internet payment as a faster CHECKOUT option is a delighter. It has reduced the queue length at traditional sale counters. The complete system along with the patented illumination system and modular shelves has given the freedom to manage the store efficiently.

OBSERVATIONS

As discussed previously four pillars of the agile manifesto were observed keenly once the omnichannel strategy was finalized. The team was built with experienced domain experts. Resources are important at every stage of the pilot project. Leadership style plays important role in defining goals at every sprint and meeting phase-wise timelines and deliverables.

Cost is another factor since tight budgets are putting pressure on hiring consultants which are experienced. Inadequate experience may result in more iterations and longer time duration for project testing and implementation.

It is observed, consumers not only expect hassle-free delivery of the products but a seamless process for returning and exchanging items as well. Experiencing products in real-time can be replaced by online videos, product demos, and internet-based user groups. Observations are captured and summarized considering the customer-centric approach. Agile marketing insights have to be collected considering the following factors.

1. **Content Management system** - Videos and other recipes of items sold were focus points for consumers. Analytics has shown that often interaction of smaller size packets has ended up in the purchase of larger or upsize items.
2. **Streamline processes** – Sales numbers were matched to inventory. Demand-based manufacturing will streamline the entire process. It is learned that indirect costs can be reduced by 20-35 % by streamlining. In-store, Consumers were quick to understand the upgraded point of sale (POS) system and were keen to explore the interactive kiosk before final purchases.
3. **Employee empowerment** – It gives autonomy and accountability to team members. Through centrally controlled digital marketing, floor managers can choose the digital marketing contents to satisfy the taste of local store visitors. Empowerment offered to employees will motivate them and it will also provide freedom to seek innovative solutions for improving sales. Digital content and similarity on other social sites will have a significant connection to consumers.

Retails stores in India

	Transaction Amount in Rs.	Frequency of visit	Duration spent	No of visitors	Visiting preference
Brand out let and physical channel	>2500	Once 6 months	1-2 hours	>1500	Week end
Shopping mall retail shop	>1000	Once 3 months	1-4 hours	>1500	Week end
Physical marketing	>1000	3 monthly	1hour	>500	anytime
Whole sale shops	<2000	monthly	30 minutes	>150	anytime
Glossary shops	<1000	weekly	20 minutes	>100	Any time
Corner kirana shop					

Figure 6 Typical Indian consumer Behavior pattern

RETAIL MANAGEMENT AND ZONING

For the pilot project, a smaller footprint has helped in implementation. Creating zoning and changing the floor plan in the smaller area has helped in improving the aesthetic look and feel, fresh interiors, and at a lower cost than the refurbishment of a complete store. Based on the case study, a few observations are listed below. The omnichannel digital marketing presents opportunities for retailers to bring in greater levels of operational efficiency and a customer-centric approach in their business models.

Retail business process	Supporting IT infrastructure				
Planning forecasting	Financial plan, Forecasting	Mechanidide planning & forecasting			Supply chain mgmt
Prchase	Vendore mgmt	PO	Marchandise mgmt	Catalogue	
Logistics	Distribution centre	Logistics	channel mgmt	RFID Technology	
Storage	ware house mgmt	returns mgmt	replinesh mgmt		
	inventory mgmt	dispatch	stock transfer		
Sales	POS	E commerce solution			
Support Systems	knowledge mgmt				MIS
	financial mgmt	Human resource mgmt			Loyalty mgmt
Customer relationship					Legal

Figure 7. Technology Components for Retail Industry (PWC Analysis, 2015)

Agile pilot project implementation is as much about people and mindsets as it is about technology. Digital marketing tools helped shops to stay connected with this network of vendors, employees, and customers on a real-time basis and factor in the feedback from the network into business operations on a day-to-day basis.

Hence further expansion to other outlets in different locations and its effect on overall business still needs to be validated. A pilot study shows that this Agile business model of retailers and per- performance, in the future will be driven by how quickly digital technology gets embedded to increase cohesiveness, agility, and responsiveness within this network.

FUTURE SCOPE

AI and analytics are used by the retail industry and offer products to targeted groups. Data analytics provide new insights to tackle even the biggest business problems It gives practical suggestions and ways to increase revenues, reduce costs, and capacity building. The retailers should be cautious about their investment in their shops.

CONCLUSION

The pilot project implemented has shown that Agile marketing can be successful. It is a newly emerging concept in the field of marketing, where cross-functional experts come together for the achievement of common objectives by meeting on regular basis and eliminating ineffective steps and processes. Ever-changing consumer behavior and expectations can be successfully managed using agile practice.

Agile marketing certainly benefits marketers even though, no significant research has been done in the field of agile marketing. A further in-depth study about other fields of the retail industry at various scales needs to be conducted to understand today's consumers. Agile is just a start in retail and has a great future.

The deployment of consumer-centric lean and agile processes is very relevant for the dynamics and complexity of omnichannel operations, but not much has been published about the implementation of lean and agile in marketing practice so further field research is necessary.

In the future, more academic research would be performed on the deployment of agile processes in the marketing, sales, and service practice. IoT products' effectiveness needs to be studied over a longer period considering its gestation period. However, it looks very promising that future stores will have more affordable devices installed to provide an immersive consumer-centric experience. The retailers need to be proactive to remain competitive in the longer run. The introduction of smart technologies in retail settings has started catching up. Usage of smart technology within the traditional business model would allow retailers to provide superior consumers' experiences and achieve increased business profitability.

As next steps, in-depth, empirical studies on investigating the changes in consumers behavior triggered by technologies and case studies of successful implementing agile practice in the Retail in- industry need to be done. Whereby a comprehensive view of Artificial Intelligence (AI) driven, and Machine Learning (ML) assisted smart retailing for smart consumers in terms

of experience, purchase behavior, impact on business models, etc. still need to be addressed.

It is to conclude that consumer behavior is still the most important aspect technology-driven gadgets and decision enablers will have to match consumer expectations, otherwise, today's retail shop will eventually end up in return centers for online shopped goods. Indian IT industry has been the driving force and provided support in today's technology. Retail stores in India will have to adapt to these changes and constantly innovate to stay afloat.

REFERENCES

- Agile Supply Chain (ASC), Contemporary supply chain management (Lee, 2004)
2. Agile and pricing – Scrum helps ECN E-commerce Network 3/28/2021
 3. Amazon drives growth 09 May 2018- (3/28 2021- Insights Association) Amazons retail journey
 4. Ambler, S. W., and Lines, M. 2012. Disciplined Agile Delivery: A Practitioner's Guide to Agile Software
 5. BCG-Agile-to-the-Rescue-in-Retail-Oct-2018_tcm9-203411 (Boston Consulting Group Boston USA Feb 2020)
 6. Christopher Futch, Thomas Hess, University of Munich, (Dec 2018) Becoming agile in digital transformation, The process of large scale agile transformation, Research Gate, -<https://www.researchgate.net/publication/330353717>, Thirty-Ninth International Conference on Information Systems, San Francisco 2018
 7. Darrell Rigby and Jeff Sutherland in their Harvard Business Review, May 2016, Page 40-48
 8. Delivery in the Enterprise. Boston, USA: IBM Press.ASC (Azevedo et al., 2008; Stevens & Johnson, 2016)
 9. Deloitte survey - Disruptions in Retail through Digital Transformation - Reimagining the Store of the Future, Nov 2017
 10. Deloitte 2021 – Role of marketing in present era 6 June 2019
 11. Deloitte, Jan 2020, The New Retail Operating Model of the Future How retailers need to adapt their operating model to become future-ready
 12. Forrester survey 2020- vmw-forrester-retail-modern-app-report
 13. Gartner Trends, 2018
 14. Harvard business review 2019
 15. Li, Y., & Liu, L. (2012), "Assessing the impact of retail location on store performance: a comparison of Wal-Mart and Kmart stores in Cincinnati", Applied Geography, 32, 591-600.
 16. Mc Kinsey, The-ever-changing-store-Taking-an-agile-customer-centric-approach-to-format-design-, Thirty-Ninth International Conference on Information Systems, San Francisco 2018, ICIS 2018 SF, (AIS)
 17. Mc Kinsey _Future of Retail-Operations- Jan 2020_ FullIssue-RGB, winning in a Digital Era
 18. Patano (2002) Pantano E. (2014). Innovation drivers in the retail industry. International Journal of Information Management, 34, 344-350.
 19. Papirfly [4] whitepaper on successful implementation of agile, Embracing the of agile marketing – Papirfly,3/28/2021,<https://www.papirfly.com/knowledge-hub/retail-marketing/embracing-the-edge-of-agile-marketing>
 20. RFID WAL Mart and Metro -case study, Improving the Retailer Industry Performance Through RFID Technology, DOI: 10.4018/978-1-5225-5288-8.ch008
 21. Scaled agile - Scaled Agile 2017, "SAFe® 4.5 Introduction -Overview of the Scaled Agile Framework® for Lean Enterprises." Boulder, USA: Scaled Agile, Inc
 22. Winning in India's retail sector – factor for success PWC report, Price Waterhouse Coopers, 2015 report.

WEB REFERENCES

1. <https://www.firstdata.com/downloads/pdf/The-Impact-of-Shifting-Consumer-Behaviours-on-Retail-Banking-Technology-Strategy-Final-April-2014.pdf>
2. http://www.journals.elsevier.com/technological-forecasting-and-social-change/call-for_papers/special-issue-on-managing-consumers-dynamics-within-the-emer/
3. http://www.mckinsey.com/insights/consumer_and_retail/how_retailers_can_keep_up_with_consumers
4. <http://www.mckinseyonmarketingandsales.com/how-retailers-can-keep-up-with-consumers>
5. <http://onspotsocial.com/technology-is-changing-retail/#sthash.qPz8foZd.dpuf>
6. <http://www.pwc.com/gx/en/ceo-agenda/ceo-survey/2014/industry/retail-and-consumer.html>
7. <http://www.pymnts.com/in-depth/2015/how-retail-tech-and-data-drive-consumer-engagement/>